Final Report
Arapaho-Roosevelt National Forest
1975, 1976
FINAL REPORT
OF CULTURAL RESOURCE INVENTORIES
ARAPAHO-ROOSEVELT NATIONAL FORESTS
FORT COLLINS, COLORADO
FISCAL YEARS 1975, 1976

Cultural Resource Inventory Report for:
Hot Sulphur Ranger District
Poudre Ranger District
Red Feathers Lakes Ranger District

by Michael S. Foster

Historical Appendix
by Robert G. Rosenberg

Appendix B
5GA106: The Jim Creek Site

by Morris Anderson

PREPARED UNDER COOPERATIVE AGREEMENT
BETWEEN:
COLORADO STATE HISTORICAL SOCIETY AND U.S. FOREST SERVICE,
UNITED STATES DEPARTMENT OF AGRICULTURE
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CHAPTER I
INTRODUCTION

As part of a cooperative agreement between the State Historical Society of Colorado, Office of the State Archaeologist, and the United States Department of Agriculture, Forest Service, a series of timber sales and land exchanges within the Arapaho-Roosevelt National Forests were surveyed for prehistoric and historic archaeological remains. In all, thirteen such areas were examined for archaeological remains. Of these, only the Upper Willow Creek Timber Sale, North Weber Timber Sale, Bennett Creek Timber Sale, Upper Jacks Gulch Timber Sale, and the Little King Land Exchange produced prehistoric archaeological remains. Only in the Crystal Lakes Land Transfer were any historical remains found. (Fig. A)

These surveys were conducted for the purpose of recording the locations of any historic or prehistoric remains that might be of significance. This was done in compliance with current Federal laws and regulations dealing with the preservation of such sites on Federal lands. The survey supervisors were Morris Anderson and Kinzie Gordon, with Lynn Wiedman, Kris Kranzush, and Alan Corbin as field assistants.
Figure A
Arapaho - Roosevelt
National Forest
Scale 1:500,000 C.I. 1,000ft

Forest Boundary
Project Boundary
Highways
Running Water
Topographic Detail

Projects surveyed in Arapaho-Roosevelt National Forest during fiscal years 1975 & 1976
CHAPTER II
METHODOLOGY

The following is an excerpt from Anderson (1975), the Bennett Creek and Upper Jacks Gulch Timber Sales, which generally describes the survey methodology for all inventories in Arapaho-Roosevelt National Forests.

"The natural variables that affect a highly systematized approach to surveying are ground cover and relief. In some areas the ground cover is complete, and is rarely less than 40 to 50 per cent. Extreme slopes are common. Both factors reduce the area of surveillance, with ground cover probably exercising a considerable effect on the results of the survey.

Not as obvious, but significantly affecting the inventory are local erosional and depositional patterns, either natural gullying, washing, or deposition, or in the form of road cuts. The last proved to be excellent areas for the location of cultural material as they offered not only total visibility of the surface, but also tended to expose subsurface evidence of cultural activity.

It was felt that the availability of water is a valid consideration in the distribution of certain site types. Also, a greater diversity of plant and animal species is noted in the vicinity of permanent drainages, intermittent drainages, lakes, and ponds. Because of this, these areas were subjected to more intensive surveillance than areas further from water.
All roads and erosional areas were given complete coverage. Areas near water were transected at an interval of 50 to 100 feet. This coverage was extended to all open parks and benches. The remaining area was surveyed with two to four transects per section. The interval and location of these transects were determined by the terrain in that particular area.

Once evidence of cultural activity was located, the surrounding area was intensively surveyed, and all artifacts were located and marked with pin flagging. At this point, a distinction among site, lithic scatter, and an isolated find was made. A site consisted of five or more cultural objects; a lithic scatter, two to four objects, and an isolated find, one object. Precise location of the site or find was then made on a U.S.G.S. topographic map. Ideally the position was triangulated with a Brunton Pocket Transit utilizing prominent features on the map. If this was not possible then a back azimuth was calculated from a single feature, and a rough horizontal distance was used to locate the site. Occasionally the relationship between drainages and vegetation patterns given on the map was the only means of locating a position.

The method used to record sites, lithic scatters, and isolated finds differed slightly. In the case of a site, an arbitrary datum point was established, either a stump, or a small cairn of rocks, and was marked with blue and white flagging. Material type (lithic) as well as the angle and horizontal distance from the datum point was noted for all artifacts so that a map or the horizontal distributions of the cultural material could later be constructed from the survey notes. Large rocks, bedrock outcrops,
trees, and sources of disturbance (i.e. gullies, road cuts, and the like) were also located. Notes concerning geology, vegetation, ground cover, and a general description of the area were made by one crew member while the other one was engaged in taking and logging photographs. Finally, all portable artifacts were collected. Procedure on lithic scatters and isolated finds varied in that no map was made. A special effort was made to keep all other procedures equivalent in terms of the type and amount of data recorded."

Once in the laboratory artifacts were cleaned and catalogued. Isolated finds were given identification numbers as to forests, timber sales or land exchanges, and a sequential letter for the find.

EXAMPLE: AR-NW-a

AR = Arapaho-Roosevelt Forests
NW = North Weber Timber Sale
a = sequentially, the first isolated find in the above survey area.

Lithic scatters were labeled in the same manner, although the sequential location was designated by a number and then a second number to indicate the number of the flake within the scatter, instead of designation by letter.

EXAMPLE: AR-NW-1.1

AR = Arapaho-Roosevelt Forests
NW = North Weber Timber Sale
1 = number of the lithic scatter recorded in the survey area
.1 = the flake number within the scatter
The Smithsonian Institution site designation system was used for site numbers. The artifacts were then sequentially numbered.

EXAMPLE: 5GA104-1

5 = the state of Colorado, in alphabetical order among all the states

GA = Grand County abbreviation

104 = the 104th site recorded in Grand County

-1 = the number of the artifact found within the site

All debitage and lithic artifacts that exhibited signs of utilization along their edges were subjected to microscopic examinations using a binocular microscope. See Appendix C for the analysis forms utilized in the analysis of the lithic artifacts.
CHAPTER III
PHYSICAL SETTING

The following description of the physical setting of Arapaho National Forest is based on the Final Environmental Statement (1975) for that forest. Arapaho National Forest consists of one million acres of land and is located in central Colorado. One-fifth of the Forest land lies on the eastern slope, with the remainder on the western side of the Continental Divide.

The topography is similar to that of the rest of the central Rockies. Elevations range from 7,500 feet to 14,274 feet with many narrow valleys and steep slopes. The northern portion is less varied in its topographic relief.

The average annual precipitation ranges from about 18 inches at lower elevations to over 45 inches along the Continental Divide. Snow fall between October and April accounts for most of the moisture. Showers occur during the summer at the higher elevations.

Fish and wildlife resources are abundant and varied within the region. There are over 200 species of wildlife found in the forest. Birds range from the broad-tailed humming bird to the golden eagle. Larger game includes deer, elk, bighorn sheep, and mountain goat. Fish found there include rainbow, cutthroat, brook trout, and Kokanee salmon. There are nearly 500 miles of streams and 95 natural lakes.
The soils are described in the Environmental Statement as follows. "Soils over most of the Forest are derived from metamorphic and igneous parent material of Precambrian age. Sedimentary formations occur in the western portion of the Forest. Typically, the soils of the forest are shallow, immature, and low in fertility. Exceptions are alluvial deposits found in valley bottoms. Soils are coarse-textured and readily absorb water. Erodibility is highly variable depending upon specific soil and land characteristics (1975:11)."

About 79 per cent of the National forest land is forested. Tree species include ponderosa pine (lower elevations on the east slope), lodgepole pine (8,000 to 10,500 feet), and Englemann spruce-alpine fir (10,500 to timberline). Aspens are intermixed throughout the pine.

No overall environmental statement describing the Roosevelt Forest was available. However, several Environmental Analysis Reports dealing with specific timber sale areas suggest in a general way, that the same environmental parameters affect the Roosevelt Forest as they do the Arapaho Forest. The Roosevelt Forest lies to the north and east of the Arapaho Forest with most of it being on the eastern slope of the Rockies.
CHAPTER IV
CULTURAL RESOURCES--BY DISTRICT

Hot Sulphur Ranger District

Eight projects, six timber sales and two land exchanges, were surveyed in the Hot Sulphur Ranger District. Four prehistoric sites and one lithic scatter were recorded. The following is a list of the projects and the recorded finds.

- U.S. Highway 40 Timber Sale None (Fig.1)
- Elk Creek Timber Sale None (Fig.2)
- Winter Park Land Exchange None (Fig.2)
- Kaufman Creek Timber Sale None (Fig.3)
- Willow Creek Timber Sale None (Fig.4)
- Vasquez Creek Timber Sale None (Fig.5)
- Little King Land Exchange 5GA104 (Fig.6) 5GA105
- Upper Willow Timber Sale AR-UW-1 (Fig.7) 5GA106 5GA117

AR-UW-1

A single lithic scatter was discovered at U.T.M. coordinates. The scatter consisted of one jasper flake, one quartzite flake, and one chalcedony flake. There were no signs of utilization on the flakes and all were edge retouch flakes.

