From Lampo Junction to Rozel: The Archaeological History of the
Transcontinental Railroad across the Promontory Mountains, Utah

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GOSP SYNTHESIS REPORT

Golden Spike National Historic Site
National Park Service
and
Central Pacific Railroad Grade
Area of Critical Environmental Concern
Utah Bureau of Land Management

April 5, 2012
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This synthesis document pulls together and presents the results of the archaeological investigations that have been done at Golden Spike National Historic Site since it became a National Park. This includes a summary of a park-wide, multi-year inventory project as well as compilation of all other projects and research efforts (Giles and Frost 2001; Weymouth and Southworth 2002; Weymouth, et al. 2006a and 2006b). Although the park has been under National Park Service management since 1967; until now, there has been no systematic, thorough, and intensive inventory of its many archeological resources. With the exception of Ayres’ 1982 survey of the headquarters area that documented remains of the town of Promontory Station and of post-1869 operation and maintenance of the railroad, archeological investigations have been limited to reconnaissance efforts (Anderson 1981, Anderson and Ketterson 1978a, Knutsen 1995 - 1999) and small, compliance-related investigations (Jones 1979) to support park- management needs. This work has documented that a great variety and extensive number of archeological features exist within and immediately adjacent to the park that are an essential, but missing, ingredients of the overall Golden Spike story. This report also addresses the resources on two parcels of land along the railroad at either end of the Park. These two parcels are managed by the Bureau of Land Management and are considered Areas of Critical Environmental Concern or ACECs.
CHAPTER 1.  INTRODUCTION

Golden Spike National Historic Site was set aside in 1957 as a National Historic Site in non-federal ownership to commemorate the completion of the first transcontinental railroad and to acknowledge the tremendous historical consequences it created for our nation (Public Law 89-102). On July 30, 1965, it became part of the National Park System. While the park celebrates the May 10, 1869 joining of the rails built by the Central Pacific (CP) and Union Pacific (UP) railroad (RR) companies, it also emphasizes the paramount historical impact of the first transcontinental railroad upon the far western frontier. It bridged the vast unknown spaces of the Great American Desert and accelerated the processes whereby the American frontier was eventually eliminated. It opened the great western lands to settlement, hastening the creation of western territories and states. It united East and West; instead of taking six weeks by Pony Express to cross the nation, after completion of the railroad, mail took six days to go from coast to coast. Completion of the railroad also changed Native American lifeways and resulted in the almost complete-annihilation of the American Bison. Historians count the completion of the transcontinental railroad among the most significant and far-reaching events in the nation's history.

Portions of this project, located on lands managed by the Bureau of Land Management (BLM,) are considered an Area of Critical Environmental Concern (ACEC). Because of its unique history, the Transcontinental Railroad Grade was designated as an ACEC. Through the ACEC designation, special management was established to protect the historic and scenic values of the area. The BLM has limited travel to existing roads and trails in the area. The BLM also works on enhancing the visitor's experience and "preventing man-caused deterioration" (BLM 2007). This area is also a backcountry byway known as the "Promontory Branch" byway that winds through remnants of railroad camps, towns, and trestles.

Golden Spike National Historic Site was listed in the National Register of Historic Places in 1966, and its significance was formally documented for the Register in 1986 (Hendricks 1986). The "Joining of the Rails Transcontinental Railroad" was designated a National Civil Engineering Landmark in 1969 (American Society of Civil Engineers, May 10, 1969). The Central Pacific Railroad grade and the unfinished Union Pacific grade from the park's west boundary to Lucin was also documented for the National Register of Historic Places in 1987. In 1994 the utilized, Union Pacific grade to the east of the park was documented for the National Register of Historic Places. Remnants of the unused Central Pacific grade east of the park have not been documented for the National Register.

Because of the railroad's historical significance to the nation's history, it is the intent of the agencies involved to preserve its resources for public edification, enjoyment, and inspiration. This includes: the historic sites, artifacts, and knowledge associated with construction and operation of the railroad. For example, the park is the only place that has been set aside in perpetuity where evidence of construction of the notorious parallel grades can be seen by the American public. Here, too, are the only construction workers' campsites that are to be protected and preserved. These resources, and others unique to the park and associated Bureau of Land
Management railroad lands, are the subject of this archeological report. This is the culmination of a multi-year program to document and understand these resources. It builds upon previous studies and investigations; such as Robert Utley's (1960) early documentation of the park's national historical significance, James Ayres' 1982 archeological investigations of the town site of Promontory Station, and the Cultural Landscape Report prepared by Homstad, Caywood, and Nelson (2000).

Much has been written on the history of the world's first transcontinental railway, and analyses of its authorization history, economics, politics and associated machinations, and social history abound (Ames 1969, Daggett 1922, Davis 1894, Trent 1981, White 1895). The lives of powerful men who were behind the railroad and of those who made fortunes on the effort are well known (Lewis 1969, Williams 1988). Additionally, the general procedures, technology, and strategies employed during the construction effort have been addressed at length (Ames 1969, Dodge 1965, Galloway 1950, Griswold 1962, Kraus 1969a, Williams 1988). Because this information is widely available and the park's library has a wealth of relevant publications, this document does not go into detail about the history of the transcontinental railroad. Instead, it focuses on documenting and interpreting the physical evidence of construction of the railroad across the Promontories.

Research Arenas

The research design for this project posed many questions that guided the field work and analysis reports for this multi-year project (Anderson and Fox 2000). Most of the questions are addressed in the body of this report. All questions, however, are listed in Appendix A. If the question was addressed, the appendix references the section of the report where it was answered. The following research arenas were used to guide this project:

1. Chronology
2. Railroad construction and operations - east and west slopes of the Promontory mountains
3. Railroad construction and operation - Promontory summit
4. Ethnicity, gender, and material culture
5. Settlement patterns, demographics, and community organization
6. Subsistence and resource utilization
7. Paleoenvironment
8. External relations / ties to the east and west
9. Investigation of elusive features and oral traditions (Appendix B)
CHAPTER 2. DESCRIPTION AND NATURAL ENVIRONMENT

Location

Golden Spike National Historic Site straddles the Promontory Mountains on the northern shores of the Great Salt Lake (Figure 2.1). It is immediately west of Brigham City, Utah and contains 2,735 acres within its authorized boundaries. For approximately 4.5 miles on either side of the Park the railroad grades are managed as a Bureau of Land Management Area of Critical Environmental Concern (ACEC). The park stretches for 15 ½ miles across the Promontories and is divided for easy reference into three major areas: the east slope, the west slope, and the summit or “headquarters” area (Figure 2.2). It is part of the vast Great American Desert. Today, the park retains the open and isolated feeling that greeted the first explorers and early pioneers, thus enabling the historic context of this great American enterprise to be preserved.

Natural Environment

The Promontory Range in the northeastern part of the Great Basin of Northern Utah falls into the Intermountain Semi-desert and Desert Provence eco-regions. Its vegetation belongs to the cold desert and semi-desert plant communities, particularly the shadscale-kangaroo rat-sagebrush biome. Vegetation of the lower areas of the park is consistent with that of salt desert communities and includes species such as greasewood (*Sarcobatus vermiculatus*) and hopsage (*Atriplex confertifolia*) [Monaco 2004]. However, the major flora in this remnant sagebrush-steppe consists of sagebrush (*Artemisia* spp.), rabbitbrush (*Chrysanthamnus nauseous, C. viscidiflorus*), winterfat (*Krascheninnikovia lanata*), Bitterbrush (*Pursia tridentate*); and a variety of grasses, such as wheatgrass (*Agropyron* spp.), bluegrass (*Poa* spp.), and Indian ricegrass (*Orzyopsis hymenoides*); and numerous members of the Composite family. A copse of Chokecherry bushes (*Prunus virginiana*) occurs along the Central Pacific-constructed grade at its steepest point – six percent grade on the east side of Promontory Mountain. A number of onion (*Allium* spp.), lilly (*Calochortus* spp.), and other Great Basin herbs and forbes can be found, including many introduced species. Particularly obnoxious is the invasive Cheatgrass (*Bromus tectorum*) [Monaco 2004:2]. Russian Thistle (*Salsola spp.*) and Tumble Mustard (*Sisymbrium altissimum*) are of concern because of their propensity of “tumbling” and lodging in great numbers within the archeological sites and historic culverts where they can burn and result in loss of the resources. Allen and Curto (1995) estimate that at least 37 percent of all vascular plant species found within the park are introduced.

A very few Utah Junipers (*Juniperus osteosperma*) and two historic Box Elder trees (*Acer negundo*) grow on park lands. The exotic Matrimony Vine (*Lycium barbarum*) also abounds in the old town site of Promontory Station where it was used historically around structures to beautify the area (Ayres 1982). One Golden Current (*Ribes aureum*) remains, which was part of the Houghton establishment at Promontory Station. Over one-hundred years of grazing, fire, drought, and dry land farming, in addition to ground-disturbing railroad maintenance activities, complicates the park’s vegetation history. Both grazing and dry farming
Figure 2.1. Location of the Golden Spike National Historic Site and Bureau of Land Management ACEC Project Area.
Figure 2.2. Location of the Federally Owned Lands at Golden Spike National Historic Site and Bureau of Land Management ACEC.
have been only marginally successful through the years (Torbenson 1998), even though the Sacramento Daily Bee reports (May 13, 1869) “Workers cutting up the sagebrush ground for the railroad with a six mule team turned up soil that looked good for growing wheat.” Currently, much of the land surrounding the park is in the Conservation Reserve Program (CRP), wherein lands are planted in grasses to reduce erosion while at the same time provide wildlife habitat.

It is generally believed (West 1983 in Monaco 2004) that by the end of the 1800s, vegetation changes from unrestricted livestock use had already resulted in a decline in perennial grasses and other herbaceous plants and an increase in the dominance of sagebrush, which was less favorable to livestock (Pickford 1932). Moreover, A. J. Russell’s and others’ pictures taken immediately after completion of the railroad, show a scarified landscape crisscrossed by wagon roads, barren, or covered with matted, mangled vegetation and debris. Where vegetation can be discerned, it appears to be a mix of small sage (Artemesia sp.) and rabbitbrush (Chrysanthenmus sp.) with a smattering of bunch grasses. Pictures of the 1869 “last spike” ceremony show a mixture of small sage (Artemesia sp.) and bunch grasses. Monaco (2004:2) indicates that in 1869, vegetation at Promontory Summit most likely consisted of sage (Artemisia tridentata) in co-dominance with a variety of perennial grasses (Pseudoroegneria spicata, Poa secunda, Leymus cinerius, and Pascopyrum smithii) along with rabbitbrush (Chrysanthenmus sp), Bitterbrush (Pursia tridentata), Matchbrush (Gutierrezia sarothrae), and Horse-brush (Tetradymia canescens). None of the historic photographs show exotics or species, such as sunflowers, that favor disturbed ground. However, along with grazing and the farming that was to come, construction of the transcontinental railroad certainly laid the foundation for an introduction of exotic species and the subsequent transformation of the vegetation to what exists at the park today.

In 1869, just prior to completion of construction of the railroad, the line was surveyed by a variety of groups, such as the Special Pacific Railroad Commission appointed January 14, 1869 by the Secretary of the Interior. Jas R. Maxwell, Asst. Engineer, documented the line between Little Mountain westward not quite to Rozel, including the entire distance across the Promontories. In addition to the line, Maxwell made notes on his map that documented the vegetation in a general manner. The western part of the Promontory summit area, for example, is labeled “good pastureage” and further west the land along the line is labeled “wild grass and sagebrush.” While there is no indication in the historic record of vegetation on the slopes of the Promontory Mountains, Monaco (2004:3) suggests that the slopes above the valley were occupied by woody shrubs, including various Junipers (Juniperus sp.) These slopes still support various types of Junipers as well as Chokecherries (Prunus virginiana) in the ravines and around seeps. The Northwest Shoshone name for “the Promontory” is “doe nump so ho be ba bie,” meaning Chokecherry tree by or near water (Brinkerhoff, this volume.)

Knutsen’s 1995-99 archeological site condition assessment and documentation indicates that the sagebrush and rabbit brush, which tend to grow especially large within the protection and loose soils of the archeological features, are significantly affecting the historic stone walls, chimneys, and foundations. The plants’ strong and dexterous roots break through the walls, causing the stones to distort and the walls to collapse. Because it is impossible to kill the roots and effectively remove these plants from the structures without exacerbating the damage, the
park’s Fire Management Plan addresses the issue with recommendations of cool, carefully controlled burns across the sites. However, fueled by the vegetation within the various structures as well as the omnipresent Cheatgrass, wildfires in 2000 and 2001 raged through many of the park’s archeological sites. As a result, building stones cracked and spalled, and many artifacts burned and/or melted.

Jackrabbit (Lepus californicus), Mountain Cottontail (Sylvilagus nuttalli), kangaroo rat (Dipodomys spp), Coyote (Canis latrans), Mule Deer (Odocoileus hemonous), Sagebrush Vole (Lemmiscus curtatus), Badger (Taxidea taxus), Marmot (Marmota flaviventris), and a number of birds, particularly raptors and various species of owls, abound. Introduced Chukar (Alectoris chukar), Ring-necked Pheasant (Phasianus colchiicus), and Partridge (Perdix perdix) can be seen along the roadsides. The proximity of the park to the upper reaches of the Great Salt Lake makes it a good location for seeing overhead flocks of various types of ducks, geese, and other migratory waterfowl, including Sand Hill Crane (Grus canadensis).

From the 1910s into the 1940s, the railroad conducted numerous formal winter excursions to Promontory Station for the purpose of rabbit shooting (numerous issues of the Box Elder News and Journal dating from 1900 – 1950 (Figures 2.3 and 2.4). The rabbits, which thrived on the dry-farmed crops, were “herded” into a circle and then clubbed or shot to death, loaded onto freight cars, and transported to Ogden to feed the poor.

By the time the railroad crews arrived at the Promontory Mountains, “the Promontory,” meaning the entirety of the Promontory Range and hills that project southward into the Great Salt Lake, was being used for grazing. Beginning with the earliest Mormon pioneers, grazing rapidly expanded into “the Promontory.” In 1869, T. G. Brown, who had a small place on what is now the Fort Ranch in the southern Promontory area, supplied beef to the railroad construction crews (Whitaker 2001, personal communication). A. J. Russell’s “Slaughter House” picture (Figure 2.5) unmistakably illustrates that the railroad crews enjoyed freshly slaughtered beef. Later, around 1885, Brown moved to Promontory Station with his family where they ran the restaurant and operated a small store in the railroad depot (Johnson 1993:35-36).

The area around Golden Spike National Historic Site records a vast span of geologic time, beginning with the late Precambrian and ending with the shrinking of late Pleistocene Lake Bonneville. Today, the park's geologic setting is dominated by middle and late Paleozoic sandstones, shales, and limestones, which are capped by the Tertiary age Salt Lake Formation sandstones and shales of the Promontory Range – Promontory Mountain and North Promontory Mountain (National Park Service n.d.). The exposures and stone outcrops dominate the hills that surround the park. The east slope of the Promontory Mountains was one of the more difficult areas traversed by the transcontinental railroad, more because the steep slope required a considerable rise in grade elevation in a short distance than because dealing with the sharp, angular limestone was technically difficult. However, these hills served as the source of limestone and sandstone building stones for the many culverts that had to be constructed along the Central Pacific and Union Pacific grades. In fact, the headwall of one historic culvert has remnants of prehistoric pictographs on it (Figure 2.6), and many of the numerous, shallow limestone rockshelters were utilized prehistorically and historically as individual camp areas
Figure 2.3. Another Big Rabbit Shoot. *Box Elder News*, January 15, 1914, Page 5.

Figure 2.4. Rabbit Hunting at Promontory. Photograph courtesy of the Houghton Family.
Figure 2.5. A.J. Russell’s 1869 “Slaughter House” Photograph. Courtesy of the Oakland Museum of California.
During construction of the railroad (Figures 2.7-2.9). Most of the construction workers' campsites have structures constructed partially of limestone building stones.

During the late Pleistocene, the park was completely covered by the waters of Lake Bonneville, and the Bonneville and Provo terraces are prominent landscape features that loom above the park. Outwash deposits, created when the lake covered the area, now provide major gravel sources that were utilized in construction of the railroad and are still quarried today. As a result of the park's Quaternary-age geologic history, surface materials consist of fine-grained, silty lacustrine deposits and alluvial detritus (National Park Service nd). In fact, maintenance of the historic culverts is a major, ongoing issue because of the easy transport of these sediments and resultant plugging of the culverts.

At various times since 1869, there have been episodes of serious erosion in and around the park. When the occasional deluge hits, runoff from the surrounding hills courses into the Promontory summit area where the park headquarters and the "last spike" site sit. The railroad grades and the county road act as dams and serve to channel and divert runoff from its natural course. During the operation of the railroad, the Southern Pacific was forced to add a number of wood box culverts to the grade in the summit area to deal with this problem. These date from 1884 to 1914 (Southern Pacific Bridge Inspection Reports, Salt Lake Division, 1920). There are pictures of the buildings at Promontory Station awash with flood water (Figure 2.10). Since establishment of the park, there have been several such episodes when water, rushing off the Promontory Mountains, has poured into the National Park Service (NPS) engine house and washed out parts of the grade on both the west and the east sides of the park.

The 1937 aerial photos show the east slope of Promontory Mountain as a denuded landscape crossed with many small drainages cutting into the land. There are a number of erosion prevention berms in this area of the park, reportedly put in by the Soil Conservation Service (SCS) to halt the rampant sheet wash and subsequent erosion. Potential records of this activity were destroyed when the SCS moved offices. Significant head-ward erosion of a deep, unnamed drainage along the southeast boundary of the park has resulted in the loss of a large portion of the historic Union Pacific railroad grade and is threatening the very spot where the two railroad grades actually come together somewhat east of Promontory Station. Another branch of this same headwater-eroding drainage cut through the mainline, which was fixed by construction of a trestle in that location in 1872 (Southern Pacific 1920:252).
Figure 2.6. Headwall of a Historic Culvert with Remnants of Prehistoric Pictographs.
Figure 2.7. Overview of Caves near Promontory, Sites 42BO805 and 42BO806.
Figure 2.8. “Overhanging Cliffs” by A. J. Russell (Possibly Site 42BO805 or 42BO806) at Promontory. Photograph courtesy of the Oakland Museum of California.
Figure 2.9. “Overhanging Cliffs” by A. J. Russell (Possibly Site 42BO805 or 42BO806) at Promontory. Photograph courtesy of the Oakland Museum of California.
Figure 2.10. Katie Houghton at Promontory Awashed with Flood Water. Photograph courtesy of Golden Spike National Historic Site, National Park Service.
CHAPTER 3. HISTORIC AND ARCHAEOLOGICAL BACKGROUND

Initial research at the park focused upon transcontinental railroad history (Ketterson 1969; Ketterson and Utley 1969; Utley 1960) and was oriented almost exclusively toward park significance and reconstruction of the 1869 historic scene – the May 10 act of driving the Last Spike. Appleman (1966) and Utley (1960) provided the historic documentation for establishment and initial development of the National Historic Site, and Ketterson's (1969) base maps were the foundation for the National Park Service 1968-1969 reconstruction of the May 10, 1869 historic last spike scene. Unfortunately, this research was pressured and rushed because of the need to complete the reconstruction by its 100th anniversary on May 10, 1969. And around the time of the 100th anniversary celebration, Ketterson suggested that his track layout reconstruction was erroneous (Ketterson 1977). Subsequently, historic photographs, aerial photographs, and archeological investigations (Anderson and Ketterson 1978a, Jones 1979) have documented the correct alignment of the tracks, the location of the there-to-fore elusive Union Pacific wye (Figure 3.1), and the actual meeting point where the Union Pacific grade joined with the Central Pacific grade (not the site where the last spike was driven).

In the early 1970s, the National Park Service initiated preparation of a Master Plan for the park. This effort included National Park Service Archeologist Anderson, whose responsibility was to provide cultural information for the plan. Because of the many campsites and other on-the-ground features that had been noted by park staff, this effort also resulted in a reconnaissance-level survey of park resources, evaluation of then-available historic records, location of the UP wye and actual meeting point of the CP and UP grades, and preparation of the park’s first cultural resource base map (Anderson and Ketterson 1978b). Also, in the early 1970s park Interpreter Ellis LeFevre, who had informally located a number of the construction worker camps, carried out informal test excavations on several historic features at Promontory Summit, including what he believed to be the roundhouse that had been built by the Southern Pacific (LeFevre 1974).

In the late 1970s, the park was preparing to receive working replica Central Pacific Jupiter and Union Pacific 119 locomotives. The greatest needs were to turn the reconstructed railroad track into a functional roadbed and track and to construct a locomotive storage/maintenance facility (engine house). It was decided to further archeologically investigate the actual track alignments in the headquarters area – especially the Union Pacific siding (Jones 1979) - and to correct the earlier, erroneous reconstruction. The decision was also made, with Anderson on the Planning Team, to make use of the historic Union Pacific wye to enable the locomotives to “turn around,” and to be the site of the locomotive storage/maintenance facility. Because the “tail” of the wye where this facility was built was a cut, it served as an effective means of lowering the profile of this two-story building and lessening its impact on the historic scene. Several options for building non-historic track alignments to a storage facility were considered, but were rejected because of their intrusive, confusing, and non-historic nature (National Park Service 1978). It finally was determined that “continuity of use” of the historic railroad wye, analogous to continued use of a historic structure for its original purpose, would
Figure 3.1. Historic Base Map - May 10, 1869, Promontory Summit. Note the Union Pacific wye on the left center of map.
be the most effective manner of both accurately interpreting the historic alignment and providing housing for the locomotives.

As part of this effort, the need to inventory and document all extant archeological features within the headquarters area of the park – basically the remains of the town of Promontory Station and evidence of post 1869 operation and maintenance of the railroad – became apparent. This work, conducted under contract to James E. Ayres (1982) at the Arizona State Museum, University of Arizona, Tucson, resulted in thorough investigation and documentation of the archeological resources within the headquarters area of the park. While Ayres accomplished some historical research, the need for further substantial investigation into the history of Promontory Station and into Southern Pacific Railroad records was recognized (Ayres 1982), but precluded both because it was not in the scope-of-work and because there were insufficient funds.

By the middle 1990s, it was apparent that information concerning resource condition was lacking and that the park's cultural/historic landscape values were unknown. Projects to document in detail, assess the condition, stabilize, and monitor the grade and associated historic structures were initiated (Hutchison and Wilson, in preparation). A Class I reconnaissance-level Cultural Landscape Inventory was completed by Nelson (1997), and Class II Cultural Landscape Inventory (Nelson 2000) and Cultural Landscape Report (Homstad, et al. 2000) developed through contract with Historic Research Associates. From 1995-1999, park volunteer Byron Knutsen assiduously inventoried much of the park lands on the east slope of the Promontories and documented a number of archeological sites. His efforts laid the foundation for this comprehensive archeological inventory and provided the information needed to solicit funding for the program.

In addition to these on-the-ground investigations, park staff have conducted or overseen historical research into various aspects of park history (Appendix C, Hedron 1978, Johnson 1989; Spude 2004) that further suggest the richness of the Promontory story. Park historic structure and archeological resources that were known at the time were summarized and documented for the National Register of Historic Places in 1986 (Hendricks 1986). In addition, several recent publications (Ambrose 2000; Bain 1999; Strack 1996) address Central Pacific and Union Pacific activities across northern Utah. These additional publications enrich and add to the history of the railroad through this area.

A large number of the park's most significant physical resources are archeological in nature (Anderson 1981; Anderson and Ketterson 1978a; Anderson and Wilson 1999): those stemming from construction of the railroad and those associated with the town of Promontory Station, which was established at the summit of Promontory Pass as the transfer point between the two railroads after the joining of the rails. The other significant remains are the railroad grades and grade features, such as stone and wood culverts, trestles, sidings, set outs and “crossover” points where one grade merged into the other, the landscape features, such as notches in the skyline where grade cuts were made, and the views and vistas that still retain the open and vast character of the 1869 scene.
This previous work resulted in formal documentation of only a limited number of sites (Table 3.1), most of which were updated and reevaluated during the multi-year archeological inventory project.

<table>
<thead>
<tr>
<th>Site Number</th>
<th>Site Type</th>
<th>Reference Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>42BO805</td>
<td>Rock shelter/construction worker camp</td>
<td>1994 site form completed by Brooke Arkush</td>
</tr>
<tr>
<td>42BO806</td>
<td>Rock shelter/construction worker camp</td>
<td>1994 site form completed by Brooke Arkush</td>
</tr>
<tr>
<td>42BO851</td>
<td>Construction worker camp</td>
<td>1998 site form completed by Anderson/Kuntsen</td>
</tr>
<tr>
<td>42BO852</td>
<td>Construction worker camp</td>
<td>1998 site form completed by Anderson/Kuntsen</td>
</tr>
<tr>
<td>42BO853</td>
<td>Construction worker camp</td>
<td>1998 site form completed by Anderson/Kuntsen</td>
</tr>
<tr>
<td>42BO854</td>
<td>Construction worker camp</td>
<td>1998 site form completed by Anderson/Kuntsen</td>
</tr>
<tr>
<td>42BO855</td>
<td>Construction worker camp</td>
<td>1998 site form completed by Anderson/Kuntsen</td>
</tr>
<tr>
<td>42BO856</td>
<td>Construction worker camp</td>
<td>1998 site form completed by Anderson/Kuntsen</td>
</tr>
</tbody>
</table>

The railroad grades themselves are considered Historic Structures by the National Park Service and given the designations CP-1 and UP-2 (List of Classified Structures, Golden Spike National Historic Site 1999) (Table 3.2). The individual stone, wood, and metal culverts and the trestles associated with these grades are also given specific List of Classified Structures (LCS) designations.

<table>
<thead>
<tr>
<th>Description</th>
<th>Designation</th>
<th>Other Designations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Pacific constructed railroad grade and</td>
<td>LCS #054528 – CP-1</td>
<td>42BO562 – on BLM land west of park.</td>
</tr>
<tr>
<td>associated features.</td>
<td></td>
<td>42BO822 – on BLM land west of the park</td>
</tr>
<tr>
<td></td>
<td></td>
<td>42BO562 on BLM land east of the park (the mainline, regardless of builder, has</td>
</tr>
<tr>
<td></td>
<td></td>
<td>been given this number).</td>
</tr>
<tr>
<td>Union Pacific constructed railroad grade and</td>
<td>LCS #054529 – UP-1</td>
<td></td>
</tr>
<tr>
<td>associated features.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

A site file search conducted at the Utah State Historical Society Division of State History for Box Elder county, specifically for the six USGS 15' topographic maps surrounding and including the park (Lake Ridge, Rozel, Sunset Pass, Golden Spike Monument, Lampo Junction, and Thatcher Mountain SW), yielded extremely few sites in addition to those addressed above (Table 3.3). There have been no systematic inventories of lands within these quadrangle maps, excepting the GOSP/BLM inventory and documentation of the historic railroad grades. There
are some documented sites on ATK Launch Systems (formerly Thiokol Corporation) property about which information is extremely sparse and on BLM land.

<table>
<thead>
<tr>
<th>Site No.</th>
<th>Description</th>
<th>Other Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>42BO12</td>
<td>Connor Springs Petroglyph Site - Archaic and Fremont styles present.</td>
<td>On ATK Launch Systems property.</td>
</tr>
<tr>
<td>42BO17</td>
<td>Prehistoric rockshelter/cave.</td>
<td>On private lands. Site had been vandalized.</td>
</tr>
<tr>
<td>42BO129</td>
<td>Prehistoric rockshelter/cave and pictograph site. Pictograph panels have anthropomorphic figures, lines and dots.</td>
<td>On private lands. Site has been vandalized.</td>
</tr>
<tr>
<td>42BO175</td>
<td>Prehistoric rockshelter/cave - no artifacts noted, but the roof of the shelter is blackened and charcoal was noted.</td>
<td>On ATK Launch Systems property.</td>
</tr>
<tr>
<td>42BO176</td>
<td>Prehistoric rockshelter/cave - obsidian flakes were noted</td>
<td>On ATK Launch Systems property. Site has been vandalized and destroyed.</td>
</tr>
<tr>
<td>42BO177</td>
<td>Open lithic scatter - located at a spring at the Evan's Ranch.</td>
<td>Exact location unknown, could by private property or ATK Launch Systems property.</td>
</tr>
<tr>
<td>42BO386</td>
<td>Prehistoric rock art - anthropomorphic petroglyph figures.</td>
<td>On ATK Launch Systems property.</td>
</tr>
<tr>
<td>42BO527</td>
<td>Historic box culvert on the Transcontinental Railroad at the intersection of Hwy 83 with Golden Spike Drive.</td>
<td>Documented in 1987 - Information located in State of Utah's Historic Site/Structure records; BLM.</td>
</tr>
<tr>
<td>42BO542</td>
<td>Historic railroad siding or construction camp - 5 depressions, artifacts dating to 1869-1929.</td>
<td>On private property.</td>
</tr>
<tr>
<td>42BO597</td>
<td>Prehistoric rockshelter/overhang - artifacts noted include 1 Great Salt Lake Gray ceramic and 4 Shoshone ware sherds.</td>
<td>On ATK Launch Systems property.</td>
</tr>
<tr>
<td>42BO805</td>
<td>Prehistoric and historic Rockshelters.</td>
<td>NPS lands - recorded 1994 Brooke Arkush.</td>
</tr>
<tr>
<td>42BO806</td>
<td>Rock shelter/construction worker camp.</td>
<td>NPS lands - recorded 1994 Brooke Arkush.</td>
</tr>
<tr>
<td>42BO821</td>
<td>Historic concrete foundation and debris at unnamed spring. The site is believed not to be associated with the railroad.</td>
<td>BLM lands; site recommended as not eligible for the National Register.</td>
</tr>
<tr>
<td>42BO955</td>
<td>Two prehistoric rockshelters with two rock art panels - anthropomorphic figures and curvilinear style.</td>
<td>On ATK Launch Systems property. This site has been vandalized.</td>
</tr>
</tbody>
</table>
CHAPTER 4. PREHISTORY

Throughout the prehistory of the Great Basin, occupants exercised subsistence patterns rooted in the seasonal procurement of resources found in particular environments. In many parts of the Great Basin, traditional hunter/gatherer patterns gave way to increased sedentism and agriculture.

The prehistoric context for the Promontories diverges somewhat from this general model. Subtle deviation occurs because of the unique physiographic setting of the northern Salt Lake Basin. In this area, cultural change has been affected through time by the activity of the Great Salt Lake shoreline. The evolving geology of the Great Salt Lake has created a changing environment different from that of the rest of the Great Basin. This unique environment has exposed its human occupants to resources and constraints not associated with more arid and physiographically diverse landscapes. As such, there are chapters of the region's prehistoric context that differ from the general models commonly accepted for the rest of the Great Basin (Aikens 1970; Jennings 1978; Madsen 1980).

It has been demonstrated that the prehistoric occupants of the Great Salt Lake margin remained focused upon marshland resources even as most of the Great Basin experienced human sedentism and agriculture (Russell, et al.1989). Capitalization of the Great Salt Lake marshlands resulted in adherence to the hunter/gatherer strategies that were abandoned much earlier in more physiographically diverse areas of the Great Basin. These patterns of mobility influenced prehistoric use. Marshes located in the lowlands near bodies of water provided the primary resources required by these hunter/gatherers. The broad basin located north of the Great Salt Lake was utilized primarily for the seasonal hunting of large game. This supplemented the marshland resources that served as the foundation for subsistence in the Salt Lake Basin. As a result, hunter/gatherer economies have been dominant in the area from the Pleistocene through the early Historic Period (Figure 4.1). All prehistoric sites located within and near the park are listed in the following table (Table 4.1).

Paleo-Indian Period

The Pleistocene, or the most recent “Ice Age,” is divided into a number of periods marked by warming and cooling trends that resulted in the repetitive advance and retreat of continental ice masses across North America. The Wisconsin glaciation (20,000 to 18,000 years before present [B.P.]) of the terminal Pleistocene created much cooler and moister weather patterns across North America. The advancement of glaciers in higher elevations and northern latitudes trapped much water in the form of ice. This resulted in lower sea levels that exposed the Beringian Landmass connecting Siberia and Alaska. Archaeological evidence from across the continent indicates that humans may have crossed the Beringian Landmass into North America as early as 16,000 B.P. (Taylor, et al. 1999:455). These early aboriginal inhabitants are referred to as Paleo-Indians.
Figure 4.1. Prehistoric Chronology for the Promontory Area.
<table>
<thead>
<tr>
<th>Site No.</th>
<th>Description</th>
<th>Other Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>42BO12</td>
<td>Connor Springs Petroglyph Site.</td>
<td>On ATK Launch Systems property. Archaic and Formative/Fremont styles present.</td>
</tr>
<tr>
<td>42BO129</td>
<td>Prehistoric rockshelter/cave and pictograph site.</td>
<td>On private lands. Site has been vandalized. Probable Fremont style present.</td>
</tr>
<tr>
<td>42BO17</td>
<td>Prehistoric rockshelter/cave.</td>
<td>On private lands. Site had been vandalized. No temporal diagnostics at site.</td>
</tr>
<tr>
<td>42BO175</td>
<td>Prehistoric rockshelter/cave - no artifacts noted, but the roof of the shelter is blackened and charcoal was noted.</td>
<td>On ATK Launch Systems property. No temporal diagnostics at site.</td>
</tr>
<tr>
<td>42BO176</td>
<td>Prehistoric rockshelter/cave - obsidian flakes were noted.</td>
<td>On ATK Launch Systems property. Site has been vandalized and destroyed. No temporal diagnostics at site.</td>
</tr>
<tr>
<td>42BO177</td>
<td>Open lithic scatter - located at a spring at the Evan's Ranch.</td>
<td>On Evan's or ATK Launch Systems property. No temporal diagnostics at site.</td>
</tr>
<tr>
<td>42BO386</td>
<td>Prehistoric rock art - anthropomorphic petroglyph figures.</td>
<td>On ATK Launch Systems property</td>
</tr>
<tr>
<td>42BO597</td>
<td>Prehistoric rockshelter/overhang - artifacts noted include 1 Great Salt Lake Gray ceramic and 4 Shoshone ware sherds.</td>
<td>On ATK Launch Systems property. Formative and Late Prehistoric site components.</td>
</tr>
<tr>
<td>42BO805</td>
<td>Prehistoric and historic Rockshelters.</td>
<td>Russell Photo depicting workers living here. No prehistoric temporal diagnostics at site.</td>
</tr>
<tr>
<td>42BO806</td>
<td>Prehistoric and historic Rockshelter/Cave.</td>
<td>No historic artifacts and no prehistoric temporal diagnostic artifacts found at this site.</td>
</tr>
<tr>
<td>42BO922</td>
<td>Prehistoric lithic scatter.</td>
<td>Archaic site with Rose Springs/Scottsbluff, Eden projectile points present.</td>
</tr>
<tr>
<td>42BO923</td>
<td>Prehistoric lithic scatter/cave site.</td>
<td>No temporal diagnostics at site.</td>
</tr>
<tr>
<td>42BO939</td>
<td>Rockshelter.</td>
<td>No artifacts present, but possible prehistoric use.</td>
</tr>
<tr>
<td>42BO955</td>
<td>Two prehistoric rockshelters with two rock art panels - anthropomorphic figures and curvilinear style.</td>
<td>On ATK Launch Systems property. This site has been vandalized. Possible Formative/Fremont rock art present.</td>
</tr>
<tr>
<td>42BO1058</td>
<td>Prehistoric lithic scatter.</td>
<td>No temporal diagnostics at site.</td>
</tr>
<tr>
<td>42BO1067</td>
<td>Prehistoric lithic scatter.</td>
<td>No temporal diagnostics at site.</td>
</tr>
<tr>
<td>42BO1149</td>
<td>Blue Creek Station/Prehistoric Campsite.</td>
<td>Archaic projectile points located at this site.</td>
</tr>
</tbody>
</table>

* Bolded site numbers are located within park.
Paleo-Indians practiced a highly mobile subsistence strategy with an emphasis on large Pleistocene megafauna. Paleo-Indian social organization consisted of small groups that spread rapidly to inhabit North and South America. Paleo-Indian sites are distinguished by the presence of diagnostic projectile points and associated tools, and the remains of extinct megafauna. Conservative estimates for the Paleo-Indian Period place this earliest North American occupation between 14,000 and 10,000 B.P.

During the Pleistocene, a portion of a large inland lake covered the project area with water (Currey, et al. 1983). This lake, known as Lake Bonneville, covered much of the Eastern Great Basin. This lake was impounded by landforms and large dams of ice. As glacial runoff slowed, the waters of the lake receded gradually. Cataclysmic floods, resulting from fractured or subjected ice dams created catastrophic shoreline changes. The route of the railroad was exposed from the water sometime between 14,500 and 13,500 B.P. The resulting shoreline may have supported humans; however, there is no archaeological evidence for such an early occupation of the Great Basin. People do not appear to have inhabited the region until later in the Paleo-Indian Period, ca. 11,500 B.P., but precise dating of such early occupations is complicated. The geologically active, erosional nature of the Great Basin diminishes the probability that intact, early Paleo-Indian cultural materials could be identified.

The first known Paleo-Indian occupations of the Great Basin are represented by three distinct technological traditions or complexes. These are known as the Western Clovis Complex, the Western Stemmed Complex, and the Folsom Complex (Willig and Aikens 1988:1). Each is identified by the presence of diagnostic tools.

Paleo-Indian sites are rare in the area of the park. However, a brown chert, Alberta-series projectile point fragment was found at site 42BO922 in the park by the Western Archaeological Conference Center in (WACC) 2000. This Terminal Paleo-Indian projectile point dates between 9500-9000 B.P. (Draeger and Ireland 1986:596) (Figure 4.2). The Alberta projectile point is stemmed and the stem measures 17.65 mm wide by 13.53 mm tall. The thickness of the projectile point is 7.45 mm from the base to the break measures 35.61 mm. This point was collected and prepared for curation at GOSP (FS-2000-18) (WACC 2000).

The Clovis complex (11,500 to 11,000 B.P.) is represented by lanceolate form projectile points fluted on both faces to facilitate hafting. Spurred end-scrapers, gravers, perforators, backed blades, and formalized and expedient bone tools are also associated with the Clovis technological assemblage. Clovis sites are limited in Utah to isolated surface finds and several small sites such as Lime Ridge (Davis and Brown 1989), Hell'n Moriah (Davis, et al. 1996), and Site 42MD300 (Copeland and Fike 1988).

The Western Stemmed Complex (11,000 to 8,000 B.P.) is characterized by large stemmed and shouldered lanceolate projectile points associated with crescent knives and heavy core tools. In Utah, Western Stemmed points have been recovered from Danger Cave (Jennings 1957), Hogup Cave (Aikens 1970), and the Sevier Desert Site (Simms and Lindsay 1984). Substantial argument remains whether the Western Stemmed and Clovis complexes are coterminous or represent different time frames and adaptations (Bryan 1988:53; Willig and Aikens 1989).
Figure 4.2   Brown Chert Alberta Series Projectile Point Fragment from Site 42BO922.
The Folsom Complex represents a cultural tradition more distinct than the Clovis and Western Stemmed complexes. The Folsom Complex dates to between 11,000 and 9,500 B.P. The Folsom Complex displays a wider geographic and temporal range than that of Clovis, supporting theories that Folsom culture branched from the older fluted tradition. Folsom sites are associated with bifacially fluted projectile points that are smaller, thinner, and more refined than those identified at Clovis sites. Burins, denticulate tools, gravers, scrapers, and fine bone and antler tools are also associated with Folsom artifact assemblages. Folsom hunters appear to have focused on extinct forms of bison for their primary subsistence. Larger megafauna such as mammoths are absent from Folsom sites. Folsom points have been noted as isolated artifacts across Utah, and have been identified at the Montgomery habitation site near Green River, Utah (Davis’ 1985).

The terminal Pleistocene, or Bonneville Period, ranges from 11,000 to 9,500 B.P. (Aikens and Madsen 1986:154). This time frame overlaps with the Paleo-Indian Period and is considered a transitory stage between Paleo-Indian and Early Archaic lifestyles. In this chronology, Western Stemmed is seen as following Clovis chronologically, rather than a contemporaneous complex. Stone flakes and milling stones from Danger Cave dating to around 9,800 B.P. (Jennings 1957) provide early evidence for plant processing and indicate a broad spectrum subsistence strategy utilizing animal and plant resources.

**Archaic Period**

The Archaic Period (10,000 to 1,600 B.P.) represents a long span of time distinguished by a steady transition of lifeways and technologies. An increased focus on small game and the exploitation of plant resources marks the Archaic Period. Nevertheless, the transition between the Paleo-Indian and Archaic periods is poorly defined. Both the Folsom and Western Stemmed complexes existed into the Archaic. Folsom culture during the Archaic does not seem to have changed dramatically from what is understood for the Paleo-Indian Period. However at sites such as Hogup Cave and Danger Cave, Western Stemmed assemblages display an increased exploitation of a variety of resources consistent with the time of transition defined loosely as the Archaic Period (Aikens and Madsen 1986; Jennings 1978). Archaic cultures expanded across the Great Basin, resulting in a multitude of projectile point forms, sites, and lifeways. Several periods of the Archaic have been defined in order to illustrate these cultural shifts.

The Wendover Period ranges from approximately 9,500 to 6,000 B.P. as defined by Aikens and Madsen (1986:154) and roughly corresponds to the Early Archaic Period described for other regions. Sites are found at many different elevations and in a wide variety of environments. Excavation of dry caves in western Utah recovered basketry, cloth, cordage, digging tools, snares, buckskin, and fire drills (Jennings 1978:41, 49). Grinding implements for plant processing and implements such as atlatls and traps for hunting small game are common. These artifact assemblages are indicative of the wide variety of activities engaged in by prehistoric inhabitants, who most likely followed a seasonal round of hunting and gathering. Projectile points common to the Wendover Period are the Elko Series, Pinto Series, Bitterroot Side-notched, and Humboldt Concave-base (Figures 4.3 and 4.4).
The Black Rock Period ranges from 6,000 to 1,500 B.P. (Aikens and Madsen 1986:154). This range spans the Middle to Late Archaic as described in other Great Basin regions. It is characterized by a drier environment, which diminished lake margin resources. Increasing pressure from population expansion complicated issues. The increased population pressure and decrease in available food resources prompted a shift to greater mobility and movement into upland areas to take advantage of resources at higher elevations. Expansion into upland piñon-juniper communities for the exploitation of mountain sheep, deer, and other animals became more necessary. The beginning of the Black Rock Period is distinguished technologically by the appearance of new Elko and Gypsum projectile point forms. At around 4,000 B.P., Neoglacial climatic shifts resulted in increased rainfall, flooded springs, and increased marshlands. Subsistence activities shifted to an emphasis on upland areas due to the decrease in available plants and waterfowl from flooded areas (Aikens and Madsen 1986:158). The end of the Black Rock Period is distinguished by the introduction of the bow and arrow. This technology rapidly replaced the atlatl and diminished the importance of the spear. While projectile point form remained constant in terms of basic form, overall size decreased.

Rock art from the Archaic Period is defined as the Great Basin Curvilinear Style. There are two documented sites, just outside of the park, with curvilinear style rock art (42BO12, 42BO955). Both sites are located on ATK Launch Systems property and contain obsidian flakes. Site 42BO955 is associated with a rockshelter, which may contain some cultural deposits. The Great Basin Curvilinear rock art style has been found within the park on petroglyphs carved or pecked on the sandstone lintel of a historic Union Pacific stone culvert (see Figure 2.6). The lintel rock may have come from a site on ATK Launch Systems property, just east of the park. One of these sites, Connor Springs (42BO12), consists of a large petroglyph site on Wells Formation Sandstone and clearly represents the Great Basin Curvilinear style (Castleton 1979:18-21; Schaafsma 1971; Steward 1929). Sandstone was quarried historically in this area.

Emergent at the end of the Archaic Period were several characteristics of horticultural subsistence. The manufacture of pottery and the introduction of domesticated maize variants accompanied increased sedentism for the multiple horticultural communities that appeared throughout much of Utah, Eastern Nevada, Western Colorado, and Southern Idaho. Designated the Fremont, this cultural tradition flourished between 1600 and 700 B.P. (Marwitt 1986:161).

