HISTORIC LOGGING IN THE SIERRA MADRE MOUNTAINS OF SOUTHERN WYOMING: INVESTIGATIONS OF A HISTORIC LOGGING LANDSCAPE

by
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INTRODUCTION

The historic logging industry began operations in the Sierra Madre Mountains of southern Wyoming in the late 1800s. Logging companies supplied timbers for the booming copper and gold mines in the area, and hand hewn railroad ties for the Union Pacific Railroad Company (Bruce 1959; Grasso et al. 1981; Thybony et al. 1985). Today remains of historic logging camps can be found throughout the Sierra Madre Mountains in the Medicine Bow National Forest. These camps are remnants of historic landscapes developed for the purpose of intensive logging operations at the turn of the century.

The purpose of this paper is to present a historic context and preliminary research data for logging camps located along the East Fork Encampment River drainage in the Sierra Madre Mountains (Figure 1). Field data were collected over several seasons by archeological survey crews of the Medicine Bow National Forest (Laurent 1987; McKee and Rossman 1992).

One goal of the project was to investigate the distribution of critical resources including equipment, horse teams, transportation systems, and food for a large logging operation over a defined landscape. A second goal was to describe the variety of logging camp site types in the East Fork drainage. A third goal was to use preliminary data to target a representative sample of logging camps in the East Fork for more intensive sub-surface archaeological investigations.

HISTORIC CONTEXT

In 1900, Carbon Timber Company began logging operations along the East Fork Encampment River. A company camp was established in Hog Park which contained over 300 men in 1902 (*Grand* Encampment *Herald* 8/22/02). Logging crews established camps along the East Fork and associated drainages. Early loggers included civil war veterans and French-Canadian cutters. By the turn of the century, loggers tended to be northern Europeans, including large numbers of Swedes, Norwegians, Finns, and Austrians (Thybony et al. 1985:77). Timber sales were administered by the Dedral Forest Reserve which became the Medicine Bow National Forest in 1907.

Logging operations commenced each spring and continued through the winter. Hand cut railroad ties were floated to the North Platte River, then north to Fort Steele where they were retrieved at Carbon Timber Town, treated and shipped. Supplies for the logging camps were generally shipped from Fort Steele or Walcott Junction via freight wagon. Population centers in the North Platte valley at this time included Encampment to the south and Saratoga to the north (Figure 2).

Each spring, loggers were assigned cutting strips by Carbon Timber. Camps were established near these strips (Figure 3). To produce a tie, the logger would fell and limb a suitable lodgepole pine. A measuring rod was used to mark the log off in eight foot lengths. U.P. specifications called for ties to be eight feet in length and 7 by 7 inches in diameter. Specifications also demanded a tie have at least 5 inches of hewn surface on each side (Linn 1973:20-21, 30). A spud peeler was used to remove the bark from the tree. Each tie was then squared by hand

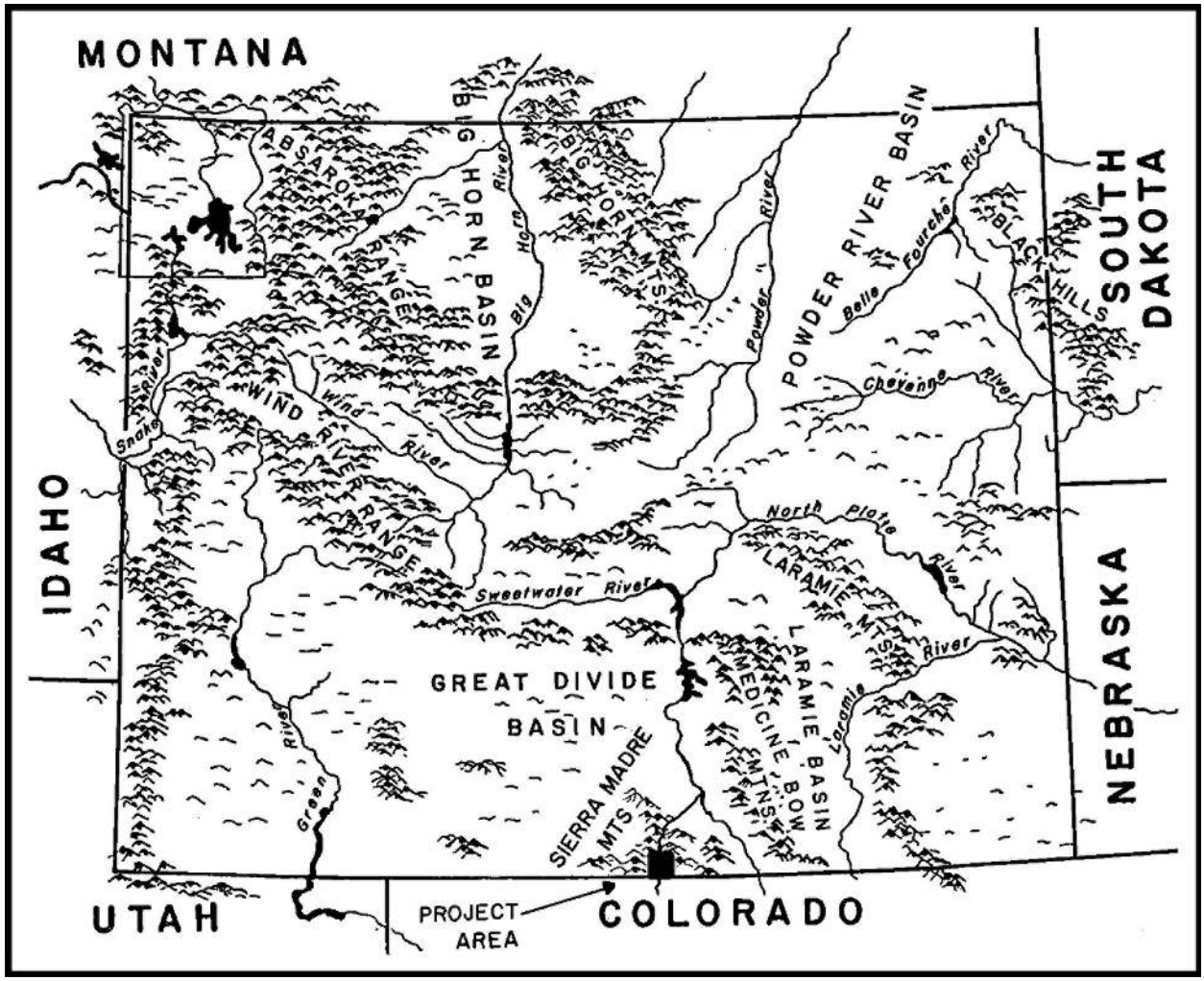

Figure 1: Location of the East Fork project area in the Sierra Madre Mountains of southern Wyoming.

using a broad axe (Figure 4). A pickaroon was used to move and handle the tie. Historic records suggest a skilled tie-hack could produce approximately 25 to 35 ties per day (Pinkerton: 1981; Thybony et al. 1985). Depending on the year, a tie-hack could receive between 7 cents and 25 cents per tie. Ties were then moved to docking yards along the tributaries of the East Fork Encampment River.

Ties were transported by teams of horses to central docking locations on river and stream banks (Figure 5). During the winter months horse drawn sleds were used (Figure 6). In rugged terrain, tie flumes were constructed and used to move ties (Figures 7 and 8). Completed ties were then driven down the Encampment and North Platte rivers in the spring as snow melted and filled the drainages (Figures 9 and 10). Splash dams (Figure 11) were constructed along major and minor tributaries to provide additional water volume for the drive. While logging was a hazardous occupation and weather conditions severe, particularly during the winter, the spring tie drive was the most dangerous aspect of logging operations with many injuries occurring.

The tie drive to Fort Fred Steele was conducted over several weeks and represented a lively social event for the valley. Family members and company employees followed the tie drive down the North Platte, establishing evening camps along the way. Wall tents were erected and large dutch ovens were set up to cook the evening meal for the tie-drivers. Many tie hacks stopped in Encampment or Saratoga to spend their hard earned wages on a variety of entertainments. Many placed their earnings in the bank, in hopes of bringing family over from Europe.

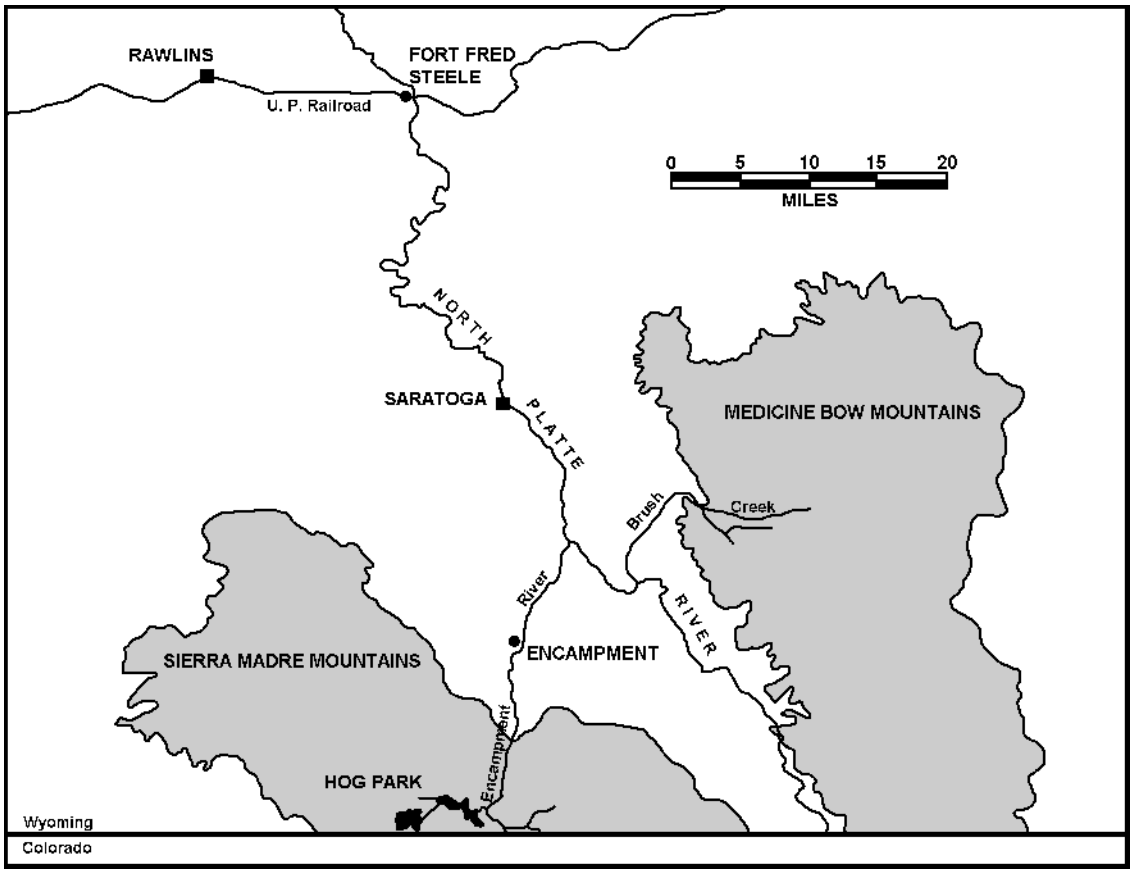

Figure 2: The Saratoga valley: a regional logging landscape.