Two additional sites were located outside the survey areas. They were 5GA106 and 5GA117. 5GA106 was next to the Winter Park
Figure 1
U.S. Highway 40 Timber Sale

U.S.G.S. 7.5 Minute Quadrangles
Berthoud Pass
Empire

Map removed in an effort to protect sensitive cultural resources.
Map removed in an effort to protect sensitive cultural resources.
Figure 3
Kaufman Creek Timber Sale
U.S.G.S. 7.5 Minute Quadrangle
Radial Mountain

Map removed in an effort to protect sensitive cultural resources.
Figure 4
Willow Creek Timber Sale
U.S.G.S. 7.5 Minute Quadrangle
Radial Mountain

Map removed in an effort to protect sensitive cultural resources.
Map removed in an effort to protect sensitive cultural resources.
Figure 6
Little King Land Exchange
(Sites 5GA104 and 5GA105)
U.S.G.S. 7.5 Minute Quadrangles
Parkview
Radial Mountain

Map removed in an effort to protect sensitive cultural resources.
Figure 7
Upper Willow Creek Timber Sale
(AR-UW-1 originally Locality 11)

U.S.G.S. 7.5 Minute Quadrangle
Bowen Mountain

Map removed in an effort to protect sensitive cultural resources.
Land Exchange. It was initially thought to be within the boundaries of the land exchange but when relocated it was found to be outside of the boundaries. Morris Anderson has analyzed the material as an independent student project at Colorado State University and his report is found in Appendix B of this report.

Site 5GA117 was collected on the survey crew's off time. Its inclusion in this report is justified in that the site is in the proximity of the timber sales and land exchanges included in this report and it provides additional information about the area's prehistoric occupation and utilization. The site is north of Hot Sulphur on the crest of a hill which generally faces west to west-northwest. The area is covered by a 20 to 50 per cent ground cover with a scattering of pines and aspen. The nearest permanent water is the Colorado River.

Eighty-four pieces of debitage, one projectile point, and two bifacially flaked tool fragments from the site were analyzed. Analysis of the material indicates that the site functioned as a lithic workshop where thinning and retouching of tools occurred. Only a small percentage of the material had cortex present, indicating that the material had been initially reduced elsewhere and brought to this location for final shaping and sharpening. Eighty-four percent of the material was chalcedony with the rest being chert.

Two bifacially flaked tool fragments were recovered. Both were made of chalcedony. One may be the tip of a projectile point. There were no signs of wear present on any of the fragments.
A single projectile point was also recovered (Fig. 8, h.). The point was made of jasper and measured 2 cm. by 1.5 cm. The point is heavily serrated on both sides. One side has some of the serrated projections worn down. The point may have been used for cutting or sawing. Husted (1962:76) dates this type of point to between 1,260 and 970 B.P. The point may or may not be associated with the debitage.

5GA104

This site consisted of two lithic concentrations and two hearths (Fig. 9). The two hearths are probably of modern origin although they may be prehistoric. In all, 35 pieces of debitage, 2 projectile point stems, and one bifacially flaked tool fragment were examined from the site.

Four different types of lithic material are represented in the debitage and were utilized as source material: chert (2%), jasper (14%), chalcedony (28%), and quartzite (56%). All the debitage indicates that the material worked at the site had already been reduced to blank or preform stage. Ninety-two percent of the material were interior flakes (no cortex), indicating that the outer layers of stone had been removed prior to the transportation of the material into the area. The remaining 8 percent of the material exhibited only small amounts of cortex. Five of the flakes appear to be edge retouch flakes. This type of flake is generated when an edge of a tool is sharpened or shaped. The rest are thinning flakes. Four of the flakes show traits which are diagnostic to exposure to heat. They exhibit
Figure 8
Artifacts described in text from Arapaho-Roosevelt Surveys
A. Hearth north of flake area

Figure 9  5GA104

B. Hearth southeast of flake area
crazing or a series of many small fractures and some pot-lidding (a small spall caused by heat). It is not clear if this heat damage is deliberate or fortuitous. A single jasper flake shows some slight unilateral retouch. This wear pattern indicates that the flake was used in a scraping motion.

Two bifacially flaked tool fragments were also recovered. One appears to be the stem portion of a projectile point. It is made of chalcedony and has a slight convex base and parallel sides. The second fragment is that of a grey chert, bifacially flaked tool, possibly a large projectile point (Fig.8,b.). Not enough of the tool remained to be diagnostic as to tool type or form. It is part of the basal section and has a concave base with a single ear. The site is located at U.T.M. coordinates (Fig.6).

5GA105

This site consists of a single concentrated lithic scatter. A total of 80 pieces of debitage and five flaked tool fragments were analyzed. The site is located on a small saddle just north of Buffalo Creek. The remains at the site indicate that it also was a chipping station. The size of the concentration also suggests a single utilization, being an area of 3 by 4 meters. Ninety-two per cent of the material recovered had no cortex present and the rest had only small amounts of cortex. The flakes can be classified into two types, bifacial thinning flakes and edge retouch flakes. The edge retouch flakes account for about one-third of the flakes recovered.
The technology that produced the debitage is difficult to determine. Forty-eight per cent of the debitage is undiagnostic shatter, forty per cent is incomplete, and only twelve per cent is complete. However, the sizes of the flakes suggest that percussion was used to remove the thinning flakes and pressure to remove the edge retouch flakes. None of the flakes exhibited edge retouch which indicates they had not been utilized in cutting or scraping. This analysis indicates that on site reduction from a core did not take place. The tools produced at the site had been reduced to the blank or possibly to the preform stage before being brought to the site.

Five fragments of unifacially and bifacially flaked tools were also recovered. All were made of chalcedony. Microscopic examination of the edges of these tools failed to yield any signs of wear from use. Some of the edges were battered and there were indications of recent breakage, but no wear patterns. These tools might have been broken during manufacture. The bifacial flaking was not total. The site is located at U.T.M. coordinates (Fig.6).

Poudre Ranger District

Two projects were surveyed within the Poudre District, the Bennett Creek and Upper Jacks Gulch Timber Sales. Three isolated finds and two lithic scatters were recorded.

- Bennett Creek Timber Sale
  - IF's a, b, (Fig.10)
  - AR-BC-1

- Upper Jacks Gulch Timber Sale
  - AR-JG-1 (Fig.10)
  - IF c
Figure 10
(IF a originally Locality 4;
 IF b originally Locality 5;
 IF c originally Locality 7;
 AR-BC-1 originally Locality 6;
 AR-JG-1 originally Locality 8)
Map removed in an effort to protect sensitive cultural resources.
The first isolated find, AR-BC-a (Fig.8,a.), consisted of a bifacially flaked blade tip. The material used was jasper and the fragment measured 2.5 cm. in length. One face of the blade is not totally flaked and the tool seems to have broken along an interior fracture which probably weakened the material. These two factors suggest that the tool might have been broken during the production of the tool. It is undiagnostic culturally and temporally. This find was located at U.T.M. coordinates.

The second isolated find, AR-BC-b, is the distal end of a chalcedony flake. The flake terminated in a hinge fracture and is too incomplete to be diagnostic of any technology (i.e. pressure or percussion flaking). A hinge fracture usually indicates that the force used to remove the flake had been misapplied and was not sufficient to carry through to remove the flake from the core. The fragment was probably part of a bifacial thinning flake. The flake was recovered at U.T.M. coordinates.

Isolated find three, AR-BC-c, was located at U.T.M. coordinates. This find consists of a single chalcedony flake. The flake exhibits no flake attributes or signs of use.

Lithic scatter AR-BC-1 consists of two jasper flake fragments. Neither show any flake attributes or signs of utilization. The location of the finds was at U.T.M. coordinates.
The second lithic scatter, AR-JG-1, consists of two chalcedony flakes. Both seem to be bifacial thinning flakes and show no signs of retouch. A hearth was also reported from the area of the finds, but seemed not to be associated with the artifacts. The U.T.M. coordinates for the scatter are

Red Feathers Lakes Ranger District

Two timber sales and one land exchange were surveyed within this district. Three prehistoric sites, two lithic scatters, and one isolated find were recorded. In addition one historic site was also recorded. The following is a list of projects and finds.

- East Bald #2 Timber Sale: None
- Crystal Lakes Land Exchange: 5LR446
- North Weber Timber Sale: IF a (Fig. 11 a & b)
  - AR-NW-1
  - AR-NW-3
  - 5LR447
  - 5LR448
  - 5LR449

Isolated find AR-NW-a is a rose colored secondary retouch flake of agate. The dorsal proximal edge shows signs of flake removal and indicates platform preparation. This is done in order to strengthen the platform and prevent slipping and crushing when force is applied. The flake was not utilized in any way and was found at U.T.M. coordinates

Two lithic scatters were also recovered, AR-NW-1 and AR-NW-3. AR-NW-1 consists of three flakes and one projectile point. Two of the flakes are jasper (one red and one brown) and the other is
Map removed in an effort to protect sensitive cultural resources.
Map removed in an effort to protect sensitive cultural resources.
a grey chert. The projectile point (Fig. 8, e.) is partial and exhibits an impact fracture (Ahler 1970). It has a convex base with a contracting stem. Damage to the blade is extensive and little can be said of any diagnostic traits. Its chronological and cultural placement is unknown. The find is located at U.T.M. coordinates.

Scatter AR-NW-3 produced 1 chalcedony, 1 chert, and 2 quartzite flakes. All are edge retouch flakes and indicate a tool or preform was sharpened at the location. There are no signs of use exhibited on these flakes. The site is located at U.T.M. coordinates.

5LR447 The artifacts from this site were located in a heavily eroded road that cuts through a heavily timbered area (Fig. 12, A). It was not determined if the artifacts were exposed by erosion or if they had been washed into the road. In all, 5 flakes of quartzite, one piece of quartz, and one tool fragment were analyzed. All the quartzite material seems to be bifacial thinning flakes. The piece of quartz show no indications of having been used by man. Again, these flakes represent nothing more than the local reduction of a preform to a tool. The site is located at U.T.M. coordinates.