Formative Period

Five distinct variants of Fremont are recognized. The Great Salt Lake Fremont variant is most commonly associated with the Northern Great Salt Lake Basin (Marwitt 1986:162). This variant occupied the northern periphery of the Fremont area from 1,200 to 700 B.P. The Great Salt Lake Fremont differed from the four other variants by their nearly complete reliance on the processing of wild plant and animal resources around marsh and lake environments (Madsen 1989:21-22; Marwitt 1986:168). These hunter/gatherer characteristics coincide with the region's theme of subsistence patterns rooted in a marshland economy. Bone knives, saws and whistles, antler harpoon heads, ceramic anthropomorphic figurines, and ceramic vessels of Great Salt Lake Gray Ware and Promontory Gray Ware are commonly attributed to the Great Salt Lake Fremont (Marwitt 1986:168-169). Habitation sites generally lack substantial architecture and are limited
Figure 4.3. Site 42BO852. Obsidian Humbolt and Obsidian Uintah Desert Side-notched Projectile Points.

Figure 4.4. Site 42BO852. Obsidian Humbolt and Obsidian Uintah Desert Side-notched Projectile Points.
to pithouses and storage pits located near marshy areas. These semi-permanent structures were utilized seasonally. Mobile camps and well-sheltered caves were visited during seasonal rounds maintained by this transient Fremont subgroup. Sites important to our understanding of the Great Salt Lake Fremont include Bear River No. 1 (Aikens 1966) and Bear River No. 2 (Shields and Dalley 1978), Injun Creek (Aikens 1966), the Levee and Knoll sites (Fry and Dalley 1979), Hogup Cave (Aikens 1970), the Promontory Caves (Steward 1937), Swallow Shelter (Dalley 1976), Orbit Inn (Simms and Heath n.d.), Willard (Judd 1926), and the Fremont sites identified along the southern banks of the Snake River in southern Idaho (Butler 1981).

The rock art style of the Fremont generally includes "large, supernatural looking anthropomorphs often with decorations and headdresses, a variety of zoomorphs, and many simple abstract forms" (Cole 1994). While no Fremont rock art sites occur within the park or BLM ACEC land, Fremont rock art can be found nearby, including the Western Utah Painted Style petroglyphs. What were initially called Basketmaker pictographs occur in a small rock shelter somewhat east of the park (Sleight 1946). These actually are Western Utah Painted Style figures, similar to pictographs found in Steward's Cave 1 on Promontory Point and at a site near Willard, Utah (Judd 1926; Schaafsma 1971:85-86; Steward 1937b). Western Utah Painted Style pictographs can also be seen in two small, undocumented rockshelters on private property immediately north of the park. The very recent excavation of Larson Cave (Russell 2000), a rock shelter on the east face of the Promontories just south of the park, also evidenced the remnants of what appear to be Western Utah Painted Style rock art figures. None of these sites have been documented on IMACS forms. There are four IMACS documented Fremont rock art sites (42BO12, 42BO955, 42BO386, 42BO129) located near the park; three on ATK Launch Systems property and one on private land (see Table 2.3). Two of the Fremont rock art sites are associated with rockshelters, and obsidian lithics were noted at three of the sites. Only one site, 42BO386, had no associated shelter features or artifacts.

Near the end of the Fremont occupation, Numic/Shoshone linguistic groups entered the region and became dominant. The Fremont culture abandoned the Great Basin at approximately the same time Numic/Shoshone-speaking groups migrated into the Great Basin (Jones 1994). Fremont agriculture and house construction ceased ca. A.D. 1200 in the southern Fremont range (Dodd 1982), ca. A.D. 1350 in central Utah (Janetski, et al. 1985), and ca. A.D. 1350-1500 in the northern and eastern Fremont regions (Aikens 1966; Fry and Dalley 1979; Creasman and Scott 1987).

Late Prehistoric Period

Models for the Numic expansion vary and are generally contested (Sutton and Rhode 1994). The various models are based largely upon linguistic and ethnographic evidence. The most accepted theories place the origins of the Numa near modern California, suggesting their east-by-northeast expansion into the Great Basin (Madsen 1994; Rhode and Madsen 1994). The exact nature of their movements are unclear. It is not understood whether the Fremont abandoned the region completely prior to the Numic expansion, if competition for resources forced the Fremont from the area, or if the Fremont were assimilated into the Numic/Shoshone
populations (Marwitt 1986:171-172; Simms and Heath: n.d.). Archaeological evidence is disparate. At some sites, levels with Fremont attributes coincide with Shoshone pottery. At other sites, a complete replacement of Fremont characteristics is suggested by a distinctly non-Fremont assemblage (Madsen 1989:44; Marwitt 1986:172). Eventually, Fremont attributes disappear and elements of Shoshone culture become dominant.

Due to a scarcity of artifacts, Shoshone sites are difficult to identify. Little is known about these groups archaeologically outside of the presence of Late Prehistoric pottery and Desert Side-notched projectile points (Figure 4.5). Antelope traps constructed of brush and small, temporary brush shelters appear to represent the range of Shoshone architecture. Neither is conducive to archaeological preservation. Ethnographic and historical evidence for the region suggest that the area was primarily occupied by Northern Shoshone and Bannock groups that were related closely to bands in Southern Idaho and Southeastern Oregon (Steward 1938:186-222). The Promontory area was most likely occupied by the Northwestern Band of the Shoshone, with intermittent occupation by the Northern Shoshone of Northern Utah and Southern Idaho and the Gosiutes of Northwestern Utah and Northeastern Nevada (Christensen 1995:4). These groups followed seasonal rounds, moving to specific geographic areas as particular resources became available. Band size and structure were flexible, adapting to various requirements for utilizing different resources, with small family-size groups in spring and summer and larger groups in the fall and winter (Steward 1938:220-221). The flexible nature of these groups allowed far-flung travels including bison hunting in Wyoming, salmon fishing in Idaho, and antelope drives in the Promontory region. These patterns of subsistence remained predominant until the Historic Period when the pressures of Euro-American settlement disrupted the abilities of Shoshone groups to maintain their seasonal rounds.

The recent excavation of Larson Cave (Russell 2000), discussed previously, documented remains of Fremont rock art. Excavations at the site, however, have evidenced mainly Late Prehistoric occupation. Excavations, done by an educated amateur, were fairly systematic although information about artifact context is minimal in the report. Radiocarbon samples were collected, but not processed because of the expense involved. The expected mix of ground and chipped stone tools and bone tools were found as well as an unusual etched stone. Obsidian was the raw material of choice for most of the chipped stone artifacts, including 74 projectiles and preforms, most in the Rose Springs and Eastgate series (Figure 4.6). There were four Elko series points and one point that Russell (2000:18) identifies as a Pinto. Ceramic sherds, falling into what has been called “Promontory Ware,” were recovered and believed to represent two different vessels. The assumed late Prehistoric period habitation of this site mirrors the sparse information available about prehistoric utilization of the Promontory Mountains in general.

Two sites (42BO806 and 42BO922), located within the park, date to this period. Site 42BO806 consists of a prehistoric rockshelter, which was also used during the historic period as a construction worker camp (see Figures 1.7-1.9). Four Shoshone Ware ceramics were noted at this site as well as numerous lithics, burned stone, and a grinding slab or metate. Site 42BO922 consists of an open lithic scatter, with two identifiable Late Prehistoric project points. This site contained numerous lithics and ten tools, including the two Rose Springs projectile points (AD 500-1250) and the previously discussed Alberta-series, Paleo-Indian, projectile point fragment.
Figure 4.5. Site 42BO922. Obsidian Desert Side-notched and Chalcedony Rose Spring Projectile Points.
Figure 4.6. Site 42BO1134. Obsidian Rose Spring Basal-notched Projectile Point.
Only six prehistoric sites have been recorded within the park (Table 4.1). These are all small sites with few artifacts and do not add very much to the whole picture of the region’s prehistory. Only one site, located in the BLM-managed portions of this project, had a prehistoric component and that was Blue Creek (42BO1149). Many of the rockshelters in the park have evidence of prehistoric and historic use. The use of available shelter would be desirable for both non-sedentary groups. There are several rockshelters (42BO175, 597, 930, 934, 938, 939, and 940) in and near the railroad route, which do not show evidence of prehistoric occupation. That does not mean that these caves were not used prehistorically. Evidence of prehistoric occupation could be buried, covered by later historic use, collected, or in some cases, completely removed by illicit excavation at the sites. There are obviously many more historic than prehistoric sites in the park, but the opportune use of rockshelters would be expected by both historic and prehistoric non-sedentary groups.
CHAPTER 5. ETHNOHISTORY OF THE PROMONTORY AREA

Today there are several Native American groups that claim traditional rights to the Promontory area. These include the Fort Hall Shoshone-Bannock, the Northwest Band of Shoshone, and the Northern Ute. Tribal consultation was conducted as part of the scoping process for this project. Local tribes were consulted to determine if they were interested in the project or lands within the project area. Betsy Chapoose and Clifford Duncan representing the Ute Tribe were present at the scoping meeting. Following is an ethnohistory of the Native Americans in the project area, written by Kerri Brinkerhoff, a long-time Box Elder County resident.

The following is a short history about the Native Americans that lived in the Promontory area (Figure 5.1). The Promontory area was well within the Shoshone Nations boundaries. In relationship to Golden Spike National Historic Site, Shoshone territory extended 250 miles to the north, 350 miles to the east, 175 miles to the south, and 225 miles to the west of the site. That puts the Promontory area right in the heart of Shoshone territory. The area known as Promontory was called "doe nump so ho be ha bie" by the Shoshone meaning Chokecherry tree by or near water.¹

"The homelands of the Northwestern Shoshone were concentrated along the rivers flowing into the eastern and northern sides of the Great Salt Lake and on the Raft River and Grouse Creek northwest of the Lake. Locating the various subsistence areas and villages of these bands as their camps existed at the time of white settler invasion in the 1850s requires, first of all, recognition that these small congregations of people moved about each year as food supplies dwindled or increased in the different areas. But the bands tended to place their winter camps in the same sheltered spots if sufficient subsistence were available. Anthropologist Julian Stewart positioned Little Soldier's group at the confluence of the Ogden and Weber Rivers; Bear Hunter's people on the Logan River in Cache Valley; and a series of three winter camps, probably under Sagwitch and Sanpitch, on the lower Bear River a few miles above its entry into the Great Salt Lake. Between Bear River and Blue Creek, near the north shore of the lake and west of present Corinne, there was a village of about 23 families with another camp located on upper Blue Creek. Fourteen families wintered at Kelton while about six families found shelter at Lucin near the Utah - Nevada border. Approximately twelve families were scattered along Grouse Creek, and a small Cluster of six families wintered near Lynn and another eight at Yost with a large camp stationed on Dove Creek. A final camp was usually located either on Portneuf River or on Bannock Creek. Thus, the Northwestern bands were scattered in winter camps from Logan and Ogden, Utah, west along the northern shores of the Great Salt Lake to Nevada border and north to Bannock Creek and the Portneuf River in Idaho. It must be remembered that mounted bands had to move their camps more in the winter than in summer in order to keep their horses on decent grazing ranges. They may not have traveled such great distances, but they could not settle down in a winter campsite for more than a few days. Early British trapping expeditions in the Snake River area had to move camp often for the same reason."²
Figure 5.1  Shoshone Girls from Southeastern Idaho, 1897; Taken by Benedict Wrensted. Photograph courtesy of National Archives.
“The various families [Grouse Creek Shoshone] came together in the fall also to engage in communal antelope hunts near the Terrace Mountains and in Grouse Creek Valley. After the first snow, the families held rabbit drives near Lucin.”

Mae Timbimboo Parry, a granddaughter of Chief Sagwitch, told much of their life on the Promontory. “That Sagwitch’s family traveled extensively is evidenced by the fact that Sagwitch was born at Bear River, Utah, while his father was born at Goose Creek, Idaho and died on the Promontory peninsula. Sagwitch’s brother Sewahoochew and nephew Quash-I-wat titsi-say were also born at Goose Creek, Idaho, but another brother, Anga-poon-moot-say, was born in Park Valley and died in Bountiful, Utah. Sagwitch’s first son, Soquitch, was born at Blue Creek, Utah, and his second son, Yeager, at Green River, Wyoming” (Figures 5.2 and 5.3).

“While in western Utah for the pinon nut harvest, Sagwitch’s people also participated in communal rabbit drives in an area near Kelton, Utah, that they called Beacamogapa “Big Rabbit’s Bed.” Shoshone of both sexes would chase black-tailed jackrabbits into a series of loops suspended from horizontal cords, which functioned somewhat like a net. Another method simply involved surrounding the rabbits and clubbing them with sticks. Sagwitch’s people would dry the meat for winter consumption and use the fur for clothing, shoes, and housing.

“The Shoshone sometimes held communal antelope drives both on the Promontory and east of there on the Bear River flats. Often they would build a corral with rocks and sticks to which was attached a woven sagebrush hedge. The people would drive the herd into a V-shaped corridor which ended in the corral. The opening would be secured by the people or “closed” by fire, after which archers could easily kill the animals. Because a local antelope population could decimated in this way, similar antelope drives were not conducted in that area for a “considerable time” while the herds recovered its numbers.”

“The Shoshone also utilized other foods throughout the year as needed. A variety of birds, such as ducks and geese,” which are common along the northeast shore of the Great Salt Lake. “Particularly important were doves, sage hens, and quail. In times of extreme need, owls, hawks, and crows were also eaten. In addition, the Shoshone harvested several varieties of insects, including grasshoppers, crickets, insect larvae, and bee eggs.” All of these things are found in abundance in the Promontory area.

Bruce Parry, Executive Director of the Northwestern Band of the Shoshone Nation said that the Promontory area had religious significance to their Shoshone beliefs. He said that the people believed in “little people” that gave them Shaman powers and whose footprints could be seen after a death. He said that the local Shoshone believed these little people lived around Little Mountain and in the Promontory area. It is interesting that the place that became so special in American history, because of the meeting of two rails that would connect a nation, would also besacred place to the Shoshone.

“Unlike temporary summer and fall gatherings, the winter camp provided a longer period relatively stable residency for the Shoshone. It was common to elect a headman to direct affairs at such camps through the cold months. Anthropologist Julian Stewart documented that for an
Figure 5.2  Chief Sagwitch (1822-1887) and Wife. Photograph courtesy of Kerry Brinkerhoff.
Figure 5.3  Yeager Timbimboo, Chief Sagwitch’s Son (Left), and Unknown Man. Photograph courtesy of Kerry Brinkerhoff.
unspecified number of years, “Segwite” (Sagwitch) functioned as “village headman and band chief” at Tongicavo, a Shoshone settlement near Mount Tarpey on the western side of the Promontory Mountains.⁹

Jeannette Pocatello, a daughter of Pocatello was about four years old when her father died. She reported that Pocatello’s people were known as wild wheat eaters when they occupied lands around Bannock Creek and Promontory caves.¹⁰

In 1841 the Bidwell-Bartleson Party took a route across the north side of the Great Salt Lake and it is believed that they went right over Promontory Summit. On Tuesday, August 17, 1841 near Plymouth, Utah and 30 miles northeast of Golden Spike N.H.S. they wrote: “Traveled about 16 miles; saw a large smoke rising out of the mountains before us. It had probably been raised by the Indians, as a telegraph, to warn the tribe that their land was visited by strangers -. The Indians found in this region are Shoshonees [sic]; they are friendly.” Monday, August 23, 1841 they wrote: “Started, bearing our course west, in order to pass the Salt Lake—passed many salt plains and springs in the forenoon. The day was hot—the hills and land bordering on the plains were covered with wild sage. In passing the vicinity of a hill, we observed this sage had been plucked up and arranged in tong minows [windrows], extending near a mile in length. It had been done by the Indians, but for what purpose we could not imagine, unless it was to decoy game.” Thursday, August 26, they wrote: “Our course intersected an Indian trail, which we followed directly north toward the mountains, knowing that in these dry countries the Indian trails always lead to the nearest water.” On August the 27th they ran into a spring of water a few miles west of Promontory. They remained there on through the 4 of September. On the 28th they wrote: “A Shoshonee Indian came to our camp; from him we learned there were more Indians not far off who had horses. Several men and I went in search of them. Having gone about 5 miles, up hills and down hills covered with thick groves of cedar (red), we unexpectedly came to an Indian, who was in the act of taking care of some meat—venison—which he had just killed; about half of which we readily purchased for 12 cartridges of powder and ball. With him as a pilot we went in pursuit of other Indians; he led us far up in the mountains by a difficult path, where we found two or three families, hid as it were from all the world, by the roughness of nature. The only provision which they seemed to have was a few elder berries and a few seeds; under a temporary covert of bushes, I observed the aged Patriarch, whose head looked as though it had been whitened by the frosts of at least 90 winters. The scars on his arms and legs were almost countless—a higher forehead I never saw upon man’s head. But here in the solitude of the mountains and with the utmost contentment, he was willing to spend the last days of his life among the hoary rocks and craggy cliffs, where perhaps he, in his youthful gayety, used to sport along crystal streams which run purling from the mountains. Not succeeding in finding horses, we returned to the camp.” On September the 3rd they wrote: “Four or 5 Indians came to camp bought three horses of them.” September the 4th they wrote: “Bought a few serviceberries of the Indians.” From here they did not mention meeting up with any Shoshone until they were into Nevada.¹¹

In 1849 a small detachment of the U. S. Army was sent west to make an Exploration and Survey of the Valley of the Great Salt Lake of Utah. The group was led by Howard Stansbury, Captain Corps Topographical Engineers. As soon as they started around the Salt Lake, they
encountered Shoshone. First near Ogden and just as with the Bidwell-Bartleson Party they viewed "smokes of numerous fires, rising in several directions---an intimation that strangers had been discovered in their country.\(^\text{12}\)

Stansbury wrote what knowledge he had of the North and West sides of the Great Salt Lake before starting his expedition there. "In this opinion they were confirmed by the representations of the Indians, who represented water to be extremely scarce and the country destitute of game. It was affirmed that the contemplated circuit had been repeatedly attempted by old and experienced trappers, in search of beaver, but always without success; the adventurers being invariably obliged to return with the loss of most of their animals. This was discouraging; but in addition to these objections, it was know that mortal offense had been taken by the Shoshonee or Snake Indians, (through whose country we would be obliged to pass) arising from a gross and wonton outrage which had been a short time before inflicted upon them by a company of unprincipled emigrants, by whom their women had been most brutally treated, and their friends murdered while attempting to defend them. Fears were entertained lest, in the wilds of this inhospitable region, where feet of white man had never trod, we should fall a sacrifice to the just vengeance of those infuriated savages.\(^\text{13}\)

Just before reaching the East side of the Promontory Mountains Stansbury's party ran into a group of Shoshone on foot. The Shoshone took off running and although Stansbury tried to have them stopped they eluded him. Stansbury was hoping to find a Shoshone guide.\(^\text{14}\)

Near Rozel Stansbury writes, "Continuing our journey up the lake-shore, we shortly came to a brackish spring, where there had been a camp of Indians the night before. We had thought last night that we saw their fires, but they had fled, alarmed probably by the report of some guns that had been discharged in our camp. A quantity of some species of seeds they had been beating outlay in small heaps around, and I found an old water-bottle they had left in their haste, It was ingeniously woven of a sort of sedge-grass, coated inside with the gum of the mountain pine, by which it was rendered perfectly water-tight. I afterward saw some similarly shaped vessels, and made of the same material, that would hold nearly two gallons."\(^\text{15}\)

Maybe at Cedar Springs the party stopped to refresh. They wrote at this point, "Old decayed wigwams, constructed of willows, indicated that this spot had long been a favorite place of resort for the Indians, for the same reason, doubtless, which rendered is so welcome to ourselves"\(^\text{16}\) (Figure 5.4).

On a second trip the party was exploring the shores of the Great Salt Lake by boat. After exploring the Point they started North on the West side of the Promontory Mountains. Stansbury mentions at this point on the Promontory Mountains was a well-used Indian trail they decided to camp near it and follow it to were on his previous trip he had found several small springs. He writes, "Here we met three Shoshonee Indians on horseback, who had been watching our motions for some time. They belonged to a small lodge encamped among the hills a few miles to the northward. They seemed friendly, and expressed much curiosity at the size of the boat, and by signs informed me that they would very much like to borrow it, to pay a visit to the islands in the lake, some of which they gave me to understand they had never reached."
Figure 5.4  Rendering of Gosuite Habitation. Photograph courtesy of Kerri Brinkerhoff.
"A hearty supper, which they devoured as if they never expected to get another, sent them away delighted with their visit."\(^{17}\)

A military map of 1855 showing the location of Indian tribes and Mormon settlements has the Promontory area and north side of the Great Salt Lake marked as "Snakes." The early Shoshone Indians were called Snakes.\(^{18}\)

Joseph Barnes Woodward who moved to Wellsville in 1857 tells of this incident. "In 1864 we used to winter our cattle on the Promontory, and at one time the Indians formed a plot to kill the herders, and take the cattle. John Indian warned the herders, and Henry Parkinson rode all night to Brigham and on to Wellsville and Logan to give the alarm, and call out the minute men. Logan sent 50 men, Wellsville, and Hyrum 50, and Brigham 50, and they brought the cattle all into the valley."\(^{19}\)

Abraham Hunsaker had sheep and cattle he wintered west of Brigham City. On January 1, 1859 he wrote: "We have lost some 4 or 5 head of cattle over here at our herd this winter besides some 4 or 5 calves out of one hundred and twenty head. We have also lost some 3 or 4 sheep Out of fifty head. I call that just tolerable. The wolves and Indian dogs killed the most of them."\(^{20}\)

Utah Indian Superintendent Jacob Forney, in his annual report for 1859, counted six bands of about twelve hundred Northwestern Shoshone who occupied the northern valleys of Utah and the Raft River - Grouse Creek area. By 1863, Superintendent James Duane Doty estimated their numbers at fifteen hundred divided among the ten bands with whom he signed the Treaty of Box Elder.\(^{21}\)

One of the earliest encampments recorded by a Shoshone historian was in the Promontory area in 1863. "On Jan. 27, 1863, an elderly man, Tindup, had a dream in which he 'saw pony soldiers killing his people.' He begged the Indians to move out [from winter camp on the Bear River near present day Preston, Idaho]. Some believed him and left with him for Promontory, Utah."\(^{22}\)

"Word of the massacre of bear River [Jan. 29,1863] spread quickly to other Shoshone Indians. A group living near Brigham City, Utah received the news first. Poe bi hup Moemberg and other friends volunteered to carry the message to Promontory Point, Utah, where some more Northwestern Shoshones were wintering. Tindup and family had just arrived at Promontory. "After the massacre, the Northwestern Shoshones scattered around the country. - some moved to Brigham City, Utah and others moved to Promontory, Utah."\(^{23}\)

Chief Pocatello was reported to be near Promontory in 1866. "The Indian Chief, Pocatello, and his braves came into the [Bear River] valley about July 1 [1866], establishing their quarters at the head of Blue Creek. President Snow ordered all the families and the workers on the dam to return to Brigham City. Owing to the reputation of the notorious Chief Pocatello, much concern was felt, not only for the settlers in this section, but for the field of grain as well. Minute men were organized and drilled for immediate action and scouts were placed on guard.
constantly. Sometime near the first of August the Indian Chief with his warriors peacefully retreated to the North.24

On May 10, 1869 the rails were completed. According to Grenville Dodge, who was present at the ceremony, there was quite a mix of ethnic groups at the May 10 ceremony including American Indians.25

Nancy Marinda Tracy Moyes gives this account of the day “Now I will tell a little of the history of the great event that took place at Promontory where the train from the East met the train from the West. The Governor from California stepped off his train to meet the great men from the East. There were many cheers, whistles were shrieking and there was lots and lots of noise. Flags were waving and the bands played. Among the hundreds of people gathered, there were also many Indians from the Indian Reservations all decked out in their gaudy buckskin clothes, ornamented with lovely colored beads and with many colored feathers in their bonnets. It was a sight not to be forgotten.”26

Historian Brigham Madsen gives his account of how the Transcontinental Railroad affected Chief Pocatello’s Band (Figure 5.5). “The year 1869 marked the entry of a new element into the lives of Pocatello’s tribe with the completion of the transcontinental railroad, the golden spike at Promontory Summit having been driven right in the heart of his country. The Central Pacific immediately established a freight transfer point for the Boise mines at Kelton, just north of Great Salt Lake and next door to Pocatello’s aboriginal village, Biagamugep. It was a busy place and probably played host to a number of Pocatello’s people, although no documentation exists to tell the story.”27

However I did find one such story, John Henry Rodgers moved with his wife, Caroline and baby daughter, Emma to Kelton in 1870 “taking a position with the Wells-Fargo Express Company’s and the Overland Mails’ Relief Station, where fresh horses were replaced for the tired animals.” That same year Caroline was startled when a Native American walked into her house. He went into the room where baby Emma lay sleeping “and said ‘I want papoose’. ‘This frightened her, but only for a moment, then she said “Papoose beep sick, papoose got small pox.” ‘The Indian didn’t remain to argue the situation further.”28

Historian Scott Christensen gives his account of how the Transcontinental Railroad affected the Northwestern Shoshone Bands. “The completion of the transcontinental railroad in May 1869 made matters even worse. Large numbers of emigrants could now easily reach Utah and compete with the Shoshone and other Indian groups for land and resources. The new railroad also spawned the birth of Corinne in the heartland of the Shoshone domain a development that from its beginning proved to be problematic to the Indians.”29

In 1869 Chief Sagwitch demonstrated that he considered Promontory area as his territory. That same year there was an awful grasshopper problem in Cache Valley, Utah. Chief Sagwitch “offered to herd cattle owned by residents of Paradise to the Promontory Mountains, where he said he would graze them until the effects of the insect infestation had passed. A few residents, including Henry Shaw, accepted his offer and were rewarded for trusting Sagwitch and his band
Figure 5.5  Photograph of Shoshone at Locomotive, Ca. 1869.  Photograph courtesy of Golden Spike National Historic Site.
with the return of healthy and plump animals a few months later. Shaw paid Sagwitch three dollars per head for his services."³⁰

“For freight and passengers going from the Central pacific to the Beaverhead country by way of Montana Trail, however, there is a lot of evidence to describe Indian-White relations at the new freight-transfer point at Corinne, Utah."³¹ “For Pocatello's people and other Northwestern Shoshoni, Corinne was important because the town was located on the west bank of the Bear River just a short distance above its confluence with Great Salt Lake and within two or three miles of a traditional winter camp of the Shoshoni, especially for the band headed by Chief Sagwitch. Furthermore, this place came to be the site where the Utah Indian Agents distributed the northwestern annuity goods every fall, with Pocatello and his tribe nearly always in attendance. This annual event and the daily comings and goings of various Shoshoni groups who camped near the town received constant attention from local newspaper editors.”³²

In 1872 Agent M. P. Berry at Fort Hall complained about the Northwestern Bands of Shoshone. “He had become increasingly frustrated with Shoshone from the Northwestern bands who drew provisions at Fort Hall but did not remain there. Rather, they "scattered along the Rail Road and among the Mormon settlements." Berry recommended that they all be Sent to Fort Hall permanently.”³³

An 1873 Cadastral Nat Map (ION, R.13W), showing the area near the town of Matlin, 60 miles west of Promontory, on Central Pacific Railroad shows large “Indian Corrals" between Sec 20 and 21, and one between sec. 16 and 17. ³⁴

“At Brigham City, Mormon Bishop Alvin Nichols was also doing his duty by the Indians, distributing beef and other supplies “on a liberal scale" to the encampment of Shoshoni at Bear River. This was in November 1874. “The band left on a short hunting expedition to the Promontory Summit region but returned by December looking for more food."

The Mormon Church started baptizing Shoshone in the spring of 1875 and set them up farming just a few miles north of Corinne. “There were more than two hundred Indians in camp, with more coming each day. This aroused much apprehension on the part of the people of Corinne [who ... thought the two [Mormons and Shoshone] would unite in any difficulty which might take place with the Gentiles [non-Mormon people of Corinne].”³⁵

The people of Corinne made complaint to the U.S. Army and in late summer 1875, the Shoshone near Corinne were ordered by the U.S. Army to move onto reservations. “Except for a few isolated families, the expulsion from the Corinne area marked the end of large groups of Northwestern Shoshoni gathering annually at the mouth of Bear River.”³⁶

With the ejection of the Shoshone near Corrine Chief Sagwitch made a statement. In part he made reference to the Transcontinental railroad and said, “The railroads pass through my country and have scared the game all away. Still I have made no objection to this, nor do I want to.”³⁷
In 1875 George Hill, Mormon missionary, setup Chief Sagwitch Timbimboo's band of Shoshone, working on farms near Collinston, Utah. The new Mormon converts had an area covering about nine thousand acres of land. In late December 1876, after the approaching winter finally made further homebuilding impossible, most of the Indians headed to the Promontory Mountains, where they could find more abundant fuel supplies and forage for their stock. The Shoshone returned to the Mormon settlement as soon as the weather would allow in 1877.

Shoshone were reported in the area in 1879: “A meeting of the citizens of this [Park] valley was held to take into consideration the best methods of protecting ourselves against the Indians and to build a schoolhouse. This valley, which is beautifully situated on the south side of the Raft River Mts., is frequently visited by Indians who pass through here. Yesterday two warriors supposed to be spies called at the house of a family while the man was away and behaved in a very unfriendly manner. Fires have also been seen on the mountains around and the people have thought it prudent to build some kind of a fort for protection for the women and children. Thomas Dunn was chosen chairman of the meeting and Wm. Godfrey Secretary. It was unanimously resolved that we build a house of logs that will be suitable for a fort and that will also be a good school house. It was also resolved that we petition the governor for 40 guns to defend ourselves against any immediate attack. Thomas Dunn was chosen captain of the guard.”

In 1927, 1935, and 1936 Julian H. Steward carried out ethnographic fieldwork in the Great Basin. The two bands in the Golden Spike (Promontory) area he named the Promontory Point (1938:177-178) and Grouse Creek (1938:173) bands. I would say that the Promontory band was under the leadership of Chief Sagwitch Timbimboo and the Grouse Creek band under the leadership of Chief Pocatello in 1869. It seems that both Shoshone bands used the Promontory area during the winter. This may have been a favorite spot of the Shoshone because of the milder winter weather, caves, abundance of game, and fuel.

An anthropological study and dig of Hogup Cave about 50 miles west of Golden Spike NHS provided a wealth of information on Native American habitation of the area. “Hogup Cave provides a record of more than 8000 years of prehistory in the Great Salt Lake region” Before the Shoshone was the Fremont, although the relation between Fremont and Shoshone is not fully explained. They did find the cave habitation by the people they believe are different from the Fremont and known today as the Shoshone to start at A.D. 1350 to 1850.

Marion Brown Woodward was born at Promontory in 1889 to Thomas and Althea Brown who ran the Promontory restaurant and a small store at one end of the restaurant. Marion lived in Promontory until 1902. Later she wrote about her time there, She wrote, “Several Indians lived in the mountains around Promontory. They used to come to Promontory and trade buckskin gloves and belts for sheep pelt and groceries.”

Willie Ottogary, a Native American journalist, wrote for several papers. On December 30, 1912 Ottogary tells us that, “Mr. Grouse Creek Jack with his two sons went out trapping out west around Promontory” (Figure 5.6).
On July 19, 1919, he told that he had been visiting the Shoshone Reservation in Nevada. On his way home he followed the road most of the way that was alongside the Transcontinental Railroad, from “Elko, Wells, Cobre, Montello, Lucin, Park Valley, Kelton, Promontory” and ended in Tremonton, Utah."\(^{44}\) (Figures 5.7 and 5.8).

Merlin Larson, local Promontory resident, told me that he remembered large groups of Shoshone coming near his home when he was a boy. Ottogary wrote of a rabbit hunt on the Promontory. On December 6, 1921, he wrote, “But some of the mens are big rabbit hunt now out to Promontory or Roserell. They has not return home yet. I believed at 6 wagon went out on last Tuesday.” “Mr. Johnson is with big rabbit hunt too and he was from Nevada”\(^{45}\) (see Figure 2.4).

On December 27, 1921, Ottogary finishes the rabbit hunt story. “The boys been big rabbit hunt some time ago. They slaughter great many Bunnies. The was kill about 10,000 bunnies inside one week. They expect another great rabbit hunt on after New Years.”\(^{46}\)

Doris and Merlin Larson, lifetime residents of the Promontory area, also spoke about the Native Americans on Promontory. Doris said she knew that the Shoshone wintered on the Promontory. She then went onto tell that her father-in-law would trade with the Shoshone. “He said they used [to] come through selling pine-nuts. He and everybody, they'd want just a little bit more.” They thought: “Oh, that's not quite enough, for whatever they were charging and the Indian ... called Jim Jack, ... he'd just grin and wouldn't do anything. Then when they’d come to Mr. Flynn, he'd always give 'em an extra helping. Mr. Flynn said I didn't say anything, what you wanted to give me was fine.” However, “these others, oh you are not giving me nothing. Jim Jack would act like he didn't hear them. (laughter) But we have found a lot arrow[heads], the black obsidian, and also there has been some white, well just last spring, wasn't it I found A little white arrow[head].

Merlin then told about rabbit hunts. “I can remember the Indians coming, helping with the rabbit hunts, we used to have. We put up fences and corral and run wings out, then go out here and drive 'em in, used to get rabbits two, three, four deep in there it seemed like. Several of them Indians come and helped with it.”\(^{47}\)

On June 26, 1922, Ottogary wrote, “I have been out Promontory about ago. As looking for the work and not have find work.”\(^{48}\) On December 8, 1923 Ottogary wrote “Willie Ottogary been out Promontory week and doing some prospect.”\(^{49}\)

A last point is a remnant left of the day when American Indians ruled the Promontory area. In the early 1900s: “The Promontory Mountains and valleys became the range for great herds of horses, a crossbreeding of Stanford's racing stock with the mustangs and Indian ponies that were already running in the area. Mrs. Anderson reports that as many as 2,200 wild horses were gathered in a single round up and shipped Out by train to distant markets, Promontory having gained a reputation for superior western stock.”\(^{50}\)
Figure 5.6  Photograph of Grouse Creek Jack. Photograph courtesy of Kerri Brinkerhoff.
Figure 5.7  Shoshone Women with Baskets and Trays along the Transcontinental Railroad in Nevada, Ca. 1868. Photograph courtesy of Golden Spike National Historic Site.
Figure 5.8  Unidentified Shoshone in Tremonton, East of Promontory. Photograph courtesy of Golden Spike National Historic Site.
In the summer of 1999 a team of archeologists were doing a survey of Golden Spike National Historic Site. They found evidence of a Native American campsite on the park. They found several arrowheads, a stone knife and stone scraper (Figure 5.9). An exciting find was a napped glass scraper made from the bottom of a glass bottle. The glass dated post railroad time. Giving us evidence that not only were Native Americans at Golden Spike before the railroad but were also here after it was completed.

Northwestern Band of Shoshone members were invited to participate in the 131st anniversary of the completion of the first Transcontinental Railroad, on May 10th, 2000 at Golden Spike National Historic Site. As part of the Commemoration a Memorial Wreath was presented and carried by a representative of the Park Service, and four men representing past ethnic workers: Bruce Powell, Superintendent of Golden Spike National Historic Site represented the National Park Service; Elder Vaughn J. Featherstone, Council of the Seventy; represented the Mormon workers; William K. O'Farrell, Past President, Hibernian Society of Utah; represented the Irish Workers. Jimmy Lu, President, Utah Organization of the Chinese Americans; representing the Chinese workers; Leland Pubigee, Vice Chairman, Northwestern Band of Shoshone Nation; represented American Indian workers. While the five men stood around the Memorial Wreath the crowd was asked to give a minute of silence, then taps was played. Patty Timbimboo Madsen, Cultural Resource Specialist with the Northwestern Band of Shoshone, was also on the dignitary stand. She also came in traditional dress and was photographed in the "East-Meets-West" Champagne Photograph and other historic photos, representing the American Indian and the American Indian Women who worked on the railroad.

Today the descendants of one Northwestern Band of Shoshone keep a tribal office in Brigham City as the largest group of their people live in ox Elder County, Utah. They are the descendants of Chief Sagwitch's band of Shoshone and even today their tribal office is only 30 miles southeast of Golden Spike National Historic Site.
Figure 5.9  Photograph of Native American Stone Tools and Ceramics Found near Promontory. Photograph courtesy of Kerri Brinkerhoff.
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CHAPTER 6.  HISTORY BEFORE THE RAILROAD

Trappers and Explorers

The earliest record of Euro-American incursion into the area coincides with the earliest exploration of Utah. The eastern and northern parts of present day Box Elder County were explored by fur trappers including Peter Skene Ogden and Joseph R. Walker as early as the 1820s and 1830s (Powell 1994:50) (Figure 6.1). Hats made of beaver fur were popular in England and Europe in the early nineteenth century and were in great demand, so entrepreneurs rapidly formed fur companies to exploit the vast, untapped North American beaver supply (Bartlett and Goetzmann 1982:26-30). The area along the Bear River was explored by James Bridger and Jedediah Smith and was exploited by fur trappers “...until the streams were depleted of beaver, and the stylishness of beaver hats declined” (Huchel 1999:46). These trappers provided information about the native Shoshone inhabitants and reports of the region's fertile land and abundant water.

With the formation of the Western Emigration Society, organized in Missouri in 1841, there was a marked increase in emigration to Oregon and California. The first planned overland emigrant party to head for California was formed by John Bidwell and John Bartleson. Although the route the Bidwell-Bartleson party traveled in 1841 did not become the famed California Trail, sections of it were used by the Harlan-Young, Hoppe-Lienhard, and Donner-Reed parties in 1846, as well as several other wagon trains running through northern Utah in later years (DeLafosse 1994:34). In 1848, after a failed attempt at the Hasting's Cutoff of the California Trail, Samuel J. Hensley left Salt Lake City in search of another route. He forged around the north end of the Great Salt Lake and met up with the California Trail at Idaho's City of Rocks. Although the Bidwell-Bartleson party had been through the area in 1841, the route Hensley followed was used more frequently by emigrants in the following years (Korns and Morgan 1994:4-5). Hensley's route became known as the Salt Lake Cutoff, which cut through Pilot Springs, providing drinkable water to weary travelers (Figure 6.2). The Mormon Church took active measures to promote the route and developed ferries and bridges which the travelers were charged a fee to use. The route was very popular until 1857.

In response to difficulties with the Mormon run territorial government under Brigham Young, "President Buchanan dispatched federal troops to Utah, and the approach of Johnston's Army put a pox on overland travel via the City of the Saints." (DeLafosse 1994: 97) In 1849, Captain Howard Stansbury passed through the southern portion of the Curlew Valley during his reconnaissance of the Great Salt Lake for the Corps of Topographical Engineers. Stansbury's Party created some of the first maps of the Great Salt Lake and surrounding region (Madsen 1989; Utah State Historical Society 1998).
Early Settlement

The 1847 arrival of Mormon pioneers in the Salt Lake Valley brought about the rapid settlement of surrounding lands before outsiders could move in. Settlement in present day Box Elder County began within sixteen days of their arrival in Utah when Mormon leader Brigham Young sent out scouts to explore the surrounding lands. Orrin Porter Rockwell homesteaded what became known as Porter Spring in 1849, and was followed by others in the fall of 1850 who created Davis Fort. By 1852, at the location of present day Brigham City, Davis Fort had nearly 1400 residents (Huchel 1999: 55-57). Within a year, the Mormon church had sent in more settlers to strengthen the community along with a large wave of new converts from Denmark, Sweden, and Norway. This Mormon settlement on traditional Shoshone homelands resulted in raids by Shoshone bands in the ensuing years. The fort became a haven for the white settlers, who only ventured outside its confines to tend to crops or livestock. In 1852, a slight decrease in hostilities led the residents of the fort to move onto farm plots which had been laid out the previous year. The Shoshone raids resumed in 1853, and Brigham Young ordered the settlers to return to the fort. In addition to the original occupants, about two dozen more families had made their homes at Davis Fort by that time (Tullidge 1889:291). In order to strengthen and develop the small settlement, Brigham Young ordered Mormon leader Lorenzo Snow to take 50 families from the Salt Lake Valley to Box Elder, as the settlement is now called, in 1854. The new settlers were specially selected to include a schoolteacher, a mason, carpenters, blacksmiths, and other skilled craftsmen who would ensure the economic success of the community (Arrington 1964:200). The area was known as Brigham City by 1855 (Huchel 1999: 63-71).

With the influx of additional settlers, residents of Brigham City resumed the establishment of farms. Hostilities between whites and the Shoshone increased once again in the early 1860s throughout northern Utah, due to the increasing number of farmers settling in the area and mining parties passing through on their way to Montana. Under the leadership of Chief Bear Hunter, the Shoshone struck back in 1862, raiding Mormon cattle herds and attacking miners. Conflict culminated the following year in the Battle of Bear River. During the battle soldiers dispatched from Camp Douglas in Salt Lake City killed at least 250 Shoshone men, women and children, along with Chief Bear Hunter, near the village of Franklin, Idaho (Christensen 1995:41). The remainder of his band, along with nine other Shoshone bands, signed the Treaty of Box Elder in July of 1863. With the signing of the treaty, Shoshone and white relations began to improve, bringing peace to the region (Powell 1994:498).

Prelude to the Transcontinental Railroad

Promoters of the railroad were foremost interested in its commercial importance, as well as connecting the east and the west. As historian, Robert Utley notes:

The settlement of the Oregon question in 1846, the discovery of gold in California in 1848, and the admission of California to statehood in 1850 swelled the population of the Pacific Coast. With commerce almost wholly dependent upon the long, slow journey around Cape Horn or across the Isthmus of Panama, both
East and West foresaw a large and lucrative trade speeding by rail across the continent (1960:2).

The proponents saw the potential for diverting much of the trade between Europe and Asia from ship to rail; in other words, making the U.S. a land bridge for that trade. However, with all of this in mind, the most coveted objective was really the desire to develop trade with China, Japan and other Asian areas (Dillon 1892: 254).

The U.S. Government supported all of these reasons, though for its part, the most important reason to actively promote and financially support this project was the potential effect that a transcontinental railroad would have upon domestic political and economic matters. From the government's perspective, the railroad had the potential to quickly end hostility with the American Indians and to significantly reduce the expense and speed delivery of mail and government supplies (Utley 1960:3). Moreover, the outbreak of Civil War in 1861 provided a clear indication that the bonds between California and the Union needed strengthening.

Yet another governmental incentive resulted from residual effects of the Trent Affair of 1861. The British mail steamer, the Trent, bound for England, with two Confederate Diplomats aboard, was stopped near the Bahamas and the diplomats arrested (Garraty 1966:410). This incident was considered a violation of International law by the British, and nearly resulted in war between England and the Union until the men were released. In anticipation of such a war, the British readied their colony, Canada, for military action. In response, the American government was forced to examine its forces. During this examination it was realized that the Pacific Coast of the U.S. was relatively defenseless.

Earnest efforts to initiate railroad construction began during the 1840's, when a New York merchant involved with the China trade began promoting the idea (Brown 1933: 209-224; Galloway 1989:32). Asa Whitney became obsessed with this project leading him to write articles, lecture to the public and talk with influential politicians about the idea. By the 1850's, most nationally prominent politicians were in favor of such a plan with a measure of federal aid. But agreement could never be reached on an eastern terminus, a problem which was compounded by the lack of information about the merits of several possible routes that the railroad could follow (Galloway 1989:36-37). This deficiency resulted in the government commissioning a series of comprehensive Pacific Railroad surveys to be carried out by the Army Engineers between 1853 and 1855. The results of these surveys, including two northern and two southern routes, were politically objectionable to both Northerners and Southerners. As a result, the issue remained stalemated until after the Civil War began in 1861. This event conveniently removed Southern objections to a northern route. This turn-of-events, coupled with strong lobbying efforts by Theodore Judah, a California railroad engineer, and many eastern promoters, convinced a beleaguered Congress to pass a bill in 1862, which threw the support of the U.S. Government behind the effort (Utley 1960:11). President Lincoln supported the plan and signed the bill into law on July 1, 1862. This act authorized the Central Pacific Railroad (CP) and Union Pacific Railroad (UP) and Telegraph Company to build the Pacific Railroad from Omaha to Sacramento.
Central Pacific began construction in Sacramento on January 8, 1863 and the UP began its portion of the line in Omaha on December 2, 1863. The initial construction efforts at both ends were quite limited. The Civil War caused a variety of problems for the railroads. It sent supply rates soaring, severely limited available labor and material and dried up capital investment potential. By February 1864, only 18 miles of rail had been laid in California and none were laid westward from Omaha until the spring of 1865. The adverse conditions of the time forced the railroads to request further assistance from the government, a request that was granted in the form of the Act of 1864. This act virtually doubled the resources available to the companies and insured the project's completion (Athearn 1976:31; Utley 1960:14).

