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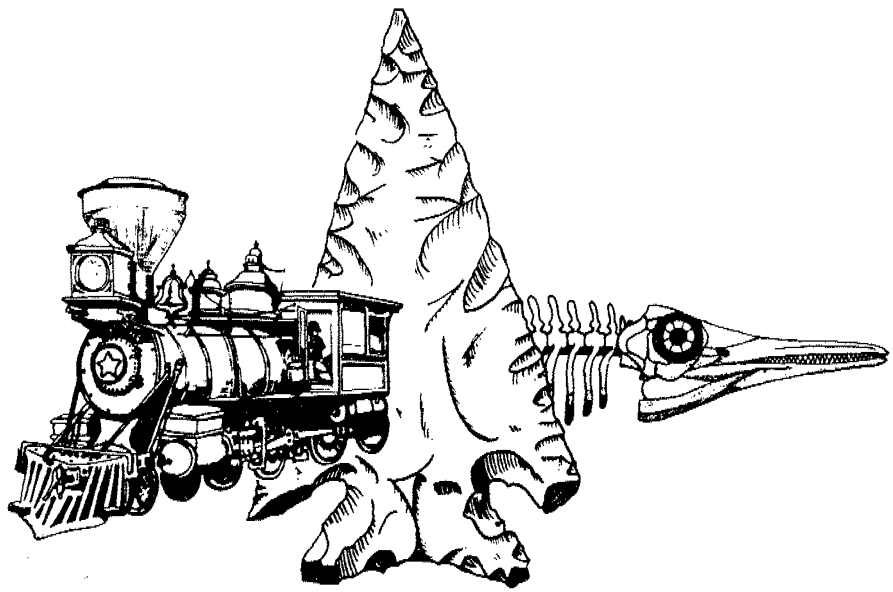

ARCHAEOLOGICAL STUDIES IN THE CORTEZ MINING DISTRICT, 1981
TECHNICAL REPORT NO. 8

THE HISTORY AND ARCHAEOLOGY OF FENELON, A HISTORIC RAILROAD CAMP
TECHNICAL REPORT NO. 9

RENO, NEVADA 1982

THE HISTORY AND ARCHAEOLOGY OF

FENELON

A HISTORIC RAILROAD CAMP

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ABSTRACT

An intensive archival search and field analysis was conducted on the historical railroad site of Fenelon, Nevada. The primary goal is to evaluate the cultural integrity and significance of the property in terms of its eligibility for inclusion in the National Register of Historic Places. Requisite to this evaluation, Fenelon's role in the regional patterns of history is explored and the archaeological remains of the site are described.

ACKNOWLEDGEMENTS

The Intermountain Research staff involved in this project include Robert Elston, Principal Investigator; Arnie Turner, Project Archaeologist; Charles Zeier and Jane Russell Armstrong, Field Assistants. Turner and Zeier prepared the map and Armstrong conducted field identification and description of the historical artifacts. Steven James did some of the preliminary footwork; Susan Stornetta researched the Nevada State Herald, census records, and tax roles located in Elko, Nevada. Cashion Callaway provided management expertise and Eleanor Curtis entered the manuscript into the computer.

Sharon Edaburn, Director of the Churchill County Museum, visited the site and made numerous helpful comments regarding the relationship of the major features associated with the railroad. Edaburn contacted a number of railroad specialists and used comparative collections at the museum to provide additional descriptive information. The Churchill County Museum furnished a 1940 photograph of Fenelon. Both Edaburn and Armstrong contributed greatly to the descriptive data in Section 4.

The staff of the California State Railroad Museum, the Nevada State Library, the Nevada Historical Society, and Special Collections at the University of Nevada were extremely helpful in digging out the bits and pieces concerning Fenelon and Otego and their relationship to the railroad.

Ted J. Longseth of the Southern Pacific Land Office in Reno was helpful in discussing the current situation regarding Southern Pacific records. Bill Robertson, Southern Pacific Historian in the San Francisco Public Relations Office, generously gave of his time to research old records and provided the 1913 photograph of Fenelon.

We would like to thank the following people (contacted by Edaburn) for their comments and assistance:

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Appendix I

Appendix II

1.0 INTRODUCTION

Intermountain Research has been retained by Sun Exploration Company to conduct an archival and archaeological investigation of the historical railroad station of Fenelon in Elko County, Nevada. Fenelon is located along the Southern Pacific Railroad east of Wells (see Map). The archive search was conducted between April 26 and May 7, 1982, and the field work was done on May 11 and 12, 1982.

Fenelon has suffered continual and gradual depradation primarily from vandalism and secondarily from road construction. Projected increase in traffic around and across the site may accelerate these kinds of disturbance. Therefore, the Elko District of the Bureau of Land Management requires a determination of significance for Fenelon as a cultural resource. This is an essential step in management decisions regarding its future.

Federal concern for cultural resources is mandated by the National Historic Preservation Act of 1966 (as amended) and Executive Order 11593, as implemented by 36CFR800 and supplementary Advisory Council Guidelines. Legislation and regulations regarding cultural resources specify a step-by-step procedure for their consideration in the planning process. These steps are: 1) identification of the resource; 2) evaluation of its significance; 3) determination of project impacts on significant resources; and, as appropriate, 4) development and implementation of either a protection, data recovery, or mitigation plan. The second step in this process is of concern in this report.

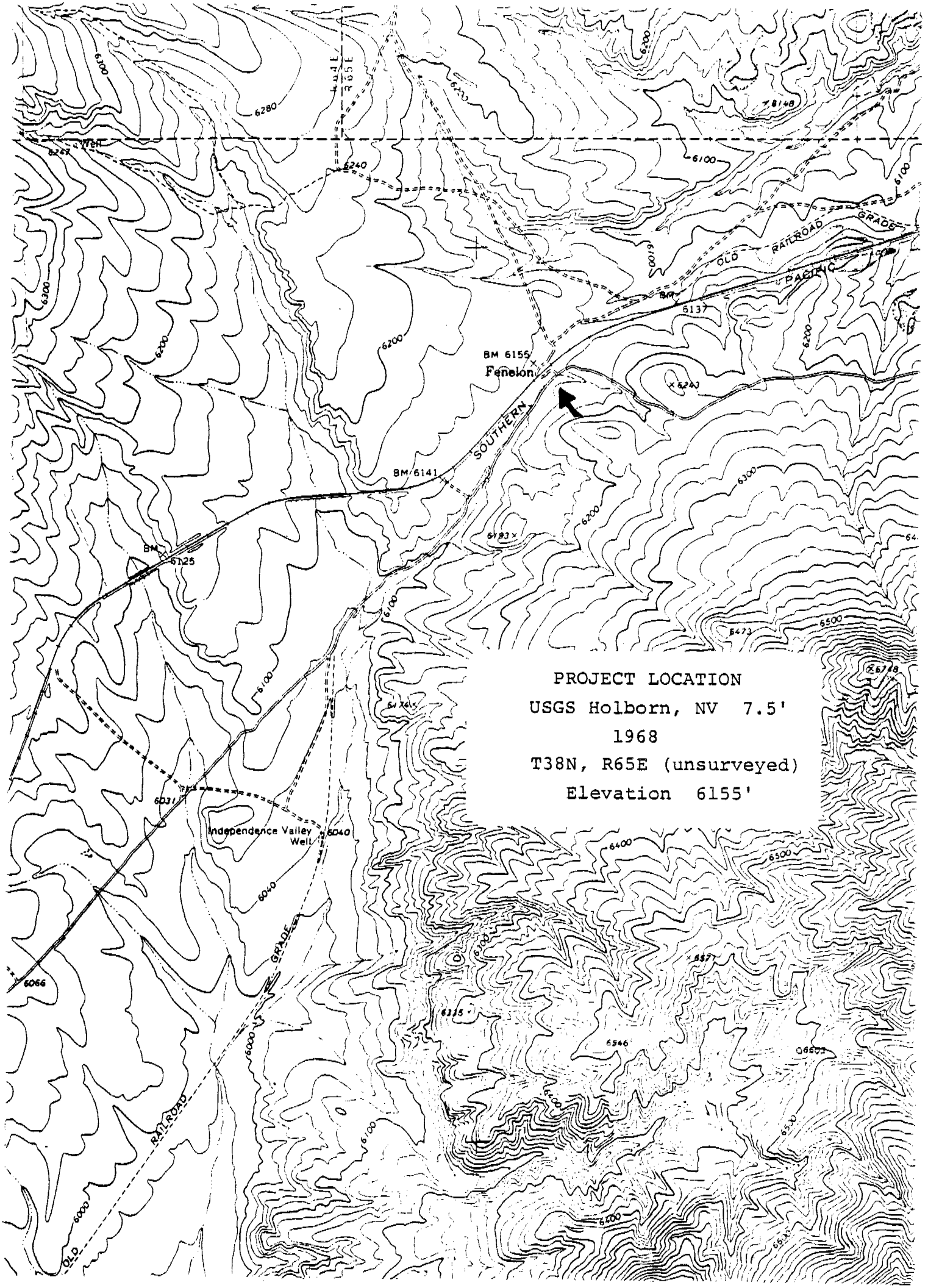
Fenelon has been identified by the Elko District, Bureau of Land Management, as a potentially significant resource. The BLM has recommended that Fenelon be examined in order to determine its eligibility to the National Register of Historic Places. Requisite to the recommendation for a determination of eligibility has been a thorough archives search to document Fenelon's history and its role as viewed from a regional perspective in addition to intensive field analysis and mapping of the site.

Prior to beginning this project, four research objectives were formulated to guide the investigation.

1) What role did Fenelon play in the regional operations of the first Central Pacific (CP) and later Southern Pacific (SP) Railroads?

2) When was Fenelon first established, used, or occupied? When was it last in operation?

3) Is there a notable Chinese ethnic presence at Fenelon or do the artifacts observed by BLM personnel reflect a use of Chinese goods by other people?


PROJECT LOCATION
USGS Holborn, NV 7.5'
1968
T38N, R65E (unsurveyed)
Elevation 6155'
BM 6155
Fenelon
BM 6141
BM 6125
Independence Valley Well
OLD RAILROAD GRADE
SOUTHERN PACIFIC

4) Does Fenelon retain integrity of setting, materials, association, location, feeling, workmanship, and design?

The following report presents the data from the archives search and an analysis of the data compiled from the field investigation. Generally, this includes a discussion of the methods employed during this investigation, a historical overview, analysis of the results of the work, and an evaluation of significance. It should be noted that Fenelon probably originated as Otego in 1869. The evolution of Otego and Fenelon is explored, and to the extent possible, substantiated in this paper.

2.0 RESEARCH METHODS

2.1 Archives Search

In order to understand more fully the details of the establishment and evolution of Otego and Fenelon, a heavy emphasis has been placed on the archives review. The intention of placing such an emphasis on historical records was to develop as tight a framework as possible in which to correlate the analysis of field observations and in which to establish Fenelon's role in the regional pattern. This approach was based on the assumption that the results of the field work should essentially serve to substantiate or bring into question the written historical record.

To this end, a number of institutions and agencies were consulted. The Nevada State Library and the University of Nevada, Reno, Library contain information of a general nature concerning the history of the transcontinental railroad and related activities. In addition, the Nevada State Library has more specific information regarding the railroad route through Nevada. The Nevada Historical Society, located in Reno, provided sparse but vital sources including maps and late 1800s traveler's guides. Special Collections at the University of Nevada, Reno, has 1880s and 1890s indexed county maps of Nevada, as well as a historical sketch of the origin and development of the transportation properties of the Southern Pacific system. In addition, tax and census roles at the Elko County Assessor's Office in Elko and early 1900 editions of the Nevada State Herald (Wells, Nevada) were studied, both providing sketchy but pertinent data on Otego and Fenelon.

In conducting the archives search, it was interesting to note that there is probably a large amount of data contained in old CP and SP records which, at this point in time, are relatively unobtainable. The SP Land Company in Reno was visited, and in talking with Mr. Ted J. Longseth of that office, IMR learned that some 200 boxes of early 1900s SP records had just been received from the San Francisco Office. These records consist of bills, receipts, transfers, timetables, and other such documents, but have not been accessioned or ordered in any way. In their present condition, these sources are virtually unusable and would require a great expenditure of time to correlate and index. Similarly, the Railroad Museum in Sacramento houses data pertinent to the early history of the railroad but does not have construction records. Presumably, such records are floating about in some unknown condition much like the boxes at the SP Land Office. Nonetheless, the SP historian in San Francisco, Bill Robertson, provided a photograph of Fenelon taken in 1912, although he was unable to find any other references to either Otego or Fenelon. Furthermore, records in Sacramento include early traveler's guides which describe both Otego and Fenelon and provide milepost designations. A second photograph of Fenelon (ca. 1940) was provided by the Churchill County Museum.

In beginning the archives search, it appeared that information on Fenelon was indeed obscure. There is mention of it having been a non-agency station during the early 1900s (Carlson 1974:112). Myrick (1962:32) also relates the story of an attempt to blow up the commissary at Fenelon in 1902. In checking the original news clipping, however, it turns out that the commissary was not located at Fenelon but rather five miles east of Carlin. This incident is described in more detail in Section 3.3 of this report. Other than these references, information on Fenelon was found to be somewhat incomplete.

A new angle came under consideration when it was noted that some of the 1800s maps showed Otego located where Fenelon should be. Further, in comparing late 1800s and early 1900s maps, it was found that the station of Independence (west of Otego) appeared on maps with Otego, but that Holborn (west of Fenelon) always appeared on maps showing Fenelon. In pursuing these relationships further, evidence seems to indicate that Otego and Fenelon are the same site and that the name change took place some time between 1888 and 1894. The relationship between Otego and Fenelon is explored further in the Historical Overview presented below. It is interesting to note that Carlson (1974:183) lists Otego as a winter telegraph station but makes no connection between Otego and Fenelon.

2.2 Field Methods

In order to maintain the proper perspective of the work conducted during this investigation, it is important to remember that the goal of this study is to derive an analysis and evaluation of the significance of the Fenelon site. This project is not intended as intensive data recovery or mitigation of impacts. With this firmly in mind, the field approach is presented below.