The tool fragment is the basal portion of a large bifacially flaked knife or possibly a lance point (Fig. 8, c.). It measures 3.7 cm. in length and 4.0 cm. in width. The edges show no wear patterns which might be attributed to use. The tool is made out of a medium grained, grey quartzite. Nothing can be said of the chronological placement or cultural association of this material.
A. 5LR447 - Looking south up the slope of the road

Figure 12

B. 5LR448 - Over view from the northwest
5LR448 This site lies in a sandy basin of a saddle between two outcrops of granite on the east shore of Parvin Lake (Fig. 12, B). The lithic remains at the site cover nearly the entire area between the two outcrops (Fig. 13). A total of six different types of material are represented at the site. Five pieces of obsidian were among the flakes recovered.

Chalcedony is the most frequently used material found at the site. The flakes are either bifacial thinning flakes or edge retouch flakes produced by percussion and pressure. None of the flakes show signs of utilization.

A single tool fragment was also recovered (Fig. 8, d.). It is a tip from a projectile point made of chalcedony. It exhibits fine parallel flaking. There is not enough of the point represented to place it chronologically or culturally. The site is located at U.T.M. coordinates

5LR449 This site lies in an open area next to and in a road that runs along the northern shore of Parvin Lake (Fig. 14). It is a small lithic concentration consisting of 8 flakes (4 quartzite, 1 chert, and 3 chalcedony). All are interior bifacial thinning flakes or edge retouch flakes. The flakes were totally undiagnostic; a discussion of temporal or cultural placement is impossible. The site is located at U.T.M. coordinates

5LR446 A single historical site was recorded by the surveying archaeologists. This site is located within the boundaries of the Crystal Lakes Land Transfer. It is a single cabin in a
Figure 13
Site Map 5LR448
Figure 14
Site 5LR449 - Looking south
small aspen stand about 300 feet north of Beartrap Creek. The cabin had collapsed. It was of log construction with notched and nailed corners. It measured 4.6 by 2.7 meters.

The cabin was associated with a mine shaft which was caved in. The shaft is located about 20 meters from the cabin. Items collected included a tobacco can, two metal buckets, two shovel heads, barbed wire, a square cake pan, and an iron 20 penny nail (see the historical report included in this volume).
CHAPTER V
TEMPORAL SEQUENCE

The temporal sequence suggested in this report is based upon projectile point types. This temporal sequence is based upon a very small sample of points and only suggests a general chronological framework. The lack of other chronologically diagnostic artifacts forces a dependence upon the projectile point chronology. Artifacts found during the survey were compared to artifacts in the archaeological literature for identification and association as to cultures and chronology. What follows is a brief description of the prehistoric periods dealt with in this report as well as for the region.

Paleo-Indian The Paleo-Indian tradition is the earliest defined tradition or culturally homogenous unit to be defined in the New World. During this period, from about 20,000 B.P. to 6,000 B.P., man subsisted by the exploitation of the large Pleistocene fauna such as the mammoth, sloths, and bison. The toolkits associated with these big game hunters included finely-flaked lanceolate projectile points, knives, and scrapers which were used in the killing and butchering of such animals. Sites of this period are found throughout most of the United States (Jennings 1974). The Agate Basin-like point found at 5GA106 dates to the latter portion of this period (see Appendix B).
Early Middle Prehistoric  After the extinction of the Pleistocene fauna, there was a shift in subsistence technology which resulted in different types and styles of artifacts. The McKean-Duncan-Hanna point types are typical of this period (Mulloy 1958). In general these points have concave bases and stems which are narrower than the blade. This period dates from ca. 4500 B.P. to 2,000 years ago. Variants of these point types extend from the Plains into the Great Basin.

The subsistence activities of these people included the hunting of bison, elk, deer, and other animals as well as a heavier reliance on vegetal foods. Grinding stones are frequently recovered from sites which date to this period. These people probably moved in seasonal patterns, exploiting the various food resources as they became available through the year (Ward-Williams 1976). A tool fragment from 5GA104 may date to this period.

Late Middle Prehistoric  During this period, the dominant projectile point type is a triangular corner notched point. This period dates from about 2,000 B.P. to A.D. 500.

Subsistence during this period is oriented towards bison procurement and collecting of wild plant foods. Often associated with this period is the circular stone structures commonly called tipi rings. The small sized rings are thought to be older than the rings with larger diameters (Frison and Wilson 1975:32; Ward-Williams 1976). The projectile point base from 5GA104 may date to this time period.
Late Prehistoric Period  This period dates from A.D. 500 to the time of contact with white man (1750). During this period, subsistence activities vary a great deal from area to area. Big game hunting is still important, although in the Great Basin there is an adaptation to a desert environment with emphasis on collecting of plants and hunting small game. On the western edge of the Plains, agriculture makes an appearance.

The bow and arrow is introduced and there is a reduction in projectile point size. Point size varies but they usually have large side notches. The corner notched points are still found throughout this period (Ward-Williams 1976). A projectile point from 5GA117 dates to this period. Husted (1962) suggests a possible association with the Fremont culture of this period.

Pottery of the Plains Woodland and Upper Republican types have been found throughout the mountain west in addition to Woodland type projectile points. These are influences from the mid-west agricultural traditions (Irwin-Williams and Irwin 1966).
CHAPTER VI
CONCLUSION

Generally, these sites seemed to have functioned as limited activity areas where the bifacial thinning, shaping, and sharpening of stone tools took place (Table 1). The occurrence of material with cortex is small at all sites, indicating the tools were brought to these areas as blanks or preforms (stages in the manufacture of stone tools in which the tool has been roughly shaped and thinned). There were no features recorded at the sites, with the possible exception of 5GA104 where hearths may be associated with debitage. All this data suggests short term utilization of a particular locality.

The following sites were analyzed in terms of their location and several environmental factors (Table 2): 5GA104, 5GA105, 5LR447, 5LR448, and 5LR449. Only these sites were used because they had the best information concerning their environmental setting. These sites were situated close to water sources. The distance to water ranged from about 100 meters to 300 meters with a mean distance of 156 meters. These were permanent water sources. These sites also occurred with a limited elevational range. These sites ranged in elevation from 8,120 feet to 8,960 feet with a mean elevation of 8,499 feet. None of the sites face towards the south, 2 face north, 1 east, 1 west, and 1 north-west. This tends to support the idea of short term utilization
### TABLE I

**FLAKE ATTRIBUTES OF DEBITAGE**

(given in percentage of occurrence)

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<th>Attributes</th>
<th>5GA104</th>
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<td>8</td>
<td>7</td>
<td>0</td>
<td>4</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>Interior flake</td>
<td>91</td>
<td>93</td>
<td>100</td>
<td>92</td>
<td>87</td>
<td>82</td>
</tr>
<tr>
<td>Lip</td>
<td>14</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
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<tr>
<td>Platform prepared</td>
<td>17</td>
<td>10</td>
<td>0</td>
<td>12</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>Hinge fracture</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Utilized</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Unutilized</td>
<td>98</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Total flakes</td>
<td>35</td>
<td>80</td>
<td>6</td>
<td>26</td>
<td>8</td>
<td>84</td>
</tr>
</tbody>
</table>
TABLE II
Environmental Parameters of Site Location

<table>
<thead>
<tr>
<th>Site</th>
<th>Distance to Nearest Water</th>
<th>Elevation</th>
<th>Slope Facing</th>
</tr>
</thead>
<tbody>
<tr>
<td>5GA104</td>
<td>150 m.</td>
<td>8960 ft.</td>
<td>N.</td>
</tr>
<tr>
<td>5GA105</td>
<td>100 m.</td>
<td>8940 ft.</td>
<td>E.</td>
</tr>
<tr>
<td>5LR447</td>
<td>200 m.</td>
<td>8120 ft.</td>
<td>NW.</td>
</tr>
<tr>
<td>5LR448</td>
<td>230 m.</td>
<td>8200 ft.</td>
<td>N-NE.</td>
</tr>
<tr>
<td>5LR449</td>
<td>300 m.</td>
<td>8120 ft.</td>
<td>W.</td>
</tr>
</tbody>
</table>
or possibly the seasonality of the sites. These orientations would provide less exposure to the warmth of the sun. This suggests utilization during periods of warmth, probably late spring to mid fall. These areas would tend to hold snow longer than the southern facing slopes, thus reducing accessibility during the winter months.

The presence of water seems to be a determining factor in the location of the sites. The sites all lie in small valleys near some water sources. Sites 5LR447, 5LR448, and 5LR449 lie in a valley drained by the South Lone Pine Creek which feeds Parvin Lake. Passes and other such topographic features do not seem to have any significance in the activity represented by the remains found in the area.

These environmental factors suggest a seasonal utilization of the sites. This is a tenuous interpretation however. The lack of other environmental data (plant and animal remains) and the limited number of sites make definite conclusions impossible.

Projectile points or fragments of points were found at several sites. They can be used as relative dating indicators by comparing them with points of similar types from other sites that have been absolutely dated in calendrical years. The Agate Basin like point (Frison and Wilson 1975 - Appendix B) provides the earliest date based upon projectile point typology. This point (Fig.8,f.) suggests early exploitation of the mountains by the big game hunters, probably after bison, somewhere between 9,000 and 8,000 years ago.
Site 5GA104 produced two bifacially flaked tool fragments. One is similar to the Black Rock concave base from Hogup Cave (Aikens 1970). This type is dated from 6,400 to 1,250 B.C. A projectile point base from the site is similar to the Zone B material from Magic Mountain (Irwin-Williams and Irwin 1966). This complex dated from 500 B.C. to A.D. 500. These comparisons are very tenuous and should not be taken as solid chronological placement. Site 5GA117 provides the latest date, again using projectile point typology. A serrated, corner notched point found at the site can be associated with a type that falls into a period between A.D. 700 to 1000 (Husted 1962). The debitage is undiagnostic of any particular time period and therefore of little use in dating the sites. Some of the sites may have been used several times, possibly within a single year or possibly over a number of years. It is also difficult to be sure of the associations between the projectile points and the debitage. A single find can be diagnostic of a given time span, but its surface associations are often open to debate, unless excavation work is eventually done to test for time depth.