Between the years 1864 and 1869 a total of 1,775 miles of rail was laid, linking the continent with a band of steel. This effort was the largest single engineering and construction project undertaken in the U.S. to that time. The logistical, engineering, and financial tasks laid before these railroad companies were enormous.

The U.S. Government offered lucrative incentives, in the form of land grants, rights-of-way and first-mortgage government bonds (Galloway 1989:61). Despite the financial encouragements, however, these covered only about half of the capital necessary to build the Pacific Railroad. Because of this, private investment capital was critical to maintain the solvency of both the UP and CP Railroads. Both companies devised the means to solve this dilemma by creating a number of indirectly held companies, which carried out the construction work, but were not legally controlled by the Federal legislation, which directed the efforts of the two main railroad companies (Riegel 1926:75-76; Carman and Mueller 1926:326-341).

Construction of the transcontinental line was fraught with exceptionally difficult obstacles that sorely taxed the technological capabilities of the day. The CP spent four years surmounting the Sierra Nevada Mountains. The company faced the necessity of constructing large fills, bridging deep canyons with trestles, and cutting through solid granite for 15 separate tunnels (Galloway 1989:145-150). The CP did not reach Reno, Nevada until June 19, 1868. Reno lay 154 miles from the beginning of track in Sacramento. The 536-mile distance from there to Promontory Summit in northern Utah, however, was completed in less than 11 months (Galloway 1989:160).

The UP crews did not experience the same types of obstacles as the CP, but they too encountered great hardships. Track laying in the Platte River Valley of Nebraska was relatively easy, but the surveyors and construction workers soon encountered stiff opposition from Sioux and Cheyenne Indian war parties. Major skirmishes occurred in Nebraska and Wyoming between 1865 and 1867 (Dodge 1965; Sabin 1919:236-240; Grinnell 1956:263-268; Davis 1894: 141). The UP crews also encountered some difficult terrain in the Laramie Mountains and, especially, in Echo and Weber canyons in Utah (Utley 1960:34-35).

As both railroads approached Utah, it was well understood that negotiations needed to be completed with Brigham Young, President of the Mormon Church and former Governor of the Utah Territory, in order to complete the route. Young's desire was to see the railroad descend Weber Canyon and veer south to Salt Lake City and around the south end of the Great Salt Lake.
General Grenville M. Dodge, Chief Engineer for UP, however, preferred the northern route through the Promontory Mountains (Dodge 1965:27-28). The CP concurred in this assessment. Despite this basic disagreement, Brigham Young still agreed to provide needed labor and supplies to both the UP and CP Railroads. Young was able to carry out these promises through subcontracts to a number of Mormon church leaders and businessmen, including three of Brigham Young's own sons; Joseph, Brigham, Jr., and John W. These three sons along with John Sharp formed the company of Sharp and Young that did the hiring and directing of the men that helped grade the rail bed and bore tunnels in the Echo canyon mountains for the Union Pacific (Ambrose 2000:285). These men carried out the work with large crews drawn from the local population. Not surprisingly, Young soon organized a new railroad company to build from Ogden to Salt Lake City once the transcontinental line was completed to Ogden. It became known as the Utah Central Railroad (Arrington 1966:270).

Despite the many negotiations and bills passed by Congress in support of transcontinental railroad construction, neither the U. S. Government nor the UP or CP had ever developed a plan of where the lines should meet. As a result, for several months in 1869, surveyors and construction crews from both railroads continued their advance work on cuts, fills, culverts and some grading well past any reasonable point of mutual connection. In early 1869, CP crews were grading as far east as Echo Summit near the Wyoming border while Union Pacific crews were working in the vicinity of Humboldt Wells, in western Nevada (Utley 1960: 18). The real purpose of the extra construction work performed by the railroads was to gain both additional government subsidies and to control the potentially profitable Salt Lake Basin market. After much disagreement and negotiation, the two railroads agreed to join the line at Promontory Summit, Utah, on May 8, 1869 (Ames 1969:317; Galloway 1950:164-5; Kraus 1969). This agreement was ratified by Congress on April 10, 1869 (Trottman 1923:64). Although the two companies agreed to meet on May 8, the joining of the rails did not actually take place until May 10, 1869.
CHAPTER 7.  PROGRESS TOWARD PROMONTORY SUMMIT

Of particular concern to understanding the archaeological manifestations of the railroad is the engineering, construction and operating history of the rail route between Corinne and Rozel, Utah. Initial examinations of possible routes for the proposed railroad line through the northern portion of Utah occurred as early as 1863, when Peter A. Dey, operating under the direction of UP Vice President T. C. Durant conducted preliminary explorations of the Wasatch Mountains. In 1863 and 1964, Samuel Reed, the General Superintendent and Engineer of Construction for the UP examined passes in western Wyoming and Utah through which the railroad could be constructed (Rigdan 1951:1480). Reed recommended constructing the railroad from Echo Summit and down along the Weber River.

Following these initial reconnaissance surveys, more detailed surveys were carried out by engineers under the direction of Chief Engineer G. M. Dodge in 1867. During 1868, final location surveys were made from the mouth of Weber Canyon to Humboldt Wells in Nevada. The map of this final survey was filed in the office of the Secretary of the Interior in November 1868 (Rigdan 1951:1480). Engineers, who worked under the direction of Dodge, included J. Blickensderfer, Thomas H. Bates, F. S. Hodges, J. F. McCabe, and George W. Hitz (Rigdan 1951:1481).

At the same time, the CP was making its own surveys for the transcontinental route through the area. These surveys were carried out under the direction of Engineer Butler Ives and his assistants William Epler and S. M. Buck (Rigdan 1951:1481). In 1867, CP engineers explored the Wasatch Range, valleys and basins and to the Ham's Fork River in Wyoming. In 1868, the CP engineers filed their preliminary survey with the Department of the Interior (Rigdan 1951:1481).

Track laying work and telegraph line construction for the whole of the UP was undertaken by the Casement Brothers, Jack and Dan. They also carried out some of the grading. This represented the first major job for the two brothers, working under the company name J. S. & D. T. Casement. General Dodge described how the Casement brothers worked (Figures 7.1 and 7.2):

The entire track and a large part of the grading the UP Railway was done by the Casement brothers, General Jack Casement and Dan Casement. General Casement had been a prominent brigade and division commander in the western army. Their force consisted of 100 teams and 1000 men, living at the end of the track in boarding cars and tents, and moved forward with it every few days. It was the best organized, best equipped and best disciplined track force I have ever seen. I think every chief of the different units of the force had been an officer of the army, and entered on this work the moment they were mustered out. They could lay from one to three miles of track per day, as they had material, and one day laid eight and a half miles. Their rapidity in track laying as far as I know, has never been excelled. I used it several times as a fighting force, and it took no
longer to put it into the fighting line than it did to form it for its daily work. They not only had to lay and surface the track, but had to bring forward to the front from each base all the material and supplies for the track and for all workmen in advance of the track (Dodge 1965).

There is some dispute about costs per mile of track laid, but Samuel Reed ledgers in the Western Heritage Museum indicate prices paid to the Casements per mile for mainline track in each of the years the railroad was under construction (Rigdan 1951:253):

<table>
<thead>
<tr>
<th>Date</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 1866</td>
<td>$750 per mile</td>
</tr>
<tr>
<td>May 1867</td>
<td>$750-850 per mile</td>
</tr>
<tr>
<td>February 1868</td>
<td>$850 per mile</td>
</tr>
<tr>
<td>April 1868</td>
<td>$850 per mile</td>
</tr>
<tr>
<td>April 1869</td>
<td>$1100 per mile</td>
</tr>
</tbody>
</table>

While grading and track laying moved rapidly along for the UP, the CP also employed its crews to move as rapidly as possible. Both railroads, using Mormon contract laborers, undertook grading along the Promontory Route from Corinne to Rozel and, in fact, resulted in surveying and constructing cuts and fills estimated to overlap and be parallel for approximately 250 miles. The law permitted each company to build 300 miles of the grade ahead of the end of track, which resulted in the overlapping grades (Figures 7.3 and 7.4, see Figure 3.1). The area in the mudflats west of Corinne and north of Bear River Bay posed few construction problems (Utley 1960:43). This was one of the stretches of the route where the CP and UP built miles of parallel grade during the period of intense competition between the two companies. In fact, because a meeting point for the two lines was never planned and there was a clear indication that the UP would be building west of Ogden before the CP could reach the town, Leland Stanford of the CP chose to buy land and place surveyors and grading crews near Ogden in 1868. As a result of this foresight, the CP was eventually able to leverage an agreement which placed its eastern terminus in Ogden (Sabin 1919:293-295).

The UP did not begin construction west of Ogden until February, 1869 (Utley 1960:46). By March 1869, construction activity by both railroads was moving at a frenzied pace. The UP tracks reached Ogden on March 8, 1869, and Bonneville by mid-March (Salt Lake Daily Telegraph 1869). A letter to the Deseret Evening News dated March 25, 1869, provided a firsthand account of this activity in the area between Corinne and Junction City (now known as Lampo Junction):

Work is being vigorously prosecuted ... both lines running near each other and occasionally crossing. Both companies have their pile drivers at work where the lines cross the [Bear] river [near Corinne]. From Corinne west thirty miles, the grading camps present the appearance of a mighty army. As far as the eye can reach are to be seen almost a continuous line of tents, wagons and men (Deseret Evening News 1869).
Figure 7.1. Photograph of Jack Casement around 1869. Photograph from Mayer and Vose 1975:68.
Figure 7.2. Casement Brothers “Rail Laying Army.” Note living quarters on top of train cars. Photograph by A.J. Russell; courtesy of the California State Railroad Museum, Sacramento.
Figure 7.3. Historic Base Map of the Railroad Grades, May 10. 1869; West Slope.
The Casement track laying teams crossed the Bear River into Corinne from the east on April 7, 1869. Grading was mostly completed to Monument Point on April 23 (Salt Lake Telegraph 1869). The CP tracks did not reach Promontory from the west until April 30 (Dodge 1914:943). Track was not completed to the Summit by the UP until May 9 (Ames 1969:336).

The lack of a predetermined terminus for both railroads, coupled with the incentives each sought in the form of land subsidies for each mile constructed, eventually forced a meeting between them and government offices in April 1969 in Washington, D.C. They met at the house of congressman Samuel Hooper of Massachusetts and formed what became known as the "Treaty of Hooper's House" (Williams 1988:254). In this “treaty” the two companies represented by Huntington and Dodge, agreed to join their railroads at Promontory Summit and the UP agreed to sell that portion of its line from Promontory to Ogden to the CP (Williams 1988:254). As a result of this agreement, the frenzied competition and redundant construction activities largely ceased. However, there was still much negotiation necessary before a price was agreed upon to transfer ownership of this portion of the transcontinental line. After two offers by UP were turned down by the CP, a sum of $2,853,000 was agreed to on November 17, 1869 for a 48.5 mile section of line from Promontory Summit to a point five miles west of Ogden (Ames 1969:371). Interestingly, the UP ended up selling the route for more than a million-dollar loss based on its original construction cost. This price was agreed to, no doubt, due to the UP's desperate financial condition in 1869 (Ames 1969:372).

On April 10th, Congress ratified the railroad agreement to join the rails at Promontory Summit. The companies discharged all the men they could and terminated all extraneous work. The Central Pacific had about 60, easy, desert miles to go (laying and ballasting track), but the Union Pacific still had about 16 miles of slow, expensive work on the east slope of the Promontories (Ames 1969:318). By April 13th, the Union Pacific had 20 miles of track to lay, which was stymied by the need still to complete three large trestles and the “Last Cut” (Figure 7.5).

On April 27th the Blue Creek “bridge” was completed by the Union Pacific (Griswold 1962:309-312; Utley 1960:59). Then “everybody” went to the west slope of the Promontories, to the noon “lunch” stop called Rozel or Camp Victory, to witness the April 28th Central Pacific feat of completing ten miles of track in one day (Figure 7.6) (Griswold 1962:309-312).

On April 30th, the Central Pacific rails reached Promontory Summit and it's construction crews were moved back along the line to improve stretches of track that had been rushed into service (Strack 1996:7). It wasn't until May 5th when construction was completed on the Big Trestle (Utley 1960:59) and General Dodge was sufficiently confident of timely completion that he telegraphed the Union Pacific's directors on May 8th that the railroad was completed to Promontory Summit (Strack 1996:7). In construction haste, the Big Trestle was put together with 8" spikes (hearsay, because none larger were available) (Figure 7.7). The large fill site immediately east of the Last Cut, between the Last Cut and Little Mack's Cut (also referred to as Cut #4), became a trestle. The stone box culvert and headwall of the partially buried culvert are still visible below the trestle abutments (Figure 7.8, see Figures 3.1, 7.3, and 7.4). Furthermore, to save time while waiting completion of the trestles and the Last Cut and because it had become
Figure 7.5.  Current View of the Last Cut.
Figure 7.6. Sign Commemorating 10 Miles of Track Laid in One Day. Top: current photograph. Bottom: 1933 photograph. From left to right: William Cramer, conductor; Paul A. Patterson, fireman; William McBratney, brakeman; and W.E. Quilliman, engineer. Photographs courtesy of Ogden Standard Examiner May 4, 1969.
Figure 7.7. The Union Pacific’s Big Trestle. Photograph courtesy of the National Park Service.
Figure 7.8. Stone Box Culvert and Headwall of the Partially Buried Culvert near the Last Cut Trestle Abutments.
so worried about meeting the May 8th completion date, the Union Pacific laid track eastward from the summit and built its siding and wye at what became Promontory Station (Strack 1996:7). However, the special trains carrying dignitaries of both railroad companies had various difficulties traveling toward Promontory so the meeting date moved to May 10th (Appleman 1966).

Surveyed Grades and As-built Grades

Actual construction progressed in a fairly orderly sequence. Once the general route was selected based upon the preliminary exploration and surveys, advance parties of surveyors and engineers laid out the actual grade alignment. They were followed by work crews, mostly Mormon contractors in Utah, who focused upon the “heavy” work – the cuts, fills, bridges, and other time-consuming activities that had to be completed before final grading could be accomplished. The laying of ties and tracks was done when the grade was finished, with support from the foremost supply trains that immediately followed. Ballasting was last, often consisting of nothing more than track-side sod. Improvements would come later, particularly on the Union Pacific’s part.

As the railroad progressed into Utah from both the east and the west, advance parties of surveyors and engineers laid out grade alignments estimated to overlap and be parallel for approximately 250 miles (Homstad, et al. 2000:13). The law permitted each company to build up to 300 miles of grade ahead of the end-of-track, which resulted in the appearance of overlapping grades (Homstad, et al. 2000:13). In reality, there were sporadic (scattered and isolated) construction crews working on areas requiring particularly arduous effort, such as large cuts and fills, to ensure timely completion when the regular graders came along. The result was intermittent, somewhat parallel construction for approximately 250 miles. Extant maps document that in places the surveyed alignments of the railroads actually crossed each other or ran for short spurts on the same alignment (Special Pacific Railroad Commission 1869). The irritation that the close construction in this area caused the railroad owners was expressed by Leland Stanford of the CP in a March 14, 1869 letter to CP treasurer Mark Hopkins:

The U. P. have changed its line so as to cross us five times with unequal grades between Bear River and Promontory. They have done this purposely as there was no necessity for so doing... We shall serve notice for them not to interfere with our line and rest there for the present (Clark 1931: 2).

The unfinished Union Pacific grade on the west slope of the park clearly demonstrates the intermittent nature of construction along the overlapping alignments (Figure 7.9). On the east slope there are places where the two grades are parallel, are on the same alignment, and cross each other.
Figure 7.9. Unfinished Union Pacific Grade on the West Slope of the Park.
Preface - Construction Camps

The historical record for Promontory, as well as for the entire effort undertaken in constructing the transcontinental railroad, is both extensive and frustrating. Materials relating to the subject were extensively researched, and never has there been a historical subject with such an existing massive volume of materials and that is more fragmented and widely dispersed than that of the history of the railroad mainline between Omaha, Nebraska and Sacramento, California. One finds important primary documents in libraries and museums as far west as Stanford University and the California Railroad Museum in Sacramento, and to as far east as Syracuse University in New York. Other vital records lie in newspaper articles created in cities along the railroads and beyond, in Mormon Church archives, and, most prominently, in the tens of thousands of documents created by the railroads themselves.

However, large gaps exist in these sources of information. Very little information was ever recorded relating to construction camps, or even maintenance stations of later times, which could be of value in understanding the structure and nature of earlier construction camps. So much attention was focused on the goal of completion and the public was so fascinated with the whole undertaking, that information about construction techniques, living conditions, and labor relations are recorded in only scattered documents, largely newspaper accounts. Dates and documented events surrounding the effort sometimes conflict between one author and another. Determining actual dates, people, and activities is difficult, at best.

If there ever is a better opportunity for archaeology to help clarify a murky past, it is here at the Promontory and completion of the greatest technological achievement of mankind to this point in history. At this point in time, in 2008, a relatively narrow corridor along the transcontinental railroad on the eastern slope of the Promontory Mountains, where the most intensive efforts were focused in railroad construction, has been inventoried for archaeological sites. This corridor represents the boundary of the Golden Spike National Historic Site, but certainly not the activity boundary of work during that time.

Construction Camps

Thousands of workers were involved in this construction. Closer inspection of the archaeology of construction camps in a relatively early time period provides interesting, though limited, insights into camp structure, ethnicity, group dynamics, and labor relations between large corporate entities, their subcontractors, and the workers.

It did, however, result in a coalescence of railroad construction crews that were normally strung out along hundreds of miles of railroad line. Here an unusual concentration of construction crews gathered. Camps in close proximity to one another sprung up because of the difficult terrain, coupled with the frenzy of effort by the railroads to be the first, to be the most important, and to gain the most credit and financing from the government. It was here, on the slopes of the Promontory Mountains, that men, often there for no more than a steady job, became part of the culmination of one of the most important accomplishments in the history of the world.
It is estimated that, by the time the Union Pacific was working on the Promontory slope in April, 1869, their forces had reached about 10,000, of which a fourth were track layers (Homstad, et al. 2001). These workers included many Civil War veterans, mostly Irish. Also, UP hired Germans, Englishmen, American Indians, and even a force of 300 freed Blacks (McCague 1964:117). The Central Pacific forces were equally large. In 1868, it is estimated that, as the CP forces streaked across Nevada, they employed an estimated 11,000 Chinese workers, who supplemented other CP workers including Irish, Cornish and, in Nevada, Paiute and Washo Indians (Kraus 1969a:51-52). Considering the fierce competition that CP and UP had, it is likely that CP’s forces had not been reduced by the time they were working at Promontory.

It was also at Promontory that track layers caught up with the graders, those responsible for blasting rock ledges, for spanning the arroyos, filling the washes and leveling the terrain upon which to lay the ties and track. Histories of the great effort to cross the continent often gloss over the details of how it was done and who was responsible for the backbreaking jobs of construction that were completed in an era with few machines to ease the process. Picks, shovels, pry bars, horse- and mule-drawn carts and wheelbarrows, coupled with blasting powder, were the commonly used tools.

Up to 20 railroad construction sites have been recorded within the corridor, but it is likely that there are many more outside of that boundary that have yet to be identified (Figure 7.10 and Table 7.1). From survey information, it appears that a construction camp was constructed every three to five miles, perhaps even closer on the slope to Promontory Summit. Identification of sites by company, by subcontractor, or by ethnicity is still ongoing, but some interesting details have emerged so far. Site 42BO851, from its proximity to the Bill Fill structure, is likely to have been a Central Pacific camp, and site 42BO852, located close to the former Union Pacific “Big Trestle,” is likely a Union Pacific camp. While no specific artifacts help point to this conclusion, the proximity of each camp to an identified corporate feature such as a railroad grade strongly suggests such an affiliation.

Features common to most all of the camps in the area include dugouts, some with dry laid rock walls and many larger ones with collapsed dry laid chimneys. There are tent platforms at all of the camps as well. Artifacts found at all of the sites are consistent with occupation during the construction period, but at many, much later occupation is also evidence that they may have been later used as maintenance camps. A wide variety of bottle glass, much of it reflecting beer and wine consumption, clothing fasteners, quite a lot of unidentifiable metal, and some wood were found across the sites. Many cut nails were found around a dry laid stone building foundation, though none around dugouts or tent platforms. Most interesting were a number of Civil War buttons that were found, at least one from a Calvary Officer and another from an enlisted man. Many Chinese artifacts were also present on several sites including rice bowl, ginger jar, opium tins, and pipe fragments.

It is expected that more detailed analysis of the features and artifacts from the construction camp sites found on the Promontory Mountain slope will allow more fine-grained understanding of who occupied each camp, their possible affiliation with either UP or CP, and
Figure 7.10. Distribution of Construction Camps, Maintenance Sites, Stations, and Other Railroad Activities on the Promontories.
<table>
<thead>
<tr>
<th>Site #</th>
<th>Features</th>
<th>General Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>42BO851</td>
<td>28</td>
<td>Historic Railroad Camp/Habitation consisting of a group of habitation/camp structures and a broad artifact/trash scatter. A total of twenty-nine features were observed at this site including 18 depressions that appear to have supported a structure at some time (F1-F5, F8-F12, F16, F17, F20, and F24-F28), four rock room block foundations (F6, F19, F21, and F22), three tent platforms (F14/F15, F18, and F23), one earthen mound (F13), a small depression (F7), and an large, leveled activity area (AA). The site measures 590 ft long (N-S) by 400 ft wide (E-W). Artifacts observed at this site include a carpet bag frame, metal tableware fragments, a wooden tent stake, a spoon, miscellaneous metal fragments, barbed wire, stove parts, over 75 fragments of olive, amber, brown, clear, yellow/green and amethyst glass, and over 50 tin can fragments including hole-in-cap, sanitary, and solder-dot cans.</td>
</tr>
<tr>
<td>42BO852</td>
<td>67</td>
<td>Historic Railroad Camp/Habitation consisting of four loci of habitation/camp structures and a broad artifact/trash scatter with a small prehistoric component. A total of 67 features (F1-F67), one earthen dam and diversion ditch, and one check dam were located within the four site loci. Loci #1 consists of a series of 25 features (F1-F25) including many small dugout depressions, several large dugout depressions, and four rock piles located in the eastern portion of the site. Loci #2 consists of a series of 26 features (F26-F51) centered on a natural drainage including many very small dugout depressions, a dam and diversion ditch, and a check-dam located in the western portion of the site. Loci #3 consists of a series of 4 features (F52-F55) including two tent platforms and two dugout depressions located in the northern portion of the site. Loci #4 consists of a series of 12 features (F56-F67) including several small and large dugout depressions located in the southern portion of the site. The site measures 1,300 ft long (N-S) by 1,420 ft wide (E-W). Artifacts include a variety of metal objects (tin cans, nails, strap metal, hardware), glass (bottle, jar, insulator), a ceramic pipestem, wood fragments, insulator fragments, a fork, and one button (metal). In addition an obsidian core and two prehistoric projectile points were located.</td>
</tr>
<tr>
<td>42BO853</td>
<td>29</td>
<td>Historic Railroad Camp/Habitation consisting of a group of habitation/camp structures and a sparse trash scatter. A total of twenty-nine features were observed at this site including fifteen dugout/depressions (F5-F8, F13-F15, and F22-F29), seven rock-lined room blocks (F1, F9-F12, F16, and F18), four dugout room blocks (F2-F4 and F17), and three platforms (F19-F21). The site measures 690 ft (N-S) by 625 ft (E-W). Artifacts observed at this site include a variety of metal objects (nails, staples, a knife handle, a button, wire, and fragments of cans, cups, plates, lids, a horseshoe, and a boot heel plate), glass fragments (brown and clear), a shotgun shell casing, leather boot fragments, and an embossed tin lid fragment. The most substantial remaining large architectural feature at GOSP is located within this site (F1).</td>
</tr>
<tr>
<td>42BO930</td>
<td>15</td>
<td>Historic Railroad Camp/Habitation consisting of a series of habitation features and a large, fairly dense, artifact/trash scatter. Fifteen features (F1-F15) were located and recorded at this site. Site features consist of stone room block remnants (F5, F11), dugout depressions (F3, F4, F8, F9, F13, F14), and rock shelters (F1, F2, F7, F10), a collapsed chimney (F12), and two rubble/rock piles (F6, F15). The site measures 428 ft long (N-S) by 905 ft wide (E-W). Artifacts include a variety of metal objects (tin cans, strap metal, rail plates, etc.), glass, wood fragments, insulator fragments, telegraph wire, smooth wire, and a kitchen knife handle fragment.</td>
</tr>
<tr>
<td>Site #</td>
<td>Features</td>
<td>General Description</td>
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<td>42BO1060</td>
<td>2</td>
<td>Historic Chinese railroad campsite with associated artifact scatter located on non-federal lands near the western end of the GOSP authorized boundary. This site is located near the western end of the railroad and consists of four features including two dugout depressions (F1 and F2) and two possible hearth remnants (H1 and H2). The site measures 220 ft (N-S) by 275 ft (E-W). Artifacts observed at this site include multiple fragments of opium tins, a Chinese coin, rice bowls, saki/soy sauce or ginger jar fragments, buttons, fragments of tin cans, nails, and glass (aqua, sun colored amethyst, and dark green), and a cast iron knife.</td>
</tr>
<tr>
<td>42BO1064</td>
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<td>Historic trash scatter with no associated features. The site measures 60 ft (NW-SE) by 151 ft (NE-SW) (Figure 9). Artifacts observed at this site include cut nails, a metal plate, a railroad tie plate, and fragments of metal, glass (brown and green), and tin cans. Artifacts are fairly concentrated near the grade, indicating a possible dumping episode or a short term staging area during construction or maintenance of the railroad. Two depressions; one is 25 ft x 16.5 ft x 1-1.5 ft deep, located right at the base of the grade, odd shape and position. The second feature is on the south side of a rock outcrop. Approximately 75 ft south of the feature is a green bottle, base is 3” diameter and walls of body are ~ ¼” thick.</td>
</tr>
<tr>
<td>42BO1065</td>
<td>5</td>
<td>Historic campsite consisting of a series of habitational features and an associated trash scatter located on non-federal lands near the western end of the GOSP authorized boundary. Five dugout depressions (F1-F5) and a small artifact scatter were recorded at this site. The site measures 450 ft (NE-SW) x 200 ft (NW-SE). Artifacts observed at this site include glass fragments (brown, green, clear, amber, and aqua), tin cans, and fragments of a carpet bag frame. Artifacts are notably absent in the vicinity of the features. All artifacts were located in the central portion of the site on the flat at the base of the slope below the features.</td>
</tr>
<tr>
<td>42BO1131</td>
<td>31</td>
<td>Historic Railroad Camp/Habitation consisting of a series of habitation features and a large, fairly dense, artifact/trash scatter. Thirty-one features (F1-F31) including two stone room block remnants (F21, F25), 19 dugout depressions (F2, F4-F9, F12-F20, F24, F26, F29), four rock shelters (F10, F22, F27, F31), three tent platforms (F11, F23, and F28), an open fireplace (F30), and two rubble/rock piles (F1, F3). The site measures 725 ft long (N-S) by 775 ft wide (E-W). Artifacts include a variety of metal objects (tin cans, nails, strap metal, suspender clips, hardware), glass (bottle, jar, insulator), ceramics, wood fragments, insulator fragments, telegraph wire, smooth wire, a kitchen knife handle fragment, a fork, buttons (glass, metal), window glass, and bone fragments.</td>
</tr>
<tr>
<td>42BO1132</td>
<td>5</td>
<td>Historic Railroad Camp/Habitation consisting of a series of five habitational features (F1-F5) abutted against vertical limestone outcrops. F1, F3 and F4 are constructed of large angular broken limestone rock. F2 and F5 consist of earthen dugout structures reinforced with angular limestone rock. This site measures 220 ft (N-S) x 200 ft (E-W). Artifacts identified in association with this site consist primarily of amber glass, a few tin cans, an aqua prescription bottle with lettering and a mother-of-pearl decorative knife handle (2001-FS-14).</td>
</tr>
<tr>
<td>Site #</td>
<td>Features</td>
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<td>4</td>
<td>Historic Railroad Camp/Habitation consisting of five features including one tent platform (F1), a blacksmith’s platform (F2), a small stone room block (F3), a small tent platform/rockshelter (F4), and a nearby isolated rock ring (F5) with associated artifact scatter. The site measures 725 ft long (N-S) by 340 ft wide (E-W). Artifacts noted at this site include various fragments of unidentified metal, horseshoe nails, a square cut nail, a tin can, a drill bit fragment, slag, a galvanized bucket, two horse shoes, barbed wire, and many glass fragments.</td>
</tr>
<tr>
<td>42BO1134</td>
<td>8</td>
<td>Historic Railroad Camp/Habitation consisting of three apparent tent platforms (F1-F3), five limestone rock clusters (F4-F8), and a broad scatter of historic artifacts including one prehistoric projectile point. The site is ~ 40 ft from the railroad grade and measures 162 ft (N-S) by 285 ft (E-W). A great deal of modern trash is mixed in with the historic materials, likely as a result of the site’s proximity to the Big Fill walk and interpretive trail. Artifacts include a variety of metal objects (tin can fragments, strap metal, nails, wire etc.), glass, a button, one early soda/ginger ale bottle, multiple ceramic rice bowl fragments and one Rose Springs Corner-notched projectile point.</td>
</tr>
<tr>
<td>42BO1144</td>
<td>2</td>
<td>Historic Railroad Camp/Habitation consisting of a small rock niche/tent platform (F1), a second possible tent platform (F2), and an associated artifact scatter. These features are located approximately 75 ft apart on a relatively steep slope on the north side of the drainage spanned by the Big Trestle north abutment. The site measures 25 ft (N-S) by 15 ft (E-W). Many metal artifacts were noted at the site including two bolts embedded in the rock face, sheet metal fragments, a pot lid, strap metal, a suspender clip, several square cut nails, a metal bar, and fragments of aqua bottle glass.</td>
</tr>
<tr>
<td>42BO1145</td>
<td>1</td>
<td>Historic Campsite consisting of a single earthen dugout depression (F1). The site measures approximately 25 ft (N-S) by 25 ft (E-W). The feature consists of a pear shaped depression surrounded by an earthen berm. There were no artifacts noted in association with this feature.</td>
</tr>
<tr>
<td>42BO1146</td>
<td>1</td>
<td>Blacksmith Platform consisting of a small blacksmith’s platform (F1) and activity area (F2) with associated artifact scatter. The platform is built of unshaped limestone rock abutted against a vertical rock outcrop. A wide terrace/platform below the outcrop appears to have served as an activity area associated with the blacksmithing platform. The site measures 35 ft (N-S) by 50 ft (E-W). The terrace is littered with fragments of metal, slag, rock and cinders and exhibits very dark ash stained soil. There is a small earthen depression in the center of the terrace with a drill bit embedded in the sediments. Artifacts noted at this site include various fragments of unidentified metal, nails, an animal shoe, and several glass fragments.</td>
</tr>
<tr>
<td>42BO1070</td>
<td>TBD</td>
<td>Artifact scatter, with possible tent platform (50 ft x 35 ft) and 2 wooden posts. Three - 3½” long cut nails, 3 cans, 2 bottle bases, and SCA glass fragments.</td>
</tr>
<tr>
<td>Site #</td>
<td>Features</td>
<td>General Description</td>
</tr>
<tr>
<td>---------</td>
<td>----------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>42BO1171</td>
<td>3</td>
<td>Historic campsite consisting of one dugout depression (F1), two small natural rock shelter habitational features (F2-F3), an associated activity area (F2a) and a stone hearth (H1). The first of the two small shelters (F2) is located in the eastern face of a large rock outcrop and the second shelter (F3) is located in the west face of a separate outcrop located approximately 125 ft northeast of F2. The site measures 140 ft (NE-SW) by 60 ft (NW-SE). This site was nearly devoid of visible artifacts, a single tin can fragment was observed within the boundaries of the site.</td>
</tr>
<tr>
<td>42BO1172</td>
<td>8</td>
<td>Historic campsite consisting of a series of habitational features and associated trash scatter. Eight features including six dugout/depressions (F1-F3 and F5-F7), a rock shelter (F4) and one rock-lined room block (F8) were recorded at this site. The site measures 380 ft (NE-SW) by 365 ft (NW-SE). Artifacts observed at this site include one aqua glass sarsaparilla bottle (2003-FS-1), fragments of tin cans and glass (aqua, brown, and olive), strap metal, wire, lumber fragments, a knife fragment, metal pot fragments, a carpet bag frame, and additional miscellaneous metal fragments.</td>
</tr>
<tr>
<td>42BO1173</td>
<td>3</td>
<td>Historic campsite consisting of three dugout depressions and an associated sparse artifact scatter. The site measures 200 ft (N-S) by 260 ft (E-W). Artifacts observed at this site include glass fragments (clear, aqua, olive), a shovel head, copper wire fragments, a cut nail, and miscellaneous metal fragments.</td>
</tr>
<tr>
<td>42BO1248</td>
<td>1</td>
<td>Historic campsite site consisting of one habitational feature and an associated trash scatter located on non-federal lands near the western end of the GOSP authorized boundary. One stone foundation (F1) was recorded at his site. The site measures 125 ft (N-S) x 175 ft (E-W). Artifacts observed at this site include a Civil War button, a sheet metal box, a metal awl, a wash pan, numerous glass and tin can fragments, a metal pan, cast iron pot fragments, metal strapping, and numerous miscellaneous metal objects.</td>
</tr>
</tbody>
</table>
whether they were significantly ethnically diverse to reveal more information about the origin of the occupants of the camps. While it is always hoped that more documentary information will be obtained to help illuminate the archaeological data, in the case of railroad construction on the transcontinental railroad, this is a fast fading hope. Excavations of some of these camps will, undoubtedly, reveal a lot more detail about construction activities and living conditions than will ever be known from existing records.

Joining of the Rails

In order to join the rails at the Summit, the Union Pacific's surveyed alignment had to be slightly altered to affect a meeting, in both elevation and alignment, with the already constructed Central Pacific grade. This is the point, near the eastern edge of the Promontory Summit area and east of the park headquarters, where the railroad grades actually met (Figure 7.11). Track was laid across this juncture point and along the Central Pacific-constructed grade by the Union Pacific track layers to the middle of the Promontory Summit area where the rails actually met at the Last Spike site May 10th, 1869 and the town of Promontory Station was born.
Figure 7.11. Champagne Photograph of the Joining of the Rails at Promontory. Photograph by A.J. Russell; courtesy of the Union Pacific Railroad Museum, Council Bluffs, Iowa.
CHAPTER 8. RAILROAD OPERATIONS ACROSS THE PROMONTORIES

With the joining of the rails the excitement of building the great railroad ended and the routine of daily operation and maintenance of the transcontinental railroad began. Promontory Station, Utah arose immediately as the transfer point between the two lines (Figure 8.1).

In railroad parlance, a “Station” is a physical location – a place identified by name in the railroad timetable. It may be nothing more than a milepost or siding and a sign. It is not, necessarily, the location of a depot, terminal, or maintenance yards and can be of general or specific function, such as a water siding or freight siding. However, at most stations, the depots, roundhouse or other railroad maintenance facilities, bunk houses as well as the community buildings are all components of a much larger, integrated and intricate system that facilitated the movement of people and freight around the country.

After the joining of the tracks at Promontory Summit, Promontory Station immediately became the transfer point between the Union Pacific and Central Pacific railroad companies. Passengers had to disembark from one line and wait in one of the establishments until a train from the other line arrived before continuing on their way. There were 17 tents at Promontory Station on May 10th and 30 by late May (Utley 1960:70). This first row of tents faced south across a single dirt street to the railroad. Many of the establishments boasted high wood “false fronts” (Figure 8.1). They housed hotels, lunch counters, saloons, gambling dens, stores and shops, and nests of “soiled doves.” A string of boxcars on a siding provided offices and living quarters for railroad employees. By fall, 1869, there was a ticket office or depot of milled lumber, a large train platform, and a long “main” street on the north side of the track (Figure 8.2). An 18 ft by 24 ft “house” served as a freight and telegraph office, according to an 1869 inventory of buildings (Raymond and Fike 1981:24). The Central Pacific had constructed a “gallows” turntable at the west end of the Station. The Union Pacific continued to use its wye, constructed May 9-10, 1869.

Actual railroad construction had minimal impact upon the summit area – the last spike site – because the area is so flat that the only work needed was scraping (literally) two drainage ditches and piling the dirt into the middle to form a grade that was slightly above the surrounding area. Historic photographs of the May 10th 1869 scene show minimal ground disturbance from the construction effort. The area was trampled. The sagebrush was both cleared around the grades and smashed because the area served as a travel corridor for construction workers for both companies for nearly a year and also because of the bustle surrounding the pending last spike ceremony. However, ground disturbance was limited to the surface, and obvious features of substance did not exist. Tents, construction debris and equipment, and wagons from May 10th made no substantial or long term impact (Hedron 1978; Ketterson 1969).

However, within a month or so, the last spike site had become the town of Promontory Station and had developed into a somewhat more substantial place with commercial and habitation facilities and railroad support facilities. William Henry Jackson’ July 1869 photograph from the last spike site looking west clearly shows the coarsely constructed borrow
Figure 8.1. Town of Promontory in the Spring of 1869. Photographer unknown; courtesy of Golden Spike National Historic Site, National Park Service.
Figure 8.2. The Last Spike Site Looking West, Showing Coarsely Constructed Borrow Ditches and a Central Pacific Spur to the North of the Main Tracks. Photograph by A.J. Russell; courtesy of the Oakland Museum of California.
ditches, noted above, as well as a Central Pacific spur to the north of the main tracks (Figure 8.2). The picture also shows the Central Pacific gallows turntable well to the west of the spike site. An A. J. Russell photograph in late 1869 (or possibly 1870-71) shows the town at what probably was its peak as a transfer station, with a long row of commercial tent and false front establishments as well as a railroad depot and platform, a dining facility immediately adjacent to the track, and several additional sidings. The gallows turntable appears in the far distant west. These and other photographs suggest that the early commercial Promontory sprung up on the north side of the tracks while the railroad-related facilities were adjacent to the south side of the tracks. Many tons of freight passed through the depot during its years of operation. By the end of 1869, approximately 30,500 passengers had also made their way through the station in Promontory (Carr 1972:10).

In addition to being the transfer location, Promontory Station immediately became a focal point for serious upgrade and maintenance of the hastily constructed railroad on the east side of the Promontories. Even before the railroad was completed, portions of the grade were determined to be substandard (Williams 1988:220-225). An 1868 inspection report indicated that the Union Pacific had “permitted too many curves, curves that were too sharp, substandard embankments, cuts too shallow (upon portions of the road Ballasting is entirely wanting), shoddy, impermanent bridges, excessive grades, and other defects, ad nauseam” (Williams 1988:223). In fact, Secretary of the Interior Orville Browning declared that until the Union Pacific upgraded its road, no further bonds would be released (Ames 1969:251 referenced in Williams 1988:221, 224). This created a problem during construction, but was eventually sufficiently rectified to enable the road to be completed.

There was much criticism during the later stages of railroad construction activities about whether the work done by the two railroads was commensurate with requirements set forth in the Congressional Acts of 1862 and 1864. Specifically, there were complaints that the UP was building a substandard railroad and receiving unjust compensation for it from the U.S. Government (Athearn 1976:115). In response to the mounting criticism, President Grant appointed a special commissioner, Isaac N. Morris, to inspect the reportedly unacceptable parts of the UP. His report was quite unfavorable and called the railroad the worst over which he had ever traveled, and actually dangerous in places. As part of his inspection tour, he described the condition of the line between Corinne and Lampo Junction:

The Union Pacific road-bed[s] ... width ... is only the width of the tie, or 8 feet, sometimes a little over and sometimes a little under, ... the road-bed ... is a mixture of dirt and sand ... places are found where it is mostly dirt, and then portions are met which are chiefly, if not entirely of gravel (U.S. Congress, House of Representatives 1876:7).

Another commission of “Eminent Citizens” later inspected the route and found it acceptable as a first class railroad (U.S. Congress, House of Representatives n.d.). Nevertheless, CP apparently found it necessary to essentially rebuild the route after it acquired it in late 1869. This is partially supported by Morris' description of the railroad grade between Lampo Junction and Ogden (U.S. Congress, House of Representatives 1876). A 1920 bridge report from the
Southern Pacific Transportation Company indicates that most trestle structures were reconstructed along the Promontory Route between Corinne and Promontory just after the CP acquired the line. Trestles in that area date, with some exceptions, from the early 1870s to the early 1880s (Southern Pacific 1920: 250-255). These newer trestles were built to replace the original inadequate trestles built by the UP.

Until about December 1, 1869, however, the official date for transfer of the 48.5 miles section, UP still operated on its original line between Ogden and Promontory and transferred with the CP at Promontory Summit. After the CP Railroad took over the Promontory Route from five miles west of Ogden to Promontory in late 1869, it continued to use most of the grade originally constructed by the UP between Promontory Station and Ogden.

Later, when Promontory Station became simply another section station and farm community, this relationship changed with the Golden Spike Hotel (later the Houghton store), Blue House (Houghton home), and other ranch establishments being constructed. Major stands of Matrimony Vine (*Lycium barbarum*) that were planted around these structures still exist in rectangular form around the Visitor Center and parking lot. Numerous corrals, outbuildings, and windmills were scattered across the landscape. The school house (Figure 8.3) was built on the north side of the tracks; remains at the location of this structure are apparent today while the school house itself has been moved to private property immediately east of the park’s headquarters area. This was the third Promontory school house; the latest one was on the site of the second one which had been removed (Anderson and Wilson 2000). The Floyd ranch was north of the tracks.

The Southern Pacific constructed maintenance facilities, including a small brick “roundhouse,” section house, “bunk house” (this may have been the “tie houses” referred to by individuals who once lived in Promontory Station) and stationhouse while commercial ventures continued to provide support services for the small community. Sometime during the time that Promontory Station served as a basis for maintenance of the line, a Chinese work crew reportedly had dugouts somewhat outside of town to the west (Figure 8.4). This probably is on private land. There also is hearsay information about Italian bread ovens in the area. Census information for 1900 documents 6 Chinese living in the area and the presence of Italian workers are documented in the 1900 and the 1920 census information.

Still, there was great need to substantially improve the grade, particularly in those areas where hastily thrown-together trestles swayed as locomotives inched across, where cuts were barely wide enough to arguably meet standards, and where ties and rails “floated” without adequate ballast. Galloway writes (1950:302) that, “A great deal of temporary construction was installed on the Union Pacific, notably in bridges and culverts. Poor ties were used in some cases and banks were not always up to standard.” The east slope of the Promontories was a big problem. When the April 9, 1869 decision to join at Promontory Summit was made, the Union Pacific still had considerable heavy work to complete. As noted, above, by April 13th the Union Pacific still had 20 miles of track to lay and three high trestles [on the east slope of the Promontories] and the Last Cut to complete. Work progressed under pressure and hastily from dawn to dark, which
Figure 8.3.
1905 School Class in Front of the Red School (Second School) at Promontory. Photograph courtesy of the Golden Spike National Historic Site.
resulted in substandard construction. It is reported that Samuel Reed worked his men day and

Government inspector Isaac Morris reports in May of 1869 to the President on this
portion of the line wherein he grudgingly approved all of the work except the trestles:

For a mile and a half (going east from Promontory) the ties ... are virtually laid on
the ground, but the road then passes through several sand-banks, some
comparatively small and some of formidable proportions, with intervening spaces
of nearly level surface; thence it passes through rock excavations, one being some
40 feet deep and a quarter of a mile long through the heaviest body of the
mountain [The infamous “Last Cut”], overlooking Salt Lake; thence it sweeps
around the mountain’s side to its base, describing in its course a succession of
short curves, so sharp indeed that an ascending and descending train would
collide before either would be aware of the proximity of the other. I measured the
width of the cuts, and found them so nearly in compliance with the standards of
construction that they may be so regarded. Before reaching the descending curve
running on the side of the mountain, two dells or ravines are crossed on trestle-
work, one as nearly as I could judge, ... about two hundred and fifty feet long and
thirty feet deep. [This, most likely, is the Big Trestle.] These trestle-structures,
unknown to the law, but familiar to the line of the road, and one over Blue Creek,
not far distant, are very frail and dangerous. It is the purpose of the company, I
was told, to fill up these ravines so as to have a solid roadbed over them. The
sooner this is done the better for the safety of lives and property (Utley 1960:71).