The field work for the project was oriented towards definitive mapping of the site proper, investigation of the positioning of the site along the track, and an intensive, in-field analysis of the artifacts, features, and components. Prior to the field efforts, five points of consideration were formulated in order to correlate the field work with the archives search. To maintain flexibility, these concerns were formulated on a general level and are outlined as follow:

1) Archive data has demonstrated the possibility that Fenelon was originally named Otego. Are Otego and Fenelon in fact the same site? Is there any evidence for a station farther up or down the old CP grade from the Fenelon location? Is there any evidence for a telegraph system? (Telegraph poles, or the remains thereof, should be evident close to one side or the other of the track.) Is there any evidence for a side track of any kind?

2) The BLM (see site report CRNV-01-2010) states that Chinese artifacts were recorded at the site. What are the Chinese artifacts? Are these artifacts indicative of actual Chinese occupation, or might they represent use of imported Chinese items? Is there evidence for a Chinese community, demonstrating an 1868 or 1869 work camp or do the artifacts represent a casual "passing through" of Chinese workers?

3) During the 1902 realignment of the railroad, Greek and Italian crews were employed. Is there any evidence for Greek or Italian ethnicity?

4) What is the evidence for structures?

5) What is the evidence for older railroad grades? Can the CP grade be distinguished? Is there evidence for patches of the UP grade?

The field work was conducted by a crew of three people over a two-day period. The IMR crew consisted of the project archaeologist, a field assistant, and a historical artifact specialist. In addition, during the first day, Sharon Edaburn, Director of the Churchill County Museum, visited the site in her capacity as an industrial archaeology/railroad specialist, and Tim Murphy, the Elko District BLM archaeologist, was on site and helpful in drawing our attention to some immediate concerns.

Upon arriving at the site, the historical specialist began an intensive survey of the immediate area to locate and identify datable artifacts and components. During this procedure, all pertinent (i.e., datable or characteristic) artifacts, or concentrations thereof, were marked with orange pin flags and given field reference numbers. This provided a visual layout of the artifactual distribution of the site proper. Field description and analysis was done concurrently in order to identify and date the cultural materials. No artifacts were removed for laboratory analysis. While field analysis was in process, the areas one-half mile southwest and northeast of the site were examined in order to determine the general relationship of railroad grades or associated features and to find out if any other unique sites were located up or down the track from Fenelon.

The site was mapped using a transit and stadia rod. The benchmark at Fenelon shown on the USGS Holborn 7.5' topographic map as elevation 6155 was chosen as the permanent datum and given the letter designation "A". Four secondary instrument stations were established and designated as Datum "B", "C", "D", and "E". These secondary stations were marked with a length of rebar and a wooden stake bearing the datum letter and the site number. All rebar and stakes were left in situ after completion of the field work. While mapping, all points pin flagged during field analysis as well as cultural features, both historical and

contemporary, were plotted. All flagging was removed upon completion of the field work.

One unit was selected for excavation. The test pit was dug into the eastern wall of an existing depression. This area was chosen for several reasons: 1) a remnant of a decaying railroad tie was observed in the southwestern corner of the depression; and 2) there was evidence that the depression had been previously potted. Historical debris located on top of the old backdirt pile consisted of a used brick, a lantern fragment, a decayed fragment of a railroad tie, a length of metal pipe, a fluted amethyst glass fragment, an amethyst medicine bottle fragment, five crimped seam tin cans, a ridged amethyst whiskey bottle fragment, and an "A.B.Co." aqua beer bottle fragment. The backdirt was shoveled away to expose the original surface. The spoil contained diverse, but not extraordinary, historical artifacts including a lantern fragment ("The Adams and Westlake Company, Chicago"), a "B & Co" amethyst preserve bottle fragment, an "Ⓐ" aqua beer bottle base, an amber beer bottle neck, an amethyst preserve jar neck fragment, an unembossed amber beer bottle base fragment, and a wire frame lantern fragment. In addition, one short, decomposing timber was removed from the back dirt. This timber was loose and not associated with any structure or foundation and was lying on the contact between the original surface and the backdirt.

After removing the backdirt, a 1 x 1 m test unit was excavated in 10 cm levels with a shovel and trowel with all dirt screened through 1/8" mesh. The first level (0-10 cm) consisted of fine, loose sandy soil, easily compacted and containing small rootlets. Materials recovered from this level included chunks of charcoal, small bits of wood, two extremely small glass fragments, a lantern wick burner, an amber beer bottle neck, two fragments of white porcelain plate with scalloped edge and a pink and green floral design, a cobalt blue eye cup fragment, one square nail, and one four-holed glass button. The next two levels (10-30 cm) consisted of the same soil with an abundance of charcoal and wood from the timber removed from the surface level. The only artifacts recovered from these two levels were three wire nails.

The test unit was not excavated below 30 cm. The pit was backfilled with the artifacts and soil removed from it; the immediate area was leveled and brushed so as not to attract attention. No artifacts were collected from the excavation. Generally, the testing demonstrated a uniform soil (10YR 5/2, greyish brown) lacking stratification and deposition of cultural materials. As a further measure, the walls of the depression were cleaned up with a trowel. During this process, no other artifacts were noted and no differentition in strata was observed.

During field work, a number of questions arose which had not been previously anticipated. To the extent possible, these concerns were addressed while still in the field; for the most

part, they were subjected to further records search after returning from the field. These questions are presented and discussed in Section 4.0.

3.0 HISTORICAL OVERVIEW

3.1 Regional Overview of the Railroad

On June 20, 1862, a senate bill was passed authorizing organization of the transcontinental railroad. The bill was signed by President Lincoln on July 1 of that year, and construction was begun on the Central Pacific Railroad eastward from the Pacific coast and the Union Pacific Railroad westward from the Missouri River. Government subsidy for the Pacific Railroad Act was funded at the rate of $48,000 per mile over mountainous terrain, $32,000 per mile for areas 150 miles or more from a supply base, and $16,000 per mile for remaining track laid (Bureau of News 1933:9). Each railroad company was granted land in alternate sections along the right-of-way for each mile of track put down (Zauner 1981:9).

The prime mover for the concept of the transcontinental line was Theodore Judah. A young and highly motivated visionary, Judah engineered a plan for a route over the Sierra Nevada via Dutch Flat, north of Lake Tahoe (then Lake Bigler). Having designed a solution to the trans-Sierra Nevada Construction problem, Judah managed to persuade Collis Harrington, Leland Stanford, Charles Crocker, and Mark Hopkins to front the operation. There was a falling out later on, and Judah was ousted from the corporate plan. Returning to New York via the Panama Canal, Judah contracted yellow fever and died before his dream really got off the ground.

Construction superintendent for the CP was Charles Crocker; Harvey Strobridge was employed as crew supervisor. In its time, the CP employed upwards of 14,000 Chinese laborers to forge the line over the Sierra and across the Nevada desert. Prosaically referred to as "Crocker's Pets", the Chinese crews proved to be dependable and industrious, the backbone of the long haul (Beebe 1963; Zauner 1981).

Thomas Durant headed up the Union Pacific drive from the east. After a confused start, he hired General Grenville Dodge as chief engineer and Jack and Dan Casement to supervise the primarily Irish work crews (Zauner 1981; Thompson and West 1881; Myrick 1962; Beebee 1963). While Union Pacific rails were still some 200 miles east of Ogden, Utah, UP surveyors were working along the Humboldt in anticipation of beating the CP to the area. Myrick (1962:19) states that Durant had actually sent for 3000 Chinese, and some work, presumably grading, was done in the vicinity of Wells.

By April of 1869, UP and CP crews were competing furiously to lay the most track in a day. Crocker won a $10,000 wager with Durant when Central Pacific spiked down ten miles of track on April 28 (Zauner 1981:12; Myrick 1962:19). The railheads met and passed each other, but President Grant called a halt and declared Promontory as the official meeting place. After several delays,

the completion of the transcontinental line was celebrated on May 10, 1869.

The official driving of the golden spike was muffed by both Governor Stanford and Durant, and Dan Casement had to perform the crucial blows. The official painting of the meeting at Promontory obscured the true picture, leaving out the whiskey bottles and ladies from Corinne which appeared in the original photographs of the event. Theodore Judah, who had died in 1863, was portrayed in a prominent position next to Governor Stanford (Beebe 1962; Zauner 1981).

For the following three decades, the transcontinental line, or the Overland Route, was commonly referred to as the Ogden Gateway or, particularly during the 1880s, as the Dining Car Route (Beebe 1963:117). During the 1880s, introduction of through dining cars eliminated the necessity of stopping at company eating houses along the line at Toano, Wells, Elko, Argenta, Winnemucca, and Reno, portending notable changes to come. Although major realignment of the railroad was not initiated until 1902, significant reorganization took place during the 1880s and 1890s which would eventually affect the entire system.

The major shareholders of the CP reorganized and incorporated the Southern Pacific Company in March 1884 with $100,000,000 capital stock. Organization was effected in August of that same year, with Stanford elected as president, Huntington as vice-president, and Crocker and a representative of the Hopkins' estate as board members. Even though all of the constructed and acquired rail lines had been operated under lease by the Central Pacific, gradual expansion of the Southern Pacific had made it the stronger company, and the Southern Pacific name was therefore used. At the time of reorganization, the associates held 30% of CP stock and almost all of SP stock. They were thus able to create an "omnibus lease" agreement for the commonly controlled properties, effective for 99 years from April 1, 1885 (Bureau of News 1933:72-73).

In 1900, with the death of the last "Big Four" survivor, Collis Harrington, administration of the Southern Pacific fell to Edward H. Harriman who had managed to obtain controlling interest in the CP line. By this time, SP had a rail system extending over 18,500 miles from Los Angeles, San Francisco, and Portland to Omaha, Kansas City, and New Orleans. It also controlled steamships of the Morgan line on the Atlantic and Gulf and the Pacific Mail Line to Pacific and Orient ports (Bureau of News 1933:74-75).

Harriman decided to "whip things into shape," and during his administration, $127,000,000 were spent on reconstruction and re-equipping, and $114,513,000 were spent on line extensions, both constructed and acquired. Beginning in 1902, part of Harriman's three-year rehabilitation program included $18,000,000 for realignment and/or renovation of some 373 miles of track between

Ogden and Reno. In places, the old CP line was completely abandoned (Bureau of News 1933:75-76).

One of the major sections of construction was the Lucin cut-off. This realignment eliminated 32 miles of track over the Promontory Mountains, crossing the Great Salt Lake and by-passing Corinne, Blue Creek, and Promontory (Bureau of News 1933:76; Sabin 1919:271). The entire line from Corinne to Lucin was scrapped out during World War II (Galloway 1950:169).

Double tracking the line began over the Sierra in 1906. In 1914, this and all other construction on the SP line was halted until 1923, pending the outcome of the anti-trust lawsuit brought by the U. S. Government in 1908 (Bureau of News 1933:95-97).

Touching upon the essential highlights, the above narrative has been intended as a brief overview in order to appreciate a regional perspective. From its inception, the development and evolution of the transcontinental railroad was infused with intrigue and scandal. There are numerous publications available which present thorough documentation and colorful accounts of the building of the railroad empire.

3.2 Specific Historical Developments of the Wells-Fenelon-Toano Vicinity

Based on historical documentation, Fenelon probably originated as Otego along the CP line. The following discussion relates particular historical developments regarding the area in general and Otego and Fenelon specifically.

In 1869, Otego was listed as a day telegraph station used primarily in winter to wire ahead about snowbound trains. By 1876, it was described as a signal station and side track (Dadd 1869:147; cf. Shearer 1884:191; Williams 1876:174). A brief description of various stations along the CP track may be helpful in setting the stage for an areal perspective.

Beginning near the Nevada/Utah border, approximately 16 miles east of Otego, Toano Station, an 1869 construction camp, was a regular eating stop known for its fine food (Dadd 1869:147; Sabin 1919:274). The townsite consisted of 15 to 20 buildings and was located centrally to the rapidly growing mining districts of Egan Canyon, Kimberly, Kern, Patterson, Ely, Pahranagat, and Deep Creek. By 1872, a stage line connected Toano to Egan Canyon and was soon to extend to the Ely District (Crofutt 1872:126). In its heyday, Toano boasted a general store, a hotel, and a saloon in addition to private residences and railroad buildings consisting of a roundhouse with six stalls and a connecting shed for two engines. In the mid-1880s, Toano's population was 250; it had become the main wagon freight, express, and mail road connection to Silver Zone, Dolly Varden, Cherry Creek, Egan Canyon, Shelburn, Mineral City, and Ward (Shearer 1884:191; Fifield 1942:41). With the completion of the Nevada Northern

from Cobre to Ely in 1906, Toano, only three miles west of Cobre, faded away. In March of 1906, the Toano Post Office was moved to Cobre, and all that remains of Toano today is scattered debris along the track (Frickstad 1958:29: Harris 1973:6; Fifield 1942:54; Allen 1964:11).

Traveling west from Toano, the station of Pequop was situated along the northern slopes of the Pequop Mountains. This station was a side track of little importance at which no passenger trains stopped (Crofutt 1883:124; Shearer 1884:191). Passing through Otego, two miles beyond Pequop, it was another ten miles to Independence, a day and night telegraph station located near Independence Springs (Dadd 1869:147). In 1867, Independence was the final location of the CP survey party for that year (Galloway 1950:131). Beyond Independence, Talbot's was a signal station on Cedar Pass. One mile further west was Moor's Station. Primarily a telegraph point, evidently Moor's was also an encampment which attracted miners and frontiersmen to the ephemeral boom of a supply base (Dadd 1869:149; Shearer 1884:191). Two miles beyond Moor's was Cedar, a wood supply station. Humboldt Wells was located six or seven miles west of Cedar.

In 1869, Wells was a principal telegraph and water station (Dadd 1869:149) and by 1871 had attained importance as a point of departure to Clover and Steptoe Valleys. Wells' status continued to grow; in 1882 it consisted of a ten stall roundhouse, a freight and passenger station, two general merchandise stores, two grocery stores, two saloons, a livery stable, a Chinese import store, two breweries, and a residential community of growing population (Goodwin 1966:79).