Six types of material were used in the production of the stone tools (Table 3). These include: chalcedony, chert, quartzite, jasper, obsidian, and quartz crystal. Not all materials are found at all sites. All the material seems to have been brought into the areas where the sites were found. No quarry sites or other source sites have been reported. Chalcedony and quartzite were the two most frequently used material. As can be seen in Table 3, there seems to be distinct preferences of one
TABLE III
Lithic Material Types Utilized
(given in percentage of occurrence)

<table>
<thead>
<tr>
<th>Site</th>
<th>Chalcedony</th>
<th>Chert</th>
<th>Quartzite</th>
<th>Jasper</th>
<th>Obsidian</th>
<th>Quartz crystal</th>
</tr>
</thead>
<tbody>
<tr>
<td>5GA104</td>
<td>28</td>
<td>2</td>
<td>56</td>
<td>14</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5GA105</td>
<td>90</td>
<td>8</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5LR447</td>
<td>0</td>
<td>0</td>
<td>83</td>
<td>0</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>5LR448</td>
<td>58</td>
<td>4</td>
<td>4</td>
<td>11</td>
<td>19</td>
<td>4</td>
</tr>
<tr>
<td>5LR449</td>
<td>35</td>
<td>15</td>
<td>50</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5GA117</td>
<td>86</td>
<td>14</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5GA106</td>
<td>65</td>
<td>8</td>
<td>11</td>
<td>15</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
type of material over another at each site. The significance of this is not understood, the finer the stone (i.e. chalcedony or chert) the easier it is to flake. Quartzite does not have the flaking qualities of the finer materials. The presence of obsidian, as stated earlier, possibly represents the presence of long range exchange or the presence of wide ranging groups of people. The sources of obsidian best known are from Utah, New Mexico, and Yellowstone, areas vastly separated from the central Rockies of Colorado. There are reports of obsidian sources in the Colorado mountain region and there people could have exploited them. These reports are yet to be verified.

In summary, the prehistoric remains found in the survey areas represent short term limited activity areas. The main functions of these sites seem to be lithic chipping stations where stone tools were produced from a preform stage. The few diagnostic artifacts recovered suggest a utilization of the area from about 8,000 years ago to A.D. 1000. This occupation and utilization probably continues unbroken into the present.
CHAPTER VII
POSSIBLE MITIGATING MEASURES

The preliminary reports have already recommended clearance or non-clearance as to particular timber sales and land exchanges. Archaeological sites are a valuable resource and should be protected. Timbering activities often cause extensive damage to the surface and subsurface of the land being cleared. Often archaeological sites are either surface or extend into the subsurface zones and therefore can be destroyed very easily. As a result, sites found in such areas should be tested to determine their depth and extent or they should be protected and examined before they are passed into the hands of private ownership.

Two of the archaeological sites located within the North Weber Timber Sale are of possible significance, 5LR448 and 5LR449. There is a lack of timber on these sites and in close proximity which is probably sufficient to protect them from destruction due to timbering activities. The excellent location of 5LR448 and the distribution of the artifacts there suggest a possible campsite. 5LR449 may be a subsurface site that has been partially disturbed by the present road in the area. If either of these sites are in danger of being disturbed, they should be tested.

It should be remembered that if any archaeological remains are encountered during ground disturbing activities, the Colorado State Office of Archaeology should be notified.
BIBLIOGRAPHY

Aikens, C Melvin

Arapaho National Forest

Frison, George and Michael Wilson

Husted, Wilfred

Irwin-Williams, Cynthia and Henry J. Irwin

Jennings, Jesse D.

Mulloy, William

Ward-Williams, Linda
Historical Appendix - A

by

Robert B. Rosenberg
PROJECTS SURVEYED IN ARAPAHO-ROOSEVELT NATIONAL FORESTS

Arapaho National Forest

U.S. 40 Timber Sale
Elk Creek Timber Sale
Little King Timber Sale
Upper Willow Timber Sale
Willow Pass Timber Sale
Kaufman Creek Timber Sale
Berthoud Pass Timber Sale
Winter Park Land Exchange

Roosevelt National Forest

Bennett Creek Timber Sale
North Weber Timber Sale
East Bald Timber Sale
Upper Jacks Gulch Timber Sale
Crystal Lakes Land Exchange

BUILDINGS AND/OR SITES OF HISTORICAL SIGNIFICANCE IN OR NEAR PROJECT AREA

Berthoud Pass Timber Sale - Berthoud Pass (T3S, R75W, Sec.10)

Berthoud Pass was discovered by Edward L. Berthoud and guide Jim Bridger while in the employ of Denver interests looking for a possible transcontinental railroad route. William L. Byers and other businessmen hoped that the proposed Union Pacific Railroad would enter Denver and pass through the mountains to
the west if a suitable route could be offered (Sprague, 1964).

The actual survey began in early May, 1861 and, due to an unusually mild spring, reached the heretofore untrod pass on May 12, 1861. Subsequently, Berthoud and Bridger traversed Middle Park and laid out a route to Provo, Utah. However, actual railroad surveys rejected the 11,315 ft. pass and Colorado for a more practical route through Wyoming (Black, 1968).

Although a wagon road entering Middle Park had been constructed by J.A.Q. Rollins nearly a year before over nearby Rollins or Corona Pass, the Georgetown, Empire and Middle Park Wagon Road Company built a toll road over Berthoud Pass in 1874 which quickly gained dominance over the former. An improved motor road was constructed in 1923, but the highway was not maintained in the winter months until 1930-31 (Black, 1968). Today U.S. Route 40 crosses the Continental Divide via Berthoud Pass (See Inventory Form 10/01/0003).

Winter Park Land Exchange - West Portal (T2S, R74W, Sec.7-8)

Work on the West Portal of the Moffat Railroad Tunnel was begun in the late summer of 1923. The main range tunnel, inspired by David L. Moffat, made the arduous and costly thirty mile "hill" route over Rollins Pass unnecessary. The tunnel bored 6.2 miles under the Continental Divide (Black, 1968).

A water bore was dug simultaneously to divert water to the East Slope and was completed in February, 1927. The initial railroad bore was completed in July and was ready for limited service in February, 1928 (Black, 1968).
A large settlement of several hundred persons grew up around the western tunnel portals, the largest community in Grand County at the time. Hundreds of men, in a relative frontier setting, required various outlets of entertainment and the bootleg whiskey trade boomed in the little community. One shift boss, Dan Sullivan, attempted to blow up the tunnel entrance while under the influence (Black, 1968).

The West Portal is presently owned and maintained by the Moffat Tunnel Commission which leases the tunnel to the Denver and Rio Grande Western Railroad and the Denver Water Board (See Inventory Form 25/09/0001).

**Bennett Creek and Upper Jacks Gulch Timber Sales - Flowers Toll Road**

In 1879, gold and silver deposits were located in North Park. The two most important camps grew into Teller City and Lulu City. In order to connect these supposedly mineral rich areas with Ft. Collins and the plains, three toll roads were chartered and constructed, all roughly paralleling each other much like the rungs of a ladder (Watrous, 1911). (Fig.15)

The most southerly route was built by Jacob Flowers from his sawmill near the present day Rist Canyon Road, through Stove Prarie, and, staying south of the Poudre Canyon, it joined the North Park Stage Road near Cameron Pass (Swanson, 1971).

The middle route followed the Poudre River west through the Poudre Canyon beginning at the tie camp of Rustic and was con-
Figure 15
Historic Map of Flowers Toll Road
constructed by S.B. Stewart. Known as the Stewart Toll Road, it provided a stage line and daily mail service in 1882 and soon outstripped the other routes (Swanson, 1971).

The North Park mining boom was short-lived, and the Flowers and Hardin Toll Roads gradually fell into disuse. The Stewart Toll Road became the major route and survives as State Highway 14. Today the Flowers Toll Road is comprised of the Rist Canyon Road to Stove Prairie, a four-wheel drive road to Beaver Park where it becomes a hiking trail to Peterson Lake, and finally a dirt road that joins State Highway 14 just south of Chambers Lake (See Inventory Form 35/-06/0003 and Figure 16).

CONCLUSIONS

Berthoud Pass represents one of the major mountain gateways in Colorado and is of state historical significance as a transportation route. The Berthoud Pass Timber Sale is located on the northern slope and contains what is probably the original route before the advent of the modern day highway.

Forest Service personnel should be cognizant of the historical as well as the aesthetic qualities of the pass environs. The general appearance and historical integrity of the site should be taken into consideration when planning timber sales or further recreational development of the Berthoud Pass area including the approaches.

West Portal is of possible national historical significance as the Moffat Railroad Tunnel represents the fulfillment of a
Figure 16
The Flowers Toll Road facing east and west respectively as seen near Bedsprings Spring
transcontinental railroad for the city of Denver as well as
the conquering of the Front Range barrier west of the city.
Since the immediate property is owned by the Moffat Tunnel
Commission and leased for water and railroad usage, there appears
to be no danger to the site from any outside projects or in­
terests at this time.