Terms of the April 9, 1869, agreement between the two railroads required that the Union Pacific
build to Promontory Summit and the Central Pacific purchase that line east from the Summit to
Ogden, thereby giving both railroad companies access to the Salt Lake basin trade. In November
1869 (Strack 1996:9), the Central Pacific made its purchase of the Promontory to Ogden portion
of the line for a sum of $2,698,620, according to White (1895:36-37). Strack (1997:9) writes
that $2.8 million was the cost of the Union Pacific “buy out.” Ogden then became the official
transfer point between the two lines.

Immediately, the Central Pacific brought in crews to upgrade the line to Ogden. Most
notably, the line on the east slope of the mountains, as noted above, was problematic, having
been hastily constructed with more concern for quantity than quality. The ultimate decision was
to simply abandon a part of the poorly constructed Union Pacific grade with its three creaky
trestles, dangerous curves, and narrow Last Cut. By utilizing its own, previously-constructed
grade on the east slope, the Central Pacific was able to make use of its Big Fill (Figure 8.5),
abandoning the picturesque, but dangerous Union Pacific Big Trestle (see Figure 7.8).

By late spring of 1870, Crofut’s *Trans-Continental Tourist* addressed the new
construction effort, and stable line, from which one could look across and see the abandoned
Union Pacific Big Trestle. Similarly, Nelson's traveler's guide published in 1871 notes: (After
leaving Blue Creek Station) we cross the Blue Creek itself, on a trestle bridge 300 feet long and
30 feet high, and winding around several projections and mountain-spurs in a most sinuous
course, we run along a trestle bridge on the left, 500 feet long and 87 feet high. And a famous bridge it is, though the builders of it don’t derive much advantage from their workmanship and engineering skill. It was built by the Union Pacific Railroad Company, who brought their track to Promontory... You will observe that the old track of the Union Pacific runs parallel to the Central Pacific, at a short distance, all the way to Promontory, the former junction point of the two railroads.

With Promontory no longer the transfer point for passengers and freight between the two railroad companies, its instant vigor and questionable “commerce” vanished. However, Promontory Station served as a formal section town until the rails were removed in 1942. With its school house, post office, and store. The roundhouse and rail yards at Promontory Station continued to play a prominent role in the general Promontory community until the rails were gone and improved roads and other modes of transportation obviated the need for the small town.

**Promontory Station Roundhouse**

An engine house, locomotive maintenance “shed” or “barn,” or a roundhouse, was an essential element of a successfully operating railroad. Steam locomotives, particularly, required frequent maintenance to keep them operating in optimal form. Where “helper” engines were needed, as at Promontory, it was essential to have a maintenance facility to keep these locomotives that were used for short distances in peak condition.

Terrace, to the west of Promontory, was the maintenance and repair headquarters for the Promontory Branch Line, Salt Lake Division of the Southern Pacific with a 16 stall roundhouse. However, Promontory and Kelton also had maintenance facilities. Kelton had an engine house and Promontory a roundhouse with a turntable. Whether a station had a rectangular engine barn or a roundhouse often depended upon how much trackage space was available for turning the locomotives (Halberstadt and Halberstadt 2002: 146-147). A roundhouse enabled many locomotives to be kept undercover, important in areas of harsh winters, and only needed one track for access. While it took up more space than an engine house, its circular design and clerestory windows provided badly needed lighting in the days prior to general availability of electrical lighting. One major downside of a roundhouse with its single track access was the difficulty in moving locomotives out of harms way in case of fire, which was an omnipresent threat. A second roundhouse problem that affected growing railroads was the size of the turntable, which limited the size of the locomotives that could be moved into the building for servicing. This awkward circumstance generally required rehabilitation and expansion of the roundhouse and its support features.

In 1878, Williams (1878:155-56, 164) indicates that there was a 3-stall roundhouse at Promontory, a good eating house, and other buildings (Figure 8.4). Werner (1885) writes in 1885 that there was a “½ roundhouse” and maintenance yard. There was a Division Engineer who was in charge of maintenance, and the “engine barn” was built of brick (Werner 1885). The 1885 section map of Promontory shows a 3-bay roundhouse along with a number of other
Figure 8.5. Central Pacific Big Fill after a Fire. Photograph courtesy of the National Park Service.
railroad-related facilities (Table 8.1, Figure 8.4). In addition, this map lists the length of each railroad spur, such as the coal track, wood spur, and turntable track.

**Table 8.1. Facilities Listed on 1885 Promontory Section Map**

<table>
<thead>
<tr>
<th>Facility</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roundhouse</td>
<td>Engineers' Bunk House (finished January)</td>
</tr>
<tr>
<td>Hotel and Telegraph Office</td>
<td>Section House (October 1882)</td>
</tr>
<tr>
<td>Section House</td>
<td>Sand House (October 1882)</td>
</tr>
<tr>
<td>Coal Shed (removed in June ‘85 and replaced)</td>
<td>Lodging House (Simon Tooker)</td>
</tr>
<tr>
<td>Car Houses</td>
<td>Dwelling (John Henry)</td>
</tr>
<tr>
<td>Tank (water – some distance from track)</td>
<td>Charles Munn</td>
</tr>
<tr>
<td>Tool House</td>
<td>Jessie Brown</td>
</tr>
<tr>
<td>China Section House</td>
<td>D. L. Davis (on plan August 1884)</td>
</tr>
<tr>
<td>Road Masters House</td>
<td></td>
</tr>
</tbody>
</table>

Marion Brown Woodward, whose father (T. G. Brown) operated the Golden Spike Hotel and restaurant before and slightly after the turn of the century, recalled that the roundhouse was large enough to accommodate six or eight engines and that a big snowplow was always housed in the building (Woodward n.d. [but before 1964 when she died]). Bernice Anderson (1969:8) states that the structure housed seven locomotives. However, the limited test excavation carried out on the brick roundhouse foundation (LeFevre 1974) and the mapped footprint (Ayres 1982) suggest that the roundhouse was too small to house seven locomotives. There is no physical or documentary evidence that there were two roundhouses or that at some point the building was enlarged. In 2002, the remains of the Promontory Station roundhouse were tested and portions of the foundation were exposed (Figure 8.6). This work demonstrated that the structure had five bays. The three central bays had long maintenance pits while the bays on either side were used for functions other than servicing the locomotives. A photograph of the roundhouse, possibly from ca. 1888, shows a five-stall structure with each bay having a smoke jack (Figure 8.7).

The dates of the Promontory roundhouse are, similarly, poorly illuminated. While the earliest known reference is Henry Williams’ 1878 guidebook, it is generally believed that shortly after the Central Pacific acquired the line between Promontory Station and Ogden it became imperative to have a facility for locomotive maintenance at Promontory Station. Steam engines required frequent maintenance, and with the need for “helper” or hog locomotives on the east slope of the Promontories as well as the significant grade and track enhancement, it seems likely that construction of the roundhouse occurred early in the existence of Promontory Station.

Similarly, it is supposition that, after the Lucin cutoff was operational in 1904, the need for numerous helper engines and heavy locomotive maintenance at Promontory and other stations along the Promontory Branch Line diminished to the point where maintaining a roundhouse was impractical. Also, by this time diesel locomotives, which required less constant
Figure 8.6. Excavated Remains of the Promontory Station Roundhouse in 2002.
Figure 8.7. A Photograph of the Roundhouse. Possibly from Ca. 1888. Shows a Five-stall Structure with Each Bay Having a Smoke Jack. Courtesy of the Guy L. Dunscomb collection, Modesto, California.
maintenance than the steam engines were taking over. Arnold Whitaker, who was born in 1914 and grew up in Promontory Station, remembers playing in the roundhouse turntable “pit.” He has no memory of a superstructure. Information compiled on turntable and wye locations on the Promontory Route of the Central Pacific Railroad/Southern Pacific documents that a turntable existed at Promontory from at least 1896 until 1911 (Polk 2002). There is no information for 1912, and Promontory’s turntable does not appear in 1913 or later. The 1916 Southern Pacific Railway Company Right-of-Way and Track Map for the Promontory Branch does not show a roundhouse, but does document a water tank, ice house, and other structures. Further, the Southern Pacific Railroad section map for 1920, Promontory, does not show a roundhouse. Only “ruins” appear on the 1937 aerial photographs, which are the earliest aerial photographs of the Promontory area.

The original foundation of the commemorative obelisk emplaced by the Southern Pacific in 1916 includes a considerable amount of brick similar to that scattered about the location of the roundhouse and at one time had a “star” of bricks around its base. These are generally assumed to have been cannibalized from the ruins of the roundhouse. LeFever (1974) states that some of the buildings at the site prior to the time the National Park Service took over the area had chimneys built of the same brick.

**Promontory Depot**

The Promontory depot (Figures 8.8-8.10), which was built by the fall of 1869, for all intents appears to be one of the many standardized, board and batten depots erected across the country during the 1860s through the 1890s. Because the railroad constructed these simple, inexpensive wood depots every few miles, they were mass-produced and designated Common Standard Design No. 1, No. 2, No. 3, and the like, varying from large to small. Often these were hastily put together by the railroad construction workers themselves, who were also building maintenance sheds and other facilities, and were not expected to last forever. They were generally pre-cut and hauled to their final location by flatcar (Halberstadt and Halberstadt 2002:21-23; 64). While the numerous, high-style, elegant depots or terminals, such as Union Station in Ogden, Utah, are legion, most stations were served by small, vernacular depots that played a serious role in the operation of the railroad. Depending upon the size and/or importance of the station, the depot housed the station master/agent and his family, telegrapher and telegraph office, ticket office, passenger waiting room(s), café, freight office, post office, and served as a focal point for the community. It was from the depots that the station agent tracked, timed, and coordinated train movements, passed messages between dispatchers and train crews, sold tickets, facilitated the transport of passengers, US mail, and freight, distributed payroll, passed on local gossip, maintained communications up and down the line, prepared weather observations that alerted maintenance crews of potential problems, and maintained the large volume of routine paperwork required by the company. Such was the case at Promontory Station.

William Case was listed on the 1870 US census as a hotel keeper in Promontory (Johnson 1993:39). Mr. Case likely operated the depot restaurant as did N. M. King (Johnson 1993:39). In the mid-1880s T. G. Brown moved his family to Promontory and operated the depot
Figure 8.8. Historic Promontory Depot around the Turn-of-the-Century. Top: view to the southeast. Bottom: view to the northeast. Photographs courtesy of the Golden Spike National Historic Site, National Park Service.
Figure 8.9. A.J. Russell Photographs of Promontory Depot in Late 1869. Left: view west along the depot. Right: view west along the tracks. Photographs courtesy of the Oakland Museum of California.
restaurant, opening a store on one end of the depot restaurant (Johnson 1993:39). About ten years after his arrival in Promontory, Brown built a store located about 200 feet south of the depot (Box Elder News 1926). This store was known as the “Golden Spike Hotel.” Earlier, Brown had a small place on what is now the Fort Ranch and ran cattle in the southern Promontory. In 1869 he supplied beef to the railroad construction crews (Whitaker 2001, personal communication). In 1907 the hotel was acquired by Frederick Houghton who ran it as a general store, restaurant and hotel until his death in March 1926 (Box Elder News 1926). His wife and daughter continued to run the store for a few more years after his death, until they moved to Brigham City.

Local informants indicated that a hand pump gasoline pump made the Houghton store an important location to everybody [Whitaker-personal communication] (Anderson 1968:8). The Houghton family lived in the “Blue House” that was just south of the county road and southwest of the store (Figure 8.11). Both the house and the store were surrounded by the exotic Matrimony Vine (Lycium barbarum), which is currently the only substantial above-ground evidence remaining of their existence. The store was demolished in 1950 (Miller 1973), and the Blue House removed by the National Park Service. As of this writing, the rectangular, Matrimony Vine outline of a large shed at the Houghton store is still visible. Elsewhere, the Matrimony Vine has expanded significantly beyond the bounds once set for it by the various structures. One Golden Current (Ribes aureum) bush remains in the vicinity of the Houghton establishments.

Sometime around the middle to late 1880s, a big freight depot was built adjacent to the track where freight was shunted onto a platform and then onto wagons for transport to the mining camps to the north. Promontory then took its place as a freighting town along with Corinne and Kelton as a supply point for the northwest (Anderson 1968:8). This may have been the warehouse that stood adjacent to and immediately north of the tracks at Promontory Station until it was moved to Garland in the early 1930s. It does not appear on the 1937 aerial photographs of the area.

The early settlers of Brigham City ranged their cattle all along the Promontory – meaning the entire range of mountains that jut into the Great Salt Lake from the north. Well before the turn-of-the-century, Promontory Station became the “headquarters” of a railroad cattle enterprise, the Golden State Land and Cattle Company, owned by the Crocker family. Charles Crocker, along with Mark Hopkin, Collis Huntington and Leland Stanford formed the Central Pacific Railroad, which became the western portion of the Transcontinental Railroad. Crocker became one of the largest cattle barons in the Utah territory (Figure 8.12). His ranch was the Bar-M, and he built the “Crocker Mansion” about a mile to the northwest of Promontory Station. This edifice has been described as a millionaire’s palace and sportsman’s lodge. Bernice Anderson indicates that “… around 1900 the “big house” was moved to Howell” (Anderson 1968:9), while Torbenson (1998:11) suggests that it was moved to the site along Blue Creek in 1908 and the town of Howell established at that location because of the presence of the house. When Crocker died his holdings were divided into two ranches – the Promontory and the Curlew. These ranches controlled most of the water in Box Elder County.
Figure 8.11. Houghton’s “Blue House.” Photograph courtesy of the Houghton Family.
Census information shows that in 1900 the Promontory area supported 148 residents (Table 8.2). The presence of Chinese “dugouts” immediately west of the park at Promontory Summit is rumored but have not been found. Supposedly these were Southern Pacific work crews analogous to those who lived on the outskirts of Lake, Terrace and other section towns (Raymond and Fike 1981). The 1900 census reports a group of Chinese living at Promontory Station. The breakdown of residents by country/state of origin according to the census lists:

- 6 from China
- 5 from England
- 9 from Italy
- 3 from Ireland
- 1 from Scotland
- 2 from Sweden
- 88 from Utah

<table>
<thead>
<tr>
<th>No.</th>
<th>Occupation</th>
<th>No.</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Telegrapher</td>
<td>2</td>
<td>Engineer</td>
</tr>
<tr>
<td>15</td>
<td>Laborer</td>
<td>3</td>
<td>Fireman</td>
</tr>
<tr>
<td>13</td>
<td>Section Hand</td>
<td>18</td>
<td>Dry Farmers</td>
</tr>
<tr>
<td>2</td>
<td>Section Foreman</td>
<td>4</td>
<td>Stock and Cattle Merchants</td>
</tr>
</tbody>
</table>

In 1904, the Lucin Cutoff was completed from Ogden across the Great Salt Lake to Lucin, thereby significantly reducing the use of the Promontory route. The Promontory route was no longer part of the main transcontinental line; however, the Promontory Branch Line of the (by then) Southern Pacific Railroad continued to see some regularly scheduled and “local” travel. A few helper engines were still maintained at the summit because in times of inclement weather on the lake or grade/track repair the Promontory Branch Line once again was used as the main line across northern Utah. The line was decommissioned in 1942 and the tracks were pulled up. The rails and other salvageable metals were moved to military depots in Utah in support of the war effort.
Figure 8.12. Daguerreotype of Charles Crocker. Photograph courtesy of the Golden Spike National Historic Site, National Park Service.
Information from the 1910 census for the Promontory precinct lists 200 residents and a number of occupations (Table 8.3).

<table>
<thead>
<tr>
<th>No.</th>
<th>Occupation</th>
<th>No.</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Railroad</td>
<td>2</td>
<td>Telegraph Operator</td>
</tr>
<tr>
<td>3</td>
<td>Engineer</td>
<td>1</td>
<td>Road Commissioner</td>
</tr>
<tr>
<td>1</td>
<td>Section Foreman</td>
<td>28</td>
<td>Farmer</td>
</tr>
<tr>
<td>1</td>
<td>Bridge Builder</td>
<td>1</td>
<td>Miner</td>
</tr>
<tr>
<td>6</td>
<td>Section Laborer</td>
<td>1</td>
<td>Blacksmith</td>
</tr>
</tbody>
</table>

In 1909 the Promontory-Curlew Land Company purchased vast amounts of land in and between the Blue Creek Valley and Curlew Valley, including the Promontory Mountains and Promontory Station. Some of these lands had originally been part of the “checkerboard” land granted to the Central Pacific Railroad, including those lands held by the Crocker family’s large livestock company, noted above, that were split into two ranches for easier management – the Promontory and the Curlew (Torbenson 1998:4-6). This land company originated during the early 20th Century promotion of dry farming in the western states, seeking to sell its extensive tracts of land (Figure 8.13). Between 1909 and 1919, the company focused upon selling land specifically for dry farming. It established the town of Howell in the Blue Creek Valley near Crocker’s “Big House,” which had been moved there in 1908 (Torbenson 1998:11). There were railroad excursions from Brigham City to Promontory Station for rabbit hunting (see Figure 2.4), along with accounts of as much as 60% crop destruction, including Promontory-Curlew dry farming demonstration plots, from ground squirrels, gophers, and rabbits. After 1919, the company’s focus drifted to selling land for whatever use would make a profit, including the sale of oil, gas, and mineral rights (none of which ever proved up). In 1959, in the face of ongoing losses, the company dissolved as a corporation (Torbenson 1998:20).

By 1920 the Promontory precinct housed 265 residents (Table 8.4). This may have been a result of the push for dry farming as well as the passage in 1909 of the Enlarged Homestead Act that enabled cattle ranchers to homestead 320 of land instead of the previous 160 acres. The Southern Pacific Railroad section map for 1920, Promontory, shows an ice house, section house, tool houses, bunk house, water tank and the Last Spike concrete monument – the commemorative obelisk (Figure 8.14).
Figure 8.13. Map from the Promontory-Curlew Land Company Brochure, 1913.
<table>
<thead>
<tr>
<th>No</th>
<th>Occupation</th>
<th>No</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Section Laborer (all Italian)</td>
<td>7</td>
<td>Sheepherder (mostly Mexican)</td>
</tr>
<tr>
<td>1</td>
<td>Engineer</td>
<td>33</td>
<td>Potash Laborer</td>
</tr>
<tr>
<td>1</td>
<td>Section Foreman</td>
<td>1</td>
<td>Potash Kemist</td>
</tr>
<tr>
<td>32</td>
<td>Farmer</td>
<td>1</td>
<td>Stockman U.S. Army</td>
</tr>
<tr>
<td>2</td>
<td>Farm Laborer</td>
<td>1</td>
<td>Cowboy</td>
</tr>
<tr>
<td>9</td>
<td>Stock Farmer</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Through the dust bowl days and depression, Promontory Station was part of a widespread farming and ranching community, boasting a Post Office, general store, school, and a number of families (Johnson 1989). Many more families relied upon the small town for schooling, current news, mail, and general community spirit, including dances and other socials. While Torbenson (1998) indicates that Promontory Station was a shipping point during the dry farming years for the Promontory - Curlew Land Company and other Promontory area farmers the railroad didn’t load grain at Promontory Station until 1919. It had to be hauled to Lampo or Rozel. Irritated at this, the Promontory ranchers established the Promontory Grain Growers Association. On November 13, 1919, the association bought a scale and lobbied the railroad to load their grain at Promontory Station (Torbenson 2001, personal communication; 1919 founding member certificate, Promontory Grain Growers Association), which they did.

Water

The lack of water in the immediate vicinity of Promontory Station was a drawback throughout the Station’s entire existence. All water had to be hauled to the town site until deep wells were dug by residents after the railroad was no longer in use. Utley (1960:73) indicates that the Central Pacific constructed a station, a water tank, as well as the roundhouse. Certainly, roundhouse maintenance operations for the steam locomotives required considerable water. The existence of a water storage facility at Promontory, while logical, is a complex issue. There is scant documentary evidence of an actual water tower until after the roundhouse was gone, and long time residents of Promontory Station dating back to the first part of the 20th Century clearly remember that the locomotives had to go to Rozel to get their water (Whitaker, personal communication). A water tank appears on the 1885 Section Map for Promontory Station, and no roundhouse could effectively service steam locomotives without having access to water. However, the 1916 Southern Pacific Railway Company Right-of-Way and Track Map for the Promontory Branch documents a water tank in a different location, as does the Southern Pacific Railroad section map for 1920. Marion Brown Woodward who lived in Promontory for the first thirteen years of her life (1889 – 1902) indicates that there was a large water tank where engines took on water as well as a cistern near the depot, which was filled with water hauled in tank cars, that provided the town with potable water (Woodward n.d.). However, Bernice Anderson (1968:8) writes, “Since the grades approaching Promontory Station were some of the steepest on the line, it was necessary to use helper engines on nearly all trains. These met the trains at Rozel or Blue Creek, the two nearest watering stations.” In an oral history interview with Mr. W. A. (Pappy) Clay, Mr. Clay indicated that there was a big water tank at Blue Creek as well as a “telegraph office and several side tracks. It was at the foot of Promontory Hill” (Clay 1974:2).

Water for Rozel came from an artesian well at Antelope Springs, eight miles southeast in the Promontories. Raymond and Fike (1981: 97-98) indicate that a redwood pipe laid from the spring in 1874 was replaced by a three-inch pipe in 1883 and that a redwood tank on a timber tower was still being utilized in 1917. It was, subsequently, replaced by a steel tank and tower. This line appears as an “aqueduct” on the USGS quadrangle map for the area, and as of the current site recordation in 2004, remains of the wood pipe can still be found.
Utley (1960:70) also notes that the railroads hauled long strings of tank cars full of water to Promontory from springs 30 to 50 miles distant. Elsewhere, Anderson states that:

A section house, tool sheds and bunk house for workers were built to the south west of the track, and just south of them was the big water tank supplied by water hauled in tank cars from the Bear River at Corinne. Water for culinary purposes was pumped from these cars into cisterns near the Golden Spike Hotel and near the section house, with pipelines running from them to the track. Box Elder trees were planted at points where water was available to keep them alive, and there were several huge trees growing there until after the Lucin Cut-off was built... In later years wells were dug and windmills pumped the water into tanks to supply ranches nearly (1968:8).

The remains of these old cisterns exist today in the ground at the locations of the Houghton store, Hansen ranch, and the Floyd place (once part of the Lindsay Land and Livestock Company) [see Ayres’ 1982 base map; Whitaker, personal communication]. The Houghton residence had a well with windmill. The well still exists immediately south of the current county road at the historic location of the “Blue House.”

A Box Elder News newspaper article from August of 1913 discusses the water situation at Promontory.

... But the most interesting bit of information gleaned on the trip was that water has been found at the old station site and F C Houghton merchant, post master, US weather observer, station agent, bishop, and in fact every other official as well as the most prominent citizen on the mountain, now boast, of two splendid wells which discharge pure, cold, sweet tasting water encountered at a depth of 325 feet and 395 feet respectively. One of the wells is located near the store while the other is on Mrs. Houghtons residence lot just back of the cozy home they have erected (1913:1).

In olden times when the station was a big factor in the life of the Southern Pacific Railway, the company sank a number of wells in the hope of striking water without avail. They bored into the earth to a depth of from 1500 to 1800 feet but could find no water and the tank in the railroad yard had to be supplied by hauling the water from other points. The famed “big house” which stood about a mile north of the station and which has since been moved over to Howell, was supplied with water from a cistern located back in the hills, and that stream has either been diverted or gone back into the earth, for where the house once stood there is nothing but parched ground covered with debris today. And so the matter of getting water even at a depth of three or four hundred feet makes Brother Houghton and all the other inhabitants out there smile and they who have weathered the elements and eked out an existence under such circumstances for so many years, are now taking new heart and it will be but a matter of time until the
entire country is under cultivation and happy families are residing on the dry farms (*Box Elder News* 1913:1).

Stock, including cattle, hogs, and horses, were never held at Promontory Station because water was not available for the animals. No stockyards or corrals have ever been ascribed to Promontory, and tales abound about the imbroglios of driving hogs to Lampo. Clearly, water has always been an issue, for locomotives and people, and was the reason livestock were never loaded at Promontory Station. It may be that at times there was a water tower supplying the locomotives or that a water tank (not tower) provided water to the locomotives. It appears that water was always transported to Promontory Station and other stations along the Promontory Branch by the railroad. In fact, until 1942 when the rails were removed, the Whitaker family purchased a railroad tank car and kept their household water on a short spur fairly close to their ranch (Arnold Whitaker, personal communication 2002) (Figure 8.15).

Unfortunately, little specific information is readily available about individuals or structures in the town, and much more historical research could be done in this area. The most detailed, although unreferenced, information is in Bernice Anderson’s 1968 *The Pacific Railway and the Golden Spike 1869-1969*. Johnson’s 1989 study places Promontory within its historic and geographic context, but does not go into detail about specific features or events within the town.

In 1916 the Southern Pacific erected a monument, often referred to as the obelisk, commemorating the completion of the transcontinental railroad. The original drawings for the obelisk are dated 1916; 1919 was the 50th Anniversary of completing the transcontinental railroad. This concrete monument originally was placed on the south side of the railroad tracks as close to the original spike site as was known. However, in 1968 it was moved to a different location north of the tracks and somewhat further west (see Ayres’ 1982 base map) during National Park Service reconstruction of the 1869 historic scene. Subsequently, in 1980 it was moved back across the tracks to the southeast corner of the Visitor Center where it sat until 2001 when it was taken out of the ground for preservation treatments. At several points in time, the concrete monument has been treated with preservatives that proved to be ineffective in halting the ongoing deterioration. This is as much the result of the chemical composition of the concrete allowing ground water to percolate through the monument’s base as it is the effect of rainwater and wind exposure to the top of the monument. Currently it has a place of honor in the entrance courtyard of the visitor center.

In 1942 the Southern Pacific Railroad finally got permission to abandon the Promontory Branch Line (Strack 2005:113). The rails were removed and transported to various military depots in Utah where they were used in home front support of World War II. The lines of the transcontinental telegraph remained until at least 1955 and, possibly, later according to remembrances of individuals who once lived in Promontory Station (Anderson and Wilson 2000:3). Photographs in the park collection taken by Bernice Anderson in 1955 clearly show the telegraph line. The railroad section house that once housed the Section Forman, now was used by the telegraph men who still worked the line (Clarence Kirkham in Anderson and Wilson 2000; Miller 1973).
Figure 8.15. Promontory Water Tank and Section House; View West along the Tracks. Photographer unknown; courtesy of Special Collections, Utah State University, Logan.
In 1967 when the National Park Service acquired the property, park lands included most of what then remained of the town of Promontory Station. Extant photographs of the time show the deteriorating buildings and windmills of the Hansen farmstead, the Pat Snodgrass place, Floyd Wells’ place (Larson place and part of the Lindsay Land and Livestock Co.), the Houghton’s “Blue House” and ranch buildings, and the schoolhouse, which was being used as a granary (Figure 8.16). The Houghton store was gone by then. The 1965 appraisal done for the National Park Service (Solomon 1965) shows:

- Two, extremely old frame buildings on the Snodgrass property.
- A round, metal Butler storage bin with 2,000 bushel capacity. This was purchased and moved to its present location immediately north of the headquarters area of the park.
- An abandoned frame granary with shingle roof resting on a concrete foundation on the Wells property. This actually was the last Promontory School, which Wells purchased and converted into a granary. Subsequently, the school/granary was purchased and moved to the Snodgrass place immediately east of the park headquarters area, where it sits today.
- A considerable group of old farm buildings and sheds and steel storage bins on the Hansen ranch, including the abandoned “Blue House” once belonging to the Houghtons.

Unfortunately, in the haste to recreate the 1869 historic scene and develop visitor and administrative facilities, the remaining structures and footprint of Promontory Station were eradicated. The historic obelisk was moved, existing road system realigned, and remaining structures sold and moved (schoolhouse, metal Butler granary) or eradicated. These structures and other features (the wye, obelisk, road alignments) are easily seen on the 1966 and earlier-dating aerial photographs of the town site.

Stations or Stops

Since its inception as a railroad line, there have been a number of named “stops” located along the Promontory Route. Some of these stops were established early in its history as “end of track” construction camps or obvious places for stations because of the location of water sources. Some were used for only short periods of time, and others from the joining of the rails in 1869 to the abandonment of the railroad route in the 1940s. A number of documentary sources were used in an attempt to capture all of the possible names and changes that have occurred in train stops along the route since 1869. The primary source from which this information was derived is the yearly “Station Lists” of the Central Pacific Railroad (CP). Right-of-Way maps of the Southern Pacific (SP) and track profile sheets of the CP were also used for this listing. Copies of the station lists were obtained from the California State Railroad Museum Library, right-of-way maps from the Union Pacific Railroad in Omaha and track profile sheets from the Nevada State
Historical Society Library. The lists begin in 1881, and continue, almost annually, until 1941. Stops that both opened and closed prior to this time are not included in the compiled list. It should be noted that there have been no stops along the line yet identified that opened and closed prior to 1881. The current list appears to be comprehensive.

The location of each stop was identified through a combination of known plots from the existing right-of-way maps and through estimation based on the mileages/distances given for each stop in the CP Station Lists. It should be noted that the Station Lists provided inconsistent mileages/distances for the same station. That is, the distance between stations varies slightly over the years covered by the lists. Additionally, Crans Atlas (1909), although giving some information, is not completely accurate geographically, and possibly not accurate with some of the names. The right-of-way maps provided known locations for all except four of the stops, which have been plotted based on distances between stations, as well as on-the-ground evidence. One of the largest areas of confusion is Lampo/Kolmar/Junction City and Blue Creek. Originally Lampo was called Blue Creek Section House, and it is located just south of the Blue Creek river. Blue Creek Station, on the other hand, is located south of Lampo and not as close to the actual Blue Creek river (Figure 8.17). This has led to much confusion over the years, and many instances the Stop or Station name discrepancies cannot be untangled. The paucity of written history in the area for the time period in question is part of the problem combined with poor mapping of the area the confusion may not ever be completely cleared up.

Tables 8.5 and 8.6 list stops on the line for which there is specific information available about structures present during a particular period of time, what the stop may have served as, e.g. freight station, ticket station, express office, telegraph office, and some information about name changes over time. This information is derived from Station Lists located at the California State Railroad Museum Library, Dodge 1870, Gregory 1877, SP Valuation cards, Station Cards and a Station Plan book for Utah Stations, all located at the California State Railroad Museum Library.

Rozel/Camp Victory (42BO1150)

This site was one of several stations located along the length of the Transcontinental Railroad where steam engines would make stops for supplies and water. Originally known as Camp Victory, the site marks the location where railroad crews took lunch on the historic day when 10 miles of track were laid by the crews of the CPRR on April 28, 1869 (NPS 2001). According to the 1877 edition of The Pacific Tourist, Rozel was “an unimportant station, where trains meet and pass; but passenger trains do not stop unless signaled” (Williams 1877:166). Water was piped into Rozel from Antelope Springs, eight miles south east in the Promontories (Raymond and Fike 1981). With increased settlement and development in the agricultural and livestock industries in western Box Elder County, Rozel became an important local shipping and receiving station.
Figure 8.17. Map of Location of Lamp and Blue Creek Taken from Southern Pacific Co.'s Right-of-Way and Track Map for the Promontory Branch.
### Table 8.5: Stops on Line from Promontory to Corinne Junction

| Station # | Name | 1881 | 1883 | 1884 | 1885 | 1887 | 1888 | 1890 | 1892 | 1893 | 1895 | 1896 | 1898 | 1900 | 1901 | 1903 | 1905 | 1908 | 1910 | 1915 | 1920 | 1925 | 1930 | 1936 | 1941 |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 341       | Promontory | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   |
| 7         | Dathol  | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   |
| 343       | Surbon (Just east of the Big Fill 42B0930) | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   |
| 343½      | Blue Crk. Sec. Ho. | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   |
| 345       | Blue Creek | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   |
| 7         | Eton    | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   |
| 347       | Quarry  | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   |
| 7         | Dathol  | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   |
| 7         | Stokes  | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   |
| 7         | Child   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   |
| 349       | Corinne | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   |
| 7         | Corinne Junction | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   | x   |

Information from: Central Pacific Railroad Official List of Officers, Stations, and Agents and from undated Right-of-Way Maps
Table 8.6. Name and Type of Stop and Structures Present by Year

<table>
<thead>
<tr>
<th>Station #</th>
<th>Name</th>
<th>Type of Stop</th>
<th>1869-1876</th>
<th>1877-1880</th>
<th>1881-1890</th>
<th>1901-1920</th>
<th>1921-1940</th>
<th>1940→</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>341</td>
<td>Promontory</td>
<td>Freight, Ticket, Express (1887-1898)</td>
<td>Tool house, Office¹</td>
<td>Depot²</td>
<td>Hotel/Tel. Office, Road Master house, Wood house, Section house, Round house, Bunk house, China bunk house, China cook house, Hand car house³</td>
<td>1917: Loading platform, Freight shed, Tank house, Bunk house, Section house, Chicken shed, Cistern, Tool house⁴</td>
<td>1930: Changed to Mon. agency⁵</td>
<td>1942: Abandoned⁶</td>
<td></td>
</tr>
<tr>
<td>343</td>
<td>Surbon</td>
<td>Siding⁷</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1909: Tracks taken up on January ⁶⁷</td>
</tr>
<tr>
<td>345</td>
<td>Blue Creek</td>
<td>?</td>
<td>Tank, Tool house¹</td>
<td>Depot, Water tank²</td>
<td>Telegraph Office, Section house (burned 1881), Water tank (torn down 1881), Hand car houses, China bunk house, China cook house³</td>
<td>1917: Trestle</td>
<td>1919: 2 Pit cattle guards &amp; wood box⁴</td>
<td>1921: Water tank</td>
<td>1927: Abandoned⁷</td>
</tr>
<tr>
<td>347</td>
<td>Butte (Quarry)</td>
<td>Freight</td>
<td></td>
<td></td>
<td>Section house, Hand car houses, Water tank, China bunk house, China cook house³</td>
<td>1900 to 1903: Carriage house, 2 Section houses⁵</td>
<td>1917: Tie house, Stock pen⁶</td>
<td>1928: Section house, Bunk house, 2 vault toilets</td>
<td>1930: Toilet</td>
</tr>
<tr>
<td>349</td>
<td>Corinne</td>
<td>Freight, Ticket, Express (1887-?)</td>
<td>Freight house, Tank, Tool house, Section houses, Depot¹</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>349</td>
<td>Corinne Junction</td>
<td>Freight</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**KEY**

1. Taken from: Secretary of the Interior’s Letter (last report of chief engineer for Union Pacific)
2. Taken from: Secretary of War letter
3. Taken from: Mike’s notes
4. Taken from: Valuation cards
5. Taken from: Undated Right-of-Way maps

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Archaeological Manifestations

The site of Rozel is located on the northeastern edge of Rozel Flat and consists of the remains of the historic Rozel Siding/station site along the Transcontinental Railroad mainline (NPS 2001) (Figure 8.18). The site and most of its structures appear to have been abandoned following the dismantling of the Promontory Branch of the Central Pacific Railroad in 1942 (Huchel 1999:197). There are no remaining standing structures, and very few definable features.

Railroad line maps from prior to the turn-of-the-century illustrate a siding and several structures at Rozel, however, these structures were located on the north side of the railroad grade (Central Pacific Railroad ca. 1880), and at present there is no remaining evidence of features on the north side of the grade in the vicinity of Rozel. According to an 1869 railroad inventory of buildings, Rozel consisted of a water tank, a section house, a kitchen, and a telegraph office (Raymond and Fike 1981:24). Many small artifacts (glass, ceramic, metal fragments, etc.) are visible on the ground surface north of the grade but nothing of a substantial nature remains. The artifacts present there are mostly very small fragments with no real concentration or central focus, just a sparse uniform scatter.

All extant features were identified south of the grade/existing road (Figure 8.17). Features identified include ten dugout depressions (F1-F3, F6-F11, F13), one rock pile (F4), one concrete structural foundation (F5), one large surface feature area where the ground surface is covered with asphaltum (F12), and two segments of 3" lead pipe. Within this feature area there is a concentration of lumber fragments and a variety of industrial metal objects including a pile of railroad tie binding straps (F12A), and an apparent steam boiler (F12B).

Overall, the site is in very poor condition with no discernable pattern to the material or the extant features. There is high potential for there to have been episodes of dumping and vandalism at the site following abandonment. Fragments of unidentifiable metal, glass, and plain whiteware are scattered everywhere. Artifacts observed at this site include a variety of metal objects, glass fragments, ceramic fragments, wood fragments, bricks, barbed wire, a shell button, window glass, opium tin fragments, leather, and a battery core. The majority of the debris is highly deteriorated and unidentifiable.

Bronte

Little is known about this stop, it is shown as a stop on the 1909 Cram’s Standard American Railway System Atlas for the State of Utah (Cram 1909) (Figure 8.19). Additionally, this siding is noted in the Southern Pacific Company List of Officers, Agencies, Stations, Etc. (SP list) for the Promontory Branch stations (Southern Pacific Company 1900, 1901, 1903, 1905). After 1905, several of the smaller sidings on the Promontory route appear to have been abandoned, likely because the main traffic for the transcontinental railroad was now being sent across the Lucin Cutoff.
Promontory Station is discussed in detail at the beginning of this chapter.

Dathol 1

The train stop at Dathol was included on the Station Lists for a period of four years, from 1903 to 1910. Over that four years, the distance between Dathol and Promontory, a known point on the right-of-way maps, varied from two miles in 1903 to three miles in 1910. The average for the four years that the stop is listed is 2.25 miles. The distance between Dathol and Surbon, another known point on the right-of-way maps, also varied over these same four years, from four miles in 1903 to three miles in 1910. The average for the four years was 3.75 miles. In order to plot the location of Dathol, the average distance was measured from Promontory and from Surbon and the stop was plotted halfway between these points. Dathol is the first station to be named Dathol. This station, which apparently existed from 1903 to 1910, was located near Promontory. A second station called Dathol, designated by Sagebrush as Dathol\(^2\), was established near Balfour in 1920. This station existed at least until 1941, according to the Station Lists.

Surbon 42BO930

Surbon is a siding that is shown on the 1909 Cram’s Standard American Railway System Atlas for the State of Utah (Cram 1909) (Figure 8.19). It functioned as a freight (Class A) siding from about 1888 to 1930 and the Southern Pacific Company List of Officers, Agencies, Stations, Etc. (SP list) for the Promontory Branch stations indicates that there was a platform on the left side of the track (Southern Pacific Company 1900-1930).

Kolmar/Junction City/Lampo 42BO1148

Kolmar, near Blue Creek, was the westernmost camp established by the UP. It was also the largest and, as one newspaper described it in March 1869, “the most lively” (Thompson 1982:148). Also known as Lampo and Junction City, Kolmar survived for several years as a rail town, complete with a dance hall and several saloons, and then as a water station along the rail line. By 1903, with the completion of the Lucin Cutoff, Kolmar became yet another ghost town. It is shown as a stop on the 1909 Cram’s Standard American Railway System Atlas for the State of Utah (Cram 1909) (Figure 8.19).

Lampo and Junction City was one of several Stations along the Transcontinental Railroad in Box Elder County where steam engines would stop for maintenance, supplies, water, and helper engines to assist in the climb over the Promontory Mountains (Southern Pacific 1916). Maintaining a large stockyard and grain elevator, Lampo served as an important station for the local agricultural and livestock industries. In 1942, S. F. Mathies, manager of the Intermountain Grain District of the Sperry Flour Company stated that the plant at Lampo is “a modern plant,
used principally for the receiving and shipping of wheat,... including modern weighing equipment, modern tower equipment, et cetera” (Central Pacific Railway Company, et al. 1942:156). According to Huchel (1999:197) Lampo was abandoned following the dismantling of the Promontory Branch of the Central Pacific Railroad in 1942.

Archaeological Manifestations

This site (42BO1148 - Lampo) is located on the eastern edge of a valley between the Promontory Mountains and the Blue Spring Hills. It is the remaining portion of the historic Lampo Station along the Transcontinental Railroad (Southern Pacific Company 1916) east of the Promontories (Figures 8.20 and 8.21). All areas were surveyed surrounding the siding including areas outside of the right-of-way. The site measures approximately 1750 ft (N-S) by 330 ft (E-W). The site consists of five structural foundations (F1-F5), one displaced structure (F6), structural debris, a railroad siding/spur, two artifact concentrations (AC1-AC2), and a sparse general scatter of artifacts, located within two loci on the east side of the railroad grade (Figure 8.22). Loci 1 (north) is separated from Loci 2 (south) by a large open area, formerly a stockyard. Loci 1 consists of one bunk house foundation (F1), one vaulted structural foundation (F2), one warehouse foundation (F3), and one scale house foundation (F4). Loci 2 consists of one grain elevator foundation (F5) and the displaced superstructure of the associated grain elevator (F6).

A 1924 footprint of Lampo Station (Southern Pacific Company 1916) identifies 14 structures and a stockyard at Lampo. The 1924 map identifies seven structures on the east side of the railroad grade and seven on the west (Figure 8.21). On an undated revision of the 1924 map the structures west of the grade are absent (Southern Pacific Company 1916). An A. J. Russell historic photograph from 1869 also shows cars on the siding at Lampo with the Blue Creek trestle bridge in the distance (Figure 8.22). Four (F1 and F3-F5) of the remaining seven structures identified on the revised map were identified during this inventory. The northern warehouse identified on the map was at some point replaced by a different structure (F2) and no physical evidence of the stable or the office structures identified on the historic map was found. The former stockyard is represented by a large open space between Loci 1 and Loci 2. The area is now vacant and overgrown with no visible physical evidence of the former stockyard. The railroad siding spur which split off of the mainline along its east side is somewhat visible as a broadening of the grade and the separation of a narrow berm, representing the spur. Several hundred feet south of the Lampo site is a wye in the railroad. This was recorded as a part of the railroad grade site.

Blue Creek 42BO1149

The construction camp settlement of Blue Creek; also known as Deadfall, or Hell’s Half Acre, rivaled Corinne as the area’s rowdiest settlement. Drunkenness, gambling, and murders were commonplace in the small, temporary camp. During a visit to the camp, photographer C. R. Savage, in a letter home to his wife, said that in the 25 days he had been in the camp, 24 men had
Figure 8.20. Plan View of Lampo, Site 42BO1148.
Figure 8.22. A.J. Russell’s 1869 Photograph of Lampo with Blue Creek Trestle in the Distance. Photograph courtesy of the Oakland Museum of California.
been killed (Thompson 1982:148). Blue Creek, like so many other temporary camps, was abandoned, as workers moved further down the line to continue construction of the railroad.

Archaeological Manifestations

This site of Blue Creek is very large with historic and prehistoric components, centered on a natural spring and associated marshland (Figure 8.23). The transcontinental railroad grade crosses through the site parallel to the south side of the existing highway. A historic road (42BO1166) represented on 1888 GLOs for the area (GLO 1888a; 1888b) passes through the north side of the site. The historic site component very likely represent the remains of the Blue Creek station (Figures 8.23 and 8.24).

Two separate historic loci (1 and 2) were observed at this site, as indicated by proximity and diagnostic artifacts (Figure 8.23). Loci 1 consists of a series of depression/dugout features and the Loci 2 consists of an area of concentrated artifacts on the east side of the site (AC1). The bulk of the historic cultural material is focused on the dugout/depressions and these features resemble other known dugouts occupied along the Transcontinental Railroad during its period of construction. Loci 1 most likely represents a small construction camp associated with the railroad occupied in the late 1860s. The presence of the railroad berm (F8) entering F2 indicates that features were constructed during the historic period for use by/for the railroad. Loci 2 most likely represents debris associated with short term usage along the historic roadway (42BO1166) represented on the 1888 GLO maps (GLO 1888a; 1888b).

Features observed within loci 1 include six depressions/dugouts (F1-F6), a rock alignment (F7), a railroad grade segment (F8), two small depressions associated with F2 and F3 (F2A -F3A), and a series of posts representing a fenceline or corral (F9). Diagnostic artifacts observed within this feature area date from ca. 1869 to 1920. The second locus, Artifact Concentration 1 (AC1), consists of a dense artifact concentration located on an exposed limestone ridge on the northeast portion of the site. It includes over 300 fragments of clear, olive, light brown, dark brown, amber, amethyst, cobalt, and aqua glass fragments from a variety of vessels, miscellaneous tin can fragments, ceramic fragments, a harmonica reed, shoe fragments, and a shotgun shell casing. The concentration measures approximately 50 ft in diameter. Diagnostic artifacts within AC1 date from ca. 1905 to 1935.