For the ten years following the construction of the Central Pacific Railroad, Wells had been the only division point of any importance between Ogden and Winnemucca. It had become the primary shipping point for the ranching industry and the mining, milling, and smelting companies located from Ely north to the Idaho state line and from Halleck east to Toano. The CP changed its division point from Wells to Carlin in the early 1880s and subsequently dealt an economic blow to Wells where the population dwindled to only several hundred "hangers' on." About 1898, Wells underwent a second industrial boom (Vardy 1916:58), and by 1899, it had grown into a town of 400 people (Goodwin 1966:80).

During the late 1800s, the region around Wells had rapidly developed as a prosperous ranching community, augmented considerably by the railroad for shipping supplies into the area and livestock out to market (Vardy 1916:58). In 1873, John Sparks and A. J. Herrel introduced the Texas longhorn into the region. By 1882, Frank Tinnin and Sparks had bought out the H.D. and Shoesole holdings, but in 1889, they lost nearly 95% of their herd to starvation (Fifield 1942:44). The original Sparks-Herrel outfit was eventually bought out by the Utah Construction Company in 1913. Evidently, Utah Construction acquired large ranch holdings in the region primarily to raise mules and horses for

its road and railroad construction projects and only later on engaged in large-scale cattle operations (Fifield 1942:44-45; Goodwin 1966:82).

Another industrious enterprise in the area during the early 1900s was the Pacific Reclamation Company's project at Metropolis. In May of 1910, this corporation obtained 40,000 acres at the mouth of Bishop Creek, 12 miles north of Wells. This land was sold to "would be" farmers for $300 an acre. By 1912, a dam had been completed for the purpose of irrigating 30,000 acres, and the town of Metropolis was created, complete with a newspaper, a $100,000 brick hotel, a $25,000 brick school, electric lights, and parks. Southern Pacific opened a branch from Tulasco to the depot at Metropolis and inaugurated passenger service in February of 1912. By about 1913 to 1914, Metropolis had attained a population of 1000, much larger than Wells. However, a lawsuit by water users in Lovelock Valley limited water use to Metropolis; after 1914, only 4000 of the 40,000 acres could be irrigated. There was a final futile attempt to convert to dairy farming; but the exodus had begun. By 1924, only 200 people remained. The droughts and depression of the 1930s finished off the dreams of Metropolis (Elko Chamber of Commerce n.d.:9; Goodwin 1966:84-91).

In addition to the above industries and enterprises, a third economic force of local importance was mining. The Midas and Tuscarora booms of the 1860s had peaked by 1888, but new discoveries in the Gold Circle District of the southeastern slopes of the Owyhee Bluffs in 1907 created a 1908 Gold Rush to the area (Elko Independent 1916:23). This, in addition to the booming mining industry farther south in the Ely districts, created a great demand for centrally located shipping facilities. Prior to 1869, the nearest shipping point for the region was Kelton, Utah, but with completion of the CP, ore was freighted by team from the Ely/Panaca area to rail at Toano and Wells. By the early 1900s, the Nevada Northern connected important mining operations at Kimberly, Copper Flat, Ruth, Ely, East Ely, and McGill with Cherry Creek Station, Currie, Shafter (originally Bews), and Cobre (Allen 1964:5). The connection of the Nevada Northern with the CP at Cobre and the Western Pacific at Shafter took some of the ore shipping business away from Wells and placed a greater focus for this industry on the Cobre vicinity (Goodman 1966:81). Much later, in 1939, a pumice refinery was built near the old site of Toano (Fifield 1942:54) but presumably had no great impact on the area.

3.3 Historical Sketch of Otego and Fenelon

Some time between 1888 and 1894, the name for the Otego telegraph station was changed to Fenelon (cf. Dadd 1869:147; Crofutt 1872:127; Crofutt 1883:124; Shearer 1884:191; NRP 1887, 1888, 1889, 1891, 1902, 1903, 1904; Bancroft 1890:277, Kraus 1969; Lee et al. 1916:161; Williams 1876:174). The tax roles for Elko County from 1869 to 1873 do not list Otego or Fenelon for any improvements or valuations. The 1885 tax role, however, does

list Otego, along with Tecoma and "other points," for $600 worth of improvements. Additionally, the census for 1870, 1880, and 1900 do not count anyone living at either Otego or Fenelon. By 1916, Fenelon is described, along with Pequop, Holborn (originally Independence), Anthony, Moor, and Kaw, as a sidetrack and section house "maintained chiefly for the use of the railroad" (Lee et al. 1916:161).

The exact reason for the name change of places like Otego and Independence to Fenelon and Holborn is not precisely documented. However, it could be hypothesized that the transition had something to do with the CP and SP merger around 1884/1885. If this is in fact the case, it would stand to reason that the internalization of the new names locally might have taken some time; hence the overlap in dates. Further comparisons and substantiation of the dates and locations of Otego and Fenelon are presented in the analysis of field results later in this report.

There are no accounts of any particular incidents of note at Otego within the literature. Furthermore, it appears that any real importance attributable to Fenelon evolved during the realignment of the SP line between 1902 and 1904. During this time, 27 miles of new line were constructed between Moor and Toano (Myrick 1962:32).

While Irish and Chinese formed the mainstay of the earlier transcontinental railroad crews, Greeks and Italians were employed for the 1902/1904 realignment work (Myrick 1962:passim). In particular, a J. C. Sullivan, subcontractor to the SP, employed a large number of Greeks at his grading camp near or at Fenelon. The October 3rd and 10th, 1902, issues of the Nevada State Herald, a Wells newspaper, give somewhat conflicting stories regarding a near riot at the Fenelon camp. Evidently there was some contention between Sullivan and one of his Greek foremen over pay withheld for broken machinery. In one account, 30 to 40 shots were fired, Sullivan was wounded, and 25 Greeks were pursued by a possee. The second account is somewhat more subdued, relating that no one was injured and the complaint was withdrawn.

In another notice in the September 26, 1902, Nevada State Herald, a Smith and Erickson offered a $20 reward for the return of their six-year-old bay horse, "lost, stolen, or strayed" from their camp near Holborn Siding. They listed their mailing address as Fenelon, Nevada, via Toano Post Office.

A contradictory account in Myrick (1962:32) relates an incident involving an attempt to dynamite "the commissary at Fenelon." A much different account is given in the October 17, 1902, Herald. The news clipping states that on September 30, W. W. Watkins tried to blow up the commissary camp of Frank S. Lusk, located five miles east of Carlin, in an attempt to kill Thomas Trophy, the man in charge of the commissary. Responding to the ensuing complaint, J. F. Triplett of Elko "went to Sullivan's

grading camp near Fenelon" and arrested Watkins. Watkins was taken back to Wells and then on to Carlin to stand trial for his offense.

Even though actual accounts of either Otego or Fenelon are sketchy, several observations can be made. Evidently, Otego was not important and perhaps not even extant during the primary construction of the Transcontinental Railroad. Otego probably existed as a winter telegraph station from at least 1869 to about 1888. Sometime between 1888 and 1894, the name of Otego was changed to Fenelon, perhaps in connection with the CP and SP merger. Also, during the later 1800s and early 1900s, there appears to have been a functional transition from telegraph station to side track and signal station. A 1912 photograph obtained from the SP shows two buildings and a semaphore tower. Furthermore, during the 1902 to 1904 realignment work, Sullivan's Greek crew stayed at or near Fenelon. Other than this, Fenelon apparently never attained any greater status.

4.0 RESULTS AND ANALYSIS OF FIELD WORK

During field work, 32 isolates and artifact scatters were identified which were useful for dating or characterizing historical activities at the site. Dating of the primary artifactual components at Fenelon was done through identification of glass bottle manufacturers' marks. The dating thus obtained should be viewed more as a time frame of a general nature than as an exact "pin-pointing" technique (see Dollar 1978:220). Materials are discussed below by reference numbers which have been keyed to the site map.

Reference 1. Aqua beer bottle fragments; "A.B.Co."; dates between 1905 and 1916.

Reference 2. Aqua glass insulator; standard round-topped with screw threads.

Reference 3. Concentration of wine and beer bottle fragments; unembossed; approximately five bottles; not dateable.

Reference 4. Concentration of aqua and brown beer bottle fragments; approximately ten to fifteen bottles; "R & Co" and "A.B.G.M.Co."; dates between 1886 and 1928.

Reference 5. One porcelain fragment; pink, white, and green design; originally described as Chinese ware, but is not.

Reference 6. Concentration of solder seamed tin cans, glass, and ceramic fragments; one aqua glass medicine bottle fragment embossed with "THE GREAT..." (possibly "DR. KILMER"); green beer bottle fragments; aqua "Pumpkin Seed" bottle fragments; fragments of a fluted amethyst bottle (contents unknown); amber whiskey flask ("Pumpkin Seed" type); white ceramic plate fragments; dates to within 1890 to 1914.

Reference 7. Concentration of bottle fragments; aqua beer bottles; champagne bottle; amethyst medicine bottle lip; melted glass; lamp parts; two amethyst whiskey neck fragments; one brown whiskey bottle neck; dates to within 1880s to 1914; area heavily vandalized.

Reference 8. Square oyster can; "oysters".

Reference 9. Scatter of tin cans, ceramic fragments, and whiskey, beer, and wine bottle fragments; no embossing; not dateable.

Reference 10. "Pumpkin Seed" bottle fragment; one brown and one aqua beer bottle base, "R & Co"; whiskey bottle and ale bottle fragments; brown beer bottle base, "A.B.G.M. & Co."; fruit jar lid; dates to within 1886 to 1928; approximately ten to fifteen bottles represented.

Reference 11. Amethyst rectangular whiskey bottle, "...Eagle...Distilling"; champagne bottle fragments; aqua beer bottle fragments, "A.B.G.M. Co."; metal beer cap, "SALT LAKE CITY BREWING CO"; barrel hoops; soldered tin cans; round nails; dates to within 1886 to 1928.

Reference 12. Wood, glass, and tin can scatter; one amber beer bottle, "R & Co"; amber beer bottle base, "S B & C C"; fragments of an amethyst, geometrically embossed stemware goblet with scalloped lip; two fragments of blue transfer ware ceramics; amethyst beer bottle fragments; two square bitters bottle fragments; "Royal Ironstone" fragments; dates to within 1890 to 1914.

Reference 13. Soldered seam tin can, glass and ceramics scatter; "Royal Ironstone" china fragments; clear "Pumpkin Seed" whiskey flask fragments; brown beer bottle fragments; large broken crock, white glaze inside and brown glaze outside (not Chinese); amber beer bottle, "R & Co."; amber beer bottle, "W.F. & S MILW"; aqua beer bottle base fragment, "A.B.G.M.Co."; aqua beer bottle base fragment, "B"; dates to within 1886 to 1929.

Reference 14. Amethyst "Pumpkin Seed" flask fragment; dates to within 1890 to 1910.

Reference 15. Six aqua insulator fragments; wick burner for kerosene lamp; amethyst bottle neck with bead type applied lip, contents unknown but possibly toilet water or perfume; painted floral ceramic fragments; one Chinese porcelain fragment; broken brown crock; fragmented wooden insulator peg; dates to within 1890 to 1914.

Reference 16. Aqua beer bottle fragment, Ⓐ (Adolphus Busch Glass Manufacturing Co.); dates within 1904 to 1907.

Reference 17. Aqua glass beer bottle fragment, "R & CO".

Reference 18. Large amethyst embossed bowl fragments; fragments of smaller embossed amethyst bowl with fluted lip; amethyst druggist bottle fragment; aqua beer bottle fragment; lamp chimney fragment; aqua beer bottle fragments, "A.B.G.M. CO."; amber beer bottle fragments, "F.G.W."; aqua and amber beer bottle fragments, "R & Co." and "B & C"; plate glass fragments; "Ironstone China" plate fragments; fragments of two amethyst medicine bottles with patent finishes; porcelain plate fragments with pink scalloped edge trimmed with gold; hinged tin box; white ceramic cup fragments; four tin cans; dark green wine bottle base; dates within 1886 to 1930.

Reference 19. Ceramic plate fragment, white with green floral design round edge and "Southern Pacific Company - Sunset, Ogden, and Shasta Routes" logo on edge of plate.

Reference 20. Aqua insulator, "McLaughlin".

Reference 21. Brass item that bends in middle, probably sugar tongs (see Figure 4); aqua insulator fragment, "Brookfield".

Reference 22. Aqua beer bottle fragments, "A.B.CO." and "B.C.Co."; lantern fragment; ridged amethyst whiskey bottle fragments; large unidentified tin fragments; dates within 1890 to 1916.

Reference 23. Recent tin can scatter; amber beer or whiskey bottle fragment, "Distillerie T.M. RAMIREZ & CIA; MAYACUES P.R. B".

Reference 24. Aqua beer bottle, "A.B.G.M.CO."; dates within 1886 to 1928.

Reference 25. Chinese ceramic rim fragment, "Blue Flower Ware".

Reference 26. Lea and Perrins neck and base fragment; insulator scatter, "Brookfield"; deep purple ridged glass base, "B"; amethyst bottle base fragment, "THE HOWARD H. HOGAN CO., OUR MOTHER'S CATSUP"; fragments of two bottles; "CURTICE BROTHERS ROCHESTER NY" preserves; dates within 1890 to 1914.

Reference 27. Chinese ware fragment, green celadon.

Reference 28. "Pumpkin Seed" whiskey flask neck fragment; dates within 1890 to 1910.

Reference 29. Amethyst medical bottle fragment, "EMMETT BROS. PROPS."; fragments of large white ceramic bottle, probably ink; amethyst fluted water glass fragments; one large aqua demijohn fragment, "W.T.CO."; dates within 1870s to 1914.

Reference 30. Fragments of amethyst embossed bowl (see Reference 18), "R & Co."; aqua beer bottle fragments, "S. B. & C. Co."; H. J. Heinz Co. amethyst condiment bottle, sauce or relish; four beer bottles; blue medicine bottle neck; dates within 1890 to 1914.

Reference 31. Contemporary scatter; crimped seam tin cans; Owens-Illinois beer bottle fragments; whiskey bottle fragments (ca 1935+); wood scatter; Clorox bottle; appears to be dump site dating to 1940s or 1950s.

Reference 32. Contemporary scatter; two complete Clorox bottles with screw caps; clear glass jar, Owens 1952; clear glass square bottle, NW-NORTHWEST; hot sauce bottle; Thermos bottle; "BULL DOG EXTRA' beer can, malt liquor; vinegar bottle, Owens-1944; numerous crimped seam cans; one clear glass insulator; dates to 1940s and 1950s.