Eventually the ties reached the tie boom at Carbon Timber town on the North Platte River (Figure 12). Ties were pulled from the river, treated and loaded for shipping. In 1902, Carbon Timber Company drove approximately 500,000 ties down the North Platte River to Fort Steele (Blackhall 1915:1). Remains of Carbon Timber's tie boom are still present across the river from Fort Fred Steele.

The operation at Fort Steele contained offices, a company store, sawmill, dwellings, and a box car door factory. Carbon Timber Company was in operation between 1989 and 1914. The company acquired the tie contract with the railroad through the McGrew family of Omaha, Nebraska who were stockholders in both Carbon Timber and the Union Pacific Railroad. Peak years for the company were between 1900 and 1906 when it had virtual control of the railroad tie supply between Cheyenne, Wyoming and Ogden, Utah (Potts 1914:3).

Fort Steele and Walcott Junction were primary rail stops for supplies and travelers to the area. To reach the logging camps in the Sierra Madre range, one traveled south by freight wagon or stage coach the 21 miles to Saratoga. During the second leg of the journey, one traveled another 18 miles south to Encampment.

The town of Encampment, named for the rendezvous of trappers and Native Americans during the early 1800s, has a rather colorful history. The town realized a boom period between 1880 and 1914. Large livestock ranching operations, particularly sheep outfits, entered the area in the 1880s. A copper and gold mine boom also occurred during this time. The Ferris-Haggerty Mine had its company offices in Encampment and constructed a 16 mile ore tramway from the mine to its smelter in Encampment. Carbon Timber Company was also at its peak at this time. The boom ended abruptly in 1914 when the Ferris-Haggerty mine and Carbon Timber Company both folded within six months of each other.

To reach the logging operations from Encamp-

Figure 3: Logging camp in the Sierra Madre Mountains, early 1900's. Photo courtesy of the Grand Encampment Museum, Encampment, Wyoming.

Figure 4: Tie-hack cutting tie with broad axe. Photo courtesy of the Grand Encampment Museum, Encampment, Wyoming.

Figure 5: Tie docking yard at the Devils Gate logging camp, Medicine Bow Mountains, early 1900's. Photo courtesy of the Grand Encampment Museun, Encampment, Wyoming.

Figure 6: Tie sled. Photo courtesy of the Grand Encampment Museum, Encampment, Wyoming.

ment, Carbon Timber constructed a road to Hog Park. The journey was usually two days in length, with an over-night stop at the half-way house where travelers could rest and fresh horse teams provided. On the second day, the traveler reached Carbon Timber's commissary camp in Hog Park. The settle-

Figure 7: Warm Springs Tie Flume near Dubois, Wyoming, early 1900's. Photo courtesy of the Grand Encampment Museum, Encampment, Wyoming.

Figure 8: Devils Gate Canyon Tie Flume, Medicine Bow Mountains, early 1900'2. Photo courtesy of the Grand Encampment Museum, Encampment, Wyoming.

ment contained company offices, a store, a slaughter house, and other dwellings (Figures 13 and 14).

The Hog Park settlement served as a primary economic and social activity center for livestock operators, miners, and loggers in the area. Large dances were held in the camp during holidays and for other events such as weddings. According to the diaries of Silvia Ethel Oxford (Encampment Museum Archives, n.d.), loggers would bring in their entire families for the dances. Depending on

Figure 9: Tie drive on Douglas Creek, Medicine Bow National Forest. Photo courtesy of the Grand Encampment Museum, Encampment, Wyoming.

Figure 10: Tie drive, early 1900's. Photo courtesy of the Grand Encampment Museum, Encampment, Wyoming.

the time of year, people would ride, ski, or take a horse pulled snow sled into town. Dances would last all night, with even the youngest children staying up for the entire affair. Ski jumping competitions were also held.

To reach the logging camps in the timber, one

Figure 11: Splash Dam on Muddy Creek, Medicine Bow Mountains, Early 1900's. Photo courtesy of the Grand Encampment Muesum, Encampment, Wyoming.

could walk up any drainage leading out of Hog Park. As discussed above, loggers were assigned individual strips to cut. Some tie-hacks established single residence camps along their assigned strips. Larger camps were established by families, or by company foremen who housed a number of tie hack crews in bunk houses.

Life in the tie camps was fairly rigorous and isolated. There are reports of influenza epidemics in several camps during this period between 1902 and 1912 (Medicine Bow Collection, n.d.). Winters in the Sierra Madre range were long and sometimes

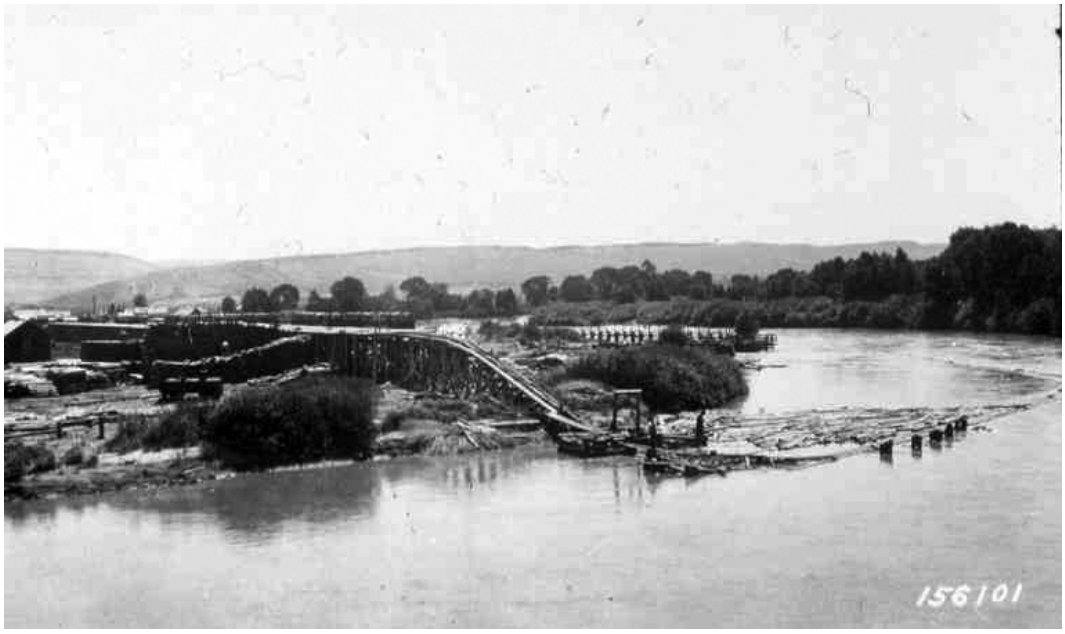

Figure 12: Carbon Timber Company tie boom on the North Platte River, early 1900's. Photo courtesy of the Grand Encampment Museum, Encampment, Wyoming.

Figure 13: Abandonded Hog Park Company Camp, Photo taken in the 1950's. Photo courtesy of the Grand Encampment Museum, Encampment, Wyoming.

harsh lasting from late October through March. Annual snowfall could reach 200 inches or more.

The fortunes of Carbon Timber Company began to decline after 1910 because of several economic and political factors (Thybony et al. 1985:67-68). Finally in 1915, the companies holdings were sold to Wyoming Timber Company which would dominate the regional logging industry into the 1950s.

The traditional tie hack era ended in the 1920s. Construction of modern road systems allowed companies to haul saw timber to portable gas or diesel powered sawmills. According to former ranger Louis Couglin, the first sale to extensively use vehicles was in 1924 (Medicine Bow Collection, n.d.).

Figure 14: Carbon Timber Company commisary store in Hog Park in 1906. Photo courtesy of the Grand Encampment Museum, Encampment, Wyoming,

The final step in the evolution of logging operations occurred in 1937 when R. R. Crow and Company hauled logs off Barrett Ridge to the sawmill site in Saratoga (Medicine Bow Collection, n.d.). During this transition period, tie hacks were still following traditional logging methods on a small scale. However, the era finally ended in 1940 when Union Pacific discontinued the use of hand-hewn, river driven ties. The last tie drive in the Medicine Bow Mountains was conducted on Douglas Creek in the spring of 1940 (Medicine Bow Collection, n.d.).

RESEARCH EMPHASIS

Today, remnants of Carbon Timber Company's historic logging camps can be found along the East Fork Encampment River drainage. Field inventories were conducted by the Medicine Bow National Forest in 1987, 1991, and 1992 for compliance purposes in response to proposed timber sales. At this time, data were collected to address several research questions, above and beyond basic compliance measures. The overall goal was an attempt to define the components of a historic landscape rather than provide a description of individual sites. An outcome of these endeavors was basic information on settlement patterns of historic logging operations.

One area of interest was the distribution of large and small tie hack camps over the landscape and the spatial relationship between these site types. In short, how did the work force settle over the landscape in an effort to maximize logging operations? Large camps would serve as distribution points for horse teams covering the drainage. Base camps might also serve as distribution points for food and other supplies over the course of the winter. Spatial analysis of camp types might articulate the placement of these "base camps" over the landscape and the manner in which critical resources such as horses, food and other supplies were distributed across the logging operation at large.