The following four stops, Hansen, Balfour, Wybena and Corinne were not included in the present project for archaeological purposes, but are included here to show the flow of the railroad stops.

Eton/Hansen/Connor

Little is known about this siding, it is shown as a stop on the 1909 Cram’s Standard American Railway System Atlas for the State of Utah (Cram 1909) (Figure 8.19).
Figure 8.24.  Historic Photograph of Blue Creek Station.
Quarry/Balfour

Balfour is shown as a siding on the 1909 Cram’s Standard American Railway System Atlas for the State of Utah (Cram 1909) (Figure 8.19). Originally known as Quarry, at least from 1881 to 1889, Balfour is one of the three small settlements were established in 1869. All three settlements, Kolmar, Blue Creek, and Balfour, were established as temporary construction camps by the UP (Thompson 1982:148-149; Van Cott 1990:21, 222). As such, these settlements were short lived.

Balfour, located east of Corinne, had a very brief existence. During this time, the settlement boasted of several gambling halls (tents) and saloons to accompany the tent houses of the workers. When construction of the rail line passed the vicinity of Balfour, the settlement was abandoned and the workers moved to the next camp (Thompson 1982:149).

Child/Wyben(a)/Dathol 2 42BO1679

There are two components at this site that cannot be split geographically and are therefore recorded in one site form. The earliest component of this site is located on the eastern end of the site and likely consists of the early freight station known as Child and later Wyben(a). The western portion of the site is the Dathol Siding that was first used in 1916 to store and load sugar beets onto the train for shipment to the sugar processing plants in Garland or Brigham City.

It has been very difficult to pinpoint the exact location of the sidings or stops along the Promontory Branch of the Transcontinental Railroad. Part of this issue is that names of sidings were often changed as well as the fact that the mile posts were changed every time track anywhere between Ogden and San Francisco changed. Additionally, many of the sidings were small and only provided services for a few years. The locations of larger sidings that were used for longer time periods are known, such as Corinne. It is from these points, as well as on the ground evidence, that we can determine where some of the lesser-known sidings were located. After exhaustive research over many years, no map has been found with a scale that shows a good location for the early siding of Child. The Wyben siding appears on the 1909 Cram’s Atlas, but the scale is very small, and the plots of the known stations are not correct. However, if you take the mile posts for Corinne, a known station, in 1903 and subtract the number of miles to Child and Wyben it is clear that they were located at or near the later Dathol siding (Southern Pacific Company 1900, 1901, 1903, 1905).

There appears to be two historic components at this site: an earlier one dating to between 1900 and 1910 and a later component dating from 1916 to the 1950s. The locus dating to between 1900 and 1910 consists of Platform 1 that has an early concrete foundation on it. This foundation is clearly constructed of early concrete with a large amount of aggregate. The early concrete foundation dates this loci to between 1900 and 1910. There is also some window glass present near the foundation. This on-the-ground evidence combined with the Southern Pacific Company List of Officers, Agencies, Stations, Etc. (SP list) for the Promontory Branch stations (Southern Pacific Company 1900, 1901, 1903, 1905) places the Child/Wyben siding just east of
the later Dathol siding. Little is known of the Child/Wyben siding other than that it was designated as “Child” in the Southern Pacific’s list in 1900 and 1901 (Southern Pacific Company 1900, 1901). In 1903 and 1905 the siding was designated as Wyben. Also in 1905 the SP list indicated that this siding was a Class A freight siding (Southern Pacific Company 1903, 1905). Don Strack, a local railroad historian, indicates that Child and Wyben were the same station and that it was in service as Child from 1900 to 1902 and as Wyben from 1902 to 1907 (Strack 2008). It appears that this siding was abandoned about the time of that the Lucin Cutoff took most of the traffic away from the Promontory Branch.

More is known, however, about the later Dathol siding. An earlier Dathol siding was situated in a different location closer to Promontory. The 1916 Central Pacific right-of-way map indicates that there are “inclines,” a road, and a beet dump at this siding (Southern Pacific Company 1916). The siding is also listed in the SP list for the Promontory Branch from 1916 to 1942. The 1917 Progressive Military Maps and Report for Box Elder County indicate that the Dathol siding was 1013.2 feet long and has a capacity of 17 cars. It also stated that there was a beet dump at this site. The Dathol siding is also mentioned extensively in the Central Pacific Railway Company, et al. Abandonment Proceedings in 1942. A Mr. H. W. Ansell appeared at the proceedings specifically to represent the interests of the Utah-Idaho Sugar Company for the Stokes and Dathol sidings. His main interest was to keep these two sidings active, since these two sidings were imperative to keep the beet industry moving in Box Elder County (Central Pacific Railway Company, et al. Abandonment Proceedings [Proceedings] 1942:124). Although the rest of the Promontory Branch of the Southern Pacific Railroad was abandoned in 1942, the Dathol and Stokes sidings continued in use, due to the inability to load sugar beets in a timely manner at any other railroad sidings (Proceedings 1942:75).

This station is tied in with the development of the sugar beet industry in Box Elder County, which began just before 1903 when the Utah-Idaho Sugar Company opened a factory in Garland and expanded rapidly during its initial years of operation. By 1915 the Garland plant was harvesting over 125,000 tons of beets per year and the farmers in the Bear River Valley provided the majority of this crop. The company expanded its operation in 1916, opening a factory in Brigham City (Forsgren 1937:53-54). With this success, company representatives pledged to open a factory in the Corinne district if farmers could produce 50,000 tons of beets.

Archaeological Manifestations

The physical component of this site consists of two platforms (P1-2), a trash dump (C1), three foundations (F1-3), a depression (D1), and a road (R1) (Figure 8.25). Artifacts observed at this site include various glass fragments, orange and yellow fire brick, crushed sanitary cans, barbed wire, shoe soles, concrete rubble, a whiteware fragment, and a galvanized bucket. Milled lumber, smooth wire, metal pipes, and additional miscellaneous hardware are associated with the constructed features. No additional artifacts or features were observed at this site.
Stokes/Rochefort

The Stokes siding was first opened in 1907. Stokes was a freight siding listed as Class B Freight in the *Southern Pacific Company List of Officers, Agencies, Stations, Etc.* (SP list) for the Promontory Branch stations (Southern Pacific Company 1908-1941). From the Stokes Siding, the Utah-Idaho Sugar Company spur (F1) traveled south to Rochefort (Strack 2008). The segment of the spur recorded as part of this project measures 419 feet long by 6 feet wide. Artifacts observed included 10 fragments of clear glass, approximately 150 fragments of yellow brick and 1 piece of sheet metal. The second feature (F2) recorded at this site consists of a concrete foundation or footings for a scale.

A Southern Pacific map dated 1916 shows the location of the Stokes Siding and spur. The siding is also listed in the SP siding list for the Promontory Branch from 1908 to 1942. The 1917 Progressive Military Maps and Report for Box Elder County indicate that there were no sidings or loading facilities at Stokes at this time. However, the Stokes siding is mentioned extensively in the Central Pacific Railway Company, et al. abandonment proceedings in 1942 (Central Pacific Railway 1942:124). A Mr. H. W. Ansell appeared at the proceedings specifically to represent the interests of the Utah-Idaho Sugar Company for the Stokes and Dathol sidings. His main interest was to keep these two sidings active since these two sidings were imperative to keep the beet industry moving in Box Elder County (Central Pacific Railway 1942:124). Although the rest of the Promontory Branch of the Southern Pacific Railroad was abandoned in 1942, the sidings continued in use, due to the inability to load sugar beets in a timely manner at any other railroad sidings (Central Pacific Railway 1942:75).

This spur is tied in with the development of the sugar beet industry in Box Elder County, which began just before 1903 when the Utah-Idaho Sugar Company opened a factory in Garland and expanded rapidly during its initial years of operation. By 1915 the Garland plant was harvesting over 125,000 tons of beets per year and the farmers in the Bear River Valley provided the majority of this crop. The company expanded its operation in 1916, opening a factory in Brigham City (Forsgren 1937:53-54). With this success, company representatives pledged to open a factory in the Corinne district if farmers could produce 50,000 tons of beets.

Archaeological Manifestations

The rails and ties have been removed and all that remains is the grade itself. The associated foundation is a concrete pad, located in the middle of a two-track road that leads to the spur. No additional artifacts or features were observed with this site. The spur was constructed in 1916 for use by the Utah-Idaho Sugar Beet Company (Box Elder News 1916). The spur was purchased in 1950 by the Oregon Short Line (Strack 2008). No additional features or artifacts were observed in association with this site.
Corinne and Corrine Junction

Corinne and Corrine Junction are railroad sidings that served as ticket (passenger) and freight stations as well as the junction with Oregon Short Line. The Transcontinental railroad increased the number and influence of non-Mormons in Utah. Non-Mormons established the town of Corinne, six miles west of Brigham City, in 1869 on the Union Pacific line in an attempt to break the political and economic monopoly held by Mormons in Utah.

The founders could see Corinne as the State Capitol as it was the shipping center of the railroad. The town was laid out in February 1869 by Union Pacific, and within two weeks, there were 500 frame and tent buildings with businessmen such as Wells Fargo, Auerbacks, Kirkendallis, Keisels, Topance, and many more. There were blacksmith shops, livery stables, boarding houses, hotels, an opera house, newspapers, banks, warehouses, cigar factory, saw mill, gambling halls, and yes, soiled doves (Box Elder County 2008).

Investors soon began constructing the spur rails that would connect the railroad to Brigham City. By 1872 a spur for the Utah Northern Railroad was completed, and the nearby town of Corinne became the freighting headquarters of the area (Madsen 1994b:118). Completion of the Utah Northern line from Ogden, Utah, to Franklin, Idaho, effectively cut off Corinne as a link for the shipment of goods to the mining towns of western Montana and by 1879 most non-Mormons had left the town (Madsen 1994b:118).

Other Maintenance Sites

Photographs of Chinese camps suggest large clusters of small tents, possibly large enough for two individuals. And, according to Galloway (1950:144), the Chinese groups each had its own cook, who also provided hot water for bathing. On the other hand, anglo common laborers – at least those working on Central Pacific crews - were provided with subsistence and living quarters by their contracting company (Galloway 1950:145).

Artifacts within some features and feature configuration suggest specific functions, such as blacksmithing for some of the sites. Very large, rectangular pit features, such as those seen at several of the sites, suggest community activity areas or extensive storage. A. J. Russell’s photographs of Camp Deadfall and “The Slaughterhouse” show large tent superstructures as well as document specific types of activities that took place in the camps. The large tents appear to have been placed over the large rectangular pit features.

Camp Deadfall is one of the documented “Hell-on-Wheels” or End-of-Track town within what is now the park (Figure 8.26). It, supposedly, was the westernmost such camp along the entire transcontinental railroad. Blue Creek, immediately east of the park, and other sites may also have served a similar function. Also see the discussion on construction camps for further information on construction camps.
Subsistence and Resource Utilization

Where did the railroads obtain the resources needed in construction? The problem of obtaining ties was one of the more difficult that the builders of the Union Pacific railroad had to solve. The Missouri and Platte river bottoms provided only cottonwood, which was too soft and decayed rapidly. The Union Pacific railroad had to import ties up the Missouri river to the eastern terrains or overland until it reached the Laramie Mountains often referred to in the literature of the time as the Black Hills. Pressure treated cottonwood and occasional cedar, oak, and other hardwoods were utilized until the mountains were reached and good timber was found in the forests of the Rocky Mountains (Galloway 1950:272). From then on, the Union Pacific hand cut its ties in the mountains and floated them to the nearest point for hauling overland to the end of track. Meanwhile, the Central Pacific freighted its milled ties eastward from the High Sierras.

Similarly, obtaining wood telegraph poles of appropriate length and straightness was a hassle; the Union Pacific had to make due with Laramie Mountains and Uinta Mountain lodge poles pines as they could be found while the Central Pacific transported its milled redwood poles to the end-of-track.

However, more problematic is the fine quality stone needed for the many bridges and culverts. Within the park, most of the building stone used in culvert construction is from the general area – a fine grained Pennsylvanian limestone. Both the CP and UP built good quality stone box culverts across the Promontories. The floors, walls and ceilings of the culverts as well as the headwalls are of dry laid stone masonry. As previously discussed, one of the headwalls is sandstone and has the remains of Native American petroglyphs on its heavily patinated surface. These may have come from the rock art documented on the ATK Launch Systems property on Little Thatcher Mountain east of the park (Castleton 1979: 18-21). There also is a good quality, pinkish sandstone that was used in construction of the Blue Creek trestle bridge. This bridge washed out at some point in time and was replaced with a wooden trestle that, too, washed away. Remnants of the pink sandstone building blocks line the stream bottom today. References indicated that Union Pacific building stone was transported from the Laramie Mountains, whose pink granite probably was the source of the Blue Creek Bridge building stones.

Galloway (1950:142) indicates that good quality building stone was found in the Sierra Nevada Mountains along the Central Pacific line and was shipped from quarries eastward along the already constructed railroad.

How adequate was the quality and supply of good fill and ballast material? There is substantial evidence that immediately available sources were utilized whenever needed; however, was good quality ballast and/or other grade material brought in and from what source? There are occasional spoils or stockpiles of rounded cobbles along the grade that clearly had a source from other than the nearby cuts (Figure 8.27). Clarence Kirkham documents that during his 41 years working for the Southern Pacific, it was common practice for workers at the Ogden (and other) shops to pile old firebrick, fittings, and other shop debris into bottom opening “hopper” cars that, when full, were attached to freight trains and opened on the steeper fills
Figure 8.26. A.J. Russell’s 1869 Photograph of Deadfall. Courtesy of the National Park Service.
Figure 8.27. Photograph of Excavated Materials or Stock Piles from Railroad Cut.
areas, providing a good source of ballast (Anderson and Wilson 2000) (Figures 8.28 and 8.29). Locations in the park that evidence this ballast material are the Big Fill, Western Blue Creek Bridge abutment, and the line just west of the Engineer Spring drainage (Table 8.7).

Obtaining camp supplies was a no less arduous problem, especially for those workers significantly ahead of the end-of-track who had to freight in food, water, and other necessities of life. There are numerous references to the supply sequence wherein materials and goods were transported to the end-of-track in railroad cars and then transferred to freight wagons for transport to the workers ahead of the line. Across northern Utah, however, with the significant contracts between both railroad companies and various representatives of the Mormon church, supply may have come more directly via wagon from small communities all along the Wasatch Front. Certainly, A. J. Russell’s May 1869 photograph of “The Slaughterhouse” that shows the heads, horns, and few other remains of recently-slaughtered cattle outside one of the workers’ campsite (42BO852) indicates a viable means of getting food to the work crews (see Figure 2.5).
Figure 8.28. Site 42BO822 Add. FFT-2, Cultural Fill Used as Ballast.

Figure 8.29. Site 42BO822 Add. Representative Metal Found in Ballast.
<table>
<thead>
<tr>
<th>Items Found in Ballast Fill along the Railroad at Golden Spike Historic Site</th>
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<tbody>
<tr>
<td><strong>Industrial and Construction Related Items</strong></td>
</tr>
<tr>
<td>Nuts and bolts</td>
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<tr>
<td>Iron rod</td>
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<tr>
<td>Iron fragments</td>
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<tr>
<td>Metal pipe</td>
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<td>Metal fragments</td>
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<tr>
<td>Metal rings and D-rings</td>
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<tr>
<td>Sheet metal</td>
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<td>Gaskets</td>
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<tr>
<td>Nails and screws</td>
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<tr>
<td>Industrial hardware fragments</td>
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</tbody>
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CHAPTER 9. THOSE WHO BUILT THE RAILROAD

It is estimated during the final push to complete the railroad that 25,000 workers toiled across northern Utah (Davis 1894:140). There is information, detailed below, that this was a multi-cultural effort with Irish, Chinese, old antagonists from the Civil War, Blacks, rich and destitute, Mormon settlers, Native Americans, young and old alike uniting in an effort that came to symbolize manifest destiny at its finest and to create a national focal point and subsequent illusion of unity. Unfortunately, because of the historic focus upon the powerful men who were behind the building of the railroad, its economics, and its politics, little has been written about the common worker. Legends about the Union Pacific’s Irish track layers, about Jack Casement’s (General John Casement) work gangs and the Central Pacific’s loyal Chinese workers have become part of historical “fact” and overshadow the many other individuals and groups that participated in the construction effort.

For example, the fact that Brigham Young’s Mormon work crews, as contractors to both the Union Pacific and Central Pacific, built most of the grade across northern Utah has been generally obscured (Galloway 1950:103). As early as 1863 the Union Pacific’s Thomas Durant communicated with Brigham Young concerning the best route through the Wasatch Mountains, and in 1864 Samuel Reed organized a survey party with the help of Brigham Young (Galloway 1950:241, 244). His survey eventually established the route across the Wasatch actually used by the Union Pacific. Once Brigham Young got over his disappointment that both railroad companies selected the northern route around the Great Salt Lake and that the line would not go through Salt Lake City, he created his own railroad company (Sharp and Young, a firm owned by Bishop John Sharp and Brigham’s oldest son, Joseph) [Ames 1969:279]. Through this, he eventually contracted with both the Central Pacific and the Union Pacific to perform major construction work across much of Utah (Ames 1969:267; 279). Leland Stanford specifically went to Salt Lake City for the Central Pacific when the race with the Union Pacific was well underway. He contracted with Brigham Young for work on an extension from Promontory eastward, with the expectation of keeping the rival Union Pacific out of the Salt Lake Valley. While the Central Pacific grade construction east of Promontory was done by the Mormons (Galloway 1950:162), Young and Sharp’s contract with the Union Pacific was extended from Echo Canyon to encompass the area between Ogden and Promontory (Ames 1969:279). So, it appears that most if not all grade construction between Promontory and Ogden was done by Mormon workers, even though both railroad companies still maintained their own construction crews and their crack Irish track layers.

With the ending of the Civil War, displaced persons of all economic situations and pedigrees found work on the transcontinental railroad, particularly with the Union Pacific. Davis (1894:140) indicates that, “At the close of the Rebellion, many of the soldiers, laborers, teamsters, and camp-followers drifted west to gather the aftermath of the war in the similar work of the railway construction” (Figure 9.1). Among many of the superintendents and managers, there was a liberal sprinkling of military titles: General Casement’s infamous track laying crews (see Figure 7.1). General Dodge became chief engineer for the Union Pacific. Major General John Dix was a president of the Union Pacific Railroad and Telegraph Company.
Figure 9.1. “Paymasters Car” by A.J. Russell. Photograph of UP Workers Waiting for Their Pay near Lampo. Photograph courtesy of the Oakland Museum of California.
Davis (1895:140) also documents that in 1863 Secretary of the Interior, J. P. Usher, reported that out of 1,500 laborers employed on the Pacific railway, 300 were Negroes and “performed their duty faithfully and well.” Usher seriously recommended legislation with the view of aiding the early employment of more of the surplus “freedmen” on the same work. Chinn (1969:46), referencing articles in the Sacramento Union, Stockton Daily Independent, Daily Alta California, and San Francisco Commercial Herald and Market Review, reports that a short-lived strike by the Chinese working in the High Sierras so alarmed the Central Pacific that it wired east for several thousand Negroes as replacements. Samuel Reed, at the time Engineer of Construction and Superintendent of Operations, writes to his wife from the head of Echo Canyon, “At my [field] office I have a good cook & 2 black boys, 1 to take care of the horses & outdoor work…” (Reed as quoted in Ames 1969: 288).

There is also a smattering of information suggesting Native American involvement not only in construction but also in maintenance operations along the transcontinental railroad. Williams (1988: 121, 125) addresses the use of Pawnee warriors (in military uniform and with new government-issue carbines) by General Dodge to detect and thwart Sioux and Cheyenne who were harassing construction crews. This very successful, if somewhat rag-tag group, was referred to as Major North’s Pawnee Battalion (Williams 1988:125). After the 1868 “peace” agreements between the Sioux and Cheyenne and the railroad, it was not unusual to see tribal peoples riding along the railroad on top of freight cars (Williams 1988: 217). Davis (1895:153) even writes that at the May 10, 1869 ceremony, “Curious Mexicans, Indians and half-breeds, with the Chinese, Negro, and Irish laborers, lent to the auspicious little gathering a suggestive air of cosmopolitanism.”

Chief Spotted Pony is identified as having attended the Last Spike Ceremony. Northwest Shoshone oral tradition documents tribal involvement in construction of the railroad through portions of Utah (Brinkerhoff, this vol.). This is not surprising because northern Utah is traditional Northwest Shoshone territory, and bands frequently wintered along the Bear River where it enters the Great Salt Lake [the present location of Corinne] and around the Promontory Range. While the Bear River Massacre of 1863 decimated their numbers and sent the various bands scattering, by 1868-1869 they were once again using their traditional territory around the head of the Great Salt Lake (Brinkerhoff, this vol.). Kraus, cited in Raymond and Fike (1981: 9) also indicates that, “Indians, indigenous to the area, also worked alongside the Chinese.” In 1875 the Shoshone of Corinne were ordered by the Army to move to reservations, which ended the annual gathering of large groups at the mouth of the Bear River. Brinkerhoff summarizes extant information pertaining to the Northwest Shoshone presence in the Promontory area, suggesting that Promontory was shared by two bands and served as the boundary between the band led by Chief Pocatello to the east and Chief Sagwitch Timbimboo to the west. He indicates that the area was generally utilized during the winter and notes that Raymond and Fike (1981) document that at Matlin, 60 miles west of Promontory on the Central Pacific, an 1873 Cadastral Plat Map shows large Indian Corrals on several parcels of land.
External Relations - Ties to the East and West

Discovering historic period, railroad-related examples of trade and ties to the east and to the west may be much easier because of the plethora of historic-period artifacts related to construction and operation/maintenance of the railroad that exist. If artifacts that can be tied solely to the east or the west coasts are found in construction camps if sufficient quantities, it may suggest a Central Pacific or Union Pacific crew. However, because the historic documentation suggests that most of the work crews across northern Utah were Mormon in origin and “native” to Utah Territory this may be an issue that cannot be addressed with certainty.

Ethnicity

The Central Pacific’s Chinese’ perseverance and reliability and the Union Pacific’s tough, boisterous Irish workers have earned a well-deserved place in the history of the transcontinental railroad. In fact, it was the Chinese and a “handful” of Irish that laid the Central Pacific’s still-standing record of 10 miles of track in one day (Kraus 1969a:248). Both groups played significant roles in construction and in ongoing maintenance of the line, and their efforts are well-documented (Chinn 1969; Kraus 1969b.) Ames writes (1969:285) that on both the Union Pacific and Central Pacific the “iron men” were white, predominantly Irish. He indicates that no Chinese worked for the Union Pacific.

Chinese

The Chinese have a long history in Pacific Basin, including the west coast of North American (Chugg 1997). While it is debated as to when the first Chinese arrived on the west coast of America, some records suggest that they arrived ahead of the Europeans. Historical Chinese records indicate that Buddhist priests, like their Spanish counter parts, had traversed the area along the coast from present day British Columbia to Baja California around 450 A.D (Chugg 1997). In addition, Spanish documents record that Chinese were in Baja California between 1541 and 1746 (Chugg 1997). However, mass Chinese migration the west coast of North America did not come until after the discovery of gold in California in 1848.

Chum Ming, a merchant from Canton, immigrated to California around the time of the gold rush. Before setting out to find his fortune in the mines, he wrote to his cousin Cheong Yim (Yum) in China to come help in his endeavor (Paananen and Tsui 1987). The news soon spread of the gold rush throughout China, as it did Europe and the rest of the World. Chum Ming would become one of the first prospectors in the area, and one of the few to strike it rich.

At the time the Chinese people caught gold fever, like the rest of the population of the world, China was also undergoing political upheaval through a number of wars, famines, and droughts. The result was the displacement of millions of Chinese, as well as poverty and starvation (Paananen and Tsui 1987). China’s problems began with the First Opium War (1839-
1842), which China lost to Great Britain, and resulted in China ceding Hong Kong as terms of peace to the British. This was followed by the Tai-ping Rebellion (1850-1864), the largest civil war in Chinese history. Over 20 million Chinese died in the Guangdong Region of China alone. During this rebellion, the Chinese government also waged war against the British and French in the Second Opium War (1856-1860). The second Opium War was lost to France and Great Britain and was followed by severe poverty, drought, and famine throughout the country. In order to survive, many Chinese peasant families were forced to sell everything and anything they owned for survival, including their children.

In spite of these difficulties in China, the majority of Chinese workers who came to America planned to only stay in the U.S. long enough to make a couple of hundred dollars and return home rich. While it was quicker to come across the Pacific Ocean than it was for the Europeans to cross the plains, the Chinese were slow to arrive to the gold fields. This was due to an 1858 Chinese Government edict forbidding the Chinese people from leaving the country under penalty of death (Paananen and Tsui 1987). This edict was rescinded the following year through treaties with the European powers who were in need of cheap laborers and through treaties with China were able to secure permission from the government to recruit coolie labor in (Paananen and Tsui 1987).

Once Chinese peasants were able to leave their country, they were eager to cross the ocean in order to cache in on the discovery of gold in California. However, funds were a problem. A number of brokerage firms were soon organized in Hong Kong, Canton, and Macao that developed a system for funding these laborers to travel to the United States (Williams 1988:95). This new system utilized one of two methods. The first method consisted of contract between the worker and an employer (or sponsor). The Chinese laborer would be hired by the employer for a specific job, such as cook or houseboy, and would be paid a set wage. Money was then advanced for the transport and some cash for expenses. The cost of passage was the equivalent of $15, though later it rose to $45 (Williams 1988:95). This advancement would then be taken from the laborers wages, as well as the brokerages commission over the next three to five years.

The second method of travel, treated the Chinese much like indentured workers by giving them passage to America along with approximately $40 as an advance on their salaries (Williams 1988:95). The Chinese immigrant was expected to repay the money, plus interest, in monthly installments. Repayment for miners usually took seven months to be free of the debt while houseboys, waiters, and other domestics took longer to repay. When the credit-ticket-system worker arrived in California, he either had to find work on his own, or would be met by a connecting agent in San Francisco. This agent would furnish supplies to the new arrival in order to start work as a gold miner or set up in some other field of work. The advantage for the credit-ticket-system worker was that he could choose his own work while the contract worker had to be employed by the person or organization that paid his passage.

When the Chinese workers arrived in California, they found that they were not welcome by the European-American residents. Discriminated against the Chinese included a hefty miner’s tax and the inability to file for or work a new claim. Asians were confined to working
old mine tailings or to seek work as a miner for someone else (Williams 1988:95). In addition, they were denied citizenship, as well as all civil rights. The Chinese were barred from certain professions, and were not allowed to testify in open court (Williams 1988:95). In 1858, the California legislature went so far as to outright ban the Chinese from entering the state; however, the demand for cheap labor contributed to the law never really being enforced (Stewart 1969:123-124; Williams 1988:95). In reaction to this discrimination, a counterpoint to the brokerage firms in China soon evolved in San Francisco. These firms became known as the Chinese Six Companies, later known as the Chinese Consolidated Benevolent Association (Paananen and Tsui 1987).

The Chinese Consolidated Benevolent Association came to dominated the political landscape on behalf of the Chinese worker. The company was formed in the 1850s by the Ning Yuen, Hop Wo, Kong Chow, Yeung Wo, Sam Yup, and Yan Wo district associations, these six companies or associations became the most powerful organization in San Francisco’s Chinatown. The Chinese Six Companies’ Board of Directors and company officers came from the wealthy merchants of San Francisco. As with many businessmen today, these men turned their financial wealth and economic standing into political power through non-Asian Attorneys (Paananen and Tsui 1987). The company was authorized to speak on behalf of the Chinese peoples in San Francisco and throughout California, and later the whole United States. It was the Chinese Six Companies and the Brokerage firms in China that the Central Pacific Railroad would have to deal with in order to obtain a sufficient labor force for their needs. Once the new arrivals disembarked in California, the Chinese Six Companies oversaw many of the immigrants’ needs, including mail, transferring funds from the United States back to their families in China, and the shipping of deceased worker’s bodies back to China for burial (Williams 1988:96).

The California gold rush began 1848 and had generally slowed down by 1855. During this time period, some 47,200 Chinese had arrived in San Francisco, most arriving after 1851 (Paananen and Tsui 1987). In 1850, there were only 660 Chinese residing in California and by the following year, the Chinese population had risen to approximately 20,000, with as many as 2,000 arriving in a single day (Paananen and Tsui 1987). The majority of the Chinese immigrants were males from the Pearl River Delta region in Guangdong, and more specifically, from the city of Táishān (Paananen and Tsui 1987). Thus the majority of these immigrants spoke either Taishanese or Cantonese. The limited number of languages spoken by the Chinese immigrants would become an advantage for the railroad work crews (Paananen and Tsui 1987).

Although the majority of the Chinese arriving in California headed straight for the gold fields or sought employment as domestics such as houseboys, cooks, laundrymen, or waiters, other worked as peddlers, janitors, and laborers. A few their own businesses by opening restaurants, barber shops, boarding houses, or stores stocked with foods from China (Paananen and Tsui 1987). On the horizon another field of opportunity was about to open, leading to one of the most dramatic technological achievements in American History, in which the Chinese immigrants were to play a significant role.
Central Pacific Railroad

The long sought start of the construction of the Transcontinental Railroad began in 1861, with the Union Pacific Railroad beginning in Omaha, and the Central Pacific Railroad in Sacramento. The Central Pacific Railroad had the most difficult obstacle to overcome at the very outset of construction, namely the High Sierra Mountains. All of the work required to grade the bed, lay track, cut and place ties, excavate cuts, fills, and tunnels, as well as construct trestles and bridges would have to be completed by hand. This required a large number of workers. Due to the lure of gold in California and silver in Nevada, few white workers were available. Soon the Civil War would take more men from the labor force, leaving the railroads without a sufficient work force. Charles Crocker, who oversaw the construction of the Central Pacific in behalf of his partners; Leland Stanford, Collis Huntington, and Mark Hopkins, considered the problem and suggested to his foreman, James Harvey Strobridge, the idea of using Chinese laborers.

After much discussion, Crocker convinced Strobridge to hire 50 Chinese laborers as a test. Strobridge sent the men to the end-of-track where they made camp. Strobridge had his doubts about the ability of the Chinese workers, after all they only weighed about 120 pounds, and stood on average at about 4 ft 10 in tall. Strobridge sincerely doubted that they could handle the 80 lb. ties let alone the 560 pound rail sections. Strobridge soon discovered, that as far as hard labor, the Chinese were very capable. The Chinese would cut and lay most of the ties, excavate the cut and fill areas, as well as bore the tunnels on the Central Pacific’s portion of the transcontinental railroad. Strobridge had the Irish workers handle the rails, but by the time the CP reached Promontory, the Chinese were also placing rail.

Strobridge soon discovered that the Chinese could not only handle the physical work, but had a good work ethic. They were always ready to commence work at sunrise and they would work twelve hour days, or until they were told to quit (Ambrose 2000:152). All Strobridge had to do was tell them what task they were to undertake and it was done (Ambrose 2000:162). Strobridge was pleased with the work and was quickly converted to utilizing Chinese labor (Ambrose 2000:152). Within six months, Strobridge had hired over 2,000 Chinese workers.

The Chinese workers dressed in blue cotton blouses and loose pantaloons, were divided into groups of 20 to 35 men, who lived together primarily in canvas tents along the grade and at more long term camps in log huts furnished by the company (Ambrose 2000:161) (Figures 9.2 and 9.3). Each group was overseen by a white foreman with a bilingual Chinese overseer or headman (Ambrose 2000:153, 161). The headman was responsible keeping track of workers, collect their wages, purchase all provisions used by his crew (Ambrose 2000:153). Wages began at $28 a month in gold, minus their board (Ambrose 2000:152; Chew 2004:49-50; Chugg 1997). Wages later increased to between $30 and $32 a month, while white workers on both railroads received board as part of their wages and were paid starting at $35 a month (Ambrose 2000:152; Chugg 1997).

Each crew also had its own cook who prepared the food purchased by the headman for the group (Ambrose 2000:153). Their diet consisted mainly of Chinese dried vegetables including seaweed, bamboo sprouts, mushrooms, cabbage, and types of vegetables (Ambrose
Figure 9.2. Chinese Worker near a Tunnel Opening in the Sierra Nevadas. Photograph by Alfred Hart; courtesy of Utah State University.
Figure 9.3. Central Pacific Chinese Campsites in Nevada. Photographs courtesy of the National Park Service and Golden Spike National Historic Site.
In addition, the Chinese ate diced bacon, poultry, dried oysters, abalone, cuttlefish, various dried fruits, sweet rice crackers, vermicelli, peanut oil, and rice (Ambrose 2000:161-62; Chew 2004:49). On the other hand, the Irish crews kept to an unvarying menu of boiled food, such as beef, beans, and potatoes, while the Chinese diet not only varied, but was a more healthy diet (Ambrose 2000:161). In addition, instead of drinking water from polluted or consuming alcohol beverages, the Chinese drank only tea for which water was always boiled first (Ambrose 2000:162; Chew 2004:19). While tea was part of every meal, it was also the only drink the Chinese consumed throughout the working day. The tea was dispensed by carrier, usually a boy, who brought to the workers on site (Ambrose 2000:162). The Irish and American workers drank water from streams that were often contaminated and are known for the large quantities of liquor when they were not working (Loomis 1869 in Ambrose 2000:162; Chugg 1997). At the conclusion of a day’s work, the Chinese worker would take a sponge bath and change into clean clothing, unlike their European and American counterparts, who only occasionally bathed and changed clothes (Ambrose 2000:162; Chugg 1997). This regime of diet and cleanliness kept the Chinese healthier. They were able to often avoid dysentery, diarrhea, and the other diseases that plagued the other work crews (Ambrose 2000:162).

While the Chinese avoided liquor or other alcoholic beverages, many of the did indulge themselves in the use of opium (Ambrose 2000:162) (Figures 9.6-9.8). However, the use of the drug did not leave them hung over the next day and it appears to have been confined to days when no work was taking place (Ambrose 2000:162). The Chinese also played games, including those that involved some form of gambling (Figure 9.9). However, these games appear to have been limited those participates who were members of the work crews and not outsiders or professionals. Thus, cheating and fights were kept to minimum and were generally resolved by the head men, and the railroad or contractors. The Chinese kept to themselves and did not co-mingle with the other non-Asian workers. Contentions in the other camps seem to have come from the outside professional gamblers, saloon keepers, and prostitutes that followed these camps.

Work on the Railroad

The equipment the Chinese had to work with was crude consisting mostly of hand tools such as shovels, picks, wheelbarrows, and small carts. Black powder was utilized to blast the granite rock face and to bore tunnels through the Sierra Mountains. While the work on the railroad in this rock and mountainous terrain consisted of long back-breaking hours, it was also the kind of work that the Chinese had been accustomed to performing in the fields and human powered industries of China. The work on the railroad consisted of cutting and milling timber for ties, excavating cuts through elevated areas, filling in low-lying areas and depressions along the grade, blasting rock for grades and tunnels, and other arduous tasks (Ambrose 2000:153). The Irish workers undertook the more skilled jobs, as well as some of the more heavy work that the small framed Chinese were considered unfit to perform. These tasks included working as teamsters, stonemasons, foremen, and laying the rails once the grade and ties were laid.

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Figure 9.4. Chinese Rice Bowl Fragments from Site 42BO1132.

Figure 9.5. Chinese Rice Bowl Fragments from Site 42BO1132.
Figure 9.6. Opium Can Fragments from Site 42BO932.

Figure 9.7. Earthenware Opium Pipe Fragments Found at Site 42BO1060.
Figure 9.8. Opium Can Lid with Embossed Mark Found at Site 42BO1060.

Figure 9.9. Chinese Coin, Possibly Used in Gambling, from Site 42BO1060.
By early summer 1865, 43 miles of track had been completed and daily passenger and freight service between Sacramento and Clipper Gap begun. The Chinese had worked out so well that Crocker wanted more Chinese workers to work for the Central Pacific. Because Crocker recruited the industrious and hard-working Chinese, they eventually became known as "Crocker's pets". Since there were not enough Chinese in California to fill the ranks of the needed workers, Crocker contracted with Koopmanschap in San Francisco to recruit more Chinese directly from China (Ambrose 2000:152; Paananen and Tsui 1987). This effort was expanded to include thousands of Chinese immigrants.

Crocker’s decision to employ more Chinese laborers became important to the construction of the Central Pacific through the Sierra Nevada mountain range (Williams 1988:94-95). Beyond Clipper Gap, the proposed railroad route consisted of rugged ridges and along the sides of steep cliffs that had narrow ledges, if any ledge at all. In addition, the uneven terrain required that gorges, valleys and the low lying gaps between the high peaks and ridges that had to be crossed also had to be filled to even the grade. In order to remedy this situation, the Chinese dug cuts through the ridges and filled in the low areas to form the required high embankments, where possible (Williams 1988:94-95). At other locations, it was necessary to construct bridges over streams and long trestles across canyons that could not be filled with rock and soil. At other locations, it was necessary for the workers to bore tunnels through the granite mountains and cut ledges into the sides of rock cliffs (Williams 1988:94-95).

One particular difficult and dangerous job was the construction of the grade along the area known as “Cape Horn”(Williams 1988:113-114). This feature consisted of steep cliffs reaching to a height of 1,332 feet above the river canyon floor (Chew 2004:19; Cooper 2005: 125). Since there was no place to stand to work, a ledge or shelf had to be cut into the cliff face. The method employed to create this work space consisted of the smallest and lightest weight Chinese worker to be lowered in wicker type baskets down the face of the cliff, where they worked with hammer and chisels to create blasting holes (Williams 1988:114) (Figure 9.10). Once the holes were complete black power charges were prepared and placed in the holes with long fuses (Williams 1988:114). After the holes were finally prepared, a single Chinaman or in some cases several men were lowered to light the fuses (Williams 1988:114). Then the charges were lit, they were hauled to safety, hopefully as quickly as possible, before the fuse hit the charge (Williams 1988:114). On a few occasions, the men were not retrieved fast enough and they were killed by the ensuing explosions (Williams 1988:114).

Another major set of obstacles had to be overcome. This work required the construction of a series of tunnels through the solid granite mountains (Chew 2004:19; Williams 1988:112-114,184-187). One particular difficult impediment was the 1,695 foot long Summit Tunnel (Tunnel Number 6). At this location, more than 9,000 Chinese would work boring drill holes, setting black power charges, and cleaning away the debris on this project alone. This part of the railroad was slow and difficult, yet vital to the success of the Central Pacific (Williams 1988:113-114,186-187). The work on this tunnel was so difficult and slow going that workers were kept employed throughout the winter months, when work at other sites usually ceased. When heavy snows fell, workers were required to dig tunnels through the snow between their cabins and the work site (PBS 2008). In order to keep men and equipment moving the corridors
Figure 9.10. Depiction of Chinese Working in Baskets on the Sierra Nevada Range. From *The Great Railroad Race: A Diary of Libby West, Utah Territory 1868* by Kristiana Gregory.
were enlarged so that two-horse drawn sleds could pass through the snow tunnels. During the winter months, avalanches were the most dangerous hazard the workers faced (PBS 2008). Avalanches and freezing temperatures claimed the lives of a number of Chinese workers, who were lost when snow broke loose from above and either buried or swept them away (Williams 1988:186-187). Their bodies were often not recovered until the following spring.

Strike

While the Chinese were industrious and hard workers, they were also men who wanted to make their wealth and return to China. In the early summer of 1867, the Central Pacific directors realized that the company was having trouble attracting the much needed additional laborers (PBS 2008). The Central Pacific railroad was competing with mining concerns that were enticing the workers try and become rich. In an effort to encourage more enrollment, Charles Crocker, raised the workers' monthly wages from the $31 to $35 a month. The effort backfired.

On June 25, Chinese workers grading along a two-mile stretch on the eastern slope of the Sierra Nevada Mountains left the work and returned to their camp. Strobridge, the project supervisor, became enraged and lit into the men. However, all of his persuasion had no effect on the workers. The workers demanded an additional $5 a month to $40 instead of the offered $35, as well as a reduction in the number of hours worked. At that time, the Chinese workday began at dawn and ended at dusk. The workers wanted the limit their work hours to ten hours a day. Other demands included, shorter shifts in the tunnels. Rather than give in to their demands, Crocker gathered the Chinese foremen and told them that he was prepared to stop all work before considering a single one of their demands. After two days of consideration, the Chinese workers decided to expand the strike all along the line, and also raised their wage demands to $45 a month.

Crocker’s response was to cut off the Chinese food supplies and wait. After a week without supplies, the Chinese men capitulated. Crocker dictated the terms, which stated that wages and hours were immutable. He also stated that if the hungry Chinese workers would return to work immediately they would only be fined. However, if they continued to strike Crocker would withhold their pay for the entire month of June. The men agreed to return to work despite the few who did not want to give in. A few months later the wages were increased to $35 (Chew 2004:49)

Once the Central Pacific rails were beyond the mountains of California, work along the new grade began to pick up speed (Williams 1988:236). While work continue on several of the tunnels, the majority of the worked moved out on to the desert of northern Nevada and crews began to make rapid progress.
Ten Miles of Track

During their attempts to lay as much track as possible and to encourage their crews to work harder and faster, both railroad lines, attempted to set records of the most track laid in a single day. The contest would eventually be won by the Chinese and Irish workers of the Central Pacific. On April 28, 1869, Crocker and Strobridge completed their preparations for setting the record (Sinnott 1994:49; Williams 1988:261). They had all of the equipment assembled and the men in place (Sinnott 1994:49; Williams 1988:261). The roughly five thousand men had been told that they would be paid four times their regular wage for this single day’s effort (Sinnott 1994:49; Williams 1988:261). The workers organized into two eight-man rail teams consisting of the bigger Irish workers while the Chinese workers would grade, lay ties, place spikes, and offload the tools and other equipment as needed (Sinnott 1994:49; Williams 1988:261). The grading crew included 400 Chinese tapers, who would compact the ballast along the grade, as well as 20 spikers (Sinnott 1994:49; Williams 1988:261-2). As crews and animals tired, they were replaced with fresh replacements, which kept the line progressing (Sinnott 1994:49; Williams 1988:261).

Work began at sunrise and ended at sunset (Williams 1988:261). At the end of the day, the ten miles of track had been graded, rails and ties laid, and spiked (see Figure 7.7). The Chinese workers had nailed 26,160 spikes that weighed approximately 55,000 pounds, laid 25,800 ties, turned 14,080 rail connecting bolts (Chew 2004:84; Williams 1988:263). The Irish workers had laid an incredible 3,520 rails at a total weight of 2,112,000 pounds (Williams 1988:263).

End of the Line

By May 1869, the two railroad companies began preparations to join their lines at Promontory, Utah. On May 10, 1869, as the last spike was driven in the Utah desert, the blows were heard across the country. Telegraph wires wrapped around spike and sledgehammer transmitted the impact instantaneously to the rest of the nation. When the signal was received that the last spike had been driven, the Nation celebrated.

While the Chinese workers had paid the cost of construction with thousands of lives lost, the project was finally completed (Chew 2004:84). While the actual death toll among the Chinese laborers will remain unknown, estimates suggest that the total number is more than 2,000 (Chew 2004:94-98). The Chinese workers returned to mining and some back to China, while others helped to build railroads in Colorado, Nevada, Idaho, Texas, and Montana. Their contribution to the construction of the First Transcontinental Railroad cannot be forgotten.

Mormon Participation in the Transcontinental Railroad

On May 10, 1896, the rails of the Union Pacific and the Central Pacific Railroads were joined at Promontory, Utah, uniting the eastern and western states, along with the various
territories not yet organized into states. The traditional historic views of the construction and those of the completion of the Transcontinental Railroad have focused on the Chinese laborers, who worked for the Central Pacific Railroad, and the hard-living Irish workers of the Union Pacific Railroad. This event is described in an 1870s railroad guide, which detailed the final joining of the rails, as follows:

The Union Pacific people [Irish laborers] brought up their pair of rails, and the work of placing them was done by Europeans. The Central Pacific people [Chinese laborers] then laid their pair of rails, the labor being performed by Mongolians. The foremen, in both cases, were Americans. Here, near the center of the great American Continent, were representatives of Asia, Europe and America --- America directing and controlling (Williams 1876:166).