The glass and ceramic artifacts at Fenelon are in an extremely shattered and disturbed condition. It is quite

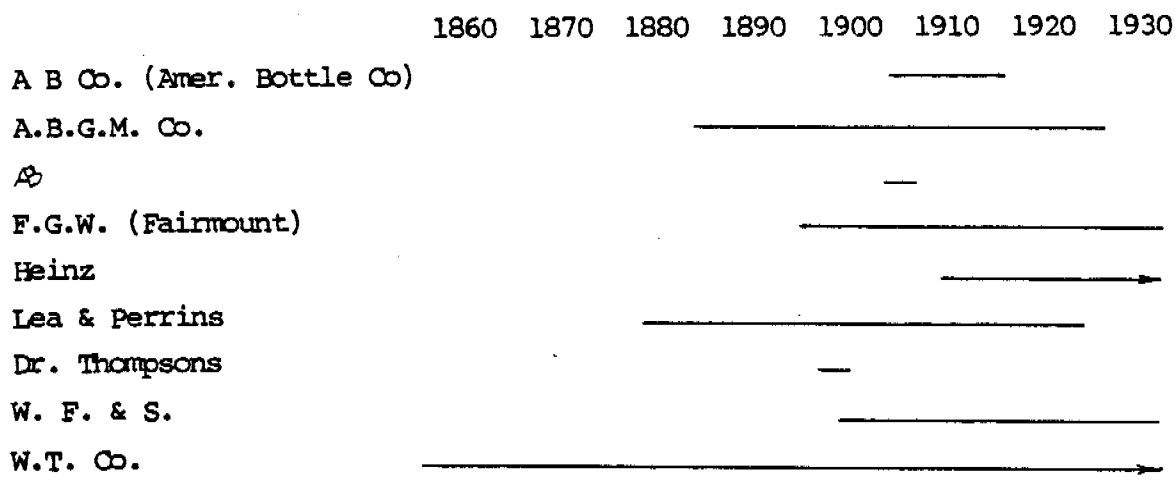
obvious, particularly from the numerous pot holes, that the site has been subjected to long and continued vandalism over the years. If any whole specimens were present earlier, they have long since been carried off site. It is also possible, however, that the majority of the glass and ceramics were originally dumped precisely because they were broken or shattered. Furthermore, glass bottles would have made excellent targets for bored signal operators.

Nevertheless, there are several hypotheses which can be presented from the field analysis. The predominant functional type of glass bottle represented at Fenelon is the beer bottle. Most of these bottles are aqua, made for crown caps, and manufactured by "A.B.Co." (American Glass Company) or by "A.B.G.M.Co." (Adolphus Busch Glass Manufacturing Company). Proportionately, there are an average number of wine and whiskey bottles but comparatively few medicinal or toiletry bottles. Also represented in the assemblage are fine ironstone dinnerware fragments, kerosene lamp fragments, one amethyst goblet fragment, and fragments of at least two, rather elaborate amethyst bowls or compotes. These amethyst pieces are the only clearly decorative items represented at the site. There are also hot sauce, catsup, preserve, and clorox bottles, as well as an abundance of hole-in-top, solder seam, and crimped seam tin cans. In general, the glass fragments are indicative of a site largely populated by men who pursued a rather transient life style. The glass does not demonstrate the presence of many, if any, women and/or families at the site or in the immediate vicinity.

Based primarily on bottle dates derived from the identification of makers' marks, the major use of the site can be temporally bracketed between 1880 to 1928. Within this time period, the date range can be tightened to 1890 to 1914. This latter time range is strongly demonstrated by the overlap of dates of bottles or products manufactured by the American Bottle Company, Adolphus Busch Glass Manufacturing Company, Fairmount Glassworks, William Franzen and Sons, Heinz, and Lea and Perrins. In addition to this, amethyst glass is reliably dated from 1890 to 1914 and represents at least fifty or more specimens at Fenelon (see Table 1).

Four separate loci of Chinese ware were recorded at the site. These include at least five fragments of a brown glaze wine or soy jug, one fragment of green celadon ware, one rim fragment of Blue Flower ware, and one fragment of Chinese porcelain. The locations of these artifacts are widely scattered over the site, and in two instances, are associated with other historical, non-Chinese debris. Essentially, there is no evidence for a Chinese community at Fenelon. The Chinese wares at the site could be indicative of earlier, e.g., 1869, Chinese construction crews moving through the area. More likely, however, these wares were probably used by non-Chinese residents, obtained either as reused containers or from the abundance of imported Chinese goods available as nearby as Wells.

Table 1. Fenelon Bottle Dating



Ⓐ (Adolphus Busch Glass Mfg. Co.)	1904-10	REF #16
A.B.G.M. Co. (Adolphus Busch Glass Mfg. Co.)	1886-1928	REF #24, 13, 18, 4(3 bottles) 10, 11
A.B.Co. (American Bottle Co.)	1905-1916	REF #1, 22
F.G.Wk. (Fairmount Glassworks)	1898-1930	REF #18
Heinz	1910+	REF #30
Lea & Perrins (John Duncan & Sons)	1880-1920	REF #26
Dr. Thompsons Eye Water	1898	REF # (None- Mapped Outside Area)
W.F.&S. (William Franzen & Sons)	1900-1929	REF #13
W.T.Co. (Whitall Tatum Co.)*	1857-1938	REF #29

*In the case of this particular bottle (REF #29), the date range can be tightened to post-1870 and pre 1910. The other most numerable type of glass that can be reliably dated is the amethyst glass (50+ bottles represented) at 1890-1914.

The above list represents those companies which provide reliable dates at this time.

Some of the other ceramics recorded at Fenelon are dish and cup fragments bearing the logos or designs of the railroad dinner ware. The earliest piece is a white cup fragment with a light brown floral design along the outside rim and is tentatively dated around 1880 and defined as Pullman dinnerware (Edaburn, personal communication 1982). A second white ceramic cup is decorated along the exterior rim with a floral design consisting of white flowers, dark green leaves, and brown bark. The logo is a dark green seal with brown, orange, and yellow detail, bearing the words "Southern Pacific Lines." The third specimen is a white dinner plate fragment with a maroon logo inscribed "Southern Pacific Company--Sunset, Ogden, and Shasta Route." The fourth item is also a white ceramic plate fragment, with a green floral design around the edge and a green and yellow logo that matches the one on the last piece. The logos all contain a "setting sun" and the "Sunset, Ogden, and Shasta" logos further show a railroad track (see Figure 14).

Another notable artifact class recorded at Fenelon is the telegraph line insulator. Approximately 20 broken glass insulators were observed. These are predominantly Brookfield types with at least one McLaughlin insulator recorded. Telegraph line insulators are described below.

Based on observations made in the field, five questions were further researched in regards to features and components associated with railroad activities at Fenelon. The questions formulated in the field can be outlined as follow:

1) What were the construction methods employed on the original telegraph line along the CPRR? Describe the first poles installed. When were ground wires installed? What gage wire was used on the first alignment and during subsequent realignments? What are the earliest insulators found along the original CPRR route?

2) What was Edison Battery Oil? What was an Edison Battery?

3) What, if any, is the significance of the various Southern Pacific Railroad china patterns?

4) What is the relationship of the various features and earthworks at Fenelon?

5) Do milepost designations for Otego and Fenelon match? Are they within the 627 to 628 mile, or comparable distance considering realignments, etc?

Telegraph Lines

The much amended law that came to be known as the "Pacific Telegraph Act," was passed on June 16, 1860, spelling the death of the Pony Express and opening the west to truly rapid communication (Thompson 1947:348-55). It was "An Act to aid in

the construction of a Railway and Telegraph line from the Missouri River to the Pacific Ocean, and to secure for the Government the use of same for Postal, Military, and other purposes." It provided, under Section 19, for the Pacific Telegraph Company, the California Telegraph Company, and the Overland Telegraph Company to remove their lines to the route of the railroad which was being constructed, beginning in 1862 (Haney 1968:65,68). This resulted in the line that now is found in association with the 1868-69 alignment of the Central Pacific Railroad in Nevada.

When the Central Pacific was realigned between 1902 and 1904, the telegraph line was again moved to accommodate this change in routing. This was most apparent in sections like the area between Wadsworth through Hazen and then up to Lovelock's.

Based on Hart and Russell construction photographs (1863-69), and discussions with Keith Mulcahy, telegraph historian, the 1868-69 realignment of the original transcontinental telegraph line was built "predominately" with square poles. Remains of poles presumed to be of the original line at Fenelon are square as opposed to the round poles on the existing line. Pine poles from the Sierra were most often used. A standard reference on construction of such lines states "there are about 40 poles to the mile of ordinary telegraph line" (Houston and Kennelly 1897:152).

Some of the construction photographs taken in the Sierra show what appear to be round poles with a single insulator (Kraus 1969:138), but by the time the line reached Nevada in 1868, the poles had a single cross arm with two underslung "Ram's Horn" insulators (Kraus 1969:passim; Mayher and Vose 1975:208-098).

Ground wires were observed in connection with square poles at Fenelon. Ground wires appear with the replacement of the "Ram's Horns," but there is insufficient data to indicate whether or not they were used in the original construction. It is a distinct possibility that the ground wires were an early innovation, since one of the biggest problems with the "Ram's Horns" was their ability to attract lightening because of their metal construction.

According to Mulcahy (1982), Raymond (1981), and the photographs already cited, the original insulators were the 1867 Brooks patent or the 1861 Goodyear patent insulator. Since many of the original insulators were burned when they were changed over (Mulcahy 1982) and the actual date has not been established for the change-over to Brookfield 1870 patent glass insulators, there is no definitive date at this time. It appears that because the "Ram's Horns" were inefficient, they were replaced earlier with the previously mentioned Brookfield or "E C & M Co." insulators made in San Francisco (Mulcahy 1982; Raymond 1981).

The Union Pacific section of the telegraph line was constructed from the beginning with Mulford & Biddell glass threadless insulators. These were mounted on pins on the tops of the pole cross-arms and are obvious in many of the Union Pacific construction photographs (Mayer and Vose 1975:208-09).

"Ram's Horns" might be expected along the old alignment, but it is highly unlikely that whole ones would be found. It is more likely that only pieces of these insulators could be located.

The Brookfield 1879 patent insulators found at Fenelon are probably indicative of replacements. The "E C & M Co." are early 1870's and were not observed at the site. It is important to note that collectors have spent considerable time and effort to recover these from the original alignment.

The large insulators found at Fenelon were probably from the realignment of the track and telegraph in the 1902-04 period, when the major reconstruction work was done in Nevada. So many insulators in such large dumps are unusual and would serve to indicate that Fenelon could have been a major reconstruction site for the realignment, at least of the telegraph. This could be fairly recent. Further discussion of the telegraph realignment is included in the discussion of the railroad realignment below.

During field work at Fenelon, it was noted that the square poles along the old CPRR alignment all had what was presumed to be a ground wire attached to the base of each pole. Galvanized iron wire, usually 0.165 inches in diameter, was the most universally used, but by 1897, hard drawn copper wire had largely replaced iron, owing to its advantage in conducting power (Houston and Kennelly 1897:147).

Samples of telegraph/ground wire from the earliest alignment were gaged by Edaburn. The first two samples described below are part of a private collection and the third is a sample from Fenelon.

SAMPLE 1. CPRR Telegraph wire used with "Ram's Horn" Insulators.

0.125 in. dia. - 11 gage (.1205, U.S. Steel Wire Gage)

SAMPLE 2. CPRR Telegraph wire used with 1870 Brookfield Insulators

0.156 in. dia. - 6-1/2 gage (.1560 is approximately a half gage between 6 and 7 gage wire. This is U.S. Steel Wire Gage scale, or Washburn and Moen, American Steel and Wire Co., and Roebling Wire Gages. A larger selection of sizes is available and is specified by what are known as split gage numbers (Oberg, Jones, and Horton 1976:471-72).

SAMPLE 3. CPRR/SPRR Telegraph/ground wire sampled at Fenelon

0.149 in. dia. - 9 gage (.1483, U.S. Steel Wire Gage)

In looking at the private collection, it can be seen that more wire sampling needs to be done along all known telegraph lines in the state. Methods of wire crimping and splicing and the type of insulators can help date a site and will be even more useful once exact dates of telegraph realignments have been documented through further archives search.

Edison Battery Oil

Small Edison Battery Oil bottles were observed at Fenelon, suggesting at least minimal use of these kinds of batteries dating to the early 1900s. Battery oil is a mineral oil used to keep the solution in a battery from evaporating. The Edison-Lalande was a primary battery. It could not be recharged like modern storage batteries and had to have the solution renewed (Burt 1982).

The battery was housed in a crockery jar with a lid. The diameter of the lid was about five inches. The battery itself was made up of a number of parts. The anode was a zinc plate, held between two cathode plates. The electrolyte was caustic potash or 15% silicate of soda which nearly doubled the capacity of the cell. The cathodes were molded plates of cupric oxide, held in copper frames, and the depolarizer was cupric oxide. It was necessary to cover the electrolyte with mineral oil. Generally, the internal resistance was quite low and the electromotive force (E.M.F.) was only about .7 volts (ICS 1927:163).

The battery cores found at Fenelon are paper wrapped and are commonly found in "Ever Ready" storage batteries made today. They are probably less than 40 years old. Batteries at Fenelon could have been used to power the semaphore and other early signal lights or field telephones, but undoubtedly, the earliest application was for the telegraph circuit.

Southern Pacific China Patterns

At least three Southern Pacific logo patterns were observed on ceramic plate and cup fragments at Fenelon. According to Walter P. Gray, III, Library Archivist, California State Railroad Museum, there is no readily available information on these designs. Such work would require checking both Southern Pacific purchase orders and the records of the companies that made the china. A small publication Nothing Could Be Finer...A Compendium of Railroad Dining Car China, by Stephen S. Sandknop (n.d.), is a typical publication that is more of a collector's guide with no dates and offers poor photographs for comparison.