A second line of research was to investigate elements of social organization within individual camps. Historic literature paints a picture of the tie hack as a hark working, hard drinking bachelor. However a closer review of the historic literature does indicate the presence of women and children (families) in many of the tie camps (Figure 15). Artifact recording in conjunction with spatial data can provide initial information on the number and location of family camps.

Preliminary investigations suggested certain camps contained bunk houses and communal kitch-

Figure 15: Family in tie-hack camp, early 1900's. Sierra Madre Mountains. Photo courtesy of the Grand Encampment Museum, Encampment, Wyoming.

ens. Other camps did not contain evidence of communal structures. These camps, tentatively labeled single habitation or "satellite" camps, contained small cabins which could have housed individuals, family units, or small groups of two to four men. Evidence of communal activities suggests a different level of organization and camp leadership. Although cutters in communal camps may have worked independently each day, certain activities such as eating, sleeping, camp provisioning, and work schedules may have been supervised by a company foreman or sub-contractor. A higher level of supervision would also have been needed if the communal camp was serving as a locus for horse teams and supplies for the drainage.

Finally, there is evidence of skilled labor in the communal camps, specifically blacksmiths who constructed and maintained tie sleds, horse harnesses and other logging tools. Centrally located blacksmith shops, in association with horse teams, would have also been a key element to a successful logging operation.

DATA COLLECTION

Data collection was initiated in three phases. First, through county records searches, we were able to identify areas of logging activity. One common practice of the era was acquisition of forested land through fraudulent use of the Stone and Timber Act of 1878. Initially the act was intended for building, mining, or other domestic purposes. Under the guise of this act, Carbon Timber employees filed on 160 acre plots of land, then subsequently turn the land over to the company for logging. It was customary for employees to receive up to $100 for their "land" from the company. These transactions can be documented through the county land records. In the East Fork drainage, these land transactions reached a peak between 1904 and 1906 (Figure 16). Another useful piece of information from this record was the names of individual cutters who worked in the area for Carbon Timber.

In the second phase of the project, logging camps and the associated trail systems were located and mapped through use of the Global Positioning System (GPS). Use of the GPS system allowed accurate locational mapping. This system also allowed us the opportunity to integrate locational data with

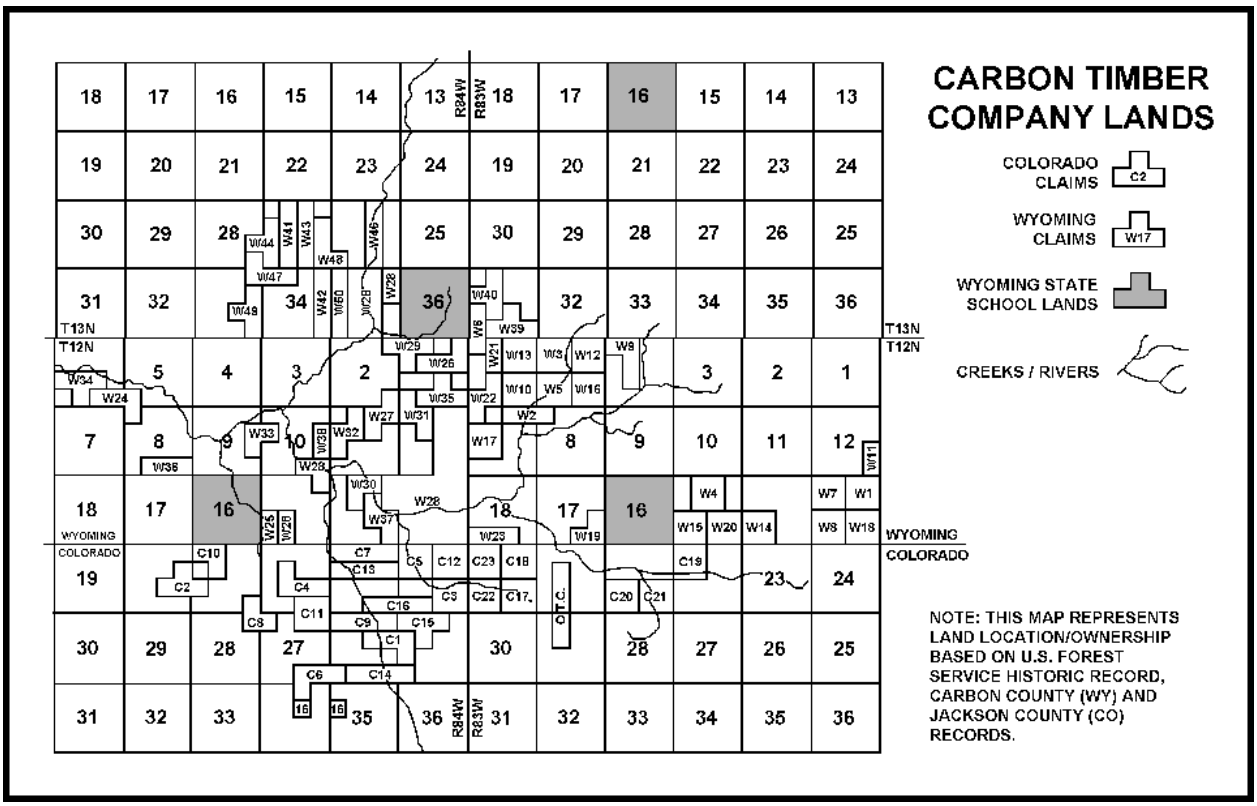

Figure 16: Land transaction plat for the Carbon Timber Company timbr sale area, 1902-1912, East Fork Encampment River drainage, Medicine Bow National Forest.

artifact data to study settlement patters.

In a third phase, intensive artifact and structure recording was conducted at each site. General artifact categories were established and numbers of artifact were counted. Dimensions of each structure were taken. A special emphasis was placed on trying to identify structure function.

For instance, horse barns contained remnants of hay bins, salt boxes and stalls. Bunk houses contained numerous bed platforms. Architectural features such as corner notching style, roof design, door width, and interior wall treatment were also noted in an attempt to define structure function by architectural characteristics. During artifact recording procedures, all surface artifacts were recorded. In addition, artifacts were counted within a two meter radius of each structure in an attempt to further define structure function. For instance, large amounts of ceramics concentrated around a large multi-room or multi-door structure may indicate the structure served as a communal mess hall.

In summary, integration of architectural, artifact, and locational data can provide some preliminary data concerning the distribution of people and resources over the East Fork drainage during historic logging operations.

ARCHITECTURE AND INFERENCES OF FUNCTION

The architectural style used in logging camps can generally be described as "vernacular rustic." A typical cabin featured peeled or unpeeled log walls with saddle or V notched corners. The low pitched gabled roofs were constructed with a single ridgepole and rough cut wood slats. More intricate roofs featured two or four ridgepole systems and double sets of wood slats. The air space between double slat roofs was generally filled with dirt and rock for insulation.

Residence cabins commonly contain one or two windows in addition to a single door. A number of cabins, identified in other studies as "Rocky Mountain Style" cabins (Wilson 1984), also feature extended porches (Figure 17). The interiors of residence cabins usually contain shelving and

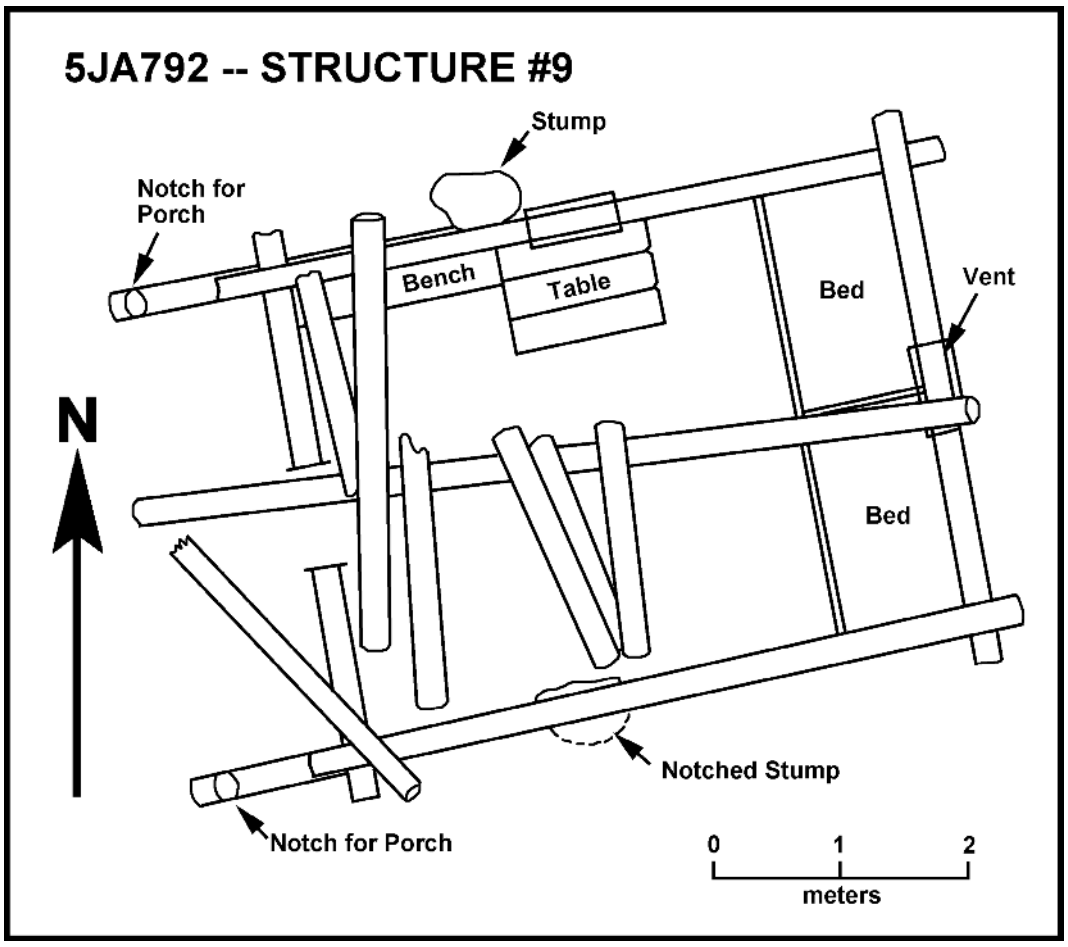

Figure 17: Plan view of structure #9, residence cabin; site 48CR5300/5JA792.

one or more bed platforms built along the walls (Figure 18) In many cases interior walls were axe hewn and at times covered with canvas material or newspaper. Non-residence cabins, such as kitchens (Figure 19) or bunkhouses were usually larger, contained multiple doors and windows, and additional furniture. Barns (Figure 20) are typically of rougher construction, containing wider doors and associated salt boxes and hay bins. Special use cabins such as blacksmith shops also tend to exhibit a rougher construction style and are typically smaller than habitation structures.