The Flowers Toll Road is one of the three original toll
routes constructed in this portion of Colorado and is of state
historical significance. Large portions of the road and
surrounding country remain essentially as they looked nearly
one hundred years ago. When visited, the road near the pro­
jected timber sales exhibited many signs of erosion in the
forms of rutting and large standing pools of water. Water
diversion humps were in evidence, but four-wheel drive vehicles
tend to drive around the humps defeating their intended purpose.
It is hoped that heavy machinery involved in timber operations
will not add to the problem of maintaining the old toll road in
the vicinity of Bennett Creek and Upper Jacks Gulch. Portions
of the Flowers Toll Road are now limited to hiking trails
(Beaver Park to Peterson Lake) and are in little danger from
all terrain type vehicles.

Concerning the other projects listed earlier, no sites
and/or buildings of historical significance were discovered
either through literature searches or in-the-field surveys.
BIBLIOGRAPHY

Black, Robert C. III

Sprague, Marshall

Swanson, Evadene Burris

Watrous, Ansel
STATE INVENTORY FORM

NAME: Berthoud Pass

LOCATION: T. R. S. County: Clear Creek and Grand

OWNERSHIP: Part of Arapaho National Forest

CONDITION:

PHYSICAL DESCRIPTION: Not Applicable

HISTORICAL SIGNIFICANCE:

Date: 1861 to present 

Architect: 

Berthoud Pass escaped notice of frontiersmen using the mountains in the early years. Even the Utes preferred other higher trails in the area. The Pass was discovered by Edward L. Berthoud, Jim Bridger and party of six on May 12, 1861. A wagon toll road was constructed in 1874, and the first improved highway in 1923.

On April 24, 1861, five men arrived in Denver and met to consider the possibility of a direct road to Salt Lake City. A survey was arranged to represent Denver, Golden, and the major mountain towns.

The survey was begun in the second week of May, 1861. The Spring was unusually mild and the Pass was reached on the twelfth. The party actually crossed on the seventeenth and entered Middle Park. On a subsequent survey trip, Berthoud and Bridger reached Provo, Utah and created speculation that a transcontinental railroad could be built along that route over the Pass; however, an actual railroad survey of the Pass showed its impracticality in comparison to the final Union Pacific route through Wyoming.
The Georgetown, Empire and Middle Park Wagon Road Company built a toll road over Berthoud Pass in 1874 which quickly proved superior to the previous Rollins Pass (Boulder) Road. An improved roadway was constructed in 1923; however, the highway was not maintained in the winter months until 1930-31.

The site is presently occupied by U.S. Route 40.

INVENTORY FORM OF HISTORIC PLACES

Agency: USDA Forest Service, Arapaho-Roosevelt N.F. Date: 2/15/74
Clear Creek Ranger District

1. Name of property: Berthoud Pass

2. Location of property:
   A. State and County: Colorado, Clear Creek
   B. Latitude and Longitude: 39° 47' 50", 105° 46' 30"
   C. Township, Range & Section: SW¼ SW¼, 10-3S-75W
   D. Other legal description:

   E. Map Reference: Berthoud Pass, Colo. 7.5 Min. Quad.

3. Nature of Property:
   A. District ( ) Site (X) Building ( ) Object ( )
   B. Description, present condition and use:
      Heavily used public visitor site in good condition. The land
      is part of the Arapaho N.F.

4. Importance of Property: This busy Continental Divide crossing was
   first surveyed in 1861 by Captain E.L. Berthoud and his guide, Jim
   Bridger. A toll road opened in 1874, and an improved road was con-
   structed in 1923. It is in Arapaho National Forest.
   The site appears to have national significance and should be considered
   for further study.

5. Names and addresses of persons preparing this inventory:
   David S. White, Forester
   Clear Creek Ranger District
   P.O. Box 730
   Idaho Springs, Colorado 80452
INVENTORY DATA FORM

This form is to be used in connection with both the correction of and addition to entries for the Colorado Inventory of Historic Structures and Sites. Explanations are attached.

NAME OF BUILDING OR SITE: West Portal, Moffat Tunnel

COUNTY (if more than one, list all): Grand

LOCATION (street address, if city or town; distance and direction from highway, river, crossing, or other reference point, if rural):
Immediately east of Winter Park Ski Area.

CONDITION (check and comment where appropriate): ENCLOSE SNAPSHOTS

- Occupied
- Unoccupied
- Threatened
- Vandalized
- Unsound
- Unoccupied
- Sound
- Intact
- Ruins
- Needs Attention
- Alterations
- Moved from original site

Comments: Details subject to change in response to changes in rail and water-supply technology.

OWNERSHIP (check appropriate):

- Federal
- State
- County
- Municipal
- Private
- Mixed, show combination
- In a National Park

HISTORY (Why is it significant?): Various engineers
Date of Significance: 1923-28 - present
Architect: and contractors

A major trans-mountain facility of conspicuous consequence to interests on both sides of the Continental Divide.

RATE SIGNIFICANCE: □ Local Event □ State Group or Person □ Cultural Heritage

DATE: June 7, 1976
SIGNATURE: [Signature]
INVENTORY FORM OF HISTORIC PLACES

Agency: USDA Forest Service

1. Name of property: Moffat Tunnel, West Portal

2. Location of property:
   A. State and County: Colorado; Grand
   B. Description, present condition and use:

3. Nature of Property:
   A. District ( ) Site ( ) Building ( ) Object (x)
   B. Description, present condition and use:

4. Importance of Property: 1922 - present. Near Winter Park. Considered one of the great-engineering feats of the century, the Moffat Tunnel provided a shortcut from the east slope to the west slope of the Front Range of the Rocky Mountains. It was the first project of this magnitude designed as a joint railroad and water carrier. Construction of this railroad tunnel was authorized in April 1922, and it was expected the tunnel would be completed in four years at a cost of $6,720,000. Work began in 1923; the tunnel was "holed through" on February 12, 1927; and the first train through the tunnel emerged from West Portal.

5. Names and addresses of persons preparing this inventory:

   Forest Service
   Sulphur Ranger District
   Hot Sulphur Springs, Colorado 80451
Appendix B
5GA106: The Jim Creek Site
by
Morris Anderson
Introduction:

The archaeological site designated as 5GA106, referred to herein as the Jim Creek Site, was located by our crew during an archaeological survey of the areas adjacent to the Winter Park Ski Area (Fig.2). While surveying a proposed land exchange for the U.S. Forest Service, we inadvertently crossed the boundary of Roosevelt National Forest, and discovered the site just across the line on a small tract of land owned by the City and County of Denver. The Property, administered by the Winter Park Recreation Association, is an undeveloped portion of the ski area. The inclusion of this report with the preceding Forest Service material is justified by the identical environmental context of the site with that material. A second purpose of this report is to formalize the notification of the Winter Park Recreation Association of the existence of the site so that they may act in compliance with the Federal and State antiquities legislation during the course of their planned development of the property.

The report will describe the type and distribution of cultural material noted on the site, and thus, imply a cultural milieu for the utilization of the site. Secondly, it will describe the ecological context of the Jim Creek Site, and discuss the implications of the location of the site, within that context, for certain types of cultural behavior.
Before proceeding with the discussion it is important to note that the location is scheduled for the development of a multiple unit condominium complex by the Winter Park Recreation Association within the next few years. Thus, it is hoped that the data presented here will aid in the development of the most satisfactory program for mitigation of the projected environmental impact on the site.

Location:

The Jim Creek Site is located just east of the turnoff from U.S. Highway 40 to the Mary Jane Ski Area, at Universal Transverse Mercator coordinates. A dirt service road cuts across the site, providing access up the north bank of Jim Creek to an aqueduct and the upper Jim Creek drainage. The site is located at 9,170 feet above sea level. (Fig.17)

This site is on the top of the first moraine on the north bank of Jim Creek. In the section adjacent to the site the creek is marshy and wide, with a number of beaver impoundments causing the channel to break into a multitude of small trickles. Most of the site is covered by a dense stand of Lodgepole pine. The only exception being a small grassy area that is roughly congruent with Concentration 1.
Map removed in an effort to protect sensitive cultural resources.
The Environmental Context:

Geographical Setting

The Jim Creek Site is located at the confluence of the routes of travel over Corona Pass and Berthoud Pass. If as it is rapidly becoming apparent we accept the theory that the passes of the front range have been traversed by prehistoric peoples as migratory routes, the location of an extensively utilized site at the position of the Jim Creek Site comes as no surprise. Similar situations have been noted at Cameron Pass, Montgomery Pass, and Vail Pass.

Geological Setting

We are extremely lucky in that the geological context of the Mary Jane Site is becoming increasingly well known through the investigations at the Mary Jane Bog Site. This work conducted through the Institute for Arctic and Alpine Research, and the University of Colorado, concerns the analysis of an eleven meter exposure of repeated glacial till, lake sediments, and peat. The Mary Jane Bog Site is located near 5GA106 in a small side valley on the opposite side of the Fraser River Valley. The elevation of the Bog Site is approximately 8,700 feet a.s.l. in comparison to 9,170 feet a.s.l. for the archaeological site.