Railroad Grades and Associated Alignments

There are a number of features indicative of railroad activities at Fenelon. These are discussed separately below.

a) There is no indication of an area that could definitely be identified as a remnant of the Union Pacific grade done by local contractors (Hedren 1982). A small berm or weathered old gravel deposit was observed, but this could have resulted from the grading done for the 1902-1904 realignment.

b) The 1868-1869 to 1902-1904 alignment is visible.

c) The current alignment, 1902-1904 to the present, is obvious.

d) There is a side track indicated that could have been part of the early line, although it could have worked with either alignment. Without time to check SP engineering records (if they could be located), it would be difficult to say during what period the side track was in use. The physical evidence points to a time period later than the 1868-1869 alignment because plant succession has not occurred to the extent it has on the old CP grade. But it could have been used, as mentioned, with either track with a simple change in the switch layout. This entire area is heavily disturbed and occurs where the road currently crosses the tracks.

e) Telegraph alignments are apparent. Three were noted and a fourth is possible at this location. The earliest telegraph poles parallel the 1868-1869 grade to the north. A second row of poles is on the north side of the present tracks also and was probably installed at the same time the track was being realigned in 1902-1904. The second realignment occurred sometime later and probably accounts for the piles of insulators in the area. This was when the telegraph/telephone lines were moved south of the tracks to their present location. There is insufficient evidence to date this transfer without considerable documentary research although it is probably relatively recent.

A fourth, or phantom telegraph line may be found somewhere north of the tracks out of the area of study. This postal telegraph system was built in the 1890s using copper wire and specially-made insulators with the PTS name on them. This system was in operation until the late 1940s (Mulcahy 1982). The line may be up to a quarter of a mile off the grade.

Soils and Grade Construction

The current grade possesses all of the features to be expected on a first-class railroad grade. Ballast is of crushed,

sharp rock, predominantly volcanic in nature. The road bed is elevated for maximum drainage. The section of track adjacent to the site appears to be ribbon rail, with the weight in excess of 120 lbs. per yard.

Since none of the grade at Fenelon or on the older CPRR grade could be cross-sectioned, we were unable to observe any sub-surface features. The older grade was covered with dark grey soils that were a mix of cinders and soot from locomotives. Soil colors include the following:

SAMPLE 1.	Siding	10YR/6-4, Lt. Yellowish Brown
SAMPLE 2.	CPRR 1868	2.5Y/4-0, Dark Grey
SAMPLE 3.	X-ing of Siding, CPRR	10YR/5-1, Gray

Weathering of the old grade is heavy and plant succession has begun, with some areas heavily overgrown. Since only grass is growing on the siding and the soil looks capable of supporting vegetation, other factors may have affected plant development there. The most apparent reason would be that the climatic conditions do not encourage rapid regrowth of shrubs and sage. It would appear that the siding tracks may have been removed recently, perhaps as late as the 1960s.

Other Associated Features

In addition to the more apparent grade remnants and the various telegraph alignments, at least nine other associated features were recorded at Fenelon. These elements appear to be related to the structures shown in the two earlier photographs (1913 and ca. 1940) collected during the archives search.

Four features appear to have been constructed with some form of concrete. One of these is a circular depression measuring approximately 5 feet in diameter. This depression is rimmed with a concrete footing, the remains of which are patchy. In proximity to this depression is a second concrete footing, lying in roughly an "L" shape. This footing may have been relocated from another place; it is not sunk into the ground and appears rather disturbed. Slightly to the northeast is a rectangular concrete (3.5 x 4 feet) pad. This feature is evidently in situ. The fourth concrete feature is located still further northeast, across the access road, and consists of the remnants of the corners of two concrete footings.

Three more features in the same vicinity have been constructed with ties. The first is simply two railroad ties situated off-set and parallel to each other approximately 10 feet apart. The second and third features are rectangular depressions measuring approximately 5 x 10 feet with eight to nine railroad ties laid flush with the ground surface across the width of each hole. The depression on the south side of the access road contains a three inch drain pipe set horizontally into the eastern corner at the bottom of the depression.

All of the above features are probably associated with later (i.e., early and mid-1900s) structures at Fenelon. In comparing the situation of these remains with the earlier photographs, it appears that the small building and semaphore in the 1940s photo are represented by the circular footing (the semaphore) and the "L" shaped or rectangular footing close by. The older buildings shown in the 1913 photo were probably located further northeast, along the old road which runs parallel to the siding. From the photograph, these structures appear not to have had any formal foundation but were rather set up for easy removal. This would account for the lack of any significant foundation structure. Functionally, the tie covered depressions may have served as some sort of sewage system, surmised from the location of the drain pipe.

Perhaps the most complex wooden feature at Fenelon is what has been recorded as a snow fence along the northeastern portion of the site. This feature consists of the remains of a linear set of posts (cut down since originally constructed) and a fairly dense scatter of boards. Only a few cut nails were noted with the majority being wire. Snow fences were designed to drift snow away from the windward sides of the tracks. The remains of a structure similar to the one at Fenelon was observed along the same side of the track 1/2 mile southwest of Fenelon near milepost 627. In this instance, the snow fence appears to have been replaced by an immense earthen berm.

The last associated feature is located on the extreme northeastern edge of the site near a telegraph pole of the second realignment. This consists of three ties fastened together in an "H" shape and laid over what appears to be a shallow depression. No particular function has been hypothesized for this feature.

Milepost Designations for Otego and Fenelon

The June, 1870 Travelers' Official Railway Guide contains a map (1870:215) listing the following stations: Independence, an unnamed station (probably Otego), then Pequop and Toano. Otego appears in the 1869 (Dadd 1869:147), 1872 (Crofutt 1872:127), 1876 (Williams 1876:174), 1883 (Crofutt 1883:124), and 1884 (Shearer 1884:191) editions of Crofutt's Transcontinental Railroad Guide: The Pacific Tourist, variously as a day telegraph station or signal station and side track. It does not appear in the January, 1872 Travelers' Official Railway Guide. The 1873 edition of the Official Guide was missing from the collection, but Otego appears in the January, 1874 edition where it is listed as milepost (mp) 683. Fenelon first appears in the 1888 Official Guide.

In the following list, the milepost numbers are confusing and the reader should compare the relative distances to determine the locations of Otego and then Fenelon. (Compiled from the Travelers' Official Railway Guide).

1869	Sacramento	mp 0		
	Independence	mp 539	20 miles	
	Toano	mp 559		
1870	Oakland Wharf	mp 0		
	Independence	mp 673	11 miles	
	Pequop	mp 684		
1871	Independence	mp 677	12 miles	
	Pequop	mp 689		
1872	Independence	mp 677	12 miles	
	Pequop	mp 689		
1873	Missing			
1874	Independence	mp 673	12 miles. Otego 2 miles from	
	OTEGO	mp 683		
	Pequop	mp 685	Pequop	
1875	Independence	mp 673	12 miles	
	OTEGO	mp 683		
	Pequop	mp 685		
1876 to 1886 Skipped				
1887	Independence	mp 691	21 miles	Pequop no longer
	OTEGO	mp 696		listed. See 1869
	Toano	mp 712		
1888	Independence	mp 691	21 miles	Same location and
	FENELON	mp 696		milepost as OTEGO
	Toano	mp 712		
1889	Holborn	mp 691	21 miles	Holborn same milepost
	FENELON	mp 696		as Independence
	Toano	mp 712		
1890	Missing			
1891	Holborn	mp 691	21 miles	
	FENELON	mp 696		
	Toano	mp 712		
1892 to 1901 Skipped				
1902	Wells	mp 676		
	FENELON	mp 696		Holborn no longer
	Toano	mp 712	16 miles	listed
1903	Wells	mp 668		
	FENELON	mp 688	- Realignment, still 16 miles from	
	Toano		Toano	

1904	Wells	mp 668	
	FENELON	mp 688	16 miles
	Toano	mp 704	
1913	FENELON	mp 627.5	(Turner 1982 observation; photograph from SP historian)
1982	FENELON SITE	between mp 627 & mp 628	- Field observation, 1982

The sampling of mileages given above indicates several things:

1) After 1869, mileage given from Oakland includes 134 to 151 miles to Sacramento from Oakland via the San Joaquin and Sacramento Valleys. The current distance by rail is 86 miles. This can explain some disparities in the mileages, but not all of them.

2) In 1870, if correct, the mileage from Independence to Pequop was 11 miles. The mileage was corrected to 12 miles from 1871 on. Otego was two miles from Pequop, and then was 9-10 miles from Independence in 1870. The 1869 mileage from Independence to Toano is 20 miles. If mileages are compared with the other figures, it would appear that Independence is ten miles from Fenelon/Otego, leaving ten miles to Toano. Apparently there are some errors in these figures since Fenelon is 16 miles from Toano.

3) After a 10 year gap in publication, the stated mileage in 1887 was shortened by five miles between Otego and Independence. This difference in mileage is due to the fact that the milepost at Independece was increased by 18 miles while at Otego it was increased by only 13 miles. It may be that a persistent error was corrected. This may represent minor realignment of the track between Independence and Fenelon prior to the major realignment in 1903-1904. The distance between Independence and Toano was 20 miles in 1869 and 21 miles in 1887.

4) Fenelon is between mileposts 627 and 628, measured along the current right-of-way which is 61 miles shorter than the 1904 alignment. Since Milepost 0 is still Oakland, but the route has been reduced somewhat, by subtracting 61 miles from mp 668 listed in 1904, one comes up with 627 which is the current direct mileage to Oakland.

5) It would appear that the location of Otego and Fenelon are the same and have remained constant.

5.0 EVALUATION OF SIGNIFICANCE

5.1 Criteria for Evaluation

The objective of this research is to evaluate the significance of the historical railroad site of Fenelon, Nevada. The methods employed were twofold: 1) an archives search to compile historical documentation of Fenelon, and 2) an intensive field investigation and analysis to verify historical records and to evaluate the cultural integrity of the site. This two-point approach was aimed at the elucidation of the principal criteria set forth in 36CFR60 for a determination of eligibility for inclusion in the National Register of Historic Places.

A property's eligibility is based on one mandatory requirement and four standards of significance (Firby 1982). Fundamental to evaluation, the property must "...possess integrity of location, design, setting, materials, workmanship, feeling, and association..." (36CFR60.6). Additionally, the four standards of significance include:

1) association with events that have made a significant contribution to the broad patterns of our history (36CFR60.6a); or

2) association with the lives of persons significant in our past (36CFR60.6b); or

3) embodiment of distinctive characteristics of a type, period or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction (36CFR60.6c); or

4) have yielded, or may be likely to yield, information important in prehistory or history (36CFR60.6d).

Thus, in determining eligibility, two points must be addressed: does the property retain cultural integrity and what is its significance? In practice, the criteria should be complementary. A site of great significance but low integrity may very well be eligible. Equally, a property lacking any real significance as well as possessing low integrity may ultimately lose out (Firby 1982). Principally, the essence of the process entails a demonstrated ability of the property to meet the evaluation criteria.

Of further importance in evaluating significance are the criteria suggested in the recent publication of the Archaeological Element for the Nevada State Historic Preservation Plan (Edaburn 1982:249). These criteria include consideration of:

1) the interpretive potential of archaeological features;

2) specialized uses of the site and associated residences;

3) data regarding an otherwise poorly documented event or presence of a statistical population;

4) depositional characteristics relevant to cultural or ecological change;

5) dateable components or features;

6) uniqueness of the site;

7) potential to provide new information regarding ethnic populations and interaction;

8) potential to delineate environmental change resulting from industrial activities; and,

9) potential to provide information regarding technological change.

In concert with the National Register criteria, these considerations form definitive guidelines for the evaluation of historical cultural resources.

5.2 Application of the Criteria

In evaluating the integrity of the Fenelon site, several points should be taken into consideration. Although the original location and, presumably, the natural setting have been maintained, the cultural setting, association, and design of Fenelon have virtually disappeared. Of the earlier features, essentially all that remain are the remnants of the CP grade, the siding, and some telegraph pole stumps. The artifact assemblage at the site consists primarily of glass and ceramic shards, broken insulators, and tin cans. These materials are widely scattered over the site, and concentrations of them are represented at dump locations most of which have been vandalized. The buildings and semaphores shown in the 1912 and 1940 photographs have been entirely removed from the site: no remains of the actual structures are extant. Access roads to the present railroad grade and to the Toano Draw road run through the main part of the site and skirt the northwestern and southeastern margins. Through comparison with 1966 aerial photos on file at the Elko District BLM Office, it is evident that all of these roads have been in use for at least the past 16 years. In addition to this, the site has been subjected to a great deal of vandalism, and with the exception of tin cans, virtually all of the remaining artifactual materials are broken and shattered. For these reasons, Fenelon generally lacks integrity of cultural setting, association, design, materials, workmanship and feeling.

What remains has virtually been destroyed, as well as having been totally dismantled.

In regard to the four standards of significance, the first two (36CFR60.6a & b) are not applicable to either Otego or Fenelon. Results of the archive search did not demonstrate any real contributions to the broad patterns of history or any association with significant people. Furthermore, the site does not exhibit any distinctive characteristics (36CFR60.6c) of any particular historical importance. During field analysis, identification of the associations of the railroad grades and the telegraph lines depended as much on off-site comparisons as it did on an investigation of Fenelon itself. Those portions of the CP grade and the remnants of the various telegraph alignments at at Fenelon are not unique to the site.

The fourth criteria of significance (36CFR60.6d) may have some applicability to the Fenelon Site. It does appear, however, that the archaeological materials and features at Fenelon are unlikely to yield any information of great historical importance.

Step by step the suggested additional criteria can be applied as follow:

1) The archaeological features at Fenelon are not of a nature or condition to be of value for public interpretation.

2) The site had no significant specialized use and no associated residences of the people who did work there are evident. Evidence of its functions (e.g., telegraph equipment, switching apparatus to the side track, or signal equipment) are no longer present.

3) The site demonstrates no potential for data regarding a poorly documented event or presence of a statistical population.

4) The site demonstrates no potential for deposition relevant to cultural or ecological change.

5) The site does contain dateable artifacts and features. The CP grade was completed and in operation through the area by 1869, and the realignment was done in 1902. The original telegraph line was constructed in 1869, but dating the realignments is a matter of further archives documentation. The glass, ceramic, and tin can artifacts date the major activity at the site between 1880 and 1928, which essentially complements the historical record. There is no demonstrated potential that the site contains artifacts or features of any other temporal significance.