Preliminary data suggest structures with different functions may fall into rough size categories (Figure 21). Measurements were taken of log structures in the East Fork drainage. Structure function was inferred from interior furniture, architectural features, and the associated artifacts found in and within a two meter radius of each building. Measurements indicate habitation structures were generally between six and 25 square meters in size. Workshops or blacksmith shops tend to be smaller, between four and 15 square meters in size. Kitchens, bunkhouses, and barns tend to be larger. This preliminary analysis of function may be useful for targeting a range of different building types for sub-surface investigations. Additional sub-surface investigations may also support or refute inferences of structure function based on architectural and size observations.

ARTIFACT COUNTS AND ARTIFACT CATEGORIES

In future analyses, consideration of artifact information can shed light on the diet and basic subsistence strategies employed within the tie hack camps. Detailed artifact analyses can also illuminate facts of the financial operations of a turn of the century logging operation including potential costs for tools and the basic critical need for maintaining horse teams and associated livery. Gross artifact

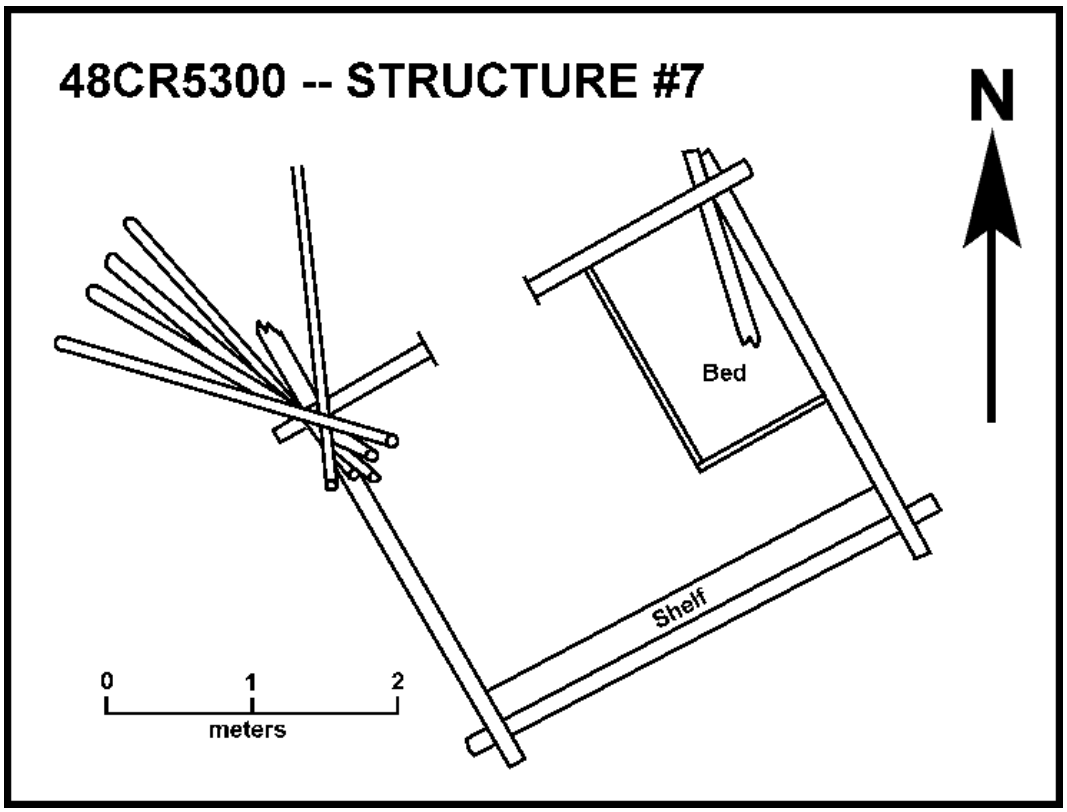

Figure 18: Plan view of structure #7, residence cabin; site 48CR5300/5JA792.

counts and artifact category counts may also suggest what percentage of income was spent on non-essential items such as liquor, tobacco, fine china, and childrens toys.

Surface artifact counts can initially identify sites which exhibit high research potential. Sites with large and diverse artifact assemblages should be targeted for sub-surface investigations. Information regarding the provisioning of large company crews, job specialization such as blacksmithing, and the presence of families can be gleaned from such investigations. Small single habitation or satellite camps, by their nature, will have relatively small artifact assemblages. Therefore artifact class counts were use to identify assemblage diversity. In this manner, small satellite camps, with small, yet diverse assemblages can also be targeted for further investigation. Including smaller sites in further investigations is critical to understanding the dynamics of settlement in a historic landscape.

In this study of the East Fork sites, surface artifacts were recorded and counted. In addition, 56 artifact categories were defined and the number of categories represented in each site assemblage documented. Examples of artifacts categories would include: wagon parts, clothing, livery gear, logging tools, liquor bottles, patent medicine bottles, veterinarian medicine bottles, cooking utensils, plain ceramics, fine china, tobacco containers, condiment bottles, various sizes of food cans, crockery, ammunition, faunal remains, childrens toys, coins, etc.

Results of artifact and artifact category counts are illustrated for large multi-structure sites (Figure 22) and for small single structure (residence cabin) sites (Figure 23). The count of artifact categories represented in an assemblage is identified or labeled as the "artifact diversity index." Taken together, a direct relationship between the size of an assemblage and the number of artifact categories represented is also present (Figures 22 and 23). However our goal was to identify small site assemblages with diverse or rich assemblages based on the number of artifact categories. By considering large and small sites as separate groups, we suggest future analyses might not be heavily biased toward only a few site types (i.e., larger communal camps)and small single

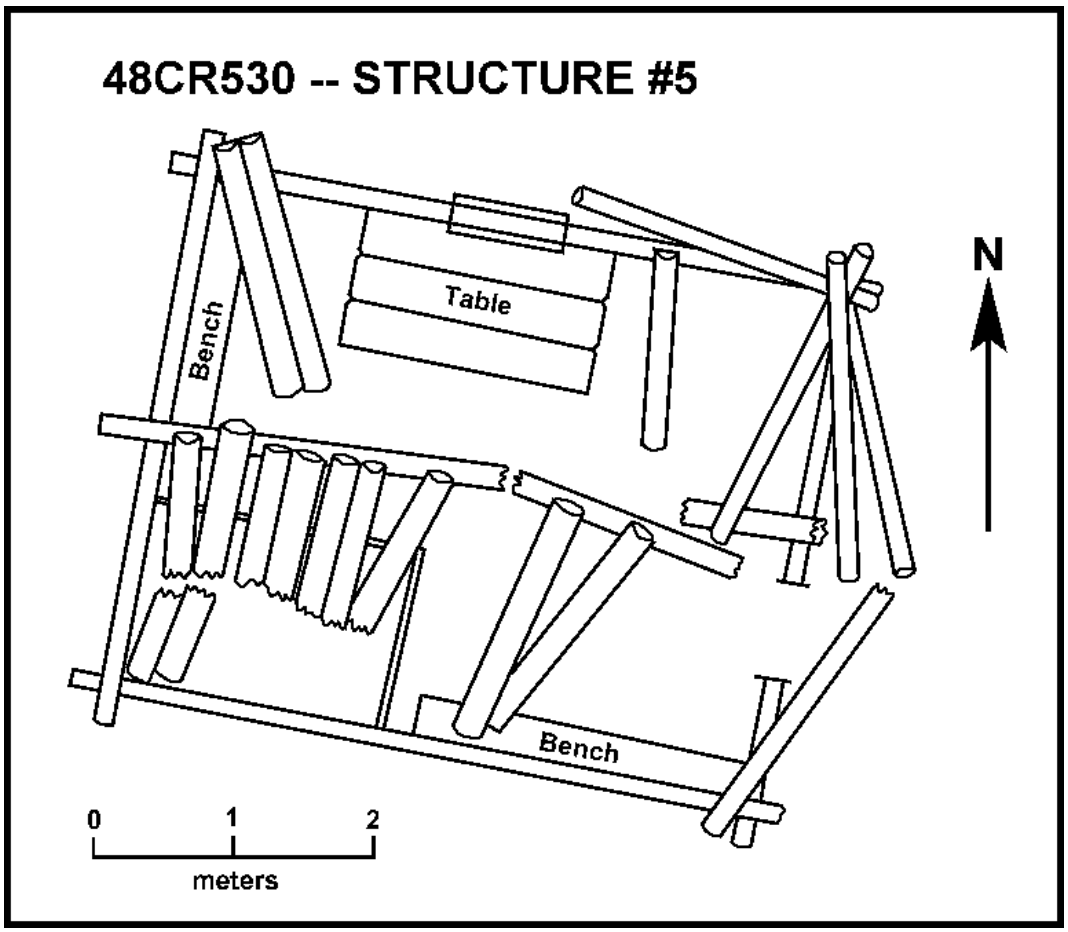

Figure 19: Planview, structure #5, kitchen; site 48CR5300/5JA792.

structure camps with both high artifact and artifact category counts can be targeted for sub-surface investigations and analysis.

Thee artifact counts were also used to support the evaluations of the logging camps for eligibility to the National Register of Historic Places as part of Forest Service management of cultural resources for Section 106 compliance measures. This is not to infer sites with small artifact assemblages do not have research potential in regards to the larger historic logging landscape within an academic setting.

One critical point to make is a detailed documentation of artifacts on the site surface does not necessarily document the extent or research value of sub-surface deposits. Sites setting, amount of soil deposition, illegal artifact looting, and site formation processes such as seasonal flooding contribute to the potential for, and relative integrity of, sub-surface assemblages. A comprehensive site testing program can provide additional focus for research efforts for sites on the East Fork drainage.

In summary, intensive documentation of architectural features and associated surface artifact assemblages can be used to characterize the variability of site types within the East Fork Encampment River drainage and provide some initial view of research potential for these sites to current and future researchers for more intensive investigations concerning settlement and subsistence within the historic logging landscape.