This statement is accurate in its description of the final connection of the rails and was representative of the work done by both the Chinese and the Irish workers. However, a major contribution to the construction of the Transcontinental Railroad, especially throughout the State of Utah has been left out of most histories. This is the story of the Mormon workers, members of the Church of Jesus Christ of Latter-day Saints. Although the Mormon contribution to the building of the railroad has not gone unrecognized, they have until recently been somewhat under-reported and their motives often misunderstood. Further, while railroad construction camps have been located within the Transcontinental Railroad construction corridor, they are often associated with the Irish or Chinese laborer’s camps and not with those of the Mormon workers.

While the track-laying gangs consisted of European and Asian immigrants, predominately Irish for the Union Pacific and Chinese for the Central Pacific, the majority of the grading, as well as the construction of the cuts and fills, tunnels, bridges, and culverts for both railroads across Utah were carried out by Mormon workers. Although Mormon and local Non-Mormon contractors were responsible for the construction tasks, the Central Pacific and Union Pacific crews continued to be responsible for the survey of the routes and the laying of rails. As the rail layers followed behind the graders, the area along the rails became a mixture of sites occupied by two culturally diverse groups, that carried out separate and very specialized tasks and functions.

As the Union Pacific Railroad approached the Utah Territory from the east and the Central Pacific Railroad from the west, many people, such as General Patrick Connor, former commander at Fort Douglas, Utah, held the view that the Mormons and particularly their leader, Brigham Young, feared the problems and negative influences that the railroad would bring to the territory of Utah (Ambrose 2000:281; Deseret News [DN] 1869c:802; Klein 1987:8). This view was based on the belief that the Mormons, who had suffered persecutions in the east and Midwest, wished to remain isolated (Klein 1987:8). However, this represented a misunderstanding of the Mormon view and desires of the Church leaders and members concerning the railroad. The Mormons, in reality, held just the opposite point of view.
Mormon Church President, Brigham Young, was much more afraid that the railroad would by-pass Salt Lake City altogether. In 1847 due to persecutions suffered at the hands of mobs the Mormons fled their homes in Nauvoo, Illinois, and began their trek westward to the Great Basin. As they traveled, they looked for the best route westward, that could possibly later be used for a railroad (DN July 15, 1868e:n.p.). George A. Smith, a general authority of the Church, wrote:

We started from Nauvoo in February, 1846, to make a road to the Rocky Mountains. A portion our work was to hunt a track for the railroad. We located a wagon road to Council Bluffs, bridging the streams and I believe it has been pretty nearly followed by the railroad. In April 1847, President Young and 143 pioneers left Council Bluffs, and located and made the road to the site of this city (Salt Lake City). A portion of our labor was to seek out the way for a railroad across the continent, and every place we found that seemed difficult for laying the rails we searched out a way for the road to go around or through it (DN July 15, 1868e:n.p.).

In 1852, five years after their arrival in the Salt Lake Valley, Brigham Young and the territorial legislature tried to stir the interest in a transcontinental railroad in Congress, when they sent a memorial to Congress asking for a railroad to be built to Utah (Ambrose 2000:279; DN June 17, 1868c:151). In 1863, at the request of Thomas Durant, Brigham Young sent a survey from Utah to locate an acceptable route between Salt Lake City and the east (Ambrose 2000:279). Young even financed the expedition out of his own pocket. Speaking of the railroad, Young stated in 1867, “This gigantic work will increase intercourse, and it is to be hoped, soften prejudices, and bind the country together” (Ambrose 2000:280). The following year, President Young expressed his views on the subject during a mass meeting held in Salt Lake City, where he said in part:

If I could direct the route they should take I should have it down through Echo and Weber Canyons and from there through the lower part of the Salt Lake City, and then pass the south side of the Lake to the Humboldt. Whether it is the province of this community to dictate in this affair will be better understood when the track is laid. We are willing to do our share of the work provided we get well paid for it... Whether I have hit the mark or not I do not known. I know what my wishes are and I understand what would be for our benefit in building this railroad (DN June 3, 1868b:19).

In an article discussing the approaching railroads, a reporter for the Deseret News, the Church’s newspaper, wrote:

How such people will be disappointed when they know that our citizens expect to do all in their power this Summer to grade the road for the rails between the head of Echo Canon and this valley! It is gratifying to think that we have such an opportunity offered to us. No number of words would have such as effect, as the
grading of this road according to contract will have, in disabusing the public mind respecting us and our views (DN June 3, 1868b:130).

The articles continued:

The Railroad is coming. It is a fixed fact. We intend, as a community, to do all in our power to push it through. We need it; for we can see many advantages that it will bring to us (DN June 3, 1868b:130).

Among these advantages was the reality of hard currency, which had been lacking in the local economy.

Prior to the arrival of the railroads, the local economy was dependent upon the barter system, since hard currency was rare (Ambrose 2000:281). While goods could be imported by wagon, it was more difficult to ship goods and produce in and out of the territory. What currency was available was often used by the Church to purchase specialized equipment, such as copper boilers for sugar processing, machinery for grist mills and saw mills, and goods that were needed to manufacture other locally made products. In addition, the hard currency was utilized by the Church’s Perpetual Emigration Fund to assist converts in traveling from overseas or from the eastern states to Utah.

The railroads were seen as an important asset to Utah and the Church, as it would improve the economy by providing more and better goods, services, a source for some quality raw materials, and new markets for Utah goods, as well as hopefully improving the image of the members of the Church with the outside world. The editors of the Deseret News, encouraged the local populace to prepare for this great event in an article, which stated:

We must take the necessary steps to create new industries. Action has already been taken in some directions to do this. This must be persevered in. The entire community is interested in the success of these schemes. Our manufacturers, mechanics, and merchants should endeavor to shape their various branches of business so as to be prepared for the coming change. Home manufacture must be extensively and persistently pursued. We have artisans and mechanics, plenty of them, as excellent in their various pursuits as any to be found on the continent (DN August 12, 1868i:n.p.).

The article continued to elaborate on the goods, services and materials that would become available, as well as the ability to export goods. The predictions of new work soon came to pass.

The request by the Union Pacific for workers came as no surprise to Brigham Young. The previous year, 1867, Brigham Young Jr., one the Church President’s sons, was passing through Chicago on his return to Utah from Europe, when he had a chance encounter with officials of the Union Pacific, who expressed interest in obtaining Mormon support in the construction of the railroad (Ambrose 2000:281; Athearn 1969:18). He wrote in his journal, they want “our assistance in laying out the U.P.R.R. and building the road” (Ambrose 2000:282;
Athearn 1969:18). However, Brigham Young Sr. and the Church were not officially approached about contracts until May 6, 1868, when Thomas C. Durant telegraphed President Brigham Young and asked if he would accept a contract for construction of the grade from Echo Canyon to the mouth of Weber Canyon (Athearn 1969:18). Young was to name his own price (Athearn 1969:18).

Two weeks later, on May 21, Brigham Young accepted a $2 million contract with the Union Pacific Railroad to construct approximately 54 miles of grade through Echo and Weber Canyons to Ogden, utilizing a labor force of 5,000 men (Bailey 1906:87; Homstad, et al. 2000:26). Later, this contract was extended to include the grade from Ogden to Promontory resulting in an additional $1 million and a total of about 150 miles of grading (Abdill 1959:82; Hinckley 1969:191). Young subcontracted a million dollars of this work to Bishop John Sharp and to his eldest son, Joseph A. Young, who employed about 600 men in the canyons (Bailey 1906:87). Brigham Young also portioned out other parts of the larger contract to Apostle John Taylor, George Thatcher, and Brigham Young, Jr.

The contracts required the workers to be paid 27 cents a cubic yard for excavations when the soil was moved 200 feet away from the cuts and 45 cents for longer distances (Ambrose 2000:283; Athearn 1969:19). Cuts through rocky soils and shale were to be paid out at $1.57½ a cubic yard, $2.70 a yard for limestone and sandstone, and $3.60 for granite (Athearn 1969:19; Raymond and Fike 1981:16).

Masonry work for the bridge abutments and piers, which required dressed stone with cement or lime mortar, was undertaken for $13.50 a cubic yard. Rubble masonry that was dry laid was paid out at $7.20 a cubic yard, and rubble masonry in cement was completed at $7.65 per cubic yard (Athearn 1969:19; Raymond and Fike 1981:16). The most time consuming and labor intensive effort was the tunneling, which was paid out at $15.00 per cubic yard (Ambrose 2000:283; Athearn 1969:19).

The contract through Echo and Weber Canyons called for the construction of several bridges and their abutments, three tunnels, numerous cuts and fills, and the grading of the rail bed, along with the delivery of ties for the grade (Homstad, et al. 2000:27; Klein 1987:192). Workers were solicited from the various communities and Church wards. Many of the workers were newly arrived converts from the British Isles and Northern Europe. These converts included Irish, Cornish, Welsh, Swedes, Norwegians, and Germans, who used the work to pay the Church back for their fares to Utah (Church of Jesus Christ of Latter-day Saints 1868a). Established members of the Church, used the money to improve their financial situations, as well as donating some of the money to Church and municipal projects, such as the construction of schools, ward houses, meeting halls, the Salt Lake Temple, and local other projects.

By the fall of 1868, Young had also entered into an agreement with the Central Pacific Railroad to construct approximately 200 miles of the grade from Humboldt Wells, Nevada, east to Promontory (Hinckley 1969:188-9; Utley and Ketterson n.d.:29; West 1922:6). In this contract, Governor Leland Stanford agreed to pay $3 a day for manual labor, $6 a day for a skilled laborer, and $10 a day for wagon men, which presumably included the wagon and
animals (Howard 1962:304). Brigham Young again subcontracted the work to others. In this case, the work was under the direct supervision of Ezra Taft Benson, Lorin Farr, Chauncey W. West, and Lorenzo Snow (Homstad, et al. 2000:27; West 1922:6). Of course not all of the contracts went to Church leaders. For example, the grade east of Echo Canyon was given to Joseph F. Nounnan and Company, a non-Mormon Salt Lake City banking firm, who in turn subcontracted much of the work to Mormon contractors, as well as non-Mormon workers (Ambrose 2000:285; Bailey 1906:87). This contract was not priced out in the same manner as the Mormon contracts. Instead, it was based on the classification and measurement of the work, which was assessed by the Union Pacific engineers (Athearn 1969:19). The total for this contract amounted to approximately $280,000 (Athearn 1969:19).

The grading for the ties and rails was the largest and most important task undertaken by the Mormon crews. The work required that cuts and fills be made in order to maintain a level grade for the trains. Cuts were made through features that had higher elevation than the main grade, such as hills, mounds, along cliff faces, and other geologic features. On the other hand, lower elevations required fill material to be added in order to raise the grade to level. For the most part, this work had to be completed using mainly shovels and wheelbarrows, with some help from teams of horses and mules (Figures 9.11 and 9.12). While some heavy equipment was available, it was not utilized until the railroad was able to bring it in by rail. These machines were used in the clean up phase of the project and thus, were not employed until after much of the work had been completed by hand during the initial construction phase (Figure 9.13). An example was a cut through Devil’s Gate in Weber Canyon, which was described in the July 1, 1868 issue of the *Deseret News*, which stated:

There are at present about 120 men at work here, and Devil’s Gate is having another gate cut through it. The cutting is 800 feet long, somewhere near 123 feet wide at the top, and 20 feet at the bottom. The deepest part is 60 feet on one side and 43 on the other (DN July 1, 1868d:n.p.).

Due to the time required to complete tunnels and other features, temporary grades around the tunnels had to be constructed, as well. Once the grade was complete, ties were laid in preparation for the rail laying crews. This was undertaken by either the Chinese workers of the Central Pacific or the pre-dominate Irish crews of the Union Pacific.

**Timber Camps**

In addition to the construction camps, located along the railroad grades through the canyons, Mormons worked in camps in the nearby mountains cutting timber for the ties and bridge members. In a letter to Brigham Young dated August 26, 1868, Archibald Gardner, at the head of a survey team, wrote of their survey of the timber resources:

By tomorrow night we will have all of the timber of this grove that is worth troubling with surveyed, this being the nearest to the Rail Road and the easiest to get at of any timber in this country. There will be in the survey about four
Figure 9.11. Wagons Bringing Supplies to the Railroad Grade Workers. Note railroad grade in the right-center of the photograph. Courtesy of the National Park Service.
Figure 9.12. Transcontinental Railroad Grade through Echo Canyon. Photograph courtesy of Golden Spike National Historic Site.
Figure 9.13. Steam Shovel Used Toward the End of Railroad Construction. Photograph by A.J. Russell; courtesy of the Oakland Museum of California.
thousand acres all covered with timber … we expect several hundred men to cut ties and abuse the timber. This timber is small but large enough for joists raffters [sic], ... lath and framing timber of all sizes and lumber (Church of Jesus Christ of Latter-day Saints 1868b).

Tunnels

In addition to the grading and cutting ties, the church members worked on three of the four UP tunnels (Ambrose 2000:288) (Figures 9.14-9.17). The first UP tunnel was located in Wyoming with the remaining three in Echo and Weber Canyons. The first of these three tunnels, Tunnel 2, was the longest at 772 feet and was located at the head of Echo Canyon (Ambrose 2000:288). At this location it was necessary to make a long cut through the surrounding fill to reach the rock face. Once the work began on the rock face, the tunnel had to be shored with timber due to the soft sandstone beds in which it was situated (Ambrose 2000:288). Work began on this tunnel in July 1868 and was completed the following May (Ambrose 2000:288). Until this tunnel could be completed, an eight mile detour around the tunnel was required in order to prevent construction beyond this point from being delayed (Ambrose 2000:288).

Both Tunnels 3 and 4 were situated less than a mile apart in Echo Canyon in relatively hard rock which did not require any timber shoring (Ambrose 2000:288). The 508 ft long Tunnel Number 3 was started on September 1868 and completed the following April while the 297 ft long Tunnel Number 4 was not begun until January 1869 (Ambrose 2000:288).

Bridges and Culverts

The Weber River is a large, swift moving body of water fed by small streams and mountain snows. In the spring, the river can be wild and has often overflowed its banks. The Weber River, which created many of the features of Weber Canyon, had to be crossed a number of times, which required the construction of several trestles, as did a number of other river crossings between the mouth of Weber Canyon and Promontory. The Weber River presented a number of challenges to the railroad as it passed through the canyon and required the construction of two bridges. One bridge (230 ft long) and the other (450 ft long) were necessary for the approach to Tunnel Number 2 (Sabin 1919:191).

In addition to the Weber River, the railroad also had to cross the slow moving Bear River and the many streams that drain into the Great Salt Lake. Low lying wetlands near the lake and streams, as well as the dry washes to the east and west of Promontory required the construction of wooden timber trestles. Scattered along the grade were smaller seasonal streams and drainage areas that required the construction of both stone and wooden culverts, as well.
Figure 9.14. Men Working Timbers for Tunnel #2 at the Head of Echo Canyon, Ca. 1868-1869. Photograph by A.J. Russell; courtesy of Utah State History.
Figure 9.15.  Mormon Workers Starting a Tunnel in Echo Canyon, Ca. 1868-1869.  Photograph courtesy of Utah State History.
Figure 9.16. Railroad Tunnel Construction in Echo Canyon, Ca. 1868-1869. Photograph by A.J. Russell; courtesy of the Oakland Museum of California.
Figure 9.17. Tunnel Construction in Echo Canyon, Ca. 1868-1869. Note cribbing and supports. Photograph by A.J. Russell; courtesy of the Oakland Museum of California.
Camps

All of this construction activity resulted in the placement of 45 camps in Echo and Weber Canyons alone (DN July 27, 1868f:191; Homstad, et al. 2000:26). These camps were reflective of the religious beliefs and practices of the Mormon people (Homstad, et al. 2000:26). First, unlike the Chinese and Irish workers, wives and children were sometimes present (Figure 9.18). In addition, many of the older boys worked alongside their fathers in the various construction occupations while their mothers tended their younger siblings and completed the daily domestic tasks in camp (Ambrose 2000:295-6) (Figure 9.19). Some of the women took in laundry and cooked meals for some of the single workers.

Religious practices played an important role in their daily lives. Prayer was held twice a day with religious services on Sunday and Wednesday (DN January 27, 1869a:n.p.; Homstad, et al. 2000:26). Further, like the Chinese camps, gambling, drinking, and prostitution were non-existent in these camps and swearing was not tolerated (DN July 1, 1868d:n.p.; Galloway 1989:162). The camps were more orderly and quite, except where choirs and other social activities were organized (Homstad, et al. 2000:26).

One camp was described, as follows:

Some of the camps “hang out their shingles” in an inviting manner, and tell all passers who may be expected in the tents, small boweries and wick-e-ups, which (ward or town) form the encampment... There is much of home in some of these grading camps... In places you might see small parties living as members of the same family, and at evening, when the day’s work is done, dropping their lines into the river to supply the general tribe with delicious trout. In other camps a body of men eat together, and sleep in squads in their tents. In some places families are represented by the father, mother and a few sons, and the refining influence of woman is observable in the neatness with which everything in and around the canvas home is arranged (DN July 29, 1868g:196).

Other temporary facilities in the camps included those with specialized functions, such as stores, blacksmith shops, post office, telegraph office, and other railroad operation buildings (DN July 15, 1868e:181, August 5, 1868h:n.p.). Wagons were sometimes used as “sleeping chambers” (DN August 5, 1868h:n.p.).

Identification of Mormon Sites along the Rails

As with any group of people employed in any effort, the camps reflected the cultural and ethnic diversity of their inhabitants. Mormon construction camps were known for their religious zeal, which was manifested in their group prayers that were held twice daily, and their religious services that were held twice a week. The camps also lacked gambling and drinking of hard liquor (Homstad, et al. 2000:26). However, as William Buckles points out in his paper “Models for Railroad Construction Related Sites in the West” in Forgotten Place and Things, these sites

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Figure 9.18. Mormon Family in Front of a Railroad Camp Tent in Echo Canyon, Ca. 1868-1869. Photograph courtesy of the L. Tom Perry Special Collections, Brigham Young University, Lee Library.
Figure 9.19. Sons Working alongside Fathers on the CP Railroad Grade at the Bear River Bridge near Corinne, Ca. 1869. Photograph courtesy of the Golden Spike National Historic Site.
were not intended to be permanent fixtures and “lack conformity with institutionalized patterns of society, such as grid patterns” (Buckles 1983:214). The camps were, however, more often longer-term sites than those of the Union Pacific and Central Pacific construction camps. As seen in photographs, the Mormon workers constructed tent platforms for their tents in addition to modified wiki-ups and other structure types, such as dugouts and log buildings (Figures 9.18 and 9.20). This sense of permanence was due in part to the fact that the Mormon workers were confined to sections of track that they were under contract to build. Further, the nature of the work involved with the construction of tunnels and bridges required more time than that of laying rail. The rail-laying camps moved more rapidly with the end-of-line changing daily. These crews lived in tents or on the “Hell-on-Wheels” camps and train cars.

While the location of many of the Mormon camps associated with the construction of the tunnels and bridges, as well as some of the grading camps through the canyons, can be identified from the historically documentation. However, many of the Mormon grading camps outside the canyons are not so easily located and identified in the historical record. What features and artifacts can be used to separate these camps from the other laborer’s camps and the notorious Hell-on-Wheels camp?

The use of tents (without platforms) and the construction of log structures do not appear to provide enough specific differences between Mormon camps and non-Mormon camps to indicate those that were occupied by the various groups. Log structures were constructed at various locations along the route by the railroads for telegraph and depot locations. In addition, the distribution of tents and structures across a site also do not show a pattern of organization that can be used to distinguish one camp from another. However, the presence of tent platforms and wiki-ups located near tunnels, bridges, and cut and fill areas suggests longer-term occupation, which in turn suggests that the site was occupied by Mormon workers. However, after the Mormon workers abandoned the site, how many sites were later occupied by the track laying teams?

In addition to structures, artifacts are often an indication of group occupation and possible identify. Thus the presence of or lack of certain artifacts would add to the identification of camps occupied by Mormon workers where historical documentation is lacking. However, this method presents problems of its own. Unlike many religious peoples who possess personal items that easily identify them as belonging to a particular group, such as crucifixes, stars of David, Masonic pins and rings; these are not present in Mormon culture during this period. Further, Mormons did not produce pottery or other items that are exclusive to their culture. However, there are differences in the three basic groups of construction crews. Sites occupied by Chinese laborers contain artifacts that are cultural unique, but not necessarily exclusive to them, such as rice bowls, Chinese coins, opium paraphernalia, oriental style smoking pipes, and other personal items. Sites utilized by the immigrant Irish work gangs may contain a higher content of liquor bottles, European style smoking pipes, and rosary beads and crucifixes. While Mormon sites are less likely to have artifacts that are distinctive to them, they should have a lack of artifacts that can be associated with one of the other two groups. For instance, they should be less likely to contain Chinese coins, opium paraphernalia, as well as religious artifacts, such as rosaries or crucifixes. Further, since Mormons were discouraged the consumption of alcohol
Figure 9.20. Graders Sod Cabins in Echo Canyon, Ca. 1868-1869. Photograph courtesy of the National Park Service.
beverages and the use of tobacco products, the absence of liquor bottles and smoking pipes could suggest the site was occupied by Mormons.

Unlike the Chinese and Irish workers, many of the Mormon workers brought their families with them to the camps. Thus, both women and children were present at many of the camps. The presence of women alone would not confirm the site as having been occupied by Mormons since women were present as cooks and in some camps as “entertainers”. However, the difference of some of the items associated with women would may suggest the domestic tasks undertaken by women, as well as their presence in the camp. Married Mormon women would be performing many of the domestic chores associated with family life, which when coupled with other artifacts may suggest their presence. Further, fashion styles could also contribute to the interpretation of the site. Women working at everyday domestic chores are less likely to wear heavy and restrictive corsets or other clothing of that nature. These women would not be as inclined to use perfumes and other cosmetics. Their personal belongings would be more utilitarian. These artifacts coupled with those associated with children, such as marbles, doll parts, toys, and educational material such as school slates, would suggest their presence in a non-traditional workers camp.

Conclusions

In conclusion, the Mormon contribution to the completion of the railroad was substantial. Projects and camps stretched for some 200 miles from the head of Echo Canyon to approximately 100 miles west of Promontory. These camps were mixed with the camps of the Chinese and Irish laborers, as well as the Hell-on-Wheels camps. Their contribution resulted in the construction of three tunnels, numerous bridges and culverts, as well as cuts and fills for the grade. They graded some 500 miles of road bed in addition to cutting, transporting and laying thousands of ties. In the end, neither railroad fully met their obligation to pay Brigham Young and the Mormons what they were owed on their contracts. Joseph F. Nounnan and Company, the non-Mormon banking firm, sued the Union Pacific Railroad for their wages and fees while Young and the Mormons settled for $600,000 worth of rolling railroad stock, rails and other equipment, which they used to construction the Utah Northern Railroad from Ogden into Salt Lake City.

On May 10th, 1869, the Mormon presence was limited to just a few Mormon workers and the Mormon Tenth Ward Band (Chew 2004:88). No Mormon leader was present for the ceremony, however they contribution to the joining of the rails was significant.

The Role of Women in the Transcontinental Railroad

Based on the current written histories of the transcontinental railroad, women, for the most part, were limited participants in the 1868-70 Promontory activities. Nameless “camp followers” and/or laundresses are occasionally noted, and individual wives listed as accompanying specific businessmen or engineers, such as the Central Pacific’s Mrs. (Hannah)
James Strobridge. Documented in previous sections, there is a suggestion that Mormon women may have provided support services – cook and camp – to their husbands and other Mormon workers.

The newspapers list four women as being present at the Golden Spike Ceremony on May 10, 1869. These women include the wives and family members of prominent railroad men, and indicate that the newspapers of the time only reported on a specific “higher” social class of women. Despite the lack of documentation of the “working” class woman in the final building phases of the transcontinental railroad, it is clear that women were, in some way, present and often working for men on the railroad or for the railroad itself. Although the Euro-American males outnumbered women in the west, sometimes 16 to 1, most men would not take on the roles that women had played in their lives in the East (Spude 2008:5). Chores such as laundry, mending, cooking and cleaning, and other “family-oriented” tasks were often provided as services by the women who were present (Spude 2008:1).

In the 1860s the actual railroad construction work required intensive physical labor. The physical nature of the work as well as laws of the time did not allow women to play a role in the construction of the railroad itself. However, women did play a large part in providing support services for the men who constructed the railroad. These women provided domestic support, such as cooking, laundering, sewing and general camp maintenance, often using their own stoves and dishes. Other women worked with their husbands or families running boarding houses, printing newspapers, or reporting railroad events to newspapers throughout the country. Women, whose husbands, ran the railroad also provided an emotional as well as physical support system to their husbands in the crazy “Great Race” toward the meeting of the rails. Of course, one of the best known roles that women fulfilled during this endeavor, especially in the Union Pacific end-of-track towns, was entertainment. Entertainment included everything from dancing, singing, just talking to the men, or having a drink with them, to prostitution. Whatever the entertainment was, the women were there to provide the men with services (for a price) after a day of hard physical labor.

Archaeological Manifestations of Women in the Promontory Area

With the current histories lacking reference to women and their role in the construction of the historic transcontinental railroad, we turn to the archaeological record. The main way of determining the presence of women in the archaeological record is to look for separate personal items that were likely only used by women, and likewise those only used by men. Spude, from her background in archaeological work in the Western United States, lists the several items that might be “female-specific”. These include:

... clothing designed especially for women; fancy buttons and combs; hairpins; jewelry [used by women]; makeup and cosmetic containers; corset stays; thimbles and other sewing implements ... purses, and parts of curling irons; and in some instances garter clips (Spude 2005:94).
Male-specific items listed include:

... pocket knives, suspender buckles and buttons, watch fobs and chains, pocket watches, jeans rivets, bib overall fasteners, collar stays, cuff links, shaving cream tubes, shirt studs, obvious male clothing, straight razors, and large belt buckles (Spude 2005:94).

Although not necessarily exclusive to the male gender, at least during the Victorian era, smoking paraphernalia and military buttons can generally be assigned to men. Following is a table listing all of the personal items identified in the 60 sites recorded in and near Golden Spike National Historic Site (Table 9.1).

<table>
<thead>
<tr>
<th>Site #</th>
<th>Non-specific Gender Artifact</th>
<th>Non-specific Gender Artifact</th>
<th>Male-Specific Artifact</th>
<th>Male-Specific Artifact</th>
<th>Male-Specific Artifact</th>
</tr>
</thead>
<tbody>
<tr>
<td>42BO1248</td>
<td>Military button</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42BO851</td>
<td>Carpet bag frame</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42BO1060</td>
<td>Carpet bag frame</td>
<td>2 buttons, undecorated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42BO1065</td>
<td>Carpet bag frame</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42BO1070</td>
<td>Carpet bag frame</td>
<td>5 buttons, undecorated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42BO1172</td>
<td>Carpet bag frame</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42BO852</td>
<td>2 buttons, undecorated</td>
<td>Pipe stem (kaolin)</td>
<td>Overall fastener</td>
<td></td>
<td></td>
</tr>
<tr>
<td>42BO930</td>
<td>Carpet bag frame</td>
<td>Military button</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42BO1134</td>
<td>Carpet bag frame</td>
<td>1 button, undecorated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42BO1144</td>
<td>Carpet bag frame</td>
<td>Suspender clip</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42BO854</td>
<td>Carpet bag frame</td>
<td>8 buttons, undecorated</td>
<td>Pipe stem</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Each of the site forms was reviewed for personal items among the site artifacts, whether male or female-specific, it was surprising how few personal artifacts were present at the over 60 historic sites across the Promontories. Only twelve sites evidenced surficial deposition of personal artifacts, and of these twelve only four had male-associated artifacts. No female-specific artifacts were located in these sites. There are several things that could account for this; four of them are listed here. First, the material culture from these sites is completely surficial and has been subject to looting and scavenging. Therefore the surficial record does not necessarily represent a complete picture of the artifacts at the time of deposit. Second, most personal items are unintentionally lost and might be found in excavation; whereas they would not be found in surface surveys. Third, the site recorders’ may not have recorded all personal items.
or may not have known how to identify them. For example, a garter clip might easily be misidentified or overlooked. The final reason for so few personal items could just indicate that few personal items were brought by the workers who lived there. Perhaps the workers owned few personal items, other than the clothing that they wore.

At one construction worker and maintenance campsite, 42BO1131, a possible female-specific personal artifact was identified (in the field) as a zinc suspender attachment with a small stamped flower on the back and two small molded flowers on the front. This could have been misidentified as a suspender attachment when actually it was made for female specific clothing. A second site with possible female-related artifacts could be site 42BO857. This was also a construction worker and maintenance campsite. A porcelain doll head, identified with a female child could also indicate the presence of an older female (Figure 9.21). Although toys, such as dolls, represent the presence of children, the presence of women can be implied as well.

The archaeological record reveals little of the personal lives of women who helped on the transcontinental railroad. Excavation of domestic structures at the railroad camp sites would likely reveal more personal items associated with men and women and would give us a greater insight into the lives of those who lived in these camps. Excavation could also provide more detailed artifact analysis as well as greater spatial control of the artifact provenance. This could then lend itself to multiple linear regression comparisons such as those used by Spude to identify the presence of women at a mining camp in Skagway, Alaska (Spude n.d.:394).

Lacking excavation and general histories that include women’s roles concerning the transcontinental railroad construction, a look into the primary historic resources for this period such as diaries, personal histories, and newspaper articles give us a greater insight into the role of women in the end phases of the transcontinental railroad construction.

**Historic Documentation of Women and the Transcontinental Railroad**

Because little information is available in general histories, or in the archaeological record, of the role that women played in the transcontinental railroad, it seems as if there were no women present. However, photographs of the railroad construction show women at railroad camps, at businesses, and - yes - at places of entertainment. From these photographs, glimpses of the complete role that women played in the transcontinental railroad endeavor can be seen. The next step is to place a name, and possibly a history to the women in these photographs, or to women who played similar roles. Another indicator that women played a role in the construction of the transcontinental railroad comes from the list of people present at the joining of the rails ceremony. This list, found at the Golden Spike National Historic Site (GOSP), has been compiled over many years by park historians, archaeologists, and rangers. It includes the names of all people attending the ceremony mentioned in histories, newspapers, or other resources. Names are also added as people visit the Park and bring in family histories or journals from ancestors who attended the ceremony.
The names of all the women were compiled from this list, and historic research was conducted on each one to determine a possible role in the railroad. Sometimes the only association turned out to be attendance at the wedding of the rails ceremony. Other instances showed women who were associated, in many different ways, with the completion of the transcontinental railroad. Names of other women were found through research in historic newspapers, the GOSP archives, the Church of Jesus Christ of Latter-day Saints Church Archives, the Daughters of Utah Pioneers historic archives, as well as a perusal of general histories about the railroad.

**Prostitutes, Saloon Girls and Entertainers**

Unfortunately, literature is generally silent on the presence of prostitutes. In addition to being ignored in the general historical record, women who worked as prostitutes generally did not write diaries or leave a history of their time as a prostitute. Spude in her article *Brothels and Saloons: An Archaeology of Gender in the American West* states:

Most seem to assume that women had little or no role in these camps, or if they did, it was to serve as surrogate wives, mothers, and sweethearts. These androcentric historians and archaeologists appear to believe wholeheartedly in the statement by Richard Erdoes in his obligatory chapter on prostitutes in his book *Saloons of the Old West*: “The overwhelming fact that determined the role of women in the West, and their relationship to men, was their almost total absence during the early years. Whores, of course, were there almost from the beginning”. It is almost as if prostitutes were not women at all, but some other kind of creature entirely (Spude 2005:103).

Spude goes on to argue that:

To suggest that women were hangers-on, camp followers and assistants to the more important work of men in the ... camps is to deny that women were profiting by the phenomenon as well (Spude 2005:103).

Although it is very clear from many historic resources that these women were present at the railroad towns, usually prostitutes are not mentioned in histories because they are considered “fallen women” or morally inferior. This is despite the fact that prostitution was usually not a depraved choice, but rather a financial or economic choice. These women needed money and this was one certain way to get it.

Usually mentioned, but not discussed in detail, is the well known fact that the Union Pacific “end-of-track” also known as “hell-on-wheels” towns were populated with “dance-hall girls” and other “working women.” One observer wrote home to his wife that there were no women present, however, a fresh load of “strumpets” was brought in by train the night before. The strumpets, due to their profession, must have not rated as women during this time period.
Figure 9.21. Porcelain Doll Head from Site 42BO857.
Several eyewitnesses wrote of the wild nature of these towns. Henry Stanley wrote that “Mostly everyone seemed bent on debauchery and dissipation. The women were the most reckless, ... expensive. They come in for a large share of the money wasted” (Ambrose 2000:218). Samuel B. Reed, an Engineer for the Union Pacific, wrote a letter to his wife on July 30, 1867. The letter describes the vice and crime that went on at the hell-on-wheels camps that were prevalent with the Union Pacific:

The first place we visited was a dance house, where a fresh importation of strumpets had been received. The hall was crowded with bad men and lewd women. Such profanity, vulgarity and indecency as was heard and seen there would disgust a more hardened person than I (Mayer and Vose 1975:102).

One gentleman, Robert V. Grewell, started working on the railroad in the Spring of 1869 in the Wyoming area. He describes how he went to work in a place called Wyoming City:

It consisted of a saloon and some tents. I went to the saloon and asked the man if he had any work... Then they put a floor in the saloon. The next thing the man did was to go to Laramie and get four girls and start a dance hall. After every other quadrille the girls would go to the bar and get a drink. By midnight they would be pretty mellow, I tell you (The World Herald 25 April 1939).

Closer to the Promontories, in Echo City, an article in the Deseret News described how the city sprang up almost overnight and described all the products and services available in this new city (Figure 9.22):

Today I have counted exclusive of the UPRR buildings, some fifty structures, most of them true enough, mere duck tenements. Under this vigorous spread of cotton luxuriate wholesale and retail groceries, dry goods, general merchandise, clothing, hardware, bakeries, blacksmith and wagon shops, cheap Johns, carpenter shops, saloons, doggeries, whiskey-holes, dram-barrels, gambling hells, restaurants, eating places, lunch covers, pie and gin resorts, corrals, hotels under shingles and dimity, “private dwellings,” whence femininity stalks out with brazen publicity expressly denominated here as nymphs du grade (Mayer and Vose 1975:136).

Samuel Bowles wrote that the Hell-on-Wheels town was:

A village of few variety stores and shops and many grog-shops; by day disgusting, by night dangerous; almost everybody dirty, many filthy, and with the marks of lowest vice; averaging a murder a day; gambling and drinking, hurdy-gurdy dancing and the vilest of sexual commerce the chief business and pastime of the hours... Where these people came from, where they went to later, were both puzzles to intricate for me (Ambrose 2000:219).
Figure 9.22. Revolver Found at Golden Spike National Historic Site. Photograph courtesy of the National Park Service.
These were just some of the descriptions given of the hell-on-wheels towns. No women are mentioned by name, but obviously they were present. In these towns that sprang up along the UP route, there was a “so-called Big Tent” that measured 100 ft long by 40 ft wide. One side was lined with a bar full of liquors and cigars. Music was furnished by a band and gambling surrounded the dance floor (Figure 9.23):

Fair women in light and airy garments, mingled with the throng. Men paid 50 cents for a drink for their girl, 50 cents for themselves, with a dance thrown in. The Whisky for the men was watered, and it was tea for the girls, but no matter, down it went (Ambrose 2000:219).

The Union Pacific attempted to control the activities in these towns, with little effect. Sometimes it would send a priest to the towns to preach repentance; at one point General Dodge stepped in and enforced civil conduct (Ambrose 2000:219). The Central Pacific, on the other hand, had different issues. Hell-on-wheels camps were not present at the end of the line for the Central Pacific. Chinese camps had their vices but were generally quiet. No prostitutes were brought in or were known to ply their “wares” in these towns. Chinese performed many of the domestic services such as laundering and cooking that women provided for the Union Pacific workers. Therefore, it would be less likely to find the presence of prostitutes and dance hall women at these camps. Homstad, et al. in their Cultural Landscape Report for Golden Spike National Historic Site, noted that “the characteristics of these [UP] towns contrasted sharply with that of the Chinese and Mormon Camps” (Homstad, et al. 2000:35). No photographs, histories, or lists have indicated a presence of Chinese women in the Central Pacific camps. It is very unlikely that Chinese women were present for two reasons: first, various United States laws made it almost impossible for a Chinese woman to emigrate (Williams 2008). Second, for the most part, the Chinese men who worked for the railroad signed contracts in China and came as single men to work in the United States (Williams 2008). It appears that most Chinese men came with the intention to return to China (Williams).

**Mormon Women and the Transcontinental Railroad**

The role of Mormon women in the Transcontinental Railroad construction has also received very little attention in past histories of the railroad. The role that these women played in the construction of the railroad through the State of Utah was often missed by the eastern and far western newspapers, as they focused on polygamy that was present among the early Mormons in the State of Utah. A reporter from the Evening Bulletin, a San Francisco based newspaper, wrote:

The only female Mormon face, married, that I have seen that looked at all bright, was a young wife, say third or fourth, and she looked as if she had a part to play before her husband, and her anxiety to gratify him exhibited itself painfully. To please him was the task she kept constantly before her (18 May 1869:1E).
Figure 9.23. Depiction of Prostitution from Cover of *Historical Archaeology*, Vol. 39, No. 1, 2005.
Another reporter wrote of his experience with the Mormon laborers:

Here is a party of stalwart fellows returning from their labors. They march with the wagon, carrying their tools and provisions; seated in the wagon is a laughing Mormon girl, whose white teeth form a beautiful contrast with her sunburnt healthy face. She was the only female I saw. The Mormons who have been employed on the railroad, as a general thing, left their wives behind them. The head man of the party, who, I learned, had nine wives brought along with him only one, and that the ninth and youngest. A gentleman, who had made her acquaintance, informed me that there was nothing in her manner to indicate that she was at all dissatisfied with her condition. But then she had sparkling black eyes, and magnificent hair, and was the “old man’s darling.” Her position was rather one of triumph. The fact that there was no certainty in the permanence of that triumph, may be a cause of trouble in her private and reflective moments, but she exhibited no traces of that trouble in public. How it will be when the tenth partner in her joys comes along, it is not for me to say. It may be that she will fall back into the ranks without a murmur. If she does, Mormon human nature must be something different from any article of that description which has ever been presented for analysis (Alta California 3 May 1869:1).

An interesting contrast to this description of Mormon women at the Railroad camps comes from an article in the Deseret News, a Salt Lake City newspaper that sided heavily with the Mormon church. The article was printed in August of 1868 and describes Harvey’s camp, located near Echo:

One of the most picturesque scenes I have looked upon for some time is Mr. Harvey’s camp. Nesting among the willows are tents, wagons doing duty for sleeping chambers, neat boweries and inviting looking wick-e-ups. Here a lady busy with the needle, there another superintending some culinary operation; with children enjoying themselves among the feathery foliage, and the movements of busy life on every hand. (DN August 5, 1868a:n.p.).

Although many Mormon men did leave “their wives behind,” these articles in various newspapers clearly show that there were women present in the Mormon camps. There are also numerous family histories and biographies that tell of the women who went with the Mormon men to work on the railroad (Figure 9.24). Unlike the prostitutes and working women of the UP camps, many Mormon women left a history of their lives, especially since histories and genealogy are stressed as important in the Mormon church. As already mentioned, most of the women were left at home to run the households, stores, industries, and farms that the men left. Mormon men went to work for the railroad for two purposes: one the leader of their church, Brigham Young, requested that they do so; and two, cash, to be paid by the railroad, was a rare commodity in the newly formed territory of Utah and there was great need of it among the population.
Figure 9.24. Mormon Family at a Railroad Construction Camp in Echo Canyon, Ca. 1868-1869. Photograph courtesy of the L. Tom Perry Special Collections, Brigham Young University, Lee Library.
Mary Larsen Ahlstrom, who lived near Heber City, described in her 1919 “Autobiographical Sketch” how the cash from the money her husband made working on the railroad affected her and her family:

That summer lots of men were called to go out in Echo Canyon to work on the railroad, and papa went. He came home a few days and had money, so we got some flour and shoes and clothes to make us some clothes. He went back again to work till winter came on so they couldn’t work. In 1869 the train came to Ogden, Weber, Utah. Now we had better times. That fall I got my first stove (Well I have never had only two and I got the last one yet.) (Ahlstrom 1919: n.p.).

In the Utah Centennial Historic Series on the counties in Utah, Linda Smith mentions in her Morgan County History that as the railroad came through Morgan County:

Some of the women washed and mended clothes for construction gangs. Families sold milk, butter, and eggs to railroad camp cooks. Often railroad officers gave their cast-off clothing to residents, and women altered the items for their families. Other families took in boarders for a means of income (Smith 1999:262).

In nearby Wasatch County, Jessie L. Embry reports that:

In the late 1860s, for example, several men and women left the valley and worked on the Union Pacific Railroad. William Lindsay went to Echo Canyon to work on the railroad in 1867. When he and the other Wasatch County men there needed someone to cook for them, Lindsay returned to Heber and hired his mother and Mary Muir [sic], his wife-to-be (Embry 1996:46).

Later, William Lindsay wrote a history of his wife, Mary Mair’s, life. In this history he wrote about his mother and his wife working for the men on the railroad:

William Lindsay got back home about the 25th of September. He found that many Heber men working at the head of Echo canyon were sadly in need of women who had a stove and dishes to cook with, at their request he took an ox team and wagon, his own mothers stove and dishes and Mary Mair and got to the head of the canyon about the 1st of Oct. where they all worked until the 1st of December. They cooked for 20 men. Each received about $90.00 for their services. Men with teams were getting $10.00 a day, but flour was 10.00 a hundred and other things in proportion at that time. By this time it was very cold and most of the men were quitting and coming home so they quit and came back to Heber, it took three days and it was very cold camping out (Lindsay n.d.:3).

William Lindsay’s mother, Christina Howie Lindsay, was from Scotland and came to Heber City where she met her husband George Muir. There she worked in the fields by her new husband and acted as a midwife and doctor in the area. Her life story adds a few more details to this time period. Her history states:
In the fall of 1868 when the Union Pacific Railroad was being build there were some twenty men going to Echo canyon to work and they asked her to go along as cook, although she now had two small boys, John and George L. Muir, she took her stove and what things were needed and with the help of Mary Mair they fed the men and made $90.00 each. With some of this she bought a sewing machine, about the first in Heber and did sewing for other people… Mary died at age 91 on June 21, 1948 (Daughters of Utah Pioneers [DUP] n.d.a).

Mary Petersen Ipsen also worked for the UP railroad construction crews. She was born in Aalborg Denmark in 1857. She came to America in 1858 with her family. In 1868, her father died and her mother moved the family to Bear River City, Utah, where she married Peter Alberson. One of her family members wrote a brief sketch of Mary’s life:

In the Spring of 1869, Mary’s mother Christine Nessen Petersen, took work cooking food for the railroad workers of the Union Pacific as the line moved west from Corinne to Promontory. Mary, age 12, also went to work as a cook’s helper... Mary indicated that the work was hot and dusty, and paid very little. She recalled the big soup kettle which played an important role and the old cook stove, hauled forward with the line in its own special wagon. Both the cook and the helper ate anything that was left after the men were finished, if anything was left (Daughters of Utah Pioneers [DUP] n.d.b).

Because of her working with the crews across the Promontories, Mary Ipsen was also present at the golden spike ceremony. Her life story recounts:

Mary was present that historic day of May 10, 1869 witnessing the driving of the golden spike. She also witnessed the “Undriving” of the Spike on Sept 8, 1942, when the rails no longer in use were taken up to be used for various purposes during World War II (Daughters of Utah Pioneers [DUP] n.d.b).

Another Mormon woman who worked with the men on the railroad was Catherine Scow Davidson. She was born in Denmark where she joined the Mormon church. She later immigrated to Utah in 1866. Catherine’s father was a carpenter, and they moved often looking for work. Catherine’s father and brother worked on the railroad and “Catherine and her mother (Ellen Marie Jensen Scow) cooked, sewed, and laundered for these crews” (Leavitt Loose n.d.:1). Catherine was also present for the driving of the Golden Spike, “which was the finish of this massive project” (Leavitt Loose n.d.:1).