6) The site is not unique in the area or as a type. It is one of at least five similar stations located within 25 miles of one another. Additionally, the features at the site are not unique to it alone.

7) The site demonstrates no potential for contributing new information regarding ethnic groups or interactions. Even though some Chinese ware was recorded, the nature of these artifacts does not suggest a Chinese community at the site. Likewise, there is no evidence for Greek ethnicity. The artifacts at the site are indicative of a rather uniform use of manufactured goods, primarily beer and other liquor, and no statistically significant population of exotic goods is evidenced.

8) There is some potential to delineate environmental change resulting from railroad activities over the past 100 years. This could be done by a comparison of vegetation, soils, and the nature of erosional features on the different railroad grades. This, however, can also be done off the site.

9) There is some potential to provide data regarding technological change. Studies of the internal structure of the CP grade and possibly the siding may provide data concerning different techniques of grade construction and ultimately a method for dating such features. Similarly, in conjunction with further archives work, a study of the kinds of poles, wire, and insulators used for the different telegraph alignments may aid in the development of a temporal classification. Again, however, this can also be done off the site.

Given the above outline, Fenelon exhibits only a minimal standard of significance under criteria 36CFR60.6d.

5.3 Summary of Evaluation

In evaluating Fenelon, several points must be emphasized. Based on the literature search, it has been demonstrated that neither Otego nor Fenelon figured significantly in the building or operation of the CP or SP railroads. They both had their places, but these were indeed minor and often duplicated roles. During the 1902 to 1904 realignment, work crews, primarily Greek, lived at or in the vicinity of Fenelon. It was, however, routine for such crews to be bunked and fed in rail cars which could be moved easily and quickly to new work locations. In all probability, this was the case at Fenelon, and perhaps at Holborn as well, where sidings were available to move the crew cars off the main track. Thus, there was no real need to establish tent camps or to erect any other permanent or semipermanent structures: residence was extremely transient. Field analysis supports this point. There is no physical evidence at Fenelon for a work crew encampment.

Skipping back in time to the original 1868/1869 construction, there is similarly no evidence for a resident Chinese community. Again, there is also no record in the literature of Otego having been a CP construction camp, although Toano, only 16 miles east, was. Therefore, in both cases, the literature and the field analysis complement one another.

Dating of the major activitiy at the site is further verified through comparison of the historical record and field analysis. It appears that the site prospered more as Fenelon than Otego from about 1880 to 1928. There is evidence for at least minimal activity on through the 1940's and 1950's (eg., dumps with materials dating to this time and the 1940's photo). With the possible exception of the Chinese ware as well as the CP grade and telegraph poles themselves, there is virtually no physical evidence of the earlier temporal designation of the site when it was Otego.

In conclusion, based on the archive and field work conducted during this project, IMR recommends that Fenelon is not eligible for inclusion in the National Register of Historic Places. In applying the criteria of evaluation outlined at the beginning of this section, it would appear that Fenelon generally lacks cultural integrity and demonstrates a low rating of significance.

Nonetheless, there are positive aspects which have developed from this investigation wherein several avenues for future investigation of the railroad industry have been suggested. There is evidently a large body of early CP and SP records which require accessioning of some sort. It would be a worthwile, although lengthy, project to incorporate this data into the existing literature. Additionally, further research concerning telegraph realignments and the different types of poles, wire, and insulators associated with them would eventually provide reliable dating techniques for sites associated with these kinds of materials. A study of this nature would primarily involve an intensive archives search. Lastly, data concerning methods of railroad construction and the nature of erosion on grades could contribute to a better understanding of the historical development, technologically, of railroad systems. Simple observations as to the type and extent of vegetation regrowth and the nature of soils associated with various railroad grades would be a start in this direction.

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Taylor, Greg
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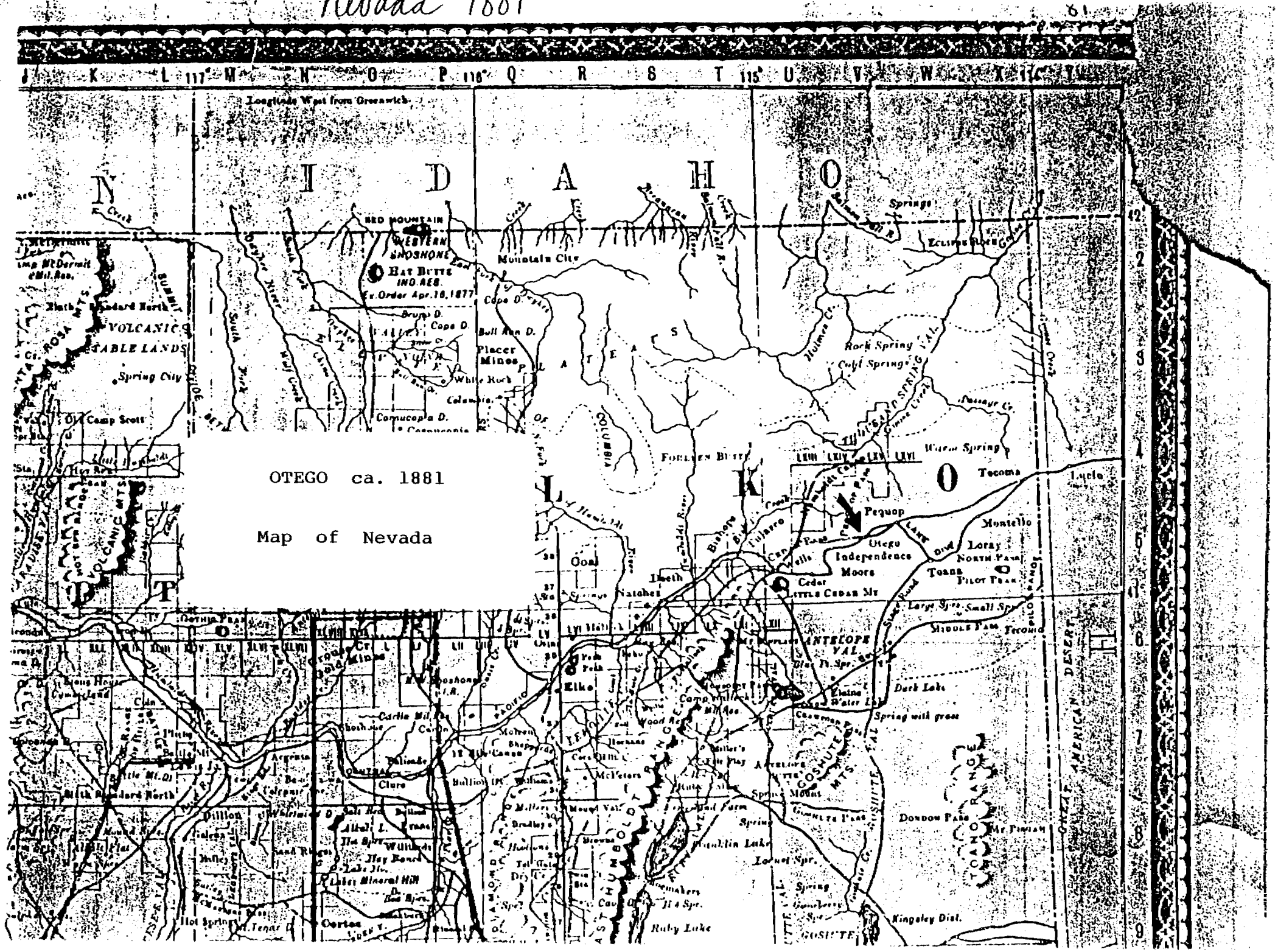
APPENDIX I

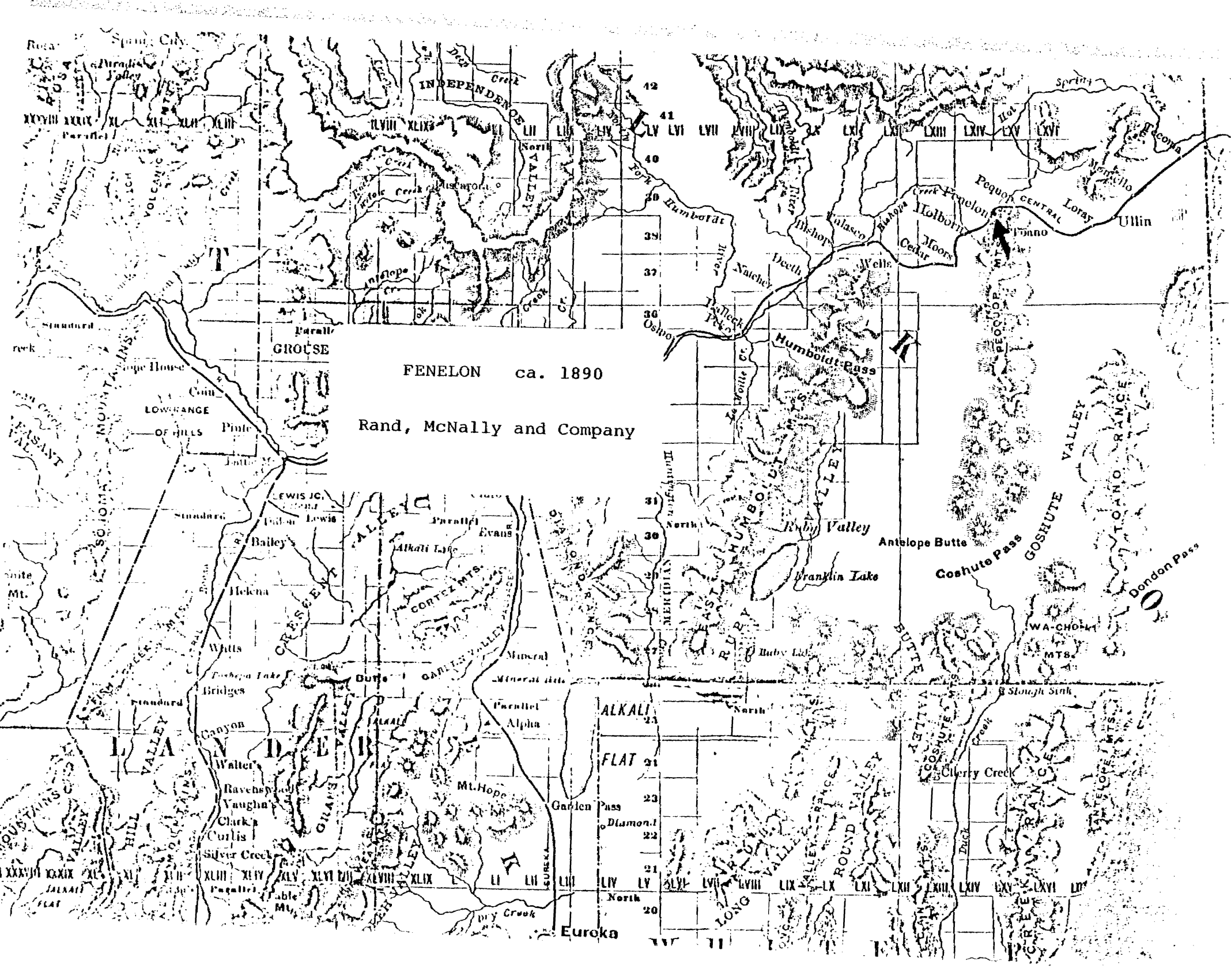
Early Maps of Otego and Fenelon

Nevada 1881

OTEGO ca. 1881

Map of Nevada




FENELON ca. 1890
Rand, McNally and Company
Humboldt Pass
Humboldt Range
Antelope Butte
Coshute Pass
Donner Pass
Ullin
Holborn
Fenelon
Pequop
Loray
Ruby Valley
Franklin Lake
Eureka
Garden Pass
Diamond
Mt. Hope
Cherry Creek
Bridges
Butte
Mineral
Alkali Lake
Bailey's
Lewis
Evans
Parallel
Alpha
Walter
Ravenswood
Vaughn
Clark's
Curtis
Silver Creek
Helena
Wells
Deeth
Natchez
Oshoto
Bishop
Colaco
Cedar
Moors
Loray
Ubehebe Peak
Le Moille
Independence
North Fork Humboldt
Antelope Creek
Pilot Creek
Hot Creek
Dead Creek
Spring Creek
Pinto
Low Range of Hills
Grouse
Standard
Canyon
Alkali Flat
Mt. Hope
Cortez Mts.
Cresent Valley
Carlin Valley
Pine Valley
Diamond Valley
Long Valley
Round Valley
Butte Valley
Goshute Valley
Toano Range
Wa-Cholla Mts.
Slough Sink
Duck Creek
Cherry Creek Range
Pilot Mts.
Humboldt Valley
Goshute Valley
Pequop Mts.
Toano Range
Ruby Mts.
Ruby Lake
Paradise Valley
Volcanic Hills
Pahute Mesa
Sonoma Mountains
Lewis
Jackson
Mt. Diablo Meridian
Base Line
Parallel
North
Table Mt.
Pony Creek
Spring City
Rosa
Standard
Pine House
Coin
Pinto
Lewis
Jackson
Bailey's
Helena
Wells
Deeth
Natchez
Oshoto
Bishop
Colaco
Cedar
Moors
Holborn
Fenelon
Pequop
Central
Loray
Ullin
Toano
Wells
Humboldt Pass
Le Moille
Independence
North Fork Humboldt
Antelope Creek
Pilot Creek
Hot Creek
Dead Creek
Spring Creek
Pinto
Low Range of Hills
Grouse
Standard
Canyon
Alkali Flat
Mt. Hope
Cortez Mts.
Cresent Valley
Carlin Valley
Pine Valley
Diamond Valley
Long Valley
Round Valley
Butte Valley
Goshute Valley
Toano Range
Wa-Cholla Mts.
Slough Sink
Duck Creek
Cherry Creek Range
Pilot Mts.
Humboldt Valley
Goshute Valley
Pequop Mts.
Toano Range
Ruby Mts.
Ruby Lake
Paradise Valley
Volcanic Hills
Pahute Mesa
Sonoma Mountains
Lewis
Jackson
Mt. Diablo Meridian
Base Line
Parallel
North
Table Mt.
Pony Creek
Spring City
Rosa
Standard
Pine House
Coin
Pinto
Lewis
Jackson
Bailey's
Helena
Wells
Deeth
Natchez
Oshoto
Bishop
Colaco
Cedar
Moors
Holborn
Fenelon
Pequop
Central
Loray
Ullin
Toano