Alan Nelson of INSTAAR has tentatively identified the glacial episodes in the upper Fraser Valley, which he designates as Bull Lake, earlier Pinedale, and later Pinedale.
Figure 18 Columnar section of the upper portion of the Mary Jane Bog Site showing relative depth, thickness and position of units. 0--- indicates radio carbon dates received. Upper peat is of Holocene age. Lower units (to at least 8 m.) are Pinedale deposits. (Alan R. Nelson and Andy Millington, p.c.1976)

The glacial sequence as it relates to 5GA106 is as follows. Sometime after the formation of the peat unit between 3 and 4 meters, or post 12,350 ± 200 years B.P. an earlier Pinedale advance covered the Mary Jane Bog Site as well as the Jim Creek Site. Following the recession of this earlier Pinedale advance there is structural evidence of a later Pinedale advance in the Jim Creek drainage based upon morphology and weathering characteristics. These later Pinedale morainal features are characterized by steep sides and narrow crests. They have more than 55 per cent fresh stones in the B horizon.
and more than 68 surface boulders (greater than 30 cm.) on 180 m$^2$. Soil development on later Pinedale moraines is weak (Nelson; 1976). Unfortunately the later Pinedale deposits do not appear at the Mary Jane Bog Site. Bracketing minimal $C_{14}$ dates for possible correlative deposits (Nelson, p.c. 1976) are: (1) minimum 6170 ± 2040 years B.P. from bog silts overlying Pinedale outwash in Rocky Mountain National Park (Richmond; 1960); (2) minimum 6500 years B.P. for bog deposits overlying the type Temple Lake deposits in the Wind River Range, Wyoming (Curry; 1974); and (3) a minimum 9915 ± 165 years B.P. for peat overlying Santana Peak outwash northwest of Caribou Lake in the Indian Peaks region of the Front Range (Benedict; 1973). These dates plus the morphology and the weathering characteristics of the Jim Creek moraines are consistent with a Pinedale IV age.

The pollen analysis of the Mary Jane Bog Site deposits is currently being conducted by Andy Millington at INSTAAR. Due to the lack of the minimal $C_{14}$ date for the peat underlying the upper till at the site we do not know as much as we would like to about the absolute chronology of the environmental reconstruction between the dates of 12,350 ± 200 to the 4,050 ± 115 years B.P., especially during the critical period after 8,600 B.P. The next month should considerably clarify the picture with the receipt of the radiocarbon date we can bracket the lacunae in our knowledge of the vegetational and climatic regime during the earliest part of the occupation of the Jim Creek Site.
Preliminary analysis (Millington p.c., 1976) has identified a large amount of vegetational and climatic variation in the pre 12,350 deposit ranging from a tundra situation to the montaine zone. On the basis of the pollen count of the deposit post dating 4,050 it appears that the situation at the site is roughly similar to the present day regime.

The Cultural Material:

The goal of the following discussion of the lithic material collected from the surface of the site is to develop an understanding of the temporal depth of the utilization of the site, and to formulate testable statements about possible cultural behaviors associated with the occupation of the site.

At present our best temporal indices are based upon the presence of artifact types possessing known affiliations with dated contexts at other sites. Unfortunately such artifacts are prized by amateur collectors, and are likely to have been removed from the site long before it is "discovered" by the archaeologist as appears to be the case with the Jim Creek Site. Our only potentially datable artifact is, however, particularly interesting because of the long depth of utilization that it indicates. The artifact is the base of a projectile point preliminarily described by Dr. H.M. Wormington as "Agate Basin-like" (personal communication, 1975). Further research reveals the specimen to be very similar to some of the Paleo-Indian material found by Frison at the Medicine Lodge Creek Site in the Bighorn Basin, Wyoming. The dates for this
material range from 8,600 to 8,200 years B.P. (Frison; 1975). The specimen is made of orange fine-grained quartzite and is lanceolate shaped, narrowing towards the base, and heavily ground along the lateral margins from the point of constriction to the base. The base is concave (Fig. 8, f.).

Five different types of lithic material were used at the Jim Creek Site. For the most part there seems to have been a preference for chalcedony (see Table IV).

Unfortunately our collection procedure did not include the association of each flake with the particular point on the surface from which it was collected. Thus it is impossible to relate the frequency or distribution of a particular material type (or any other variable) to the distributional information of the flakes with a degree of specificity beyond that of the subjectively defined concentrations. It is my feeling that two of the concentrations are defined as a result of the erosional/depositional millieu at the site, and have no relationship to prehistoric cultural behavior there. The concentrations, Concentration 1 and 2, were located in the tracks of the dirt service road and on a small terrace immediately above the marsh flanking Jim Creek, respectively (Fig.17). There is considerable gullying associated with the road. A brief visit to the site several weeks (and rain showers) after the initial collection noted more flakes in the road. Concentration 2 is located where material washing from the moraine would be deposited. Several historic hearths in the area of Concentration 2 (Fig.19) and the lack of ground cover there
<table>
<thead>
<tr>
<th>Lithic Material Type</th>
<th>Concentration 1</th>
<th>Concentration 2</th>
<th>Concentration 3</th>
<th>Concentration 4</th>
<th>Flake Total</th>
<th>Total % for Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chalcedony</td>
<td>57 (55.8)</td>
<td>28 (80.0)</td>
<td>6 (33.3)</td>
<td>31 (88.5)</td>
<td>122</td>
<td>64.5</td>
</tr>
<tr>
<td>Chert</td>
<td>13 (12.7)</td>
<td>-</td>
<td>1 (5.5)</td>
<td>2 (5.7)</td>
<td>16</td>
<td>8.4</td>
</tr>
<tr>
<td>Quartzite</td>
<td>13 (12.7)</td>
<td>5 (14.2)</td>
<td>1 (5.5)</td>
<td>1 (2.8)</td>
<td>20</td>
<td>10.5</td>
</tr>
<tr>
<td>Jasper</td>
<td>17 (16.6)</td>
<td>2 (5.7)</td>
<td>9 (50.0)</td>
<td>1 (2.8)</td>
<td>29</td>
<td>15.2</td>
</tr>
<tr>
<td>Obsidian</td>
<td>2 (1.9)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Unknown</td>
<td>-</td>
<td>-</td>
<td>1 (5.5)</td>
<td>-</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>35</td>
<td>18</td>
<td>35</td>
<td>190</td>
<td></td>
</tr>
</tbody>
</table>

Numbers in () = % of type within concentration.
Figure 19
Possible hearth areas at 5GA106
argue for the occurrence of intensive and selective amateur collection in this area.

Of the remaining two concentrations I am more certain that one, and perhaps both, are manifestations of prehistoric utilization of the site. Concentration 4 is located on the tip of the moraine. Thirty five flakes were scattered in a 4.5 m x 3.5 m. area centering on a small circle of cobbles that is identified as a prehistoric hearth (Fig.20). The cultural material was covered by a thick (15 cm.) layer of pine needle litter, and is different in this respect from the other concentrations, which were found on the surface. Concentration 3 is a similarly confined scatter of flakes. It is more disturbed by the service road, and lacks a definable hearth. It is the only concentration to exhibit a marked shift in the relative frequencies of material types from a prevalence of chalcedony (noted in Concentrations 1, 2, and 4) to jasper.

Other cultural material from the site includes a piece of red ochre from the surface of Concentration 1. Concentration 1 also yielded a small mid-section of a jasper projectile point. A fist-sized chalcedony core was found in the road in Concentration 2. Concentration 2 also contained a chert end scraper and the mid-section of a chalcedony bifacially flaked knife. Concentrations 3 and 4 produced 1 mid-section of a jasper blade and a chalcedony blade respectively.
Figure 20
Hearth near Concentration 4
5GA106
This completes the inventory of prehistoric cultural material from the Jim Creek Site. From this inventory several possibilities are suggested about the utilization of the site. First of all with respect to the temporal depth of the utilization we have diagnostic artifacts that suggest a possible time period of from 8,600 or 8,200 years B.P. to the Late Prehistoric period. The geological material presented earlier in this report demonstrates that the possibility of a Paleo-Indian component at the site cannot be negated on the basis of the age of the glacial feature on which the site is located. Secondly, the extent of the lithic scatter is considerably greater than many of the sites in the Forest Service sample indicating the possibility that there may be either temporal or functional diversity associated with different areas within the site. The diagnostic artifacts, the diversity of the types of non-diagnostic artifacts (core, scraper, bifacial tool, and ochre), and differences in relative frequencies of tool stone types between concentrations indicate that there is probably variation in both time and function represented across the site.

Conclusion:

There is, at the Jim Creek Site, an opportunity to greatly increase our knowledge about the prehistoric utilization of the upper elevations of the Rocky Mountains. Due to the fortuitous circumstances of the proximity of the Mary Jane Bog Site the investigation has already taken on a distinctly inter-disciplinary flavor. An aspect that should be maintained
throughout the subsequent stages of investigation.

In summary, the Jim Creek Site apparently reflects the cultural utilization of a site for an extended period of time. There is a feeling in the material collected from the surface of something more than a transient single purpose occupation of the site. Rather there is a diversity of form and function that suggests a utilization directed at a variety of potential resources.
REFERENCES CITED

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Frison, G.C. and M. Wilson

Richmond, G.M.