THE EAST FORK ENCAMPMENT RIVER DRAINAGE: A GLIMPSE OF A HISTORIC LANDSCAPE

Field investigations resulted in the recording of 46 historic logging sites and associated trail systems within the Medicine Bow National Forest Tie Camp Analysis Area (Figure 24). Several gen-

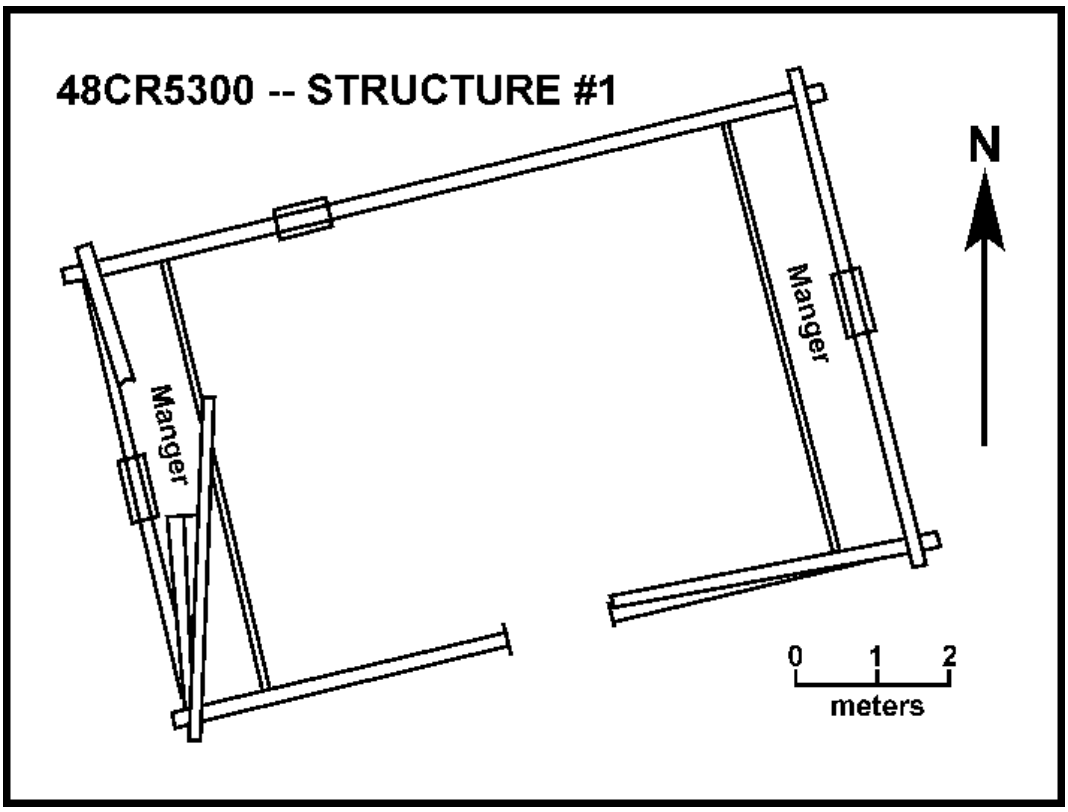

Figure 20: Plan view structure #1, barn; site 48CR5300/5JA792.

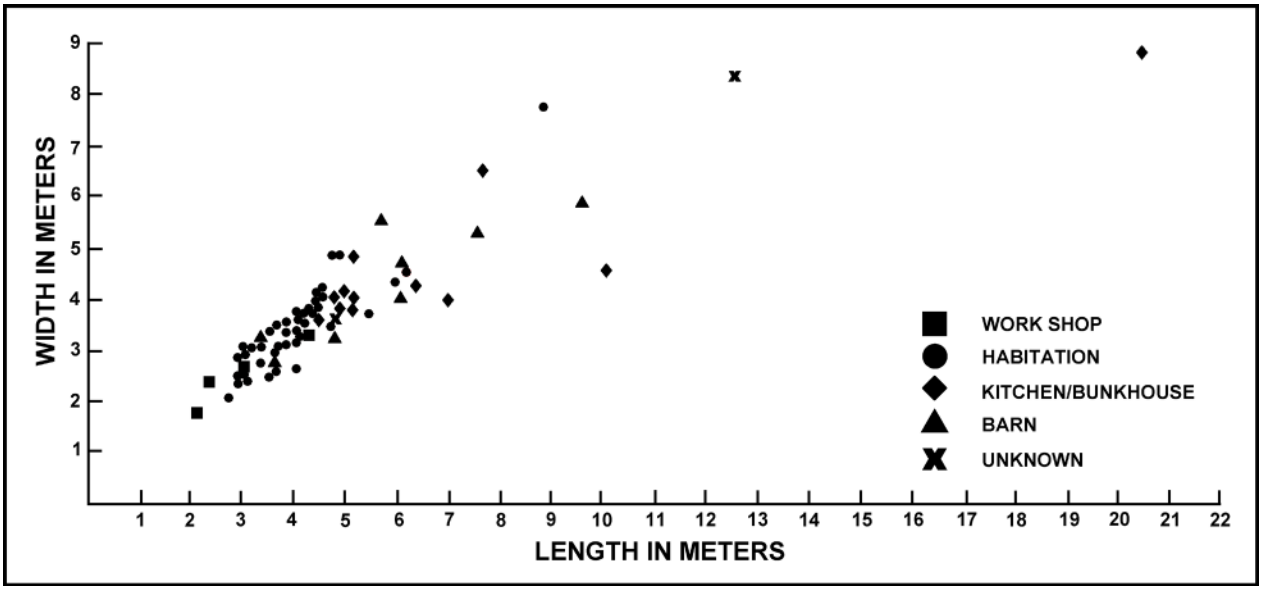

Figure 21: Scatter plot of log structures from tie-hack camps showing dimentions and inferred function.

eral trends or characteristics for this set of logging sites were noted.

Elevation ranges for the tie hack camps were computed. All 46 camps within the East Fork drainage were between 8400 feet and 9600 feet (Figure 25). The general elevation range of settlement was expected as this is also the elevation range for lodgepole pine in the area. Most of the larger multiple structure sites occurred at the lower elevations, however the two largest sites did occur

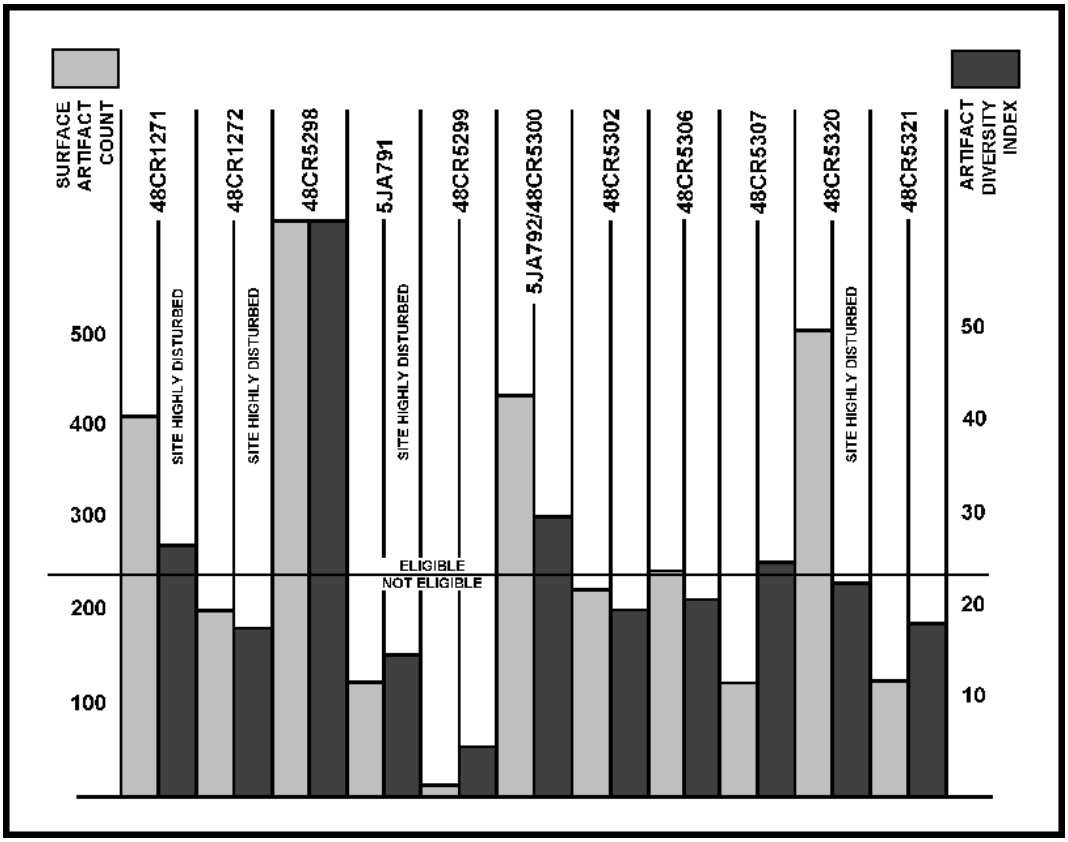

Figure 22: Individual artifact and artifact category counts for multiple structure sites.