APPENDIX II

Field Illustrations

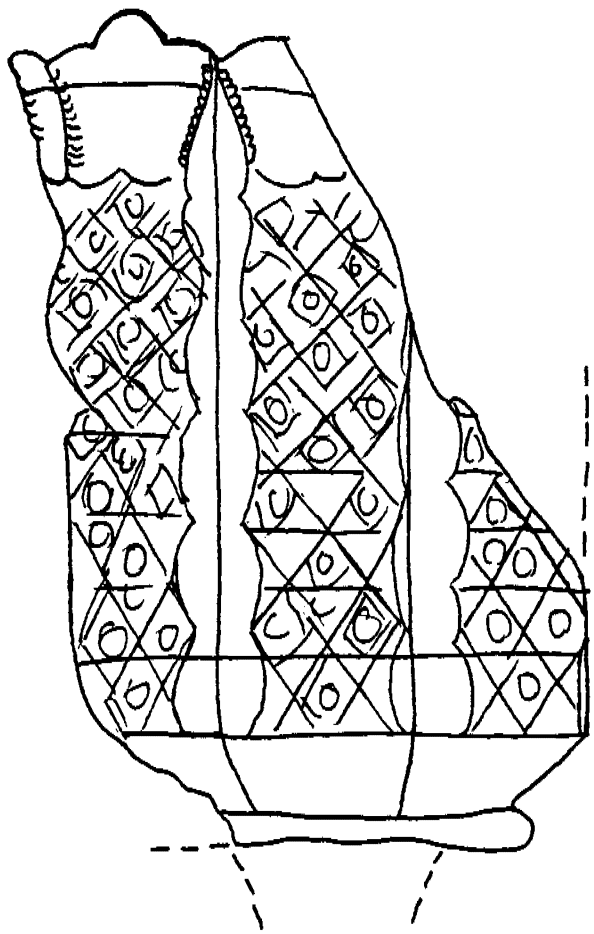
FENELON
IMR. 413
6-12-82
REF. #11
ARMSTRONG

FIGURE 1.

SCALE 1:1
PRESS-ON BEER CAP (METAL)

FENELON
IMR 413
REF. # 12
5-11-82
ARMSTRONG

FIGURE 2

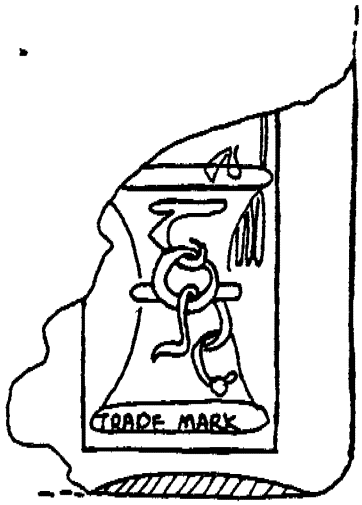


SCALE 1:1
AMETHYST GOBLET

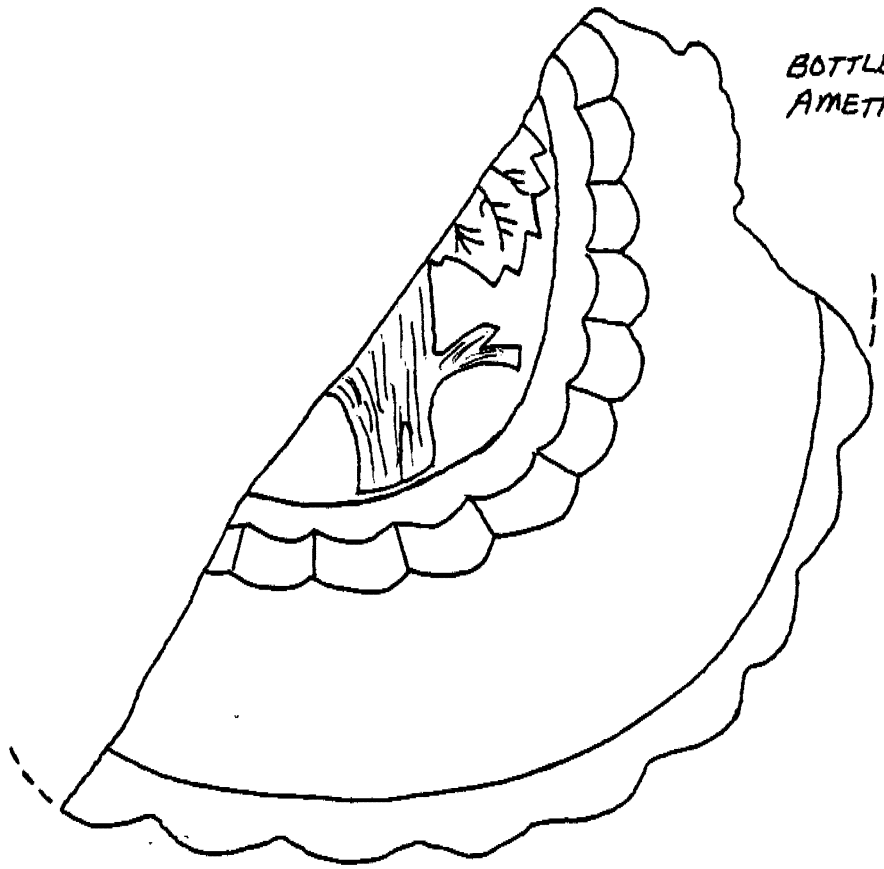
FENELON
JMR 4/3
REF. # 18
5-11-82
ARMSTRONG

SCALE 1:1

FIGURE 3



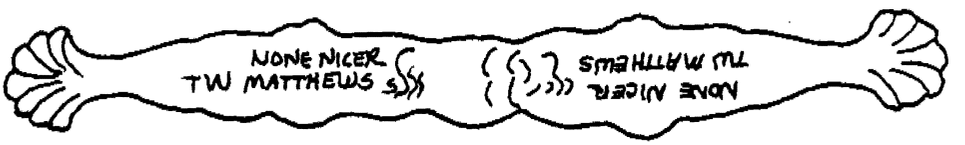
AMETHYST
DRUGGIST BOTTLE
BOTTLE A



BOTTLE B
AMETHYST BOWL FRA

FENELON
IMR #413
5-11-82
REF. #21
ARMSTRONG

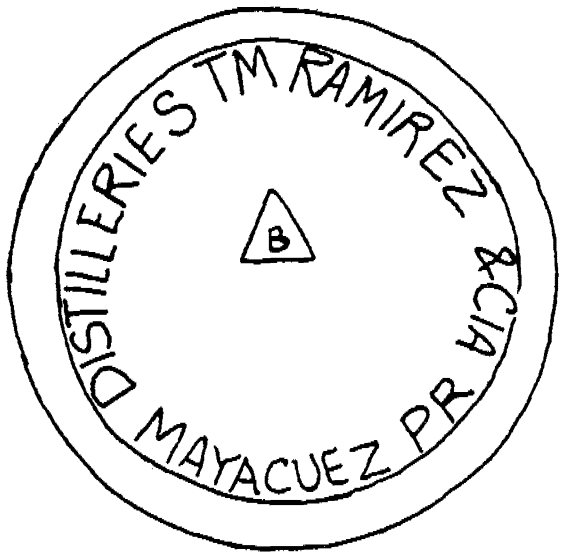
FIGURE 4



SCALE 1:1
BRASS ITEM - TYPE OF FASTENER
OR TONGS (SUGAR?)

FENELON
IMR 413
REF. # 23
5-11-82
ARMSTRONG

FIGURE 5

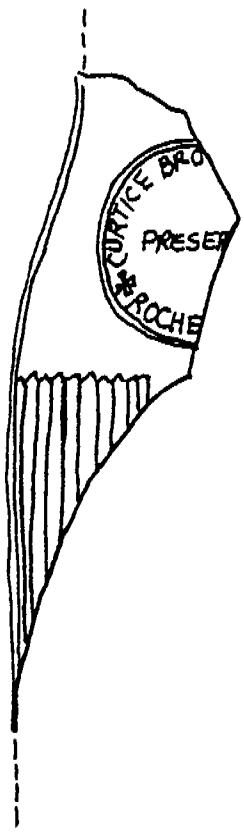


AMBER BEER BOTTLE
SCALE 1:1

FENELON
IMR #413
5-11-82
REF #26
ARMSTRONG

FIGURE 6

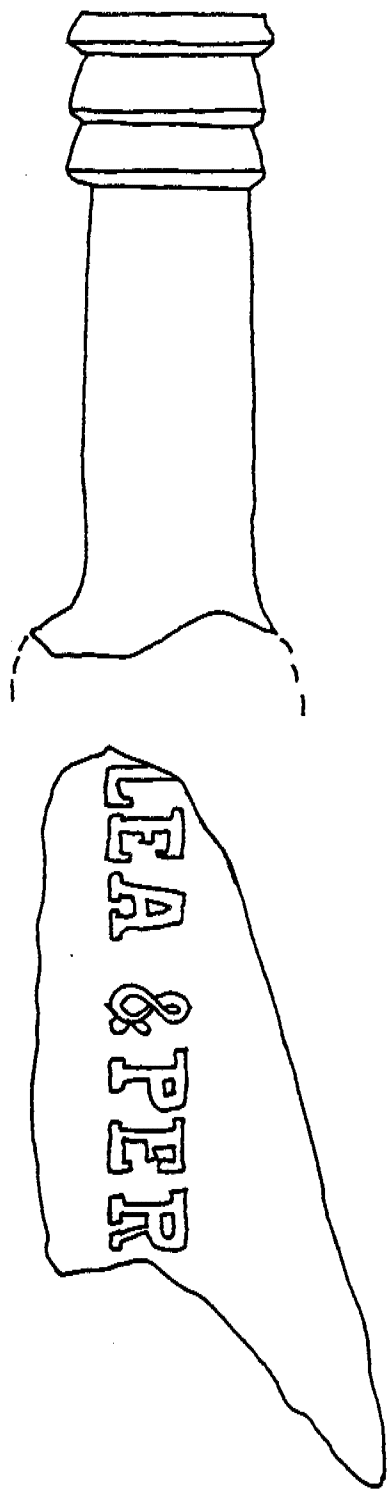
BOTTLE A



BOTTLE B

FENELON
IMR 413
REF # 26
5-11-82
ARMSTRONG

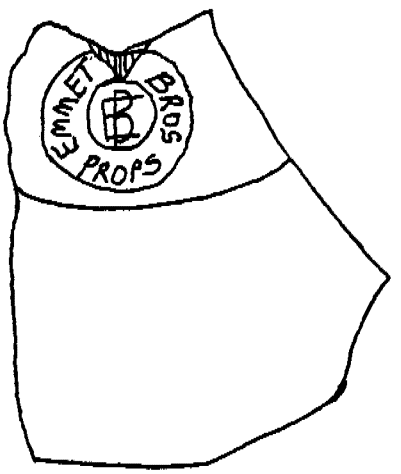
FIGURE 7



BOTTLE C.
SCALE 1:1
LEA & PERRINS

FENELON
IMR #413
5-11-82
REF. # 29
ARMSTRONG

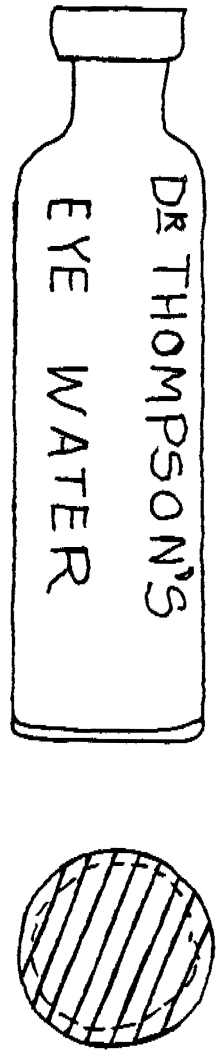
FIGURE 8



AMETHYST
DRUGGIST BOTTLE FRAG
BOTTLE A

FIGURE 9

FENELON
IMR # 413
5-11-82
ARMSTRONG
ISOLATED FIND
OFF SITE



REVERSE: NEW LONDON, CONN.
SCALE 1:1

FIGURE 10 Brooks Nov. 29, 1864 (reissue Aug. 6, 1867) Patent from a private collection