Sharon Brooks wrote of her ancestor, Johanne Bengtson Valentine, that she came with her family from Denmark in 1866. For the Valentine family, work was also very hard to find. Johanne’s sons went freighting to Missouri and her husband joined the Union Pacific Railroad taking an 11 year-old son with him (Brooks n.d.: 3). The family moved to Bryant near Green River, Wyoming, to work for the railroad. Here they made adobe for buildings and lived in a dugout with no furniture. The family eventually were able to build a log house. Mr. Valentine got work as a carpenter while Johanne and her daughter took in washing. The family were doing
quite well when trouble broke out between the two railroads. Mr. Valentine, feeling their lives were in danger, moved in the middle of the night. He took their ox team and cart and headed for Salt Lake. Brooks writes that “In the spring they all went to work with the railroad again until it was completed” (Brooks n.d.:4).

Another family history, of a Miriam Ann Richins Jones, talks about the work that she and her husband did for the railroad (Figure 9.25). In 1868, Miriam and her husband Robert Jones lived in a family member’s home about two miles east of Echo in Weber Canyon. The crops had been ruined the year before by grasshoppers, and so Robert Jones went to work for the “railroad company” near Echo (Richins 1974:5). “He worked by hand for 75 cents per day. Then later he worked with ox team and scraper which would be more pay” (Richins 1974:5). Miriam did her share to help out the struggling family. While her husband was away working for the railroad there were many men, some with families, working for the railroad and stationed at Echo. Miriam saw the opportunity to help support her family and she took in laundry for the men and families at Echo.

Miriam’s life sketch states that; “The clothes to be washed were brought from Echo by young boys and returned by them also. Miriam was paid well for this work which wasn’t easy.” (Richins 1974:5). Around this time Robert and Miriam were making plans to build a home in Henneferville or Henefer. They used the money that they had made from working for the railroad to start their own home.

An interesting story about women visiting a UP Mormon railroad construction camp, but not necessarily providing domestic services, comes from the diary of John Gerber (Gerber 1868). He wrote these entries in his diary while working on the railroad through Echo Canyon in July of 1868:

We 29 - thru- Th 30
This evening brother Young [Wm. Young] arrived with his wife. Wrote letters to my father and family and sent my letters by bros. Wm S. Young’s express. Sister M. Smpy [?] also came to stay a while with Sis. Young at our camp which gives us considerable more to do as we have an extra table to set (Gerber 1868).

The women, associated with one of the main Mormon contractors with the UP, seemed to just make more work for the men who were doing the cooking. Another interesting story concerning railroad camp life is related by Mr. Gerber:

Su 19
Today our company of men has been increased from at an average of 20 men to 40, which keeps us busy at baking bread and cooking for them. One day last week we twisted beans in a kettle where there was previously soap made in a concentrated lye. The men who ate up the beans to have exceeding great pain in their bowels with diareah [sic] but by the next morning were well again (Gerber 1868).
Figure 9.25. Photograph of Miriam Richins Jones, Laundress for UP Railroad Workers. Photograph courtesy of Linda Richens Nef.
(Forgetting to thoroughly wash a pot that was used to make lye soap for cooking purposes is not something that many women of the time would do.)

Ezra Taft Benson, one of the three Mormon contractors for the Central Pacific, was a polygamist. Two of his wives are known to have played a role in Ezra Benson’s work on the transcontinental railroad (Figure 9.26 and 9.27). Mary Louise Larsen [Benson] was born in Denmark; when she grew up, she worked “managing homes of wealthy families” (Alder and Alder 1979:313). In 1863 Mary Larsen emigrated with her family to the Salt Lake Valley. In 1864, Mary Larsen was hired by “Apostle” Ezra T. Benson to work for his family (Alder and Alder 1979:313). In 1866, Mary and Ezra Taft Benson were married and had two sons (Alder and Alder 1979:313). The story of this married couple ties in with the construction of the Transcontinental Railroad.

It was in 1868 that Ezra T. Benson, through his firm, Benson, Farr, and West, obtained a contract from Governor Stanford to build the railroad west of Ogden, Utah. It was here that Mary Larsen Benson had the responsibility of managing the food services for the men who worked for Benson’s company. It was in this connection that she met Governor Stanford. He was so impressed by the quality of her work that he offered her the opportunity to come to California and manage his household on the Stanford farm (later, to become Stanford Campus.) (Alder and Alder 1979:314).

In order to manage the food for the workers for the Benson, Farr, and West firm, Mary Benson would have had to be present, at least part of the time, at the work headquarter set up by the firm, near Promontory. A history of Ezra T. Benson states that this crew headquarters was “located about two miles southwest of Junction City” which is now known as Lampo (Evans and Anderson 1947:318). The archaeological evidence shows the presence of many worker camps in this area. Which camp was the headquarters for the Benson, Farr, and West firm is not currently known. Perhaps, additional historical research or archaeological excavation will reveal the location of the Benson, Farr, and West headquarters.

Another of Ezra T. Benson’s wives, Olive Marie Knight Benson, was present at the joining of the rails ceremony (Figure 9.27). Unfortunately, very little is written about her experience there. Her life history simply states:

On the 10th of May 1869, at the celebration of the wedding of the rails at Promontory, Utah, Mary Knight Benson traveled there with her husband, Ezra T. Benson for this occasion (Alder and Alder 1979:272).

Here we have at least two Mormon women, from the same family, present at the time of the railroad construction and wedding of the rails.

Other Mormon women were present at the Golden Spike ceremony and wrote or told of their experience. Victoria Estella Dixon Harper was young when the railroad was completed (Figure 9.28). Her memory of the occasion was written by one of her descendants:
Figure 9.26. Ezra Taft Benson of the Central Pacific Contracting Firm Benson, Farr, and West, and His Sixth Wife, Mary Louise Larsen Benson. Photographs courtesy of Wendy Simmons Johnson.
Figure 9.27. Ezra Taft Benson’s Fourth, Wife Olive Marie Knight Benson, Who Attended the Golden Spike Ceremony with Her Husband. Photograph courtesy of Wendy Simmons Johnson.
Father took my sister and me to see the first train when it came through, connecting the east with the west. When the train came, I asked father where the iron horse was, and he laughed and explained that it was the engine that moved the train (Harper n.d.).

Her mother took the first excursion train east and brought her back a beautiful porcelain doll that all the children wanted to play with (Harper n.d.).

Millenium Andrus Fisher was also present at the joining of the rails. Her husband, William Frederick Fisher, had been in charge of the construction of the “Big Fill” built near Blue Creek, at Promontory. The family histories indicate that this project cost the C.P.R.R. about $150,000. Millenium does not seem to have been with her husband during railroad construction; however, she was present at the Golden Spike ceremony (Fisher n.d.).

Deseret Lincoln Middleton (Dessie) also attended the joining of the rails at Promontory in 1869 when she was eleven years old. School was let out for the day and Dessie remembered it as a great event attended by a large crowd of people:

Dessie was there in a treasured new dress. When the train added to the excitement with a loud, ear-splitting whistle, the children became frightened and ran pell-mell, hastening to get away from the track. In the rush Dessie fell, ruining her beautiful dress (Carter 1960:455).

Jemima Fackrell was also a child at the time of the joining of the rails. Her father, Joseph Crumb Fackrell, took his family to “Promontory Point,” Utah to witness the driving of the golden spike - “when the railroad was joined from east to west.” Jemima was about three-years-old at the time, but remembered sitting on her father’s shoulders to watch the ceremony (Strathom n.d.).

Bertha Greenwald Bamberger lived with her family in Corinne, Utah. Her father, Aaron Greenewald, ran a hotel there. On the day of the joining of the rails, her father asked her if she would like to drive to Promontory for the celebration. She didn’t remember many of the details but thought there were about 200 or 300 people there (DUP 1939).

Amie Bunot, Maude Crabbe, Gwennie Davis Edwards, Jemima Morley, Josephine Winchester Wallace, Wealthy Ann Reynolds Brown, Sarah Legge Jacobson, Mary Clark, and Bernetta Alphin Atkinson were all women, likely Mormons who lived in the Utah Territory around 1869, who were present at the wedding of the rails. Little information could be found on these women other than that Sarah Legge Clark traveled to Promontory with her Aunt Mary Clark to see the Golden Spike Ceremony (Carter 1960:456). Bernetta Alphin Atkinson’s family supposedly lived in the Promontory area (O’Neil 1956:163).

There are likely more histories of Mormon women who worked on the railroad, these are just a few that will hopefully be added to, to help in creating a complete picture of the role of Mormon women in the construction of the transcontinental railroad.
Figure 9.28. Victoria Estelle Dixon Harper in 1869 at the Joining of the Rails and in 1943 at the Undriving of the Spike Ceremony. Photographs courtesy of the Daughters of the Utah Pioneers.
Prominent Railroad Men and their Wives

According to an early history of the “Golden Spike” by Bernice Gibbs Anderson of Corinne, Utah, “Mrs. Strobridge, Miss Earl and a Miss Annie Reed were the only “real ladies” recorded in history as being present” [emphasis added] (Anderson n.d.:45). A number of women appear in the historic photographs of the 1869 joining of the rails at Promontory Summit. These include Hannah Strobridge and her family; Mrs. (Jane Ann) Samuel Reed and her daughter, Anna Reed; and Miss Minerva Earl, sister of Mrs. Samuel Reed (Combs 1986). As noted above, additional research adds several other women who were there with their husbands who worked for the railroad.

Hannah Maria Strobridge is, perhaps, one of the best known railroad wives to travel with her husband during the CPRR construction of the transcontinental railroad. Although other wives came and left, Mrs. Strobridge has been accorded with being the only white woman to see the CP’s construction of the line from beginning to the end (Ambrose 2000:314) (Figure 9.29). Hannah brought her two adopted children with her and lived in a train car (Figure 9.30). Strobridge’s car had three apartments:

- He and his wife lived in one, Mrs. Joseph Graham, a close friend of Mrs. Strobridge and wife of the Contract and Finance Co.’s Asst. Chief Engineer, lived in another and the third was used for an office (utahtails.net 2007).

Mrs. Strobridge seems to have been well respected among the railroad workers and was known as the “Heroine of the CP” (Ambrose 2000:314). An eye-witness at the driving of the Golden Spike, Mr. Amos L. Bowsher, stated that after the telegraph wires were disconnected from the spike, “several people took a swing at the spike, including Mrs. J. H. Strobridge” (Health 1926). Hannah’s two adopted children, Julia and Samuel, were also present at the wedding of the rails (Ambrose 2000:364).

Bowsher also mentioned that Mrs. Mary L. Ryan, the wife of Emmons Black Ryan, first secretary to Leland Stanford, was also present at the driving of the last spike (Health 1926). Almost no other information can be found on the experiences of Mary L. Ryan or her husband with the transcontinental railroad. However, it is commonly accepted that Mary L. Ryan is one of the main women featured in the photographs of the “joining of the rails” (Carter 1969:52-3). Other women associated with the CP who were present at the driving of the last spike include Mrs. O. C. Smith and Mrs. Stanton (Spude 2004:148). Mrs. Smith was the wife of O. C. Smith, a paymaster for the CP, and Mrs. Stanton was the wife of Mike Stanton a track boss for the CP and a relative of Mrs. Strobridge (Graham 1929). After exhaustive research, no further information could be found on these women, perhaps some future researcher will find journals or family histories that tell of their role in one of the greatest accomplishments in the United States, the joining of the rails.

The most prominent woman associated with the Union Pacific Railroad, who was present at the Golden Spike ceremony, was Jane Earl Reed (Figure 9.31). Her daughter Anna Reed and her sister Minerva Earl were with her at the time (Carter 1969:52-3) (Figure 9.32).
Figure 9.29. Hannah Strobridge and Children in the Sierra Nevadas and on the Railroad Car that She Lived in During Construction of the CPRR Line, Ca. 1867-1868. Photographs by Alfred A. Hart; courtesy of the Central Pacific Railroad.
Figure 9.30. Hannah Strobridge, J. H. Strobridge, and Mr. and Mrs. E. B. Black, May 10, 1915. Photograph from the September 1977 issue of *Trains* magazine; courtesy of the Golden Spike National Historic Site.
Jane Earl Reed was the wife of Samuel B. Reed. Mr. Reed started working for the Union Pacific locating engineer. Reed worked for about six months surveying the railroad route between Green River, Wyoming, and the Wasatch Range in Utah. Reed basically laid out the proposed route that constructed line utilized by the railroad. By 1866, Reed changed positions in the company from surveying to engineer of construction and superintendent of operations. Reed supervised all phases of construction on the final railroad construction to Promontory Summit (Union Pacific 2007). Since Reed was leading the work for the Union Pacific, it would make sense that his wife and family were with him at least through the end stages of construction.

In 1895, Louis Howard Hyde, the grandson of Jane Earl Reed compiled the letters of Samuel B. Reed and made notes concerning Samuel’s life (Hyde 1895). These letters written by Reed, mainly to his wife, are filled with detail of the difficulties of the race to the Promontories. Reed seems to have relied on his wife for support in his tough decisions, and comfort at a very busy and crazy time. Jane Ann Earl Reed was able to join her husband near the completion of the railroad. In April, Mrs. Reed, her three daughters and her sister, Miss Minerva Earl, arrived at Echo, in Weber Canyon, Utah. They stayed here with Mr. Reed until the joining of the rails. Unfortunately, the three girls contracted Scarlet Fever on the way to the Utah Territory and only one daughter, Anne, was able to “attend the ceremony of the laying of the last rail” with her mother and Aunt Minerva (Hyde 1895:117).

Other women who were present with their husbands who worked for the UP were Mrs. Isaac Sisson and Mrs. E. P. North. In March of 1869, the Deseret News wrote an article about the progress of the Union Pacific on the railroad. The article discussed a Mr. Isaac Sisson, Esq., “a regularly graduated grader,” and foreman who was working on the railroad and that his wife was present “with him, and they are veritably at home in camp” (DN March 30, 1869b:n.p.). Little is known of Mrs. E. P. North other than she was present a the Golden Spike ceremony and that her husband worked as a civil engineer on the UP (CPRR Museum 2007).

Another interesting story of a woman, associated with the UP, was found in an obituary located in the archives at GOSP. The woman, Caira Simpson, joined her husband who was working as an engineer on the railroad in Byron, Wyoming. Mrs. Simpson at first took her “meals in a tent boarding house, ... later [Mrs. Simpson] taking charge of the eating house built by the UP” (Golden Spike National Historic Site [GOSP] n.d.a). Mrs. Simpson continued to work with the railroad and was present at the driving of the last spike. Caira Simpson left her work with the UP in the summer of 1869, when she returned to New Hampshire to visit her mother and her first son was born (GOSP n.d.a).

Perhaps one of the most intriguing stories comes from the local Promontory lore. For many years the story was told that an entire family “took up housekeeping in one of Promontory’s caves during the railroad construction” (GOSP n.d.b:7). In one of the GOSP trail guides for “The Big Fill Trail”, this story was cleared up in 1988 by Edwin Hancock. According to the account given by Mr. Hancock his grandparents:

Earl Ewing and Anna Jenkins, had met and were married while working for the Union Pacific Railroad (his grandmother was a cook, his grandfather a
Figure 9.31. Jane Ann Earl Reed, Wife of the UP Construction Supervisor Samuel Reed, Ca. 1869. Photograph courtesy of the Union Pacific Museum, Council Bluffs, Iowa.
Figure 9.32. Golden Spike Ceremony: Jane Ann Earl Reed, Her Daughter Anna, and Her Sister Minerva Earl in Center Front. Photograph courtesy of the Golden Spike National Historic Site; identification from Combs 1986.
construction engineer). Just before completion of the railroad, with his wife in the final days of pregnancy, Earl found a large Promontory cave and moved Anna to their new “home.” (Their daughter) Ella was born in the cave on April 13, 1869 and was in her mother’s arms during the Golden Spike Ceremony on May 10th (GOSP n.d.b 7).

These are a few of the stories of women who worked for the railroad or were married to railroad workers. Each story is different, but each illustrates the many ways that women played a role in the construction of the transcontinental railroad.

**Women Associated with the Military**

Although numerous photographs of the joining of the rails shows military members present, they inadvertently participated in the Last Spike Ceremony because they happened to be on the train preceding Durant’s. Captain John Charles Currier kept a detailed journal of his travels from the East to the West. Captain Currier was newly married to Nataline B. Smith and they were to be stationed at the Presidio in San Francisco. The original plan was for Captain Currier and his new wife to travel by sea to San Francisco, but then the Army realized that the transcontinental railroad would soon be completed. So Currier received orders to go to Omaha, Nebraska to await the completion of the railroad (Mullaly 2007). The Army had assembled several companies of the 21st Infantry in Omaha for transport across the country on the soon to be completed transcontinental railroad.

On Sunday, May 2, 1869, the 21st Infantry received orders to travel to San Francisco. The detachment consisted of “Cols F, G, H, I & K” and Currier noted three ladies traveling with the group. These women included his wife, Nataline Currier; Mrs. Henry R. Putnam, wife of Captain Putnam; Mrs. John F. Cluley, wife of 2nd Lieutenant Cluley; and Mrs. Ross, wife of 2nd Lieutenant W. J. Ross (Mullaly 2007; History.army 2007). On Friday, May 7th, the party arrived at Echo City where they were told they had to wait, due to a bridge being washed out ahead of them (Mullaly 2007). The following day at noon, Mr. Durant, Vice President of the UP, and officers pulled up alongside the 21st Infantry train. Durant insisted on “taking care of all the ladies” with the 21st Infantry (Mullaly 2007). The officers and their ladies arrived at Promontory on Durrant’s train and witnessed the laying of the last rail. The enlisted soldiers were behind them on a different train. Currier wrote in his journal of the experience. He reported that there were several thousand present and that he and his wife Nattie were:

... permitted to give a stroke upon the hammer. I drove my spike with my sword hilt. The engines then backed about two rods. Our regiment marched up, stood at parade rest while our pictures were being taken (Mullaly 2007).

Military camps of this time period had camp followers including wives of enlisted men, cooks, and laundresses, as well as prostitutes. It could therefore be assumed that there were other women present with the 21st Infantry; however, since this military unit traveled across the
country by train, perhaps the other women were not allowed to travel with the men, or perhaps they could not afford the expense of a ticket.

**Other Women and the Railroad**

Other women are mentioned in newspaper accounts and other reports and appear in historic pictures (Figure 9.33). One of the women mentioned is Mrs. T. Clapp. Her husband was working as a reporter for the Springfield Massachusetts Republican Newspaper (Carter 1960: 342). There is a photograph of a lady wearing a work apron and standing just inside of the “Daily Reporter” tent. Perhaps she worked with her husband setting type or writing columns (Mayer and Vose 1975: 164).

Reporter Cy Warman wrote about life in the Union Pacific camps. He described the role of one woman running a hotel tent (Mayer and Vose 1975:76-8) (Figure 9.34). Mr. Warman wrote:

One of the first tents to go up is the hotel tent, and the man who runs it is the boarding boss. He is usually a jolly, fearless man, a good hustler, but not necessarily addicted to real manual toil. His wife does that. From four in the morning until midnight this slave of the camp is on her feet. To be sure, there are men cooks and flunkies and dishwashers, but the boarding boss has but one wife, and she must oversee everything. She must see that nothing goes to the pigs until all the boarders have refused it. Her tired but ever-smiling face repels more kicks than a State militia could repel. If one of the drivers is kicked by a mule, she bathes his hurt with horse liniment, and allows the wounded man to sit in the rocking-chair in the eating tent. She is at once a mother to the beardless and a sister of charity to the bearded men. Her private tent is the one spot respected at all times by the rough men of the camp, whether they be drunk or sober (Mayer and Vose 1975:76-8).

This description of the hotel matron is quite a tribute to the hard-working women on the transcontinental railroad. One has to wonder how many more women contributed to this endeavor but are lost to history or are out there waiting to be found.

**After Completion of the Railroad**

As the rail head moved eastward, so did the end-of-track towns. While a few, like North Platte, Laramie, Rock Springs and Evanston remained as section towns and evolved into respectable communities, most simply moved along with the rails. With the April 9, 1869, treaty at Hooper House, all extraneous construction stopped and the workers faded away along with the hell-on-wheels towns.
Figure 9.33. *Daily Reporter* Tent. Note woman in apron at center front. Photograph courtesy of Mayer and Vose 1975.
Figure 9.34. Husband and Wife in Front of End-of-Tracks Tent. Photograph courtesy of Mayer and Vose 1975.
By 1904, and the construction of the Lucin Cutoff, the Promontory route was mainly used for local purposes, and not as a cross-country thoroughfare. Still there were women present in the Promontory area - keeping the railroad passengers fed and conducting other business for the railroad. Oral histories indicate families present at Promontory including G. T. Brown and the Houghtons, the Clay family at Blue Creek, and the Yagi’s at Kelton.

The Houghtons, who purchased the Promontory store from G. T. Brown, were about the best known family in the Promontory area. Mr. Frederick Houghton and his wife Annie went to Promontory in 1907 where Mr. Houghton was the Postmaster and owned the Promontory store (Box Elder News 1907;1926). The store sold general merchandise, hay, grain, “sheepmen’s supplies and accommodations for travelers” (Box Elder News 1909a:2). Frederick and Annie were divorced in 1909, and in 1911 Frederick married Katie Nurse, a recent immigrant from England (Box Elder News 1909a; Familysearch 2007; Gerritsen 1974). Katie Houghton came to the United States with nine large trunks full of beautiful clothing from England (Gerritsen 1974). She would work hard in the morning, then dress up for the afternoon. Katie brought one son with her into the marriage and in 1912 had a second child, Bernice Houghton (Gerritsen 1974). Frederick built a blue house for Katie, but she only lived in it for a few years before moving back into the store (Figure 9.35). Bernice said that her mother thought she would always move back into that house, but never did (Gerritsen 1974). Most of the local farming ladies thought she never did any work, because she always looked so nice (Gerritsen 1974). In 1926, Frederick died after an operation for cancer (Box Elder News 1926). Katie and her daughter, stayed on for another ten years, running the store and the post office. At this point, Bernice decided that she was done with Promontory, so she and her mother moved into Ogden (Gerritsen 1974). The Houghton women spent many years working at Promontory and left their mark in the area.

W. A. Clay recounts his story as part of an oral history program, conducted by the Utah State Historical Society, in order to preserve the memories of the railroad through the Promontories. W. A. Clay was only a year old when his father took a job as the telegraph operator at Blue Creek (42BO1149) in 1885 (Clay 1974:1). Clay describes the house he lived in at the depot as a small building with four rooms downstairs and a cellar and lean-to behind. He also remembered that there was a big water tank, and a turntable there (Clay 1974:7). The telegraph office was located on the platform to the tracks. The family lived here for many years where they had one more son and a daughter. Clay’s aunt came and lived with them as well (Clay 1974:13). Clay said that she learned to be a telegrapher and communicated from the house to her brother-in-law at the telegraph office. Clay stated, however, that the CP didn’t like women operators, so she was only allowed to work as a relief operator (Clay 1974:13) (Figure 9.36). Taro Yagi recounted his memories of life at Kelton as part of the same oral history project. He did not describe much, but remembered that he lived there with his father and mother, who were both from Japan (Yagi 1974:16).

As mentioned, not many women actually worked for the railroad itself through the Promontories. Although in Nevada, Larry Mullaly’s research in the “Central Pacific Officers, Agencies and Stations lists for the years 1879, 1881 and 1885" shows a surprising number of women who worked as station agents for the railroad (Mullaly 2005). Perhaps because the
Figure 9.35.  F. C. Houghton Home in Promontory and F. C. Houghton with Daughter Bernice at a Neighbor’s Barn.
stations in Nevada were relatively isolated, the railroad had to take whomever they could to work these positions.

Miss Susie H. Wainwright (1879, 1881)          Mrs. ME Burkhalter (1885)
Miss NJ Striker (1885)                           Mrs BD Cassidy
Miss M. Butler (1885)                           Annie Feary (1879)
Miss MS Jefferson (1879, 1881)                   Mrs. Belle Collins (1885)
Miss M. McCormack (1885)                        Mrs. HS Austin (1885)
Mrs. CT Mills (1885)                            Mrs DB Tinker (1881, 1885)
Miss O. Ayers (1885)                            Miss Lizzie Austin (1885)
Mrs. LF Eaton (1885)                            Miss Grace T. Foster
Mrs GW Hill (1885)                              Miss DL Jacobs
Mrs DA Rice                                     Mrs. CE Bengsen (1879)
Mrs. George Willment (1878, 1881, 1885)

**Conclusion**

Women played varied and multifaceted roles in the construction of the transcontinental railroad. At first it appears as if there were only four women involved in the whole railroad experience, and they were at the ceremony. But after closer examination, it is easy to see that women did play an integral role in the completion of this railroad.
Figure 9.36. Turn-of-the-Century Female Telegrapher; from *Harper's Monthly Magazine*, August 1873.
CHAPTER 10. THE END OF THE LINE

Demise of the Promontory Route

Within a few short years of the UPRR’s completion, the once-bustling and rowdy town of Promontory was doomed to a slow but inevitable decline; the remoteness of the settlement and the barren environment in which it existed combined with more direct economic factors to push Promontory into near extinction by 1879. The slow death of the settlement began in November 1869, only six months after the historic joining of the rails, when the railroad terminus was relocated to Ogden (Carr 1972:10). With no passengers debarking at the Promontory depot, most town merchants abandoned their businesses and moved elsewhere. Within a decade, railroad operations and the Houghton’s store composed the only establishments remaining in Promontory. The rail operations were even further reduced in 1904, when the Southern Pacific completed the Lucin Cutoff across the Great Salt Lake and largely bypassed the original transcontinental line through the Promontories (Box Elder County 1996:399).

Corinne, too, was all but deserted. By the close of 1877, most of the buildings in the town had been torn down for lumber or had been moved elsewhere (Carr 1972:9). However, Corinne was saved from permanent extinction when several Mormon farmers, many of whom lived in the surrounding area, moved into the community, buying up the ground they had considered unholy and turning it into productive farms (Madsen 1994:118). Today, Corinne is the antithesis of what it once was and what its founders and early residents intended it to be. It exists now as a small, predominantly Mormon farming community.

Numerous attempts were made, mainly by F. C. Houghton, to revitalize the little town of Promontory. From 1909 up to his death on 1926, Frederick Houghton placed advertisements and wrote articles in the Box Elder Newspaper attempting to bring more settlers out to Promontory. Prior to 1909, Houghton ran an ad on a fairly regular basis to bring customers to his Promontory store. This add read:

F. C. Houghton, Dealer in - GENERAL MERCHANDISE HAY AND GRAIN. Sheepmen’s supplies and accomodations for Travelers. Promontory, Utah (Box Elder News 1908:2).

By 1909 Houghton was trying a different tact to bring more business to Promontory. In March 1909, Houghton sent the following “communication” to the Box Elder News for Publication:

PROMONTORY - Mr. F. C. Houghton of Promontory sends a communication to this paper stating that old Promontory is beginning to boom again and everything points to a favorable future. He states that there is plenty of room for good settlers out there and invites the citizens of this city to consider Promontory as a good place to locate. The Asphaltum Development Co., which has holdings out there, promises to become a greater factor in the commercial world which will aid
very materially in promoting the interests of that section (Box Elder News 1909b:2).

Other articles that appeared in the Box Elder News stated:

Merchant F. C. Houghton was in from Promontory yesterday on matters of business Mr. Houghton says that Promontory will soon be a hustling farming center. (Box Elder News 1909c:5)

Attorney J D Call exhibited a box of grain samples this mor that had been taken from the farm of Mr. F. C. Houghton out on Promontory there were four kinds of wheat one sample of oats and several pods of peas which Mr. Houghton stated had been grown without a drop of water and further his kitchen garden was supplied with all the palatable vegetables of the season all grown without irrigation whatever the grain heads look like the yield would be close to 30 bushels to the acre (Box Elder News 1910:1).

Although these newspaper articles, along with other, indicate that F. C. Houghton believed the little town of Promontory would thrive again, he would never see that happen. F. C. Houghton died in 1926. Katie Houghton and her daughter, Bernice, stayed on for another ten years, running the store and the post office. At this point, Bernice decided that she was done with Promontory, and she and her mother moved to Ogden (Gerritsen 1974). By 1936 Promontory was all but abandoned. A few ranches and farms were still running along the line, but the heart of the community, the Houghton Store at Promontory, had closed down. In 1942 the railroad was dismantled with the iron rails being used to further the United States World War II efforts, and the era of trains traversing the Promontories was ended (Figure 10.1).

Establishment of the Park

State legislation concerning park that was established to commemorate the completion of the transcontinental railroad and the subsequent impact upon the non-railroad activities in other parts of the nation.

Serious efforts to memorialize the site of completion of the first transcontinental railroad began as early as 1951 when the first “reenactment” ceremony was accomplished by the Golden Spike Association (Congressional Record, April 13, 1965, p A1788). Even earlier, the commemorative obelisk had been erected in 1916 with a “plaque with inscriptions put on the pyramid monument.” The State Road Commission helped maintain the site, but it could not patrol the area, and there was concern for the loss of artifacts and historic materials related to the historic railroad (Anderson 1953 referenced in Jensen 1969). For a number of years, the Golden Spike Association of Box Elder County, a determined group of Box Elder County residents with Bernice Anderson at its head, fought for national recognition of the significance of completion of the transcontinental railroad (Anderson 1981). The National Park Service’s involvement began
Figure 10.1. 1942 Undriving of the Spike Ceremony at Promontory, Utah. Photograph courtesy of the Golden Spike National Historic Site.
about 1954 when the site was visited by historian John Littleton (1954), who reported that its significance merited greater recognition.

In 1957 Secretary of the Interior Fred Seaton designated seven acres of railroad right-of-way as a National Historic Site in non-federal ownership. After ten more years of negotiations and machinations, in 1967 the area was made a National Historic Site to be managed by the National Park Service. Lands were purchased, remains of Promontory Station were eradicated, and by the 100th anniversary of completion of the world’s first transcontinental railroad the new park was dedicated. At the 100th anniversary celebration, the “Joining of the Rails Transcontinental Railroad” was designated a National Historic Civil Engineering Landmark (May 10, 1969 press release by the American Society of Civil Engineers, New York. The Golden Spike was established to commemorate completion of the first Transcontinental Railroad across the United States on May 10, 1869 and to recognize the tremendous historical consequences of this act. Completion of the railroad is among the most significant events in American history because it:

1. Signaled the end of the western frontier
2. United the east and west
3. Forever changed Native American lifeways
4. Opened the great western lands to settlement
5. Changed the means of settlement and the cultural patterns of the west
6. Achieved a major engineering and construction feat with significant economic and political ramifications

Development of the Site

The development of the site by the National Park Service was accomplished in a brief two years – 1967 to May 10, 1969. The entire focus was to reconstruct the historic, May 10, 1869 scene, provide visitor services, and develop adequate administrative/maintenance capabilities in time to celebrate the 100th anniversary of the joining of the rails. As a result, the few vestiges of the town of Promontory Station were eradicated, the road system was altered and redesigned, the May 10, 1968 historic scene was partially reconstructed, and visitor service/administrative/maintenance facilities built – all on the site of Promontory Station (Figure 10.2). All of these features are modern, non-historic in nature. Through the years, however, some of the modern features have been altered and/or removed, leaving archeological signatures. These include portions of the altered road system, the NPS’s 1969 reconstruction of the May 10, 1869 scene (portions were found to be erroneous and were redone in 1979 anticipatory to the arrival of the working locomotives), gravel walkway to the now-removed picnic area by the historic Box Elder tree, and various locations of the historic commemorative obelisk (Figures 10.3 and 10.4). It is important to document the existence of these features, even though they are recent and non-historic in nature, to avoid confusion in the future.

Much of Promontory Station that was south of the tracks is underneath the park visitor center, administrative facility, and parking lot. Only the footprint of the Houghton store area
Figure 10.2. Promontory in 1967, Prior to Construction of the Visitor’s Center. Photographs courtesy of Golden Spike National Historic Site, National Park Service.
Figure 10.3. Recent Photograph of the Promontory Visitor’s Center.

Figure 10.4. Replica Locomotives behind the Promontory Visitor’s Center.
with its plentiful Matrimony Vine (*Lycium barbarum*) remains, as do remnants of the Hanson ranch to the southeast. On the north side of the tracks, which is the site of major railroad buildings including a turntable and roundhouse, and of the Promontory School, there is plentiful photographic and written documentation of major post-1967 ground disturbance:

1. Removal through bulldozing and/or transport of the old buildings and other Promontory Station structures.


3. Additional Reconstruction of the 1869 historic scene anticipatory to obtaining working replica locomotives.

4. Three different relocations of the commemorative monument, which involved excavation of the extensive concrete foundation, removal with a crane, and transport on flat bed truck.

5. Transport of both the original, demonstration non-historic locomotives and the reconstructed Jupiter and 119 locomotives on large flat bed trucks and hoisting them onto the tracks.

This is the focal point of the May 10, 1869 reconstruction and the area was leveled; basement pits, cisterns, and roundhouse and other depressions were filled. As much as is possible, these features have been identified and are documented on the park’s Existing Conditions map of the headquarters area (Figure 10.5). Conditions up to 2001 are documented in the park’s Cultural Landscape Report (Homstad, et al. 2001).
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APPENDIX A

Research Questions from the Research Design
Prehistory Research Questions:

1. What did the prehistoric sites that were recorded during this project add to the overall prehistoric context?
2. Prehistorically, who used the park and when were they there?
3. What time periods are represented?
4. What was the paleoenvironment of the park like?
5. Does the park contain information about its past environments?
6. What types of prehistoric activities took place within the park?
7. What resources were being utilized?
8. Is it possible to determine seasonality of the park use during the prehistoric period?
9. Are there exotic materials in the park indicative of prehistoric trade or travel?
10. Is there evidence of trade networks at prehistoric Promontory? - Extensive and widespread prehistoric trade networks are well documented (Davis Wood) wherein commodities of all types were exchanged. These ranged from foodstuffs to lithic raw materials and materials desired for their sacred components. It may be possible to explore the role of the Shoshonean bands in obsidian trade through sourcing
11. Does Prehistoric site location and function differ from historic site location and function?

Construction Camps - Research Questions:

1. Are nation-wide railroad activities reflected in the Promontory Line?
2. Can the quarry/source for the limestone/sandstone blocks used in construction of the CP and UP culverts be located?
3. Can the sequence of construction across the Promontories by both railroads be determined from the physical, archaeological evidence?
4. Is it possible to correlate borrow pits and similar features with specific railroad companies?
5. What are the factors affecting campsite location?
6. Is it possible to determine the location of Promontory City on the west slope?
7. Can the locations of the various Hell-on-Wheels, End of Track “towns” be differentiated from the worker campsites?
8. Is it possible to differentiate among 1869 construction worker campsites, later-dating campsites and commercial locations (i.e. Deadfall)?
9. What are the various types of structures represented by the archaeological remains? Is it possible to determine the types of superstructures that may have existed?
10. Is it possible to identify inter-site activity areas, i.e. individual habitations vs. community areas (kitchen tent) or other specific activities (blacksmithing)?
11. Is there patterning between specific function areas and worker campsites?
12. Is it possible to determine specific activities that are represented within the various work camps, such as blacksmithing, wheelwright, cooper?
External Relations - Ties to the East and West Research Questions:

1. Is trade or travel suggested by the prehistoric artifacts?
2. Are there historic artifacts that suggest ties to the west coast and the Central Pacific railroad or the east and the Union Pacific Railroad?
3. Is there information in the campsites relating to the east and/or west coasts.
4. Is there railroad company-specific information in the campsites?

Railroad Operations across the Promontories - Applicable Research Questions:

1. Are there items of material culture that yield culture or group-specific information?
2. Is work camp organization/layout related to cultural criteria?
3. Were women and children present in the work camps? Were women and children living in the campsites?
4. Do different cultural groups appear to organize their camps in different ways?
5. What does architecture tell us about work group ethnicity or other background?
6. Is there evidence of Native American involvement in construction and operation of the railroad?

Settlement Patterns Research Questions:

1. What is the primary function of sites found within the park? What activities were being carried out?
2. What is the site distribution across the landscape at any point in time?
3. What factors affect that distribution?
4. Are there functionally similar sites outside the park to those documented inside the park?
5. Is inter-site patterning related to different activity/functional areas? Can the different activities be determined?
6. Is inter-site patterning related to different activities, to the limestone outcrops and topography, or is it simply opportunistic and random?
7. What are the factors affecting campsite location?

Subsistence and Resource Utilization (Historic/Euro-American Use) Research Questions:

1. What type of activities took place within the park/vicinity, in addition to construction of the railroad?
2. What local resources were utilized both prehistorically and historically – geology, flora, fauna?
3. Is it possible to determine specific sources of railroad associated materials?
4. Is there variation in resource use through time?
Those Who Built the Railroad - Research Questions:

1. Are there items of material culture that yield culture or group-specific information?
2. Is work camp organization/layout related to cultural criteria?
3. Were women and children present in the work camps? Were women and children living in the campsites?
4. Do different cultural groups appear to organize their camps in different ways?
5. What does architecture tell us about work group ethnicity?
6. Is there evidence of Native American involvement in construction and operation of the railroad?
7. Is it possible to determine the ethnicity of any given campsite? Are cultural differences reflected in the archaeological evidence?
8. Is there a material culture difference between Mormon camps and those identified with other groups?
9. Is there a unique archaeological signature of Mormon or other camps?
10. Can different wards or stakes be associated with individual camps?
11. Does the archaeological evidence permit correlation/identification of specific campsites with the specific work groups, i.e. Mormon contractors, Chinese laborers, Union Pacific construction crews etc.?
12. Is there obvious patterning within work camps and can cultural differences be determined by these patterns?
APPENDIX B

Investigation of Elusive Features and Oral Traditions
Over the years a corpus of unconfirmed information has arisen concerning a number of events, locations, and features for which historic documentation is minimal or references are unreliable. Oral tradition suggests historic burials in several locations around Promontory summit, Chinese dugouts on the outskirts of Promontory Station, and a Chinese Cemetery along the west grade. The traditional location of this “Chinese graveyard” appears on Ketterson’s 1968 base map #6 with modern features. However, this location is based purely on local lore.

Sometime in the 1940s a man working on the railroad was killed when a train ran over him. Mr. Houghton buried him in a wooden box with a can over his head within the wye and just north of the road that crossed through it. The grave was marked by a cut off tie with pieces of wood outlining it. It was quite visible because of the markings and because it was sunken. The children of Mrs. Mamye Wells Lower, who lived in Promontory Station for some years around 1948, tended the grave until they moved (1978 Memorandum to the files from Cindy Wankier, Golden Spike National Historic Site).

The historic graves of five, now unknown individuals are slightly north of the tracks near the site of the old warehouse (currently northeast of the Box Elder tree). These graves were marked and they were tended by Arnold Whitaker and his father until their location was eradicated by the National Park Service (Whitaker, personal communication). An effort is being made by the park to better establish the locations of these burials.

Reportedly, at one time an aqueduct was built on the west slope of the Promontories that may have been a source of water for the Promontory locomotives. It was associated with Rozel, where there is a very good water supply today. An aqueduct appears on the Rozel 7.5’ USGS topographic quadrangle map in the general area of the historic site of Rozel. Whether this is the same aqueduct is unclear.