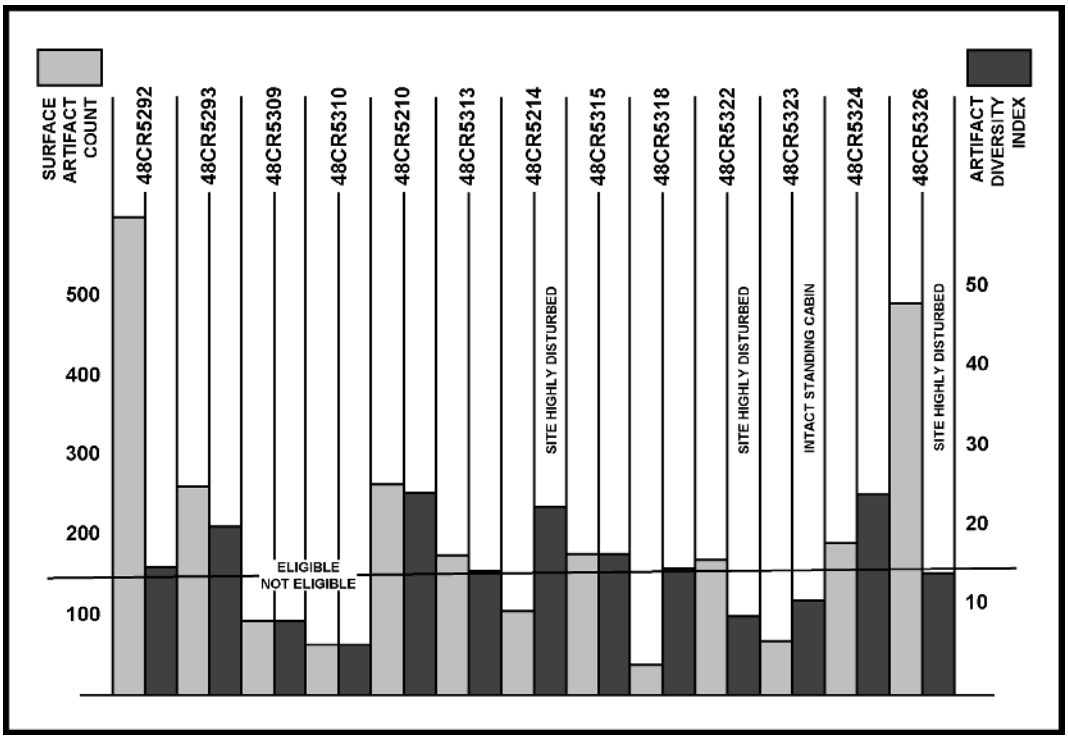

Figure 23: Individual artifact and artifact category counts for single cabin sites.

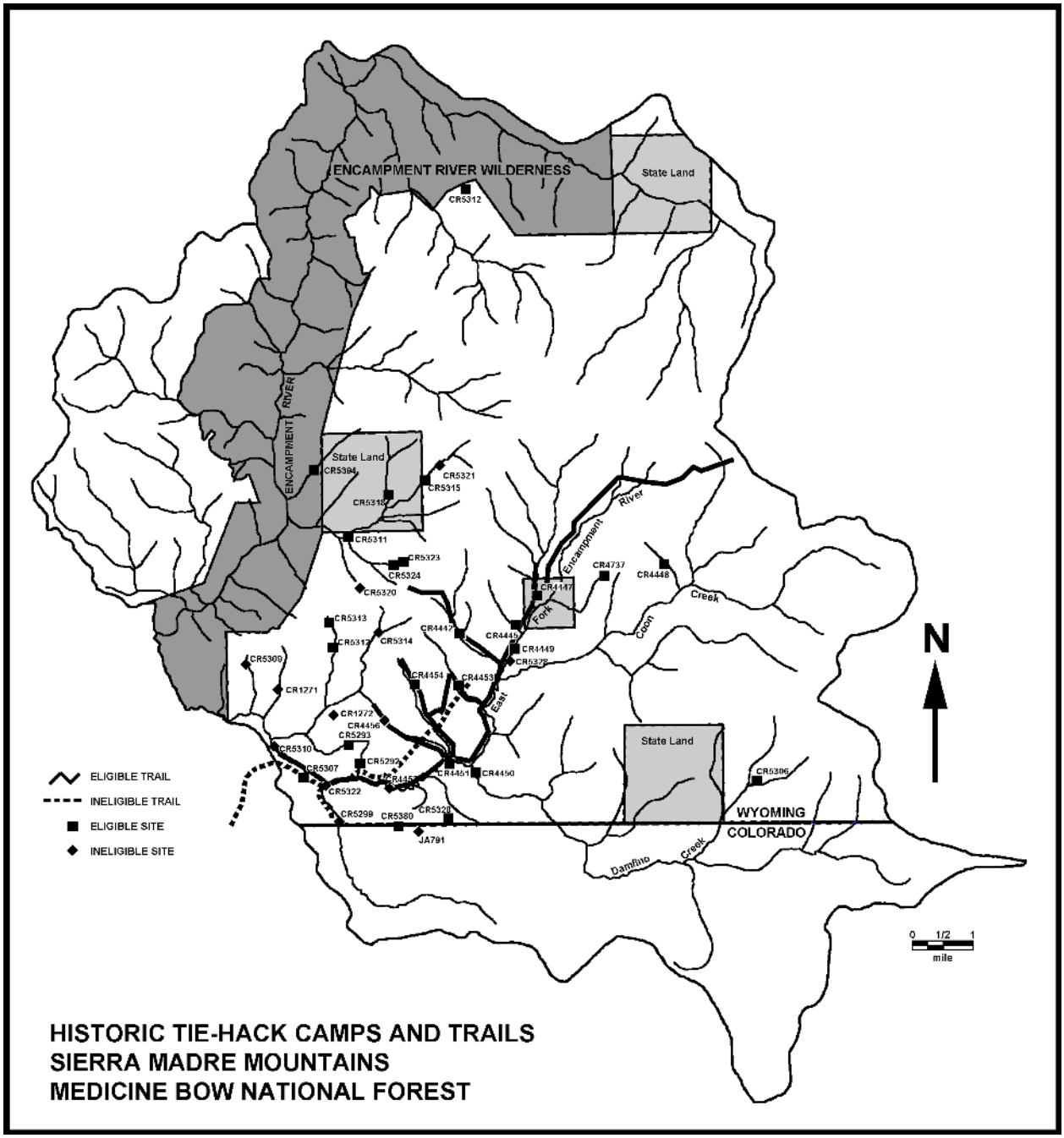

Figure 24: Historic logging camps and associated trail systems. Site 48CR4443 is a Historic telephone line.

above 9400 feet. In short, the logging camps tend to be mapped on the critical resource, in this case stands of lodgepole pine as opposed to ponderosa pine at lower elevations or spruce and fir stands at higher elevations.

It is interesting to note that no logging camps were found north of Dudley Creek in the Tie Camp Analysis area. There may be at least three reasons for the absence of logging sites in this area. First, the country in this area is steeper and rougher making logging more difficult. Second, Carbon Timber Company may not have had an opportunity to move into this area before its demise in 1914. Third, fire histories for the area suggest the northern portion of the analysis area was subject to wildfires in the mid 1800s. The regenerating stands of lodgepole north

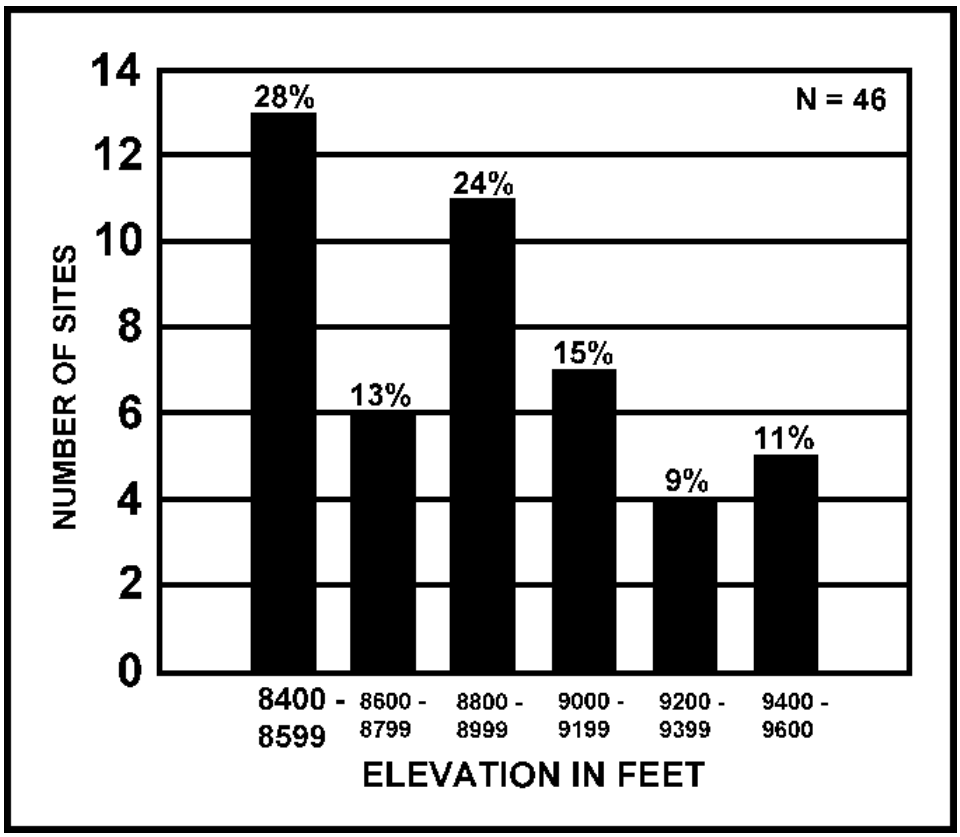

Figure 25: Elevation of logging camps in the East Fork Encampment River drainage.

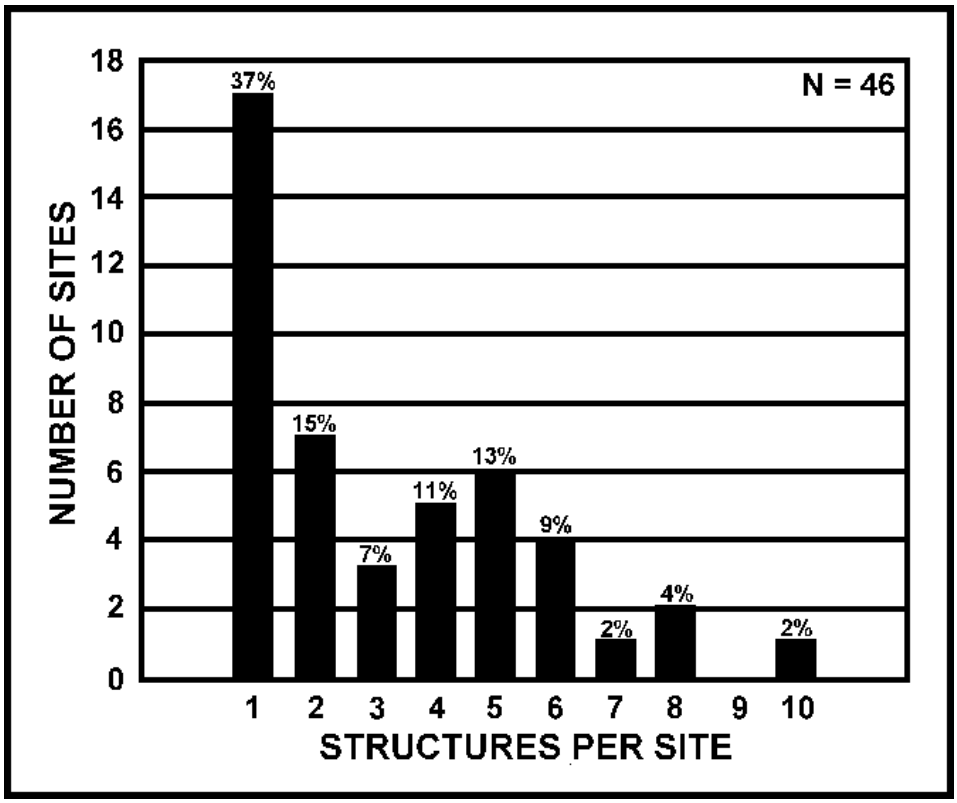

Figure 26: Number of structures per site.

of Dudley Creek may not have been of suitable saw timber size when Carbon Timber Company moved into the East Fork area in 1902.