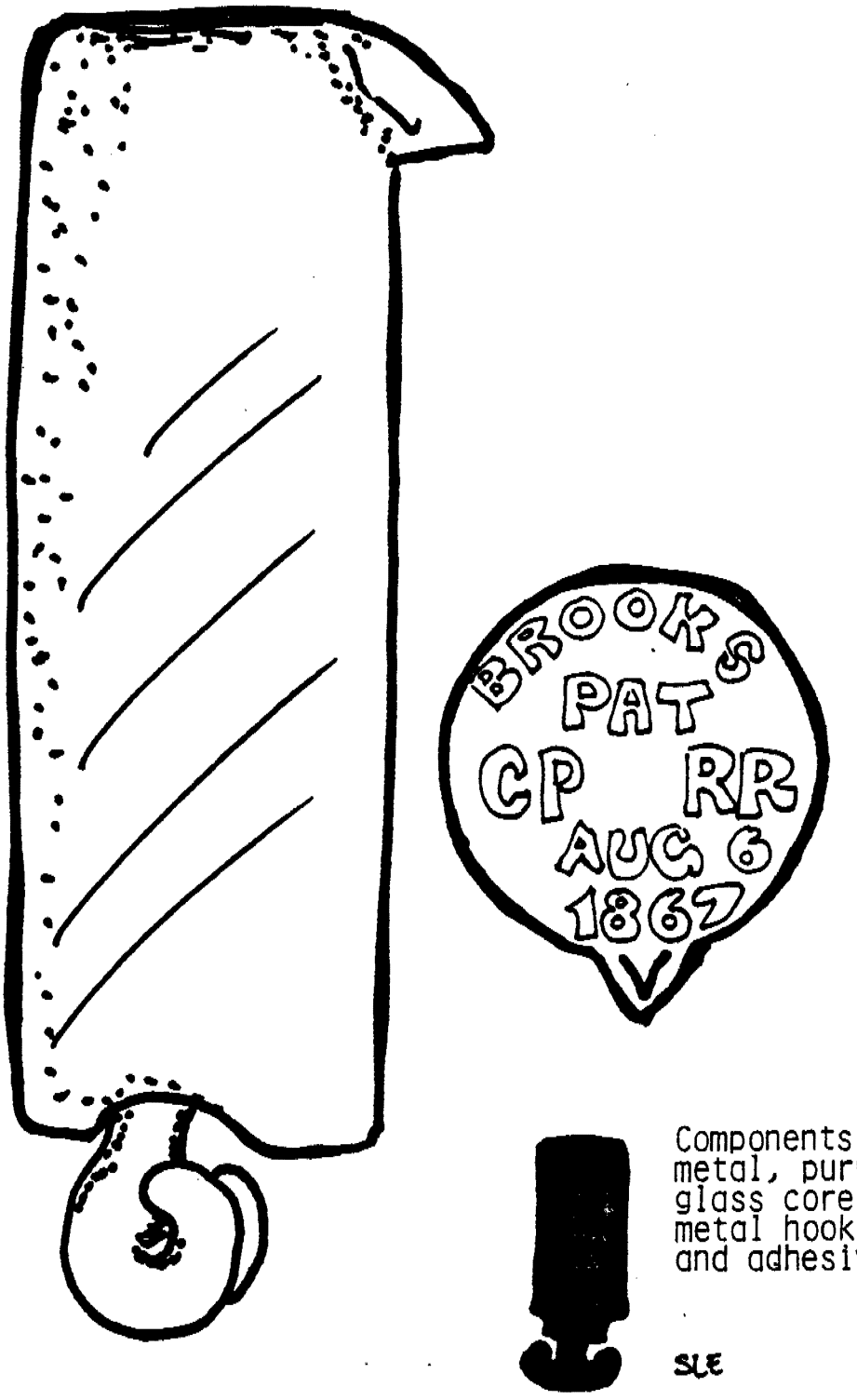


FIGURE 11 Brookfield Feb. 2, 1870 patent
from a private collection

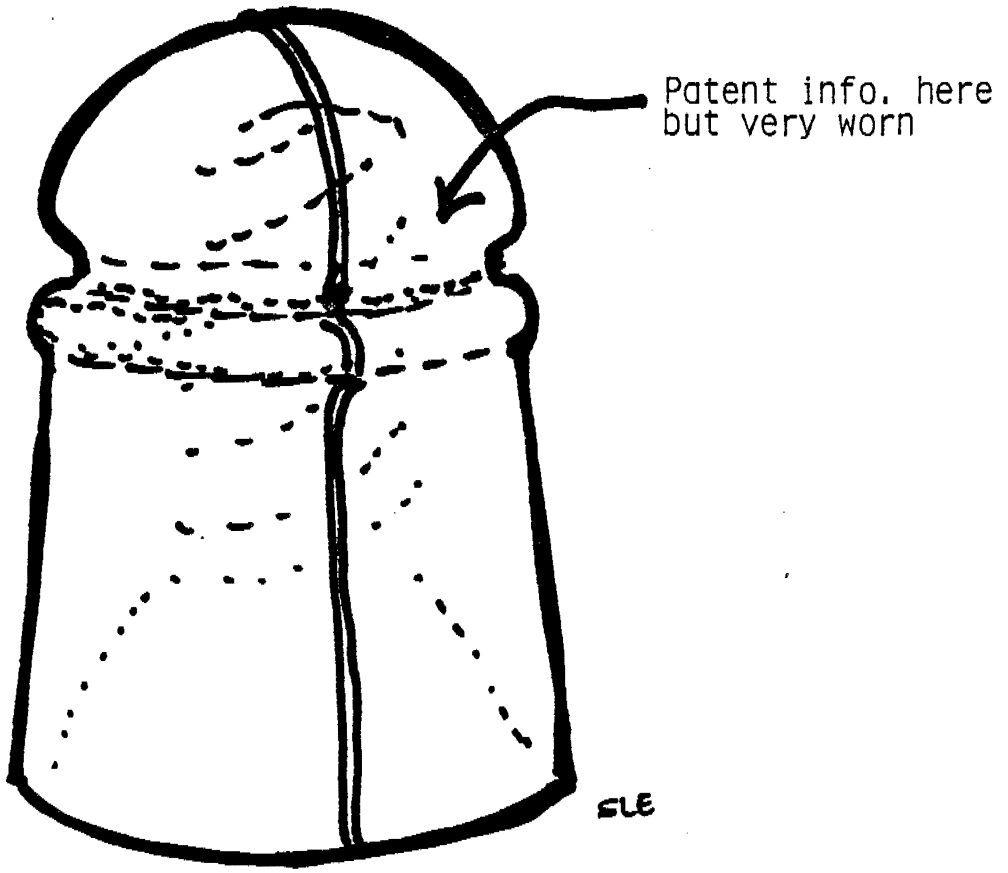


FIGURE 12 L) E.C.& M. Co. Sna Francisco Insulator, 1870-c1883
R) Brookfield March 20, 1877 patent
from the Nevada Central Ry/RR

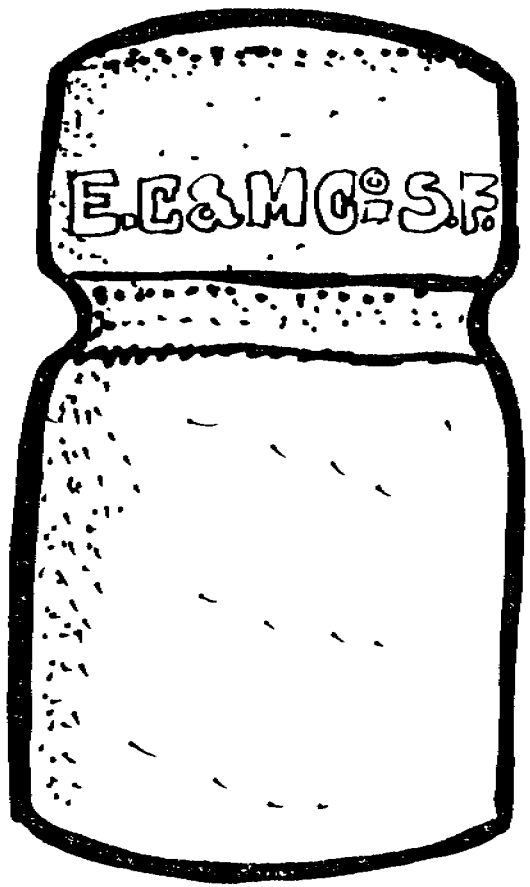


FIGURE 13 Broken Brookfield 1879 patent insulators from FENELON

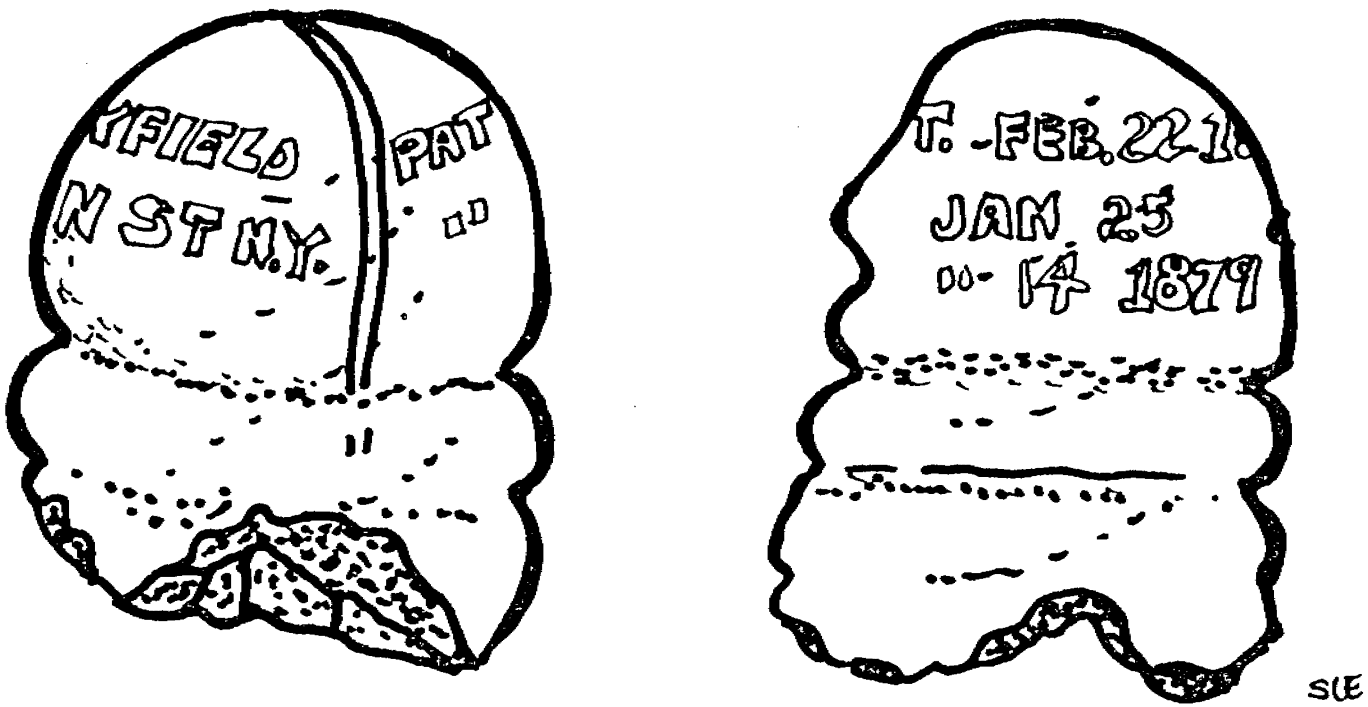
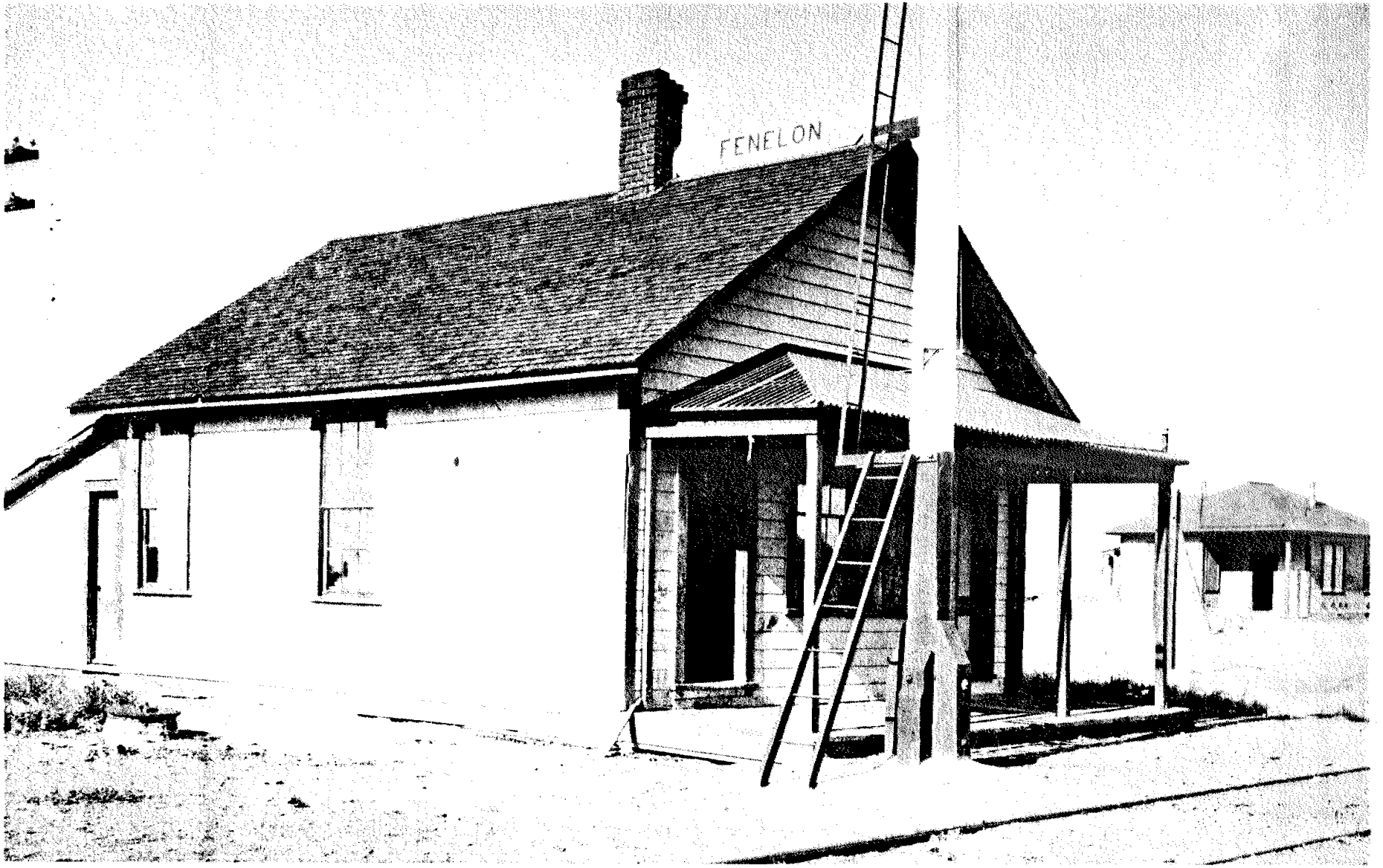


FIGURE 14 Samples of Southern Pacific and Railroad China from FENELON

PLATE 1



Southern Pacific depot at Fenelon, Nevada, 1912. Note relationship of old road (lower right hand corner), buildings, and telegraph line. (Photo courtesy of Southern Pacific Public Relations Department, San Francisco, Bill Robertson, Historian).

PLATE 2

Southern Pacific signal station at Fenelon, Nevada, ca. 1940. Note relationship of semaphore, building, and telephone lines. (Photo courtesy of Churchill County Museum and Archive, Sharon L. Edaburn, Director.)