Nelson, A.R.
1975  Late Quaternary Glacial Chronology in the Upper Fraser Valley, Grand County, Colorado: The Geological Society of America, Abstracts.
Appendix C

Analysis Forms
<table>
<thead>
<tr>
<th><strong>DEBITAGE ANALYSIS FORM</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Site No.</strong></td>
</tr>
<tr>
<td><strong>Cat. No.</strong></td>
</tr>
<tr>
<td><strong>Material</strong></td>
</tr>
<tr>
<td><strong>Length</strong></td>
</tr>
<tr>
<td><strong>Width</strong></td>
</tr>
<tr>
<td><strong>Thickness</strong></td>
</tr>
<tr>
<td><strong>Primary decort.</strong></td>
</tr>
<tr>
<td><strong>Secondary decort.</strong></td>
</tr>
<tr>
<td><strong>Interior flake</strong></td>
</tr>
<tr>
<td><strong>Blade</strong></td>
</tr>
<tr>
<td><strong>Complete</strong></td>
</tr>
<tr>
<td><strong>Incomplete</strong></td>
</tr>
<tr>
<td><strong>Heat altered</strong></td>
</tr>
<tr>
<td><strong>Potlidding</strong></td>
</tr>
<tr>
<td><strong>Spiderwebbing</strong></td>
</tr>
<tr>
<td><strong>Color change</strong></td>
</tr>
<tr>
<td><strong>Bulb absent</strong></td>
</tr>
<tr>
<td><strong>Bulb distinct</strong></td>
</tr>
<tr>
<td><strong>Bulb diffuse</strong></td>
</tr>
<tr>
<td><strong>Hertzian cone</strong></td>
</tr>
<tr>
<td><strong>Eraillure</strong></td>
</tr>
<tr>
<td><strong>Smooth/rippled</strong></td>
</tr>
<tr>
<td><strong>Platform prepared</strong></td>
</tr>
<tr>
<td><strong>Platform absent</strong></td>
</tr>
<tr>
<td><strong>Platform unprepared</strong></td>
</tr>
<tr>
<td><strong>Platform crushing</strong></td>
</tr>
<tr>
<td><strong>Lip</strong></td>
</tr>
<tr>
<td><strong>Radial fissures</strong></td>
</tr>
<tr>
<td><strong>Ripple marks</strong></td>
</tr>
<tr>
<td><strong>Utilized</strong></td>
</tr>
<tr>
<td><strong>Unutilized</strong></td>
</tr>
<tr>
<td><strong>Undiagnostic Shatter</strong></td>
</tr>
<tr>
<td><strong>Hinge Fracture</strong></td>
</tr>
<tr>
<td><strong>Core</strong></td>
</tr>
<tr>
<td><strong>Proximal End</strong></td>
</tr>
<tr>
<td><strong>Distal End</strong></td>
</tr>
<tr>
<td><strong>WEAR:</strong></td>
</tr>
<tr>
<td><strong>Polish</strong></td>
</tr>
<tr>
<td><strong>end or side</strong></td>
</tr>
<tr>
<td><strong>Attrition</strong></td>
</tr>
<tr>
<td><strong>end or side</strong></td>
</tr>
<tr>
<td><strong>Step fracture</strong></td>
</tr>
<tr>
<td><strong>end or side</strong></td>
</tr>
<tr>
<td><strong>Other</strong></td>
</tr>
<tr>
<td><strong>Comments</strong></td>
</tr>
</tbody>
</table>
## PROJECTILE POINT ANALYSIS FORM

<table>
<thead>
<tr>
<th>Site No.</th>
<th>National Forest</th>
<th>Date</th>
</tr>
</thead>
</table>

### Cat. No. 

<table>
<thead>
<tr>
<th>Blade Length</th>
<th>Stem length</th>
<th>Width at shoulders</th>
<th>Maximum width</th>
<th>Width of stem at shoulders</th>
</tr>
</thead>
</table>

### SIDES: 

- Excurvate
- Incurvate
- Parallel

### BASES: 

- Straight
- Convex  
  - slight or heavy
- Concave  
  - slight or heavy
- Basal grinding

### STEM: 

- Wider than blade
- Narrower than blade
- Expanding
- Contracting
- Horizontal X-section

### WEAR: 

- Polish  
  - end or sides
- Attrition  
  - end or sides
- Stepfracture  
  - end or sides
- Other

### Comments:  

---

* — 

1  

T  

"'  

1  

1  

1  

i
TOOL ANALYSIS FORM

<table>
<thead>
<tr>
<th>Site No.</th>
<th>National Forest</th>
<th>Date</th>
</tr>
</thead>
</table>

| Cat. No. | | | |
|----------| | | |

| TOOL: | | | |
|--------| | | |
| Scraper | | | |
| Knife | | | |
| Drill | | | |
| Graver | | | |
| Mano | | | |
| Other | | | |

| RETOUCH: | | | |
|-----------| | | |
| Distal end | | | |
| Proximal end | | | |
| Unilateral | | | |
| Bilateral | | | |
| Unifacial | | | |
| Bifacial | | | |

| WEAR: | | | |
|--------| | | |
| Polish end or sides | | | |
| Attrition end or sides | | | |
| Stepfracture end or sides | | | |
| Other | | | |

| Dorsal | | | |
|--------| | | |
| Ventral | | | |

| Comments: | | | |
|-----------| | | |
Appendix D

Site Survey Forms
ARCHAEOLOGICAL SURVEY OF COLORADO
INVENTORY SHEET

Site No. 5GA104, Grand County, Colorado, State, Buffalo Cr./Pass Cr. Drainage

1. Prior No./Name Used By ____________________________

2. Elevation ______ 3. Parkview Mt. U.S.G.S. Quad 4. Other Map ______

5. LOCATION

6. Owner __________ 7. Address ____________________________

8. Tenant __________ 9. Prior Owner(s) _____________________

10. Informant __________ 11. Address _______________________

12. NEAREST WATER Buffalo Cr. permanent X, season ______

13. Distance to 12. 150 m. 14. Elevation of 12 ______

15. LOCALE VEGETATION ______

16. SITE TYPE ______ 17. Cultural Affiliation (if known) ______

18. Description ____________________________

19. Size __________ 20. Faces to (cardinal direction) ______

21. Depth & Character of Deposits 1-2 m. gravel overlaying light brown sandy soil. Cultural material surficial

22. Material Observed or Reported 2 possible hearths; age and cultural affiliation unknown (see photos 13-16)

23. Material Collected conc. 1: 1 piece of shell, 1 flake (petrified wood), 1 jasper flake, 1 med.-grained Qtzite flake, 2 chal. flakes, conc. 2

24. Condition disturbed by road and fence line

25. RECOMMENDATIONS no further work recommended

26. Photograph Nos. roll 3 #13-20

27. Recorded By Morris Anderson

28. Date August 21, 1975

SEND TO Office of the State Archaeologist

5-A Ketchum Hall
University of Colorado
Boulder, Colorado 80302

SEE REVERSE & CONTINUATION SHEET

Office No.
Indicate the chief topographic features, such as streams and elevations. Also indicate houses and roads. Enclose the site area with dotted line. If possible, show extent and kinds of vegetation and sources of other natural resources which may have influenced site selection. Attach a Xerox of portion of U.S.G.S. quadrangle map showing site location, if possible.

Directions to site

From the Buffalo Cr. turnoff on Colo. State Hwy. 125 then left (west) for 3 mi. to the gate of the Trails End Ranch (USGS designation). From the gate drive through the Ranch to the back gate. The site is the first ridge behind the ranch.
**ARCHAEOLOGICAL SURVEY OF COLORADO INVENTORY SHEET**

<table>
<thead>
<tr>
<th>Site No.</th>
<th>5GA105 Grand County, Colorado State Buffalo Cr./Pass Cr. Drainage</th>
</tr>
</thead>
<tbody>
<tr>
<td>I: Prior No./Name</td>
<td>Used By</td>
</tr>
<tr>
<td>2: Elevation</td>
<td>8940'</td>
</tr>
<tr>
<td>3: Parkview Mtn USGS Quad</td>
<td>4 Other Map</td>
</tr>
<tr>
<td>5: LOCATION</td>
<td></td>
</tr>
<tr>
<td>6: Owner</td>
<td>7: Address</td>
</tr>
<tr>
<td>8: Tenant</td>
<td>9: Prior Owner(s)</td>
</tr>
<tr>
<td>10: Informant</td>
<td>11: Address</td>
</tr>
<tr>
<td>12: NEAREST WATER</td>
<td>Buffalo Cr. permanent X season</td>
</tr>
<tr>
<td>13: Distance to</td>
<td>12 100 m.</td>
</tr>
<tr>
<td>14: Elevation of</td>
<td>12 8880'</td>
</tr>
<tr>
<td>15: LOCALE VEGETATION</td>
<td>sparse ponderosa pine, antelope bush, aspen</td>
</tr>
<tr>
<td>16: SITE TYPE</td>
<td>17 Cultural Affiliation (if known)</td>
</tr>
<tr>
<td>18: Description</td>
<td>extremely concentrated surficial lithic scatter. Nearly 100 artifacts in a 3 x 4 m. oval, white cherts and chal. predominates material types. Debitage is mostly very small retouch flakes (cont)</td>
</tr>
<tr>
<td>19: Size</td>
<td>3 m. N-S; 4 m. E-W</td>
</tr>
<tr>
<td>20: Faces to (cardinal direction)</td>
<td>east</td>
</tr>
<tr>
<td>21: Depth &amp; Character of Deposits</td>
<td>1-2 mm gravel overlying light brown sandy soil, depth unknown, cultural material is surficial</td>
</tr>
<tr>
<td>22: Material Observed or Reported</td>
<td></td>
</tr>
<tr>
<td>23: Material Collected</td>
<td>3 biface bases; 2 chalcedony, 1 agate; 1 worked chal. flake; 45 unworked chal. flakes; 2 quartzite flakes; 36 chert flakes</td>
</tr>
<tr>
<td>24: Condition</td>
<td>undisturbed</td>
</tr>
<tr>
<td>25: RECOMMENDATIONS</td>
<td>no further work necessary</td>
</tr>
<tr>
<td>26: Photograph Nos.</td>
<td>27: Recorded By Morris Anderson</td>
</tr>
<tr>
<td>28: Date</td>
<td>8/21/75</td>
</tr>
</tbody>
</table>

SEE REVERSE & CONTINUATION SHEET

SEND TO: Office of the State Archaeologist
S-A Ketchum Hall
University of Colorado
Boulder, Colorado 80302
Indicate the chief topographic features, such as streams and elevations. Also indicate houses and roads. Enclose the site area with dotted line. If possible, show extent and kinds of vegetation and sources of other natural resources which may have influenced site selection. Attach a Xerox of portion of U.S.G.S. quadrangle map showing site location, if possible.