Within the sample set of sites, 37% were identified as single structure sites. Fifty-five percent of the remaining sites contained between two and six structures. The remaining 8% of sites contained 7, 8, and ten structures (Figure 26).

Sites were identified by inferred social organization or function (Figure 27). Individual habitation or satellite camps were defined as those camps containing no evidence of bunk houses, or communal mess halls. These sites, which could contain one or more cabins with one or more resident per structure, represented 59% of the site sample. Communal camps were defined through evidence of bunkhouses and/or communal mess halls, suggesting a different pattern of social organization (i.e. a leadership hierarchy). Communal camps containing evidence of horse teams represented 30% of the site sample. Communal camps containing no evidence of horse teams represented 4% of the site sample.

Finally, 7% of the site sample was identified as multi-function communal camps. These camps contained evidence of blacksmith shops, horse teams, and other communal buildings. In terms of settlement patterns, three data characteristics were pursued: first, the number and location of single structure verses multiple structure sites; second, the number and location of sites containing horses barns; and third, the number and location for sites containing evidence of women, and children. Defining characteristics included women's and children's shoes and clothing, and children's toys.

In general, the multiple structure camps tended to contain horse barns and some evidence of families (Figures 28 through 30). It is likely sub-contractors or company foremen inhabited the larger camps. These men would have been responsible for logistics such as distribution of supplies and coverage of the area by horse teams. A central location of supervision and resources would provide for the most efficient logging operation. I would also suggest supervisory personnel would be the most likely individuals to have family members in camp.

It is possible the strategic placement of horses teams within the East Fork drainage was one key to an efficient and successful large scale logging operation. The teams along with attendant drivers and/or blacksmiths provided the critical link in moving finished railroad ties from the timbered slopes to the creeks and rivers for final transport to the railroad. A simple nearest neighbor analysis was conducted for the logging sites containing horse barns. The analysis showed average nearest distance between horse barn sites was 0.73 miles. Without considering critical factors such as topography and location of suitable lodgepole stands, it is possible individual horse teams were supporting loggers over an area roughly 0.5 to 1.5 square miles in size.

SUMMARY

Intensive mapping and site recording procedures were used to describe a set of historic logging camps along the East Fork Encampment River drainage on the Medicine Bow National Forest. Logging camps associated with Carbon Timber Company's operations can be categorized into two

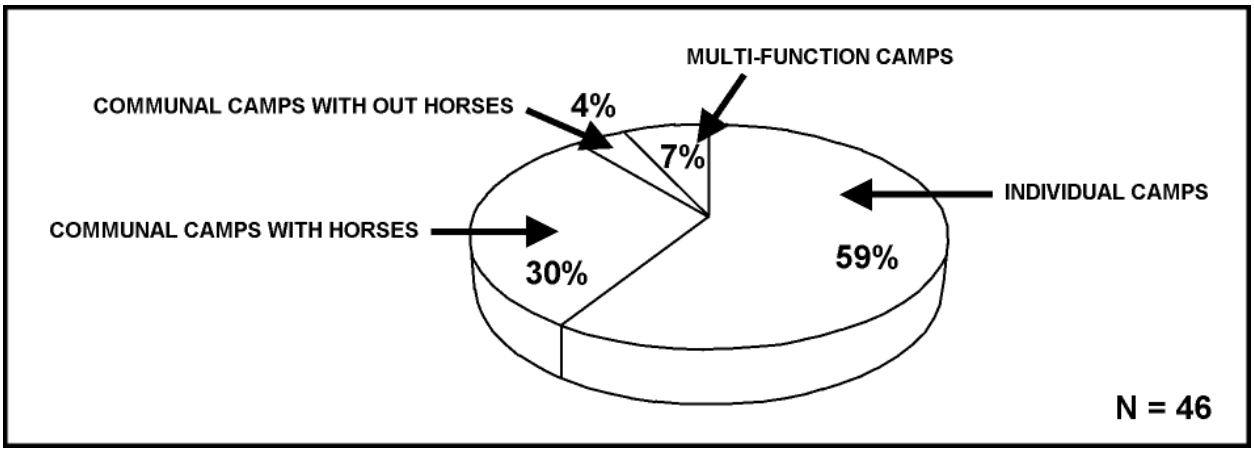

Figure 27: Logging camp site types within the East Fork Encampment River Drainage.

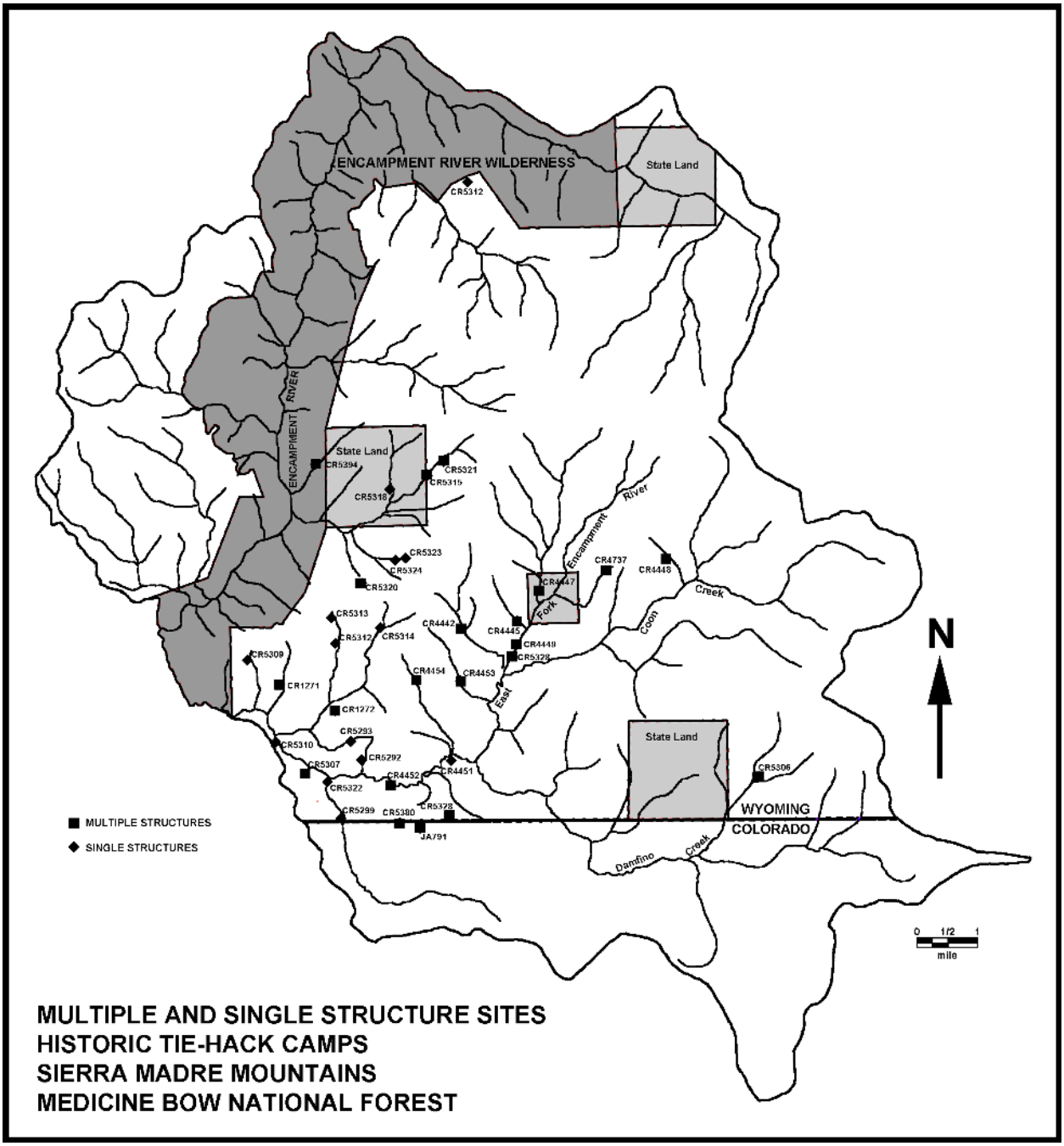

Figure 28: Site distribution by single and multiple structure camps.

basic sites types including communal and satellite camps. A trail system linking these sites together provides the framework for the historic landscape. Communal camps may have served as distribution centers for critical resources such as horse teams and supplies. An analysis of artifacts suggests the presence of women and/or children in a number of camps. Preliminary spatial analyses suggest communal camps were centrally located within a group of satellite camps to maximize resource distribution and enhance efficiency of logging operations within the larger East Fork drainage. The data provide a picture of an organized resource extraction industry located in a rugged and rural environmental setting.