Directions to site

From the Buffalo Cr. turnoff of Colo. St. Hwy 125 turn left (west) for 3 mi. to the gate of the Trails End Ranch (USGS designation). The site is on the ridge between the first intermittent drainage (.1 mi.) past the gate and Buffalo Cr.
Site No: 5GA105

ITEM No:

COMMENT

18 suggesting work site

Recorded by: Morris Anderson
Date: 8/21/75

SEE REVERSE
ARCHAEOLOGICAL SURVEY OF COLORADO
INVENTORY SHEET

Site No. 5LR447 Larimer County, Colorado State South Lone Pine Cr. Drainage
1. Prior No./Name 5LR447 Used By
2. Elevation 8120’ 3. Red Feather Lakes USGS Quad
4. Other Map
5. LOCATION 450’ horizontal at 227 from third granite outcrop on the south bank of South Lone Pine Cr. after it flows out of Parvin Lake (denoted by
on map of location), NW ¼ Sec. 35 Township 7N, Range 73E
6. Owner
7. Address
8. Tenant
9. Prior Owner(s)
10. Informant
11. Address
12. NEAREST WATER South Lone Pine Cr. permanent X, seasonal
13. Distance to 12 625’ 14. Elevation of 12 8080’
15. LOCALE VEGETATION ponderosa pine, Quaking Aspen, blue spruce, (cont)
16. SITE TYPE
17. Cultural Affiliation (if known)
18. Description site is a lithic scatter in the sloping tracks of a road. The flakes have been exposed either by the erosion of the road or have washed into the road from some primary source adjacent and up-slope from the site. Heavy litter (cont)
19. Size 43m. n-s; 7m. e-w 20. Faces to (cardinal direction) NW
21. Depth & Character of Deposits sandy to gravelly medium brown soil. Depth is indeterminable, but cultural material is likely associated with the surface
22. Material Observed or Reported
23. Material Collected all surface material collected
24. Condition At least part of the site is disturbed by the road. Adjacent areas (cnt)
25. RECOMMENDATIONS

26. Photograph Nos. roll 1 #6-8 27. Recorded By Morris Anderson, Kris Kranzush
28. Date July 23, 1975

SEND TO — Office of the State Archaeologist S-A Ketchum Hall
University of Colorado Boulder, Colorado 80302

SEE REVERSE & CONTINUATION SHEET Nos.
Indicate the chief topographic features, such as streams and elevations. Also indicate houses and roads. Enclose the site area with dotted line. If possible, show extent and kinds of vegetation and sources of other natural resources which may have influenced site selection. Attach a Xerox of portion of U.S.G.S. quadrangle map showing site location, if possible.

Map removed in an effort to protect sensitive cultural resources.

Directions to site

From Colo 14 (Poudre Canyon) turn right (North) on Manhattan Rd. at Rustic. Take Manhattan Rd. to Red Feather Lakes Rd. (approx. 10 mi.). Turn right (east) on Red Feather Lakes Rd. for 3.5 mi. Turn left (north) on dirt road, there is a Forest Service gate but no sign, for 0.2 mi. Just before a large meadow a faint track turns off to the left (west). 5LR447 lies on this track 0.5 mi. from the turn.
<table>
<thead>
<tr>
<th>ITEM No.</th>
<th>COMMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Kinnikinick, Rocky Mtn. Juniper, Gramma grass, Antel oakbrush</td>
</tr>
<tr>
<td>18</td>
<td>of pine needles and ground cover makes accurate description of the primary source of the cultural material impossible</td>
</tr>
<tr>
<td>24</td>
<td>offer less than 5% visibility, thus estimation of per cent of site affected is impossible. Should the road be scheduled for improvement or even heavy utilization during the course of lumbering it is likely that further disturbance will result.</td>
</tr>
</tbody>
</table>

Recorded by M. Anderson, K. Kranzush
Date: July 23, 1975
Elevations noted on artifacts to demonstrate slope of site, and probable role of surface wash regarding distribution.
ARCHAEOLOGICAL SURVEY OF COLORADO  
INVENTORY SHEET  

Site No. 5LR448, Larimer County, Colorado  
State Parvin Lake Drainage  

1. Prior No/Name Used By  

2. Elevation 8200'  
3. Red Feather Lakes USGS Quad  
4. Other Map  

5. LOCATION In the saddle immediately southwest of the first granite outcrop on  
the south bank of the outlet from Parvin Lake  

LOCATION IN the saddle immediately southwest of the first granite outcrop on  
the south bank of the outlet from Parvin Lake  

UTM Grid NWs,SWs or SEC 25 TOWNSHIP 10N, RANGE 73W  

6. Owner  
7. Address  

8. Tenant  
9. Prior Owner(s)  

10. Informant  
11. Address  

12. NEAREST WATER Parvin Lake permanent x season  
13. Distance to 12 800' (present)  
14. Elevation of 12 8130' (present)  

15. LOCALE VEGETATION ponderosa pine, quaking aspen, lodgepole pine  

16. SITE TYPE  
17. Cultural Affiliation (if known)  

18. Description The margins of the site are fairly well defined by the large granite  
boulders and trees at the ends of the saddle.  

19. Size 45m. n-s; 22m. e-w  
20. Faces to (cardinal direction) NNE  

21. Depth & Character of Deposits sandy scree and gravels from the exfoliation of the  
flanking granite outcrops. soil is nonexistant  

22. Material Observed or Reported  

23. Material Collected all surface material collected  

24. Condition undisturbed  

25. RECOMMENDATIONS  

26. Photograph Nos. roll #1-5  
27. Recorded By Morris Anderson, Kris Kranzush  
28. Date July 23, 1975  

SEND TO Office of the State Archaeologist  
Boulder, Colorado 80302  

SEE REVERSE & CONTINUATION SHEET  
Nos.  

Page 1 of
Sketch Map of Location

Site No. 5LR448

NW SW Section 25, Township 1ON, Range 73W.

Indicate the chief topographic features, such as streams and elevations. Also indicate houses and roads. Enclose the site area with dotted line. If possible, show extent and kinds of vegetation and sources of other natural resources which may have influenced site selection. Attach a Xerox of portion of U.S.G.S. quadrangle map showing site location, if possible.

Map removed in an effort to protect sensitive cultural resources.

SCALE 1 block = (if diagram does not equal a section)

Directions to site

From Colo. 14 (Poudre Canyon) turn right (north) on Manhattan Rd at Rustic. Take Manhattan Rd. to Red Feather Lakes Rd. approx. 10 mi. Turn right (east) on Red Feather Lakes Rd. for 2.1 mi. to the Parvin Lake State Game and Fish Dept. Fisheries Station entrance. Take rd. around the north shore of the lake to the northern most earth dam. On foot follow the shore line past the south earth dam. Continue until you are south of the large granite outcrop on the south bank of the south outlet. Go east up the drainage that heads in the saddle immediately behind the outcrop (approx. 800'), 5LR448 is located in the saddle.
Site No: 5LR449, Larimer County, Colorado State: So. Lone Pine Cr. Drainage

1. Prior No./Name: Used By: 

2. Elevation: 8120' 
3. Red Feather Lakes U.S.G.S. Quad 
4. Other Map: 

5. LOCATION: 900 ft. at 180° from the intermittent outlet at Parvin Lake and 6° from granite outcrop

   NE\NE\ of SEC. 35 TOWNSHIP 70N, RANGE 73W

6. Owner: 
7. Address: 

8. Tenant: 
9. Prior Owner(s): 

10. Informant: 
11. Address: 

12. NEAREST WATER: intermittent outlet at Parvin Lake, permanent, season X

13. Distance to 12: 900' 
14. Elevation of 12: 8120' 

15. LOCALE VEGETATION: squaw currant, sulfur flower, yellow stonecrop (cont)

16. SITE TYPE: 
17. Cultural Affiliation (if known): 

18. Description: site is a lithic scatter noted in the tracks of a road and area immediately west. Insignificant slope indicates that location is probably the primary source of the material. no concentration noted.

19. Size: 18.5m. n-s; 14.5m. e-w 
20. Faces to (cardinal direction): west 

21. Depth & Character of Deposits: sandy and gravelly scree, soil development restricted to detritus buildup around vegetation, depth 1m. or less

22. Material Observed or Reported: 

23. Material Collected: flakes (unworked): 5 fine-grained quartz, 2 chalcedony, 2 chert, and 1 petrified wood (?) 

24. Condition: disturbed by road. Approx. 15% of the area defined by the (cont)

25. RECOMMENDATIONS: 

26. Photograph Nos: roll 1 #9-11 
27. Recorded By: Morris Anderson, Kris Kranzush 
28. Date: July 24, 1975

SEND TO — Office of the State Archaeologist 6- A Ketchum Hall University of Colorado Boulder, Colorado 80302
Map removed in an effort to protect sensitive cultural resources.

Directions to site:

From Colo. 14 (Poudre Canyon) turn right (north) on Manhattan Rd. Turn right (east) on Red Feather Lakes Rd. (approx. 10 mi) Continue for about 2 mi. to the Colo. St. Game and Fish Dept's fisheries experimental station at Parvin Lake. Turn left and continue around the north shore of the lake for 1.0 mi. Turn right (south) at intersection with two track road. 5LR449 is 150m. from intersection.
<table>
<thead>
<tr>
<th>ITEM No.</th>
<th>COMMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>gramma grasses, big sage brush, miner's candle, gaillardia, mountain ninebark, mountain ball cactus</td>
</tr>
<tr>
<td>24</td>
<td>distribution of the lithics is disturbed</td>
</tr>
</tbody>
</table>

Recorded by M. Anderson, K. Kranzush
Date: July 24, 1975
Remarks

See Reverse