Several notes of caution must be articulated at this point. First, analyses conducted here follow a

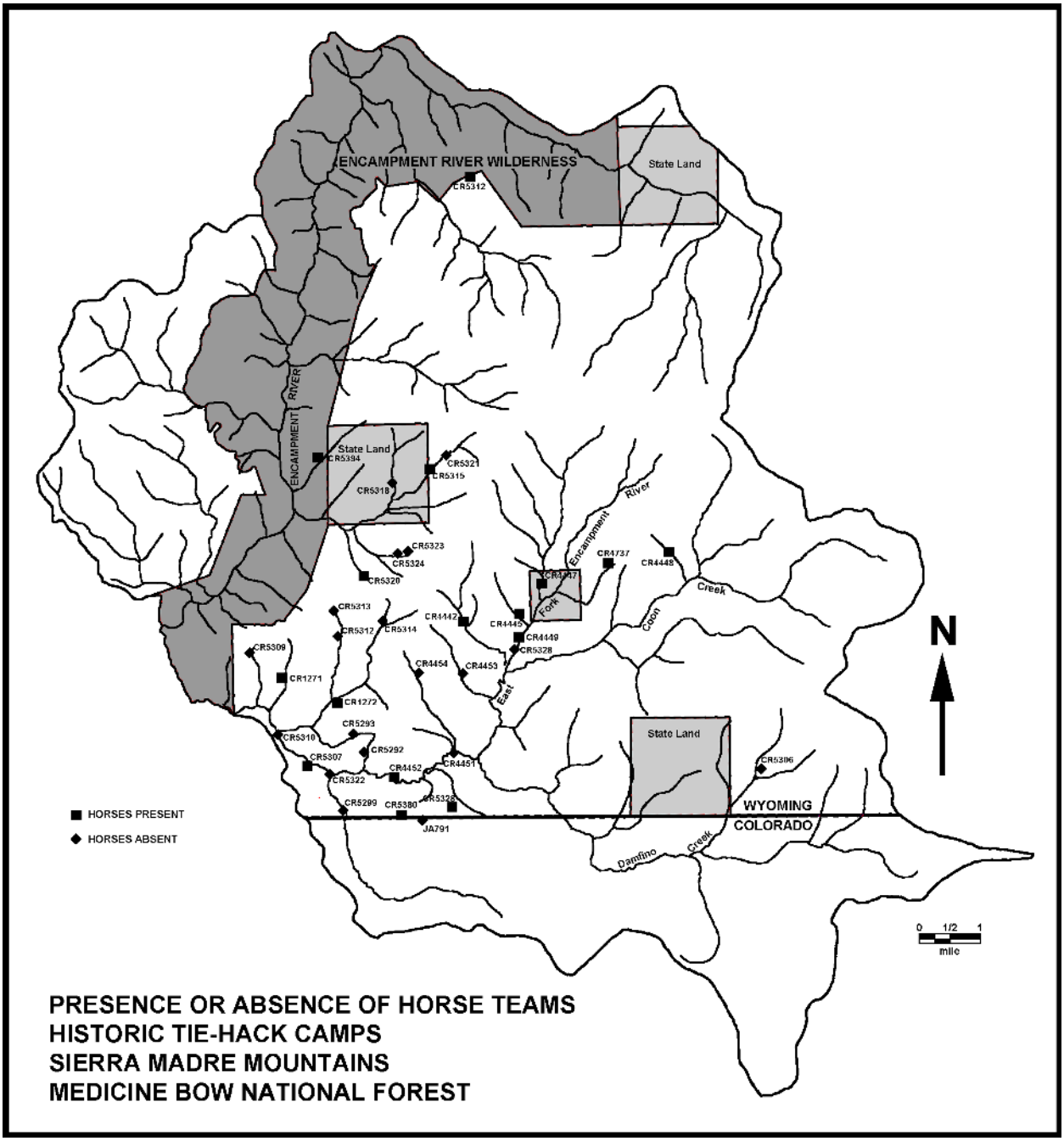

Figure 29: Site distribution by the presence or absence of horse barns.

premise historic logging camp settlement in the East Fork drainage would be patterned. These patterns are a response to a need to distribute and extract resources in an economically efficient manner under somewhat severe topographic and climatic conditions. A goal of future research should include hypotheses to test this basic premise. Several inferences on camp function and social organization have been made on the basis of surface artifact and architectural data. Systematic sub-surface investigations within the framework of a more detailed research design are needed to test interpretations presented in this paper.

The author would like to sincerely thank Chris Finely, Susan McKee, and Ray Rossman for serv-

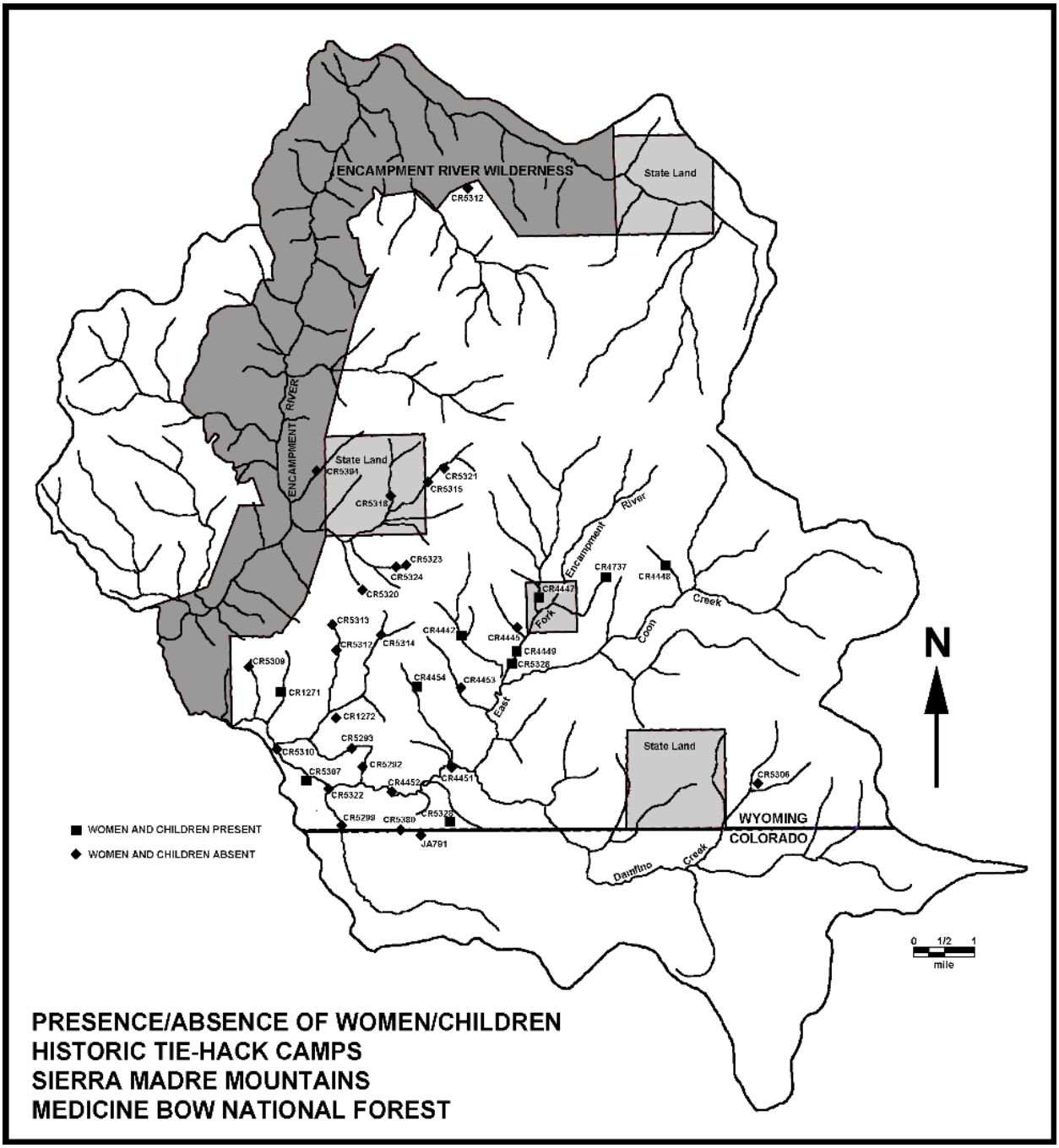

Figure 30: Site distribution by artifact categories indicating the presence or absence of women and children.

ing on the summer field crew and collecting field data. I would also like to thank District Ranger Don Carroll, the District Ranger in 1992, who allowed and encouraged his staff to do a professional job.

REFERENCES CITED

Blackhall, James

1915 Hayden Information. Manuscript on file, Medicine Bow National Forest Collection, American Heritage Center,University of Wyoming, Laramie, Wyoming.

Bruce, Robert K.
1959 History of the Medicine Bow National Forest 1902-1910. Unpublished master's thesis, Department of History, University of Wyoming, Laramie, Wyoming.

Encampment Museum Archives.
n.d. A collection of diaries, letters, and photographs. Encampment Museum, Encampment, Wyoming.

Grasso, Dennis N., Steve Lau, Scott Thybony, and Robert Rosenberg.
1981 Cultural Resource Overview: Medicine Bow National Forest, Including the Thunder Basin National Grasslands. Prepared for USDA-Forest Service by High Plains Consultants, Inc., Laramie, Wyoming.

Laurent, Ricky
1987 Cultural Resource Survey of the Coon Creek Pilot Project. Hayden Ranger District, Medicine Bow National Forest, Encampment, Wyoming. Ms on file, Forest Supervisors office, Laramie, Wyoming

Linn, George B.
1973 The Tie Drivers of the Twenties. "*In Wyoming*", April/May.

McKee, Dave F. and Ray Rossman
1992 A Cultural Resource Inventory Report for the Tie Camp Timber Sale (MB-04-91-21). Prepared for the Hayden Ranger District, Medicine Bow National Forest, Carbon County, Wyoming.

Medicine Bow National Forest Collection.
n.d. Account Number 3654, American Heritage Center, University of Wyoming, Laramie, Wyoming.

Pinkerton, Joan Trego
1981 *Knights of the Broadaxe*. The Caxton Printers Ltd.: Caldwell, Idaho.

Potts, J. M.
1912 Memorandum covering the past history, present organization, and probable future Of the Carbon Timber Company. Manuscript on file, Medicine Bow National Forest Collection, American Heritage Center, University of Wyoming, Laramie, Wyoming.

Thybony, Scott, Robert G. Rosenburg and Elizabeth Mullett Rosenburg
1985 *The Medicine Bows: Wyoming's Mountain Country*. The Caxton Printers, Ltd., Caldwell, Idaho.

Wilson, Mary
1984 Log Cabin Studies. *USDA -- Forest Service. Intermountain Region. Cultural Resource Report* 9.

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