There are various named sidings along the grade that are currently unknown:

1. Can the location of the grave with headstone and fence on Kings Peak (north side of line by Whitaker’s) be located?
2. Can the location of the historically reported Chinese burial plot/cemetery on the west slope be determined?
3. It is possible to verify the location of the unnamed railroad worker buried within the wye?
4. Is it possible to relocate the “burial plot” near the warehouse with its five graves?
5. Can the rumored aqueduct to the west be located?
6. Is there additional information and location for the “cattleguard” burial?
APPENDIX C

Artifacts Table of WACC and Sagebrush Collected Artifacts
## Golden Spike National Historic Site Artifact Inventory

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Field Specimen</th>
<th>Count</th>
<th>Site Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>583</td>
<td>FS-2000-1</td>
<td>1</td>
<td>Survey Area 1</td>
<td>One clear, blue and white cat's eye marble with bubbles and no seams</td>
</tr>
<tr>
<td>584</td>
<td>FS-2000-2</td>
<td>1</td>
<td>Survey Area 4</td>
<td>One brown bottle base, semi-automatic machine made, embossed with &quot;A.B.G.M.CO.&quot; in a semi-circle, with &quot;J 17&quot; in the center; dates to ca. 1886-1928 (Toulouse 1972:26)</td>
</tr>
<tr>
<td>585</td>
<td>FS-2000-3</td>
<td>1</td>
<td>Survey Area 7</td>
<td>One clear, blue, yellow and white cat's eye marble with bubbles and no seams</td>
</tr>
<tr>
<td>586</td>
<td>FS-2000-4</td>
<td>1</td>
<td>Survey Area 8</td>
<td>One base/foot fragment of a ceramic saucer or plate with partial maker's mark on bottom; maker's mark is a crest with 4 subdivisions, a crown and a laurel wreath; it reads &quot;CHINA/...&amp; Co&quot;</td>
</tr>
<tr>
<td>587</td>
<td>FS-2000-5</td>
<td>1</td>
<td>Survey Area 14</td>
<td>One telegraph line insulator, iron shell cemented to a glass cylinder; makers mark reads &quot;BROOKS/CPRR/AUG 6/1867&quot;; dates to ca. 1867 (McDougald 1980:4)</td>
</tr>
<tr>
<td>588</td>
<td>FS-2000-6</td>
<td>1</td>
<td>42BO856</td>
<td>One clear, blue, orange, and yellow cat's eye shooter marble with bubbles and no seams</td>
</tr>
<tr>
<td>589</td>
<td>FS-2000-7</td>
<td>1</td>
<td>42BO856</td>
<td>One mother of pearl, shell button; 4 holes of unequal size and shape; not center turned</td>
</tr>
<tr>
<td>590</td>
<td>FS-2000-8</td>
<td>1</td>
<td>Survey Area 47</td>
<td>One complete, tan, chert scraper</td>
</tr>
<tr>
<td>591</td>
<td>FS-2000-9</td>
<td>1</td>
<td>Survey Area 48</td>
<td>One grey chert flake; platform and at least 6 flake scars; a small bulb of percussion</td>
</tr>
<tr>
<td>592</td>
<td>FS-2000-10</td>
<td>1</td>
<td>Survey Area 50</td>
<td>One nearly complete mother of pearl button with 2 holes</td>
</tr>
<tr>
<td>593</td>
<td>FS-2000-11</td>
<td>1</td>
<td>Survey Area 54</td>
<td>One black obsidian biface tip fragment; many pressure flakes</td>
</tr>
<tr>
<td>594</td>
<td>FS-2000-12</td>
<td>3</td>
<td>Survey Area 54</td>
<td>Three black obsidian flakes; 1 has flake scars</td>
</tr>
<tr>
<td>595</td>
<td>FS-2000-13</td>
<td>1</td>
<td>42BO856</td>
<td>One rusty, metal, mining shovel head; strapped back with 6 rivets</td>
</tr>
<tr>
<td>596</td>
<td>FS-2000-14</td>
<td>1</td>
<td>42BO927</td>
<td>One brown bottle glass base; pressure flake scars</td>
</tr>
<tr>
<td>597</td>
<td>FS-2000-15</td>
<td>1</td>
<td>42BO855</td>
<td>One green bottle base; reads &quot;OLYMPIC NATIONAL PARK/ L&quot;; post 1950</td>
</tr>
<tr>
<td>598</td>
<td>FS-2000-16</td>
<td>1</td>
<td>Survey Area 57</td>
<td>One tan/white chalcedony projectile point midsection; Humbolt Concave Base</td>
</tr>
<tr>
<td>599</td>
<td>FS-2000-17</td>
<td>1</td>
<td>42BO922</td>
<td>One black, banded, obsidian, secondary flake; bulb of percussion, platform, and flake scars present</td>
</tr>
<tr>
<td>600</td>
<td>FS-2000-18</td>
<td>1</td>
<td>42BO922</td>
<td>One chert point base; Alberta series point type; 9500-9000 BP (Drager and Ireland 1986:596)</td>
</tr>
<tr>
<td>601</td>
<td>FS-2000-19</td>
<td>1</td>
<td>42BO922</td>
<td>One chalcedony projectile point; Elko Contracting Stem</td>
</tr>
<tr>
<td>602</td>
<td>FS-2000-20</td>
<td>1</td>
<td>42BO922</td>
<td>One obsidian projectile point; Desert side-notched</td>
</tr>
<tr>
<td>603</td>
<td>FS-2000-21</td>
<td>1</td>
<td>42BO855</td>
<td>One metal button, 4 holes, top half of a 2-piece pressed metal style</td>
</tr>
<tr>
<td>Catalog Number</td>
<td>Field Specimen</td>
<td>Count</td>
<td>Site Number</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------</td>
<td>-------</td>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td>604</td>
<td>FS-2000-22</td>
<td>1</td>
<td>42BO855</td>
<td>One kaolin (clay) smoking pipe stem fragment</td>
</tr>
<tr>
<td>605</td>
<td>FS-2000-23</td>
<td>1</td>
<td>42BO855</td>
<td>One shell (mother of pearl) button; 4 holes, not perfectly aligned; center turned</td>
</tr>
<tr>
<td>606</td>
<td>FS-2000-24</td>
<td>1</td>
<td>42BO855</td>
<td>One white, milk glass button; 4 holes of regular size and arrangement</td>
</tr>
<tr>
<td>607</td>
<td>FS-2000-25</td>
<td>1</td>
<td>42BO855</td>
<td>One leather button; 2 holes; holes and overall shape are not symmetrical; possibly hand made</td>
</tr>
<tr>
<td>608</td>
<td>FS-2000-26</td>
<td>1</td>
<td>42BO855</td>
<td>One milk glass button; 2 oblong holes on one side, 1 hole on other side</td>
</tr>
<tr>
<td>609</td>
<td>FS-2000-27</td>
<td>1</td>
<td>42BO855</td>
<td>One black leather button, 2 holes</td>
</tr>
<tr>
<td>610</td>
<td>FS-2000-28</td>
<td>1</td>
<td>Survey Area 61</td>
<td>One ignimbrite biface</td>
</tr>
<tr>
<td>611</td>
<td>FS-2000-29</td>
<td>1</td>
<td>42BO922</td>
<td>One obsidian biface; probable point midsection; many flake scars</td>
</tr>
<tr>
<td>612</td>
<td>FS-2000-30</td>
<td>1</td>
<td>42BO922</td>
<td>One obsidian biface; probable broken point fragment; many flake scars</td>
</tr>
<tr>
<td>613</td>
<td>FS-2000-31</td>
<td>1</td>
<td>42BO922</td>
<td>One white chalcedony point base fragment; pressure flaking scars</td>
</tr>
<tr>
<td>614</td>
<td>FS-2000-32</td>
<td>1</td>
<td>42BO922</td>
<td>One obsidian point fragment; base missing; many pressure flaking scars</td>
</tr>
<tr>
<td>615</td>
<td>FS-2000-33</td>
<td>1</td>
<td>Survey Area 63</td>
<td>One light green cat's eye marble, swirl pattern reaches to the exterior surface; no bubbles</td>
</tr>
<tr>
<td>616</td>
<td>FS-2000-34</td>
<td>1</td>
<td>42BO929</td>
<td>One brown bottle base; flake scars on the broken edges; possible bottom-hinged mold style; stamped &quot;3110/3110&quot; on base; ca. 1810-1880 (Berge 1980: 64)</td>
</tr>
<tr>
<td>617</td>
<td>FS-2000-35</td>
<td>1</td>
<td>42BO932</td>
<td>One complete, clear soda bottle; shoulder reads &quot;RED ROCK/COLA&quot;; FRONT body reads &quot;Enjoy/RED ROCK/COLA&quot;; back body reads &quot;Enjoy the...rich flavor.../RED ROCK/COLA/ingredients...&quot;; all writing in red and white label; base is embossed: &quot;517/5, R (in a triangle), 46&quot;; dates to ca. 1947-1956 (Toulouse 1972:432 and Red Rock Cola 2004:1)</td>
</tr>
<tr>
<td>618</td>
<td>FS-2000-36</td>
<td>1</td>
<td>42BO857</td>
<td>One porcelain doll head; no glaze; broken at the neck</td>
</tr>
<tr>
<td>619</td>
<td>FS-2000-37</td>
<td>1</td>
<td>42BO857</td>
<td>One French 10 cent piece; reads &quot;LIBERTE EGALITE FRATERNITE/10 CENTIMERS&quot; on one side, and &quot;REPUBLIQUE FRANCAISE/1895&quot; on the other side; probably silver</td>
</tr>
<tr>
<td>620</td>
<td>2001-FS-1</td>
<td>1</td>
<td>42BO930</td>
<td>One brass military button, two piece construction, wire loop shank; eagle design has olive branch clasped in the right talon and arrows in the left; eagle is facing the olive branch; shield on breast is adorned with the letter &quot;C&quot; which stands for &quot;Cavalry&quot; US Army pre-1861; back reads &quot;WATERBURY BUTTON CO&quot; (Johnson 1948:62)</td>
</tr>
<tr>
<td>621</td>
<td>2001-FS-2</td>
<td>1</td>
<td>42BO930</td>
<td>One hand cut nail, tip is broken off, tapers slightly from head to tip</td>
</tr>
<tr>
<td>622</td>
<td>2001-FS-3</td>
<td>1</td>
<td>42BO930</td>
<td>One hand cut nail; tapers slightly from head to tip, bent in the lower portion</td>
</tr>
<tr>
<td>623</td>
<td>2001-FS-4</td>
<td>1</td>
<td>42BO930</td>
<td>One metal handle fragment; partial tang with 3 rivets and a handle panel fragment; likely from a knife; fragment is thick and appears to be brass</td>
</tr>
<tr>
<td>624</td>
<td>2001-FS-5</td>
<td>2</td>
<td>42BO930</td>
<td>Two round grommets of two piece construction, which appear to be brass; likely from a tent</td>
</tr>
<tr>
<td>Catalog Number</td>
<td>Field Specimen</td>
<td>Count</td>
<td>Site Number</td>
<td>Description</td>
</tr>
<tr>
<td>----------------</td>
<td>---------------</td>
<td>-------</td>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td>625</td>
<td>2001-FS-6</td>
<td>2</td>
<td>42BO930</td>
<td>Two hand cut nails; (1) complete with square head, (1) tip fragment with no head</td>
</tr>
<tr>
<td>626</td>
<td>2001-FS-7</td>
<td>2</td>
<td>42BO930</td>
<td>Two shotgun shell bases; both read &quot;REMINGTON/ 12 GA/ EXPRESS&quot;; paper wadded up inside shell base</td>
</tr>
<tr>
<td>627</td>
<td>2001-FS-8</td>
<td>1</td>
<td>42BO930</td>
<td>One brass centerfire .30-06 casing with headstamp &quot;DEN 43 30-06 Springfield&quot;; this trademark represents the Denver Ordnance Plant 1943; a U.S. government facility, which existed during WW II from 1940-1944 (White and Munhall 1963:83)</td>
</tr>
<tr>
<td>628</td>
<td>2001-FS-9</td>
<td>1</td>
<td>42BO930</td>
<td>One brown glass bottle base, &quot;WMMCC&amp;Co&quot; embossed diagonally across the base; square in shape with chamfered corners; manufactured by W. McCully &amp; Co. 1841-1866 (Toulouse 1972:351)</td>
</tr>
<tr>
<td>629</td>
<td>2001-FS-10</td>
<td>1</td>
<td>42BO930</td>
<td>One clear, automatic glass bottle; embossed on body: LISTERINE/ LAMBERT/ PHARMACEUTICAL COMPANY&quot;; embossed on base and off-center: &quot;N (in a rectangle)/2&quot;; this trademark represents the Obear-Nester Glass Co. (Fike 1987:67)</td>
</tr>
<tr>
<td>630</td>
<td>2001-FS-11</td>
<td>1</td>
<td>42BO930</td>
<td>One clear glass prescription bottle, rectangular base; embossed, graduated measurement scale and numbers (in ounces and cc's); base exhibits Owen's ring and &quot;U 5&quot;</td>
</tr>
<tr>
<td>631</td>
<td>2001-FS-12</td>
<td>1</td>
<td>42BO930</td>
<td>One round, brown bottle base with the lower portion of the body showing mold seams; embossed: &quot;W.F.&amp;S./ 22/ MIL.&quot;, this trademark represents William Franzen &amp; Son and dates to ca. 1900-1929(Toulouse 1972:536)</td>
</tr>
<tr>
<td>632</td>
<td>2001-FS-13</td>
<td>1</td>
<td>42BO930</td>
<td>One small, amethyst-tinted jar; threaded finish for screw-on lid, lip balm style; center base: embossed &quot;6&quot;</td>
</tr>
<tr>
<td>633</td>
<td>2001-FS-14</td>
<td>1</td>
<td>42BO1132</td>
<td>One mother of pearl knife handle fragment, 2 rivet holes</td>
</tr>
<tr>
<td>634</td>
<td>2001-FS-15</td>
<td>3</td>
<td>42BO1068</td>
<td>Three mended rice bowl fragments; 2 rim and 1 body fragment with foot; hand-painted blue representing the Three Circles and Dragonfly pattern (aka Bamboo, Swatow, or Blue Flower ware) (exterior); hand-painted blue concentric rings (interior)</td>
</tr>
<tr>
<td>635</td>
<td>2001-FS-15</td>
<td>2</td>
<td>42BO1068</td>
<td>Two porcelain rice bowl base/foot fragments; hand-painted blue Three Circles and Dragonfly design (exterior) (aka Bamboo, Swatow, Blue Flower ware); two concentric rings (interior)</td>
</tr>
<tr>
<td>636</td>
<td>2001-FS-15</td>
<td>2</td>
<td>42BO1068</td>
<td>Two articulating rice bowl rim fragments; hand-painted blue design (exterior)</td>
</tr>
<tr>
<td>637</td>
<td>2001-FS-15</td>
<td>1</td>
<td>42BO1068</td>
<td>One porcelain tableware rim fragment; possible rice bowl fragment; hand-painted blue design on exterior</td>
</tr>
<tr>
<td>638</td>
<td>2001-FS-15</td>
<td>5</td>
<td>42BO1068</td>
<td>Five porcelain, tableware body fragments; possibly rice bowl fragments; 4 have blue, hand-painted design on the exterior</td>
</tr>
<tr>
<td>639</td>
<td>2001-FS-16</td>
<td>2</td>
<td>42BO1068</td>
<td>Two amethyst glass fragments of a rectangular, beveled bottle</td>
</tr>
<tr>
<td>Catalog Number</td>
<td>Field Specimen</td>
<td>Count</td>
<td>Site Number</td>
<td>Description</td>
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<tr>
<td>640</td>
<td>2001-FS-17</td>
<td>1</td>
<td>42BO1068</td>
<td>One brass centerfire .30-06 casing; necked case; shell is split apart; headstamp reads &quot;F A 41&quot; (plain letter style) - this refers to Frankford Arsenal. The letter style was adopted ca. 1930, the shell dates to 1941 (White and Munhall 1963:107).</td>
</tr>
<tr>
<td>641</td>
<td>2001-FS-18</td>
<td>1</td>
<td>42BO1060</td>
<td>One porcelain rice bowl base fragment with foot; hand painted, underglaze, polychrome, floral motif (interior); abstract, hand-painted, overglaze, orange/red design (possible insignia or maker's mark) is present in the center of the base (exterior). Two opium tin fragments: probable lid with cartouche and one tin fragment; the cartouche is coffin-shaped and framed with no cross-hatching; symbols read: &quot;Hu'an Shang, Li Yuan&quot; and identify the tin with the Source of Beauty brand name (Wegars 1993:168, 170); fragments are said to be used as gaming pieces after contents were used up (Fike and Wylie 1986:1, 7).</td>
</tr>
<tr>
<td>642</td>
<td>2001-FS-19</td>
<td>2</td>
<td>42BO1060</td>
<td>One cast brass Chinese coin; circular with square in center; characters on the coin identify it as a Ch’ien Lung (1736-1796), minted during the Ch'ing (Manchu Dynasty). The primary characters read: Ch’ien (top), Lung (bottom), Tung-pau (right-left). Translates to General Currency of Ch’ien Lung (Akin and Akin 198:415-432). Two opium tin side panel body fragments; panels have several triangular holes, which appear to have been punched with a knife then twisted.</td>
</tr>
<tr>
<td>643</td>
<td>2001-FS-20</td>
<td>1</td>
<td>42BO1060</td>
<td>One metal fastener, likely for garter, wire construction, thin gauge.</td>
</tr>
<tr>
<td>644</td>
<td>2001-FS-21</td>
<td>2</td>
<td>42BO852</td>
<td>One brown glass bottle base fragment; the fragment, which is highly opalized, appears to be molded.</td>
</tr>
<tr>
<td>645</td>
<td>2001-FS-22</td>
<td>1</td>
<td>42BO852</td>
<td>One brown glass bottle body and base; square with beveled corners (French Square); circular indentation on bottom base; embossed on side panels: &quot;..CKET/.ERS&quot; and &quot;..S. &amp; Co.&quot; Red Jacket Bitters bottle, Bennett Pieters &amp; Co. This bottle was manufactured by Wm McCully &amp; Co. from 1841 to ca. 1886 (Fike 1987:40).</td>
</tr>
<tr>
<td>646</td>
<td>2001-FS-23</td>
<td>1</td>
<td>42BO852</td>
<td>One brass casing, centerfire .30-06 with headstamp &quot; F N 57&quot;, necked case; casing was manufactured by Fabrique National d'Armes de Guerre of Herstel in 1957; Belgium/Browning Works (White and Munhall 1963:107).</td>
</tr>
<tr>
<td>649</td>
<td>2001-FS-26</td>
<td>2</td>
<td>42BO852</td>
<td>One obsidian core, one fragment has broken off, multi faceted.</td>
</tr>
<tr>
<td>650</td>
<td>2001-FS-27</td>
<td>1</td>
<td>42BO852</td>
<td>One primary, obsidian, thinning flake.</td>
</tr>
<tr>
<td>651</td>
<td>2001-FS-28</td>
<td>1</td>
<td>42BO852</td>
<td>One black obsidian, Elko-eared projectile point with a small distal fracture; appears to be most closely related in form to the Elko eared projectile point type of the Elko-Bitterroot Series (10,000 - 500 BP), as defined for the Great Basin Culture Area (Drager and Ireland 1986:594-592).</td>
</tr>
<tr>
<td>Catalog Number</td>
<td>Field Specimen</td>
<td>Count</td>
<td>Site Number</td>
<td>Description</td>
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<tr>
<td>652</td>
<td>2001-FS-29</td>
<td>1</td>
<td>42BO852</td>
<td>One black Humbolt projectile point, finely worked; appears to be most closely related in form to projectile point types associated with the Black Rock-Humbolt Series (5000 to 3000 B.P.), as defined for the Great Basin Culture Area (Drager and Ireland 1986:593)</td>
</tr>
<tr>
<td>653</td>
<td>2001-FS-30</td>
<td>1</td>
<td>42BO1070</td>
<td>One green glass soda bottle body/base; base: &quot;GETTYSBURG NATL. MIL. PARK&quot;</td>
</tr>
<tr>
<td>654</td>
<td>2001-FS-31</td>
<td>1</td>
<td>N/A</td>
<td>One complete aqua glass insulator; embossed on skirt: &quot;PATENTED MAY 2 1893 HEMINGRAY No 40&quot;; threaded pinhole, drip points</td>
</tr>
<tr>
<td>655</td>
<td>2002-FS-1</td>
<td>1</td>
<td>42BO852</td>
<td>One rusted metal fork, 3 tines, handle panels missing, two rivet handle design</td>
</tr>
<tr>
<td>656</td>
<td>2002-FS-2</td>
<td>1</td>
<td>42BO852</td>
<td>One metal scoop; hand-soldered metal scoop made from a modified hole-in-cap can; one side of can has been knife cut open and a &quot;j&quot;-shaped handle has been soldered onto the side seam of the can; artifact is crushed</td>
</tr>
<tr>
<td>657</td>
<td>2002-FS-3</td>
<td>1</td>
<td>42BO1131</td>
<td>One metal knife fragment; blade broken; broken handle is 2 or 3 rivet construction, one rivet intact; lettering on blade/3 lines: V (crown symbol) B/ ASDALE &amp; Co./ SHEFFIELD; appears to be the same artifact type as Catalog # 658</td>
</tr>
<tr>
<td>658</td>
<td>2002-FS-4</td>
<td>1</td>
<td>42BO1131</td>
<td>One metal knife fragment; full blade; broken tang with one brass rivet intact; lettering on blade/3 lines: V (crown symbol) B/ JOHN A. S__EAM/ SHEFFIELD; appears to be the same artifact type as Catalog # 657</td>
</tr>
<tr>
<td>659</td>
<td>2002-FS-5</td>
<td>1</td>
<td>42BO1131</td>
<td>One metal lid; flat, a metal, triangle-shaped plate is soldered to the top of the lid; a &quot;D&quot; shaped baled ring/loop is attached to the lid</td>
</tr>
<tr>
<td>660</td>
<td>2002-FS-6</td>
<td>1</td>
<td>42BO1131</td>
<td>One brass military button; two piece construction with wire loop shank; eagle design has wheat clasp in right talon, arrows in left, and unadorned shield on breast; back: &quot;SCOVILLS &amp; CO/ EXTRA&quot;; this button is a Civil War era general service button of the United States Army issued between ca. 1855-1884 (Gillio, Levine and Scott 1980:30-31)</td>
</tr>
<tr>
<td>661</td>
<td>2002-FS-7</td>
<td>1</td>
<td>42BO1131</td>
<td>Brass Military button: Brass, two piece construction, with wire loop shank. Eagle design has wheat clasp in right talon, arrows in left, with unadorned shield on breast. Measures ⅜&quot; D with blank back panel. This button is a Civil War era general service button of the United States Army issued between ca. 1855-1884 (Gillio, Levine and Scott 1980:30-31).</td>
</tr>
<tr>
<td>662</td>
<td>2002-FS-8</td>
<td>2</td>
<td>42BO1131</td>
<td>Two small, heavily weathered fragments of a kaolin pipe bowl; a portion of a shield/coat-of-arms is visible on one fragment; the fragment exhibits three small, raised crosses within what appears to be the margin of a shield emblem</td>
</tr>
<tr>
<td>663</td>
<td>2002-FS-9</td>
<td>1</td>
<td>42BO1131</td>
<td>One handle fragment of a whiteware teacup; paste: fine, white, hard and non-porous; glaze: clear; fragment appears to be of the same vessel as catalog no. 664, 665, 666, and 667</td>
</tr>
<tr>
<td>Catalog Number</td>
<td>Field Specimen</td>
<td>Count</td>
<td>Site Number</td>
<td>Description</td>
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<tr>
<td>664</td>
<td>2002-FS-9</td>
<td>4</td>
<td>42BO1131</td>
<td>Four base fragments of a whiteware teacup; paste: fine, white, hard and non-porous; glaze: clear; fragments appear to be of the same vessel as catalog no. 663, 665, 666, and 667</td>
</tr>
<tr>
<td>665</td>
<td>2002-FS-9</td>
<td>2</td>
<td>42BO1131</td>
<td>Two fragments of a whiteware teacup; paste: fine, white, hard and non-porous; glaze: clear; 2 fragments have remnants of red transfer print Chinese characters (possible maker's mark); fragments appear to be of the same vessel as catalog no. 663, 664, 666, and 667</td>
</tr>
<tr>
<td>666</td>
<td>2002-FS-9</td>
<td>6</td>
<td>42BO1131</td>
<td>Six fragments of a whiteware teacup; paste: fine, white, hard and non-porous; glaze: clear; decoration: remnants of a red transfer print Chinese motif similar to those found among Blue and Red Willow patterns; fragments appear to be of the same vessel as catalog no. 663, 664, 665, and 667</td>
</tr>
<tr>
<td>667</td>
<td>2002-FS-9</td>
<td>39</td>
<td>42BO1131</td>
<td>39 fragments of a whiteware teacup; paste: fine, white, hard and non-porous; glaze: clear; fragments appear to be of the same vessel as catalog no. 663, 664, 665, and 666</td>
</tr>
<tr>
<td>668</td>
<td>2002-FS-10</td>
<td>1</td>
<td>42BO1134</td>
<td>One metal drum fragment; fragment is a portion of the lid and includes a lead pressure (burst) cap/plug; the cap/plug suggests the drum held some form of combustible material prone to expansion, which would necessitate a pressure initiated release cap or plug</td>
</tr>
<tr>
<td>669</td>
<td>2002-FS-11</td>
<td>1</td>
<td>42BO1134</td>
<td>One rice bowl body fragment; fine, blue-white paste with small flecks of black (unknown material); material is hard and non-porous with blue-tinted clear glaze over a hand painted, light blue on white Swirl pattern (aka Double Happiness) (Greenwood 1996:70)</td>
</tr>
<tr>
<td>670</td>
<td>2002-FS-12</td>
<td>1</td>
<td>42BO1134</td>
<td>One porcelain rice bowl fragment: Fragment has fine blue-white paste with small flecks of black, material is hard and non-porous, with blue-tinted clear glaze over an unidentified hand-painted light and dark blue on white pattern on exterior.</td>
</tr>
<tr>
<td>671</td>
<td>2002-FS-13</td>
<td>1</td>
<td>42BO1134</td>
<td>One square cut nail; machine made head; bent</td>
</tr>
<tr>
<td>672</td>
<td>2002-FS-14</td>
<td>1</td>
<td>42BO1134</td>
<td>One metal fence staple; &quot;U&quot; shaped</td>
</tr>
<tr>
<td>673</td>
<td>2002-FS-15</td>
<td>1</td>
<td>42BO1134</td>
<td>One metal band with baled wire &quot;D&quot; ring attached</td>
</tr>
<tr>
<td>674</td>
<td>2002-FS-16</td>
<td>1</td>
<td>42BO1134</td>
<td>One porcelain, rice bowl base fragment: Paste: fine, blue-white, hard and non-porous; temper: small flecks of black, material; glaze: blue-tinted, clear; motif: hand-painted cobalt blue on white Three Circles and Dragonfly pattern (aka Bamboo pattern, Swatow or Blue Flower Ware). The pattern appears to represent the circles and Dragonfly portion of the design (Brott 1982:53-54; Greenwood 1996:70). Articulates with one fragment in catalog number 676. Same vessel as catalog numbers 675 and 676.</td>
</tr>
<tr>
<td>Catalog Number</td>
<td>Field Specimen</td>
<td>Count</td>
<td>Site Number</td>
<td>Description</td>
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<tr>
<td>675</td>
<td>2002-FS-16</td>
<td>2</td>
<td>42BO1134</td>
<td>Two rice bowl rim fragments; paste: fine, blue-white, hard, non-porous; temper: black flecks, unknown material; glaze: clear; decoration: hand-painted, dark blue on white Bamboo pattern (aka Three Circles and Dragon, Swatow, or Blue Flower Ware); pattern appears to represent the Circles and Dragonfly portion of the motif (Brott 1982: 53-54; Greenwood 1996:70); appears to be part of the same vessel as catalog numbers 674 and 676</td>
</tr>
<tr>
<td>676</td>
<td>2002-FS-16</td>
<td>2</td>
<td>42BO1134</td>
<td>Two porcelain, rice bowl body fragments: Paste: fine, blue-white, hard and non-porous; temper: small flecks of black, material; glaze: blue-tinted, clear; motif: hand-painted cobalt blue on white Three Circles and Dragonfly pattern (aka Bamboo pattern, Swatow or Blue Flower Ware). The pattern appears to represent the circles and Dragonfly portion of the motif (Brott 1982:53-54; Greenwood 1996:70). One body fragment articulates with catalog number 674; appears to be part of the same vessel as catalog numbers 674 and 675</td>
</tr>
<tr>
<td>677</td>
<td>2002-FS-17</td>
<td>5</td>
<td>42BO1134</td>
<td>Five articulating, porcelain, rice bowl rim fragments: Paste: fine, blue-white, hard and non-porous; temper: small flecks of black, material; glaze: blue-tinted, clear; motif: hand-painted cobalt blue on white Three Circles and Dragonfly pattern (aka Bamboo pattern, Swatow or Blue Flower Ware). Fragments appear to exhibit the lenticular leaf pattern portion of the design (Brott 1982:53-54; Greenwood 1996:70), appears to be part of the same vessel as catalog number 678</td>
</tr>
<tr>
<td>678</td>
<td>2002-FS-17</td>
<td>1</td>
<td>42BO1134</td>
<td>One porcelain rice bowl body fragment: Paste: fine, blue-white, hard and non-porous; temper: small flecks of black, material; glaze: blue-tinted, clear; motif: hand-painted cobalt blue on white, likely the Three Circles and Dragonfly pattern (aka Bamboo pattern, Swatow or Blue Flower Ware) (Brott 1982:53-54; Greenwood 1996:70), appears to be part of the same vessel as catalog number 677</td>
</tr>
<tr>
<td>679</td>
<td>2002-FS-18</td>
<td>1</td>
<td>42BO1134</td>
<td>One porcelain rice bowl base fragment: Paste: fine, blue-white, hard and non-porous; temper: small flecks of black, material; glaze: blue-tinted, clear; motif: hand-painted light blue on white, likely the Swirl pattern (aka Double Happiness) (Greenwood 1996:70)</td>
</tr>
<tr>
<td>680</td>
<td>2002-FS-19</td>
<td>1</td>
<td>42BO1134</td>
<td>One glass soda/ginger ale bottle; neck to base, finish absent; thick light green glass with elongated bubbles along vertical axis; single seam across rounded base; formed in a two-piece hinged bottom mold; design was meant to withstand the pressure of carbonated beverages; dates to 1860-1880 (Berge 1980:64; Newman 1970:73)</td>
</tr>
<tr>
<td>681</td>
<td>2002-FS-20</td>
<td>1</td>
<td>42BO1134</td>
<td>One half of a 4-hole milk glass button fragment</td>
</tr>
<tr>
<td>682</td>
<td>2002-FS-21</td>
<td>1</td>
<td>42BO1134</td>
<td>One obsidian Rose Spring Corner-notched projectile point; tip and portion of base absent; appears to be most closely related in form to the Rose Spring Corner-notched projectile point type of the Rose Spring Series associated with the Desert Complex (4000-250BP) as defined for the Great Basin culture area (Drager and Ireland 1986:594)</td>
</tr>
<tr>
<td>Catalog Number</td>
<td>Field Specimen</td>
<td>Count</td>
<td>Site Number</td>
<td>Description</td>
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<tr>
<td>684</td>
<td>2003-FS-2</td>
<td>2</td>
<td>42BO853</td>
<td>Two fragments of a decorative, thin, tin lid; embossed with flower design encircled by a concentric ring of raised dots; &quot;C&quot; and &quot;H&quot; &quot;also embossed&quot;; found in the vicinity of catalog number 685</td>
</tr>
<tr>
<td>685</td>
<td>2003-FS-2</td>
<td>7</td>
<td>42BO853</td>
<td>Seven fragments of a tin lid, highly fragmented; located in the vicinity of catalog number 684</td>
</tr>
<tr>
<td>686</td>
<td>2003-FS-3</td>
<td>1</td>
<td>42BO853</td>
<td>One metal boot heel plate fragment; U shaped; one tack embedded in plate for mounting to shoe</td>
</tr>
<tr>
<td>687</td>
<td>2003-FS-4</td>
<td>1</td>
<td>42BO1068</td>
<td>One porcelain rice bowl rim fragment; hand-painted blue design (exterior)</td>
</tr>
<tr>
<td>688</td>
<td>2003-FS-5</td>
<td>1</td>
<td>42BO1068</td>
<td>One porcelain rice bowl rim fragment; hand-painted blue design (exterior) is Three Circles and Dragonfly motif</td>
</tr>
<tr>
<td>689</td>
<td>2003-FS-6</td>
<td>2</td>
<td>42BO1070</td>
<td>Opium tin container (689a) and lid (689b); lid has embossed, rectangular, framed cartouche with Asian symbols; the symbols have not been identified</td>
</tr>
<tr>
<td>690</td>
<td>2003-FS-7.1</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain rice bowl base/foot fragment</td>
</tr>
<tr>
<td>691</td>
<td>2003-FS-7.2</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain rice bowl rim fragment, hand-painted blue design</td>
</tr>
<tr>
<td>692</td>
<td>2003-FS-7.3</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain rice bowl rim fragment, hand-painted blue design</td>
</tr>
<tr>
<td>693</td>
<td>2003-FS-7.4</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain rice bowl base/foot/body fragment; blue hand-painted floral design (exterior) and concentric circles (interior)</td>
</tr>
<tr>
<td>694</td>
<td>2003-FS-7.5</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain rice bowl body fragment; hand-painted blue design (exterior) and two concentric circles (interior)</td>
</tr>
<tr>
<td>695</td>
<td>2003-FS-7.6</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain tableware fragment; hand-painted blue (exterior)</td>
</tr>
<tr>
<td>696</td>
<td>2003-FS-7.7</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain tableware fragment; hand-painted blue (interior and exterior)</td>
</tr>
<tr>
<td>697</td>
<td>2003-FS-7.8</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain tableware fragment; hand-painted blue design</td>
</tr>
<tr>
<td>698</td>
<td>2003-FS-7.9</td>
<td>1</td>
<td>42BO1070</td>
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<td>42BO1070</td>
<td>One porcelain rice bowl base fragment; hand-painted blue (exterior)</td>
</tr>
<tr>
<td>792</td>
<td>2003-FS-7.102</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain rice bowl base fragment; hand-painted blue (exterior)</td>
</tr>
<tr>
<td>793</td>
<td>2003-FS-7.103</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain tableware rim fragment; one hand-painted blue concentric ring (rim)</td>
</tr>
<tr>
<td>794</td>
<td>2003-FS-7.104</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain tableware body fragment; hand-painted blue design (exterior)</td>
</tr>
<tr>
<td>795</td>
<td>2003-FS-7.105</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain rice bowl body fragment; hand-painted blue concentric rings (interior and exterior)</td>
</tr>
<tr>
<td>796</td>
<td>2003-FS-7.106</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain tableware rim fragment; hand-painted blue design (exterior)</td>
</tr>
<tr>
<td>797</td>
<td>2003-FS-7.107</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain rice bowl body fragment; hand-painted blue design (exterior) and one concentric ring (interior)</td>
</tr>
<tr>
<td>798</td>
<td>2003-FS-7.108</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain rice bowl foot fragment</td>
</tr>
<tr>
<td>799</td>
<td>2003-FS-7.109</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain rice bowl rim fragment; hand-painted blue design (exterior) and one concentric ring (rim)</td>
</tr>
<tr>
<td>800</td>
<td>2003-FS-7.110</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain tableware body fragment; hand-painted blue design (exterior)</td>
</tr>
<tr>
<td>801</td>
<td>2003-FS-7.111</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain tableware body fragment; hand-painted blue design (exterior)</td>
</tr>
<tr>
<td>802</td>
<td>2003-FS-7.112</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain tableware body fragment</td>
</tr>
<tr>
<td>803</td>
<td>2003-FS-7.113</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain tableware rim fragment; hand-painted blue design (exterior)</td>
</tr>
<tr>
<td>804</td>
<td>2003-FS-7.114</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain tableware body fragment; hand-painted blue design (exterior)</td>
</tr>
<tr>
<td>805</td>
<td>2003-FS-7.115</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain tableware rim fragment; hand-painted blue design (exterior)</td>
</tr>
<tr>
<td>806</td>
<td>2003-FS-7.116</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain rice bowl rim fragment; hand-painted blue design (exterior)</td>
</tr>
<tr>
<td>807</td>
<td>2003-FS-7.117</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain tableware body fragment</td>
</tr>
<tr>
<td>808</td>
<td>2003-FS-7.118</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain tableware body fragment; hand-painted blue design (exterior) and one concentric ring (interior)</td>
</tr>
<tr>
<td>809</td>
<td>2003-FS-7.119</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain tableware body fragment; hand-painted blue design (exterior)</td>
</tr>
<tr>
<td>810</td>
<td>2003-FS-7.120</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain tableware body fragment; hand-painted blue design (exterior) and two concentric rings (interior)</td>
</tr>
<tr>
<td>811</td>
<td>2003-FS-7.121</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain rice bowl rim fragment; hand-painted blue design (exterior) and concentric ring (interior)</td>
</tr>
<tr>
<td>812</td>
<td>2003-FS-7.122</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain rice bowl rim fragment; hand-painted blue design (exterior) and one concentric ring (interior)</td>
</tr>
<tr>
<td>813</td>
<td>2003-FS-7.123</td>
<td>1</td>
<td>42BO1070</td>
<td>One tableware rim fragment; one concentric ring (rim)</td>
</tr>
<tr>
<td>Catalog Number</td>
<td>Field Specimen</td>
<td>Count</td>
<td>Site Number</td>
<td>Description</td>
</tr>
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</tr>
<tr>
<td>814</td>
<td>2003-FS-7.124</td>
<td>1</td>
<td>42BO1070</td>
<td>One tableware rim fragment; one concentric ring (rim)</td>
</tr>
<tr>
<td>815</td>
<td>2003-FS-7.125</td>
<td>1</td>
<td>42BO1070</td>
<td>One rice bowl base/foot fragment; three concentric rings (exterior)</td>
</tr>
<tr>
<td>816</td>
<td>2003-FS-7.126</td>
<td>1</td>
<td>42BO1070</td>
<td>One rice bowl base/foot fragment; hand-painted blue design (exterior); two concentric rings (interior)</td>
</tr>
<tr>
<td>817</td>
<td>2003-FS-7.127</td>
<td>1</td>
<td>42BO1070</td>
<td>One porcelain tableware body fragment</td>
</tr>
<tr>
<td>818</td>
<td>2003-FS-8</td>
<td>1</td>
<td>42BO1070</td>
<td>One orange earthenware opium bowl fragment; exhibits exterior burnishing and interior striations; based on curvature and thickness it is likely this fragment is a portion of a bowl top</td>
</tr>
<tr>
<td>819</td>
<td>2003-FS-9</td>
<td>1</td>
<td>42BO1070</td>
<td>One white milk glass button; four holes; etched lines around perimeters</td>
</tr>
<tr>
<td>820</td>
<td>2003-FS-10</td>
<td>1</td>
<td>42BO1070</td>
<td>One white shell button, 4 holes</td>
</tr>
<tr>
<td>821</td>
<td>2003-FS-11</td>
<td>1</td>
<td>42BO1070</td>
<td>One white milk glass button, 4 holes</td>
</tr>
<tr>
<td>822</td>
<td>2003-FS-12</td>
<td>1</td>
<td>42BO1070</td>
<td>One nearly complete shell button; 4 holes; color is opal</td>
</tr>
<tr>
<td>823</td>
<td>2003-FS-13</td>
<td>1</td>
<td>42BO1070</td>
<td>One white milk glass button, 4 holes</td>
</tr>
<tr>
<td>824</td>
<td>2003-FS-14</td>
<td>1</td>
<td>42BO1070</td>
<td>One white milk glass button, 4 holes</td>
</tr>
<tr>
<td>825</td>
<td>2003-FS-15</td>
<td>1</td>
<td>42BO1070</td>
<td>One obsidian point base fragment; Gatecliff split stem base</td>
</tr>
<tr>
<td>826</td>
<td>2003-FS-16</td>
<td>1</td>
<td>42BO1070</td>
<td>One green bottle base fragment; partial trademark &quot;...MEINH...&quot;; dates to ca. 1815-1885 (Reher 1977:240)</td>
</tr>
<tr>
<td>827</td>
<td>2003-FS-17</td>
<td>1</td>
<td>42BO1070</td>
<td>One olive/dark green bottle lip fragment, hand applied; articulates with catalog # 828 (neck); likely from the same vessel as catalog # 829 (body fragments); dates to ca. 1815-1885 (Reher 1977:240)</td>
</tr>
<tr>
<td>828</td>
<td>2003-FS-17</td>
<td>1</td>
<td>42BO1070</td>
<td>One olive/dark green bottle neck fragment, hand applied; articulates with catalog # 827 (lip); likely from the same vessel as catalog # 829 (body fragments); dates to ca. 1815-1885 (Reher 1977:240)</td>
</tr>
<tr>
<td>829</td>
<td>2003-FS-17</td>
<td>5</td>
<td>42BO1070</td>
<td>Five olive/dark green bottle body fragments, likely from the same vessel as catalog # 827 (lip) and #828 (neck); dates to ca. 1815-1885 (Reher 1977:240)</td>
</tr>
<tr>
<td>830</td>
<td>2003-FS-18</td>
<td>12</td>
<td>42BO1070</td>
<td>Twelve articulating fragments of an olive bottle base/body; base has significant &quot;kick up&quot; and is likely an alcohol bottle (wine, champagne...); dates to ca. 1815-1885 (Reher 1977:240)</td>
</tr>
<tr>
<td>831</td>
<td>2003-FS-19</td>
<td>1</td>
<td>42BO1070</td>
<td>One dark amethyst bottle lip/neck fragment; semi automatic; dates to ca. 1880-1917 (Reher 1977:240)</td>
</tr>
<tr>
<td>Catalog Number</td>
<td>Field Specimen</td>
<td>Count</td>
<td>Site Number</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
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<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>832</td>
<td>2003-FS-20</td>
<td>1</td>
<td>42BO1070</td>
<td>One complete, glass, aqua, Brookfield insulator; molded letter &quot;D&quot; on apex of dome; molded letter &quot;B&quot; on each half-mold of skirt; threaded interior; no drip points; bubbles in glass; dates to post 1903 (McDougald 1980:26)</td>
</tr>
<tr>
<td>833</td>
<td>2003-FS-21</td>
<td>1</td>
<td>42BO1070</td>
<td>One metal blasting powder can lid fragment; concentric ridge around perimeter of lid; impressed/stamped &quot; JULY 18 &quot;; round lead pressure cap/plug intact and is located in the center of the lid; lid cut around perimeter to open</td>
</tr>
<tr>
<td>834</td>
<td>2003-FS-21</td>
<td>1</td>
<td>42BO1070</td>
<td>One metal blasting powder can lid fragment</td>
</tr>
<tr>
<td>835</td>
<td>2003-FS-22</td>
<td>1</td>
<td>42BO1070</td>
<td>One metal blasting powder can lid fragment; concentric ridge around edge; impressed/stamped &quot;JULY 10 1867 PAT&quot;; center hole for placement of lead pressure cap/plug; cut around edge and folded back to open</td>
</tr>
<tr>
<td>836</td>
<td>2003-FS-23</td>
<td>1</td>
<td>42BO1070</td>
<td>One cast iron pot rim and body fragment; one concentric ridge around body</td>
</tr>
<tr>
<td>837</td>
<td>2003-FS-24</td>
<td>1</td>
<td>42BO1070</td>
<td>One iron hasp and hook; oblong hole on one end, round hole on the other end (for attachment to a container or object; often used on trunks/boxes as a latch)</td>
</tr>
<tr>
<td>838</td>
<td>2003-FS-25</td>
<td>1</td>
<td>42BO1070</td>
<td>One metal hole in cap can lid and body fragment; cut around can body to open; embossed &quot;D&quot; on top of lid</td>
</tr>
<tr>
<td>839</td>
<td>2003-FS-26</td>
<td>1</td>
<td>42BO1070</td>
<td>One thin metal (zinc) disc; hand cut, slightly irregular shape; the disc was likely cut from a flattened opium tin as the material appears to be Pak Tong, an alloy of nickel, zinc and copper, the same alloy that opium tins were made of; use undetermined, possible gaming token</td>
</tr>
<tr>
<td>840</td>
<td>2003-FS-27</td>
<td>1</td>
<td>42BO1066</td>
<td>One brass, Civil War button; two piece construction with a wire loop shank and an Union eagle design; the eagle has olive branches clasped in the right talon, arrows in the left and an unadorned shield on its breast; embossed on the back: WATERBURY BUTTON CO; This button is a general service button of the United States Army and was issued between ca. 1855-1884</td>
</tr>
<tr>
<td>841</td>
<td>2003-FS-28</td>
<td>1</td>
<td>42BO1066</td>
<td>One iron awl that consists of a round bar/rod or thick gauge wire cut to a 4-sided tip; the opposite end of the bar was flattened, folded, and curled to form a finger-sized looped handle at the end opposite the point</td>
</tr>
<tr>
<td>842</td>
<td>2003-FS-29</td>
<td>2</td>
<td>42BO1066</td>
<td>Two articulating cast iron pot fragments; one rim to base and one rim fragment; the rim fragment has a small lip or band around the exterior</td>
</tr>
<tr>
<td>843</td>
<td>2003-FS-29</td>
<td>1</td>
<td>42BO1066</td>
<td>One cast iron pot rim fragment</td>
</tr>
<tr>
<td>844</td>
<td>2003-FS-30</td>
<td>1</td>
<td>42BO1060</td>
<td>One porcelain tableware body fragment</td>
</tr>
<tr>
<td>845</td>
<td>2003-FS-30</td>
<td>1</td>
<td>42BO1060</td>
<td>One porcelain tableware body fragment; hand-painted blue design (exterior)</td>
</tr>
<tr>
<td>Catalog Number</td>
<td>Field Specimen</td>
<td>Count</td>
<td>Site Number</td>
<td>Description</td>
</tr>
<tr>
<td>----------------</td>
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</tr>
<tr>
<td>846</td>
<td>2003-FS-30</td>
<td>2</td>
<td>42BO1060</td>
<td>Two articulating porcelain tableware body fragments; hand-painted polychrome overglaze floral motif (exterior) of the Four Seasons pattern (Mueller 1987:279); motif is painted in green, pink and orange; the flower, stem and leaf elements are outlined in incised fine dark brown; fine white paste, material is hard and non-porous with clear glaze</td>
</tr>
<tr>
<td>848</td>
<td>2003-FS-30</td>
<td>1</td>
<td>42BO1060</td>
<td>One porcelain tableware body fragment</td>
</tr>
<tr>
<td>849</td>
<td>2003-FS-30</td>
<td>1</td>
<td>42BO1060</td>
<td>One porcelain tableware body fragment; hand-painted blue design (exterior)</td>
</tr>
<tr>
<td>850</td>
<td>2003-FS-30</td>
<td>1</td>
<td>42BO1060</td>
<td>One porcelain rice bowl fragment; hand-painted blue Bamboo design (exterior); articulates with catalog number 851</td>
</tr>
<tr>
<td>851</td>
<td>2003-FS-30</td>
<td>1</td>
<td>42BO1060</td>
<td>One porcelain rice bowl fragment; hand-painted blue Bamboo design (exterior); articulates with catalog number 850</td>
</tr>
<tr>
<td>852</td>
<td>2003-FS-30</td>
<td>1</td>
<td>42BO1060</td>
<td>One porcelain tableware body fragment; hand-painted blue Bamboo design (exterior); two concentric lines (interior)</td>
</tr>
<tr>
<td>853</td>
<td>2003-FS-30</td>
<td>1</td>
<td>42BO1060</td>
<td>One porcelain tableware rim fragment; hand-painted blue Bamboo design (exterior)</td>
</tr>
<tr>
<td>854</td>
<td>2003-FS-30</td>
<td>1</td>
<td>42BO1060</td>
<td>One porcelain tableware body fragment; hand-painted blue Bamboo design (exterior)</td>
</tr>
<tr>
<td>855</td>
<td>2003-FS-30</td>
<td>1</td>
<td>42BO1060</td>
<td>One porcelain tableware rim fragment; hand-painted blue Bamboo design (exterior)</td>
</tr>
<tr>
<td>856</td>
<td>2003-FS-30</td>
<td>2</td>
<td>42BO1060</td>
<td>Two porcelain tableware body fragments; hand-painted blue Bamboo design (exterior)</td>
</tr>
<tr>
<td>857</td>
<td>2003-FS-30</td>
<td>1</td>
<td>42BO1060</td>
<td>One porcelain rice bowl body fragment; hand-painted blue Bamboo design (exterior); two concentric rings (interior)</td>
</tr>
<tr>
<td>858</td>
<td>2003-FS-30</td>
<td>1</td>
<td>42BO1060</td>
<td>One porcelain rice bowl rim fragment; hand-painted blue Bamboo design (exterior)</td>
</tr>
<tr>
<td>859</td>
<td>2003-FS-31</td>
<td>1</td>
<td>42BO1060</td>
<td>One opium tin body fragment; crushed folded over on itself</td>
</tr>
<tr>
<td>860</td>
<td>2003-FS-31</td>
<td>1</td>
<td>42BO1060</td>
<td>One opium tin lid fragment; coffin shaped, framed cartouche with character that identify the tin with the Source of Beauty brand name; characters read: Hu'an Shang, Li Yuan (Wegars 1993: 168, 170)</td>
</tr>
<tr>
<td>861</td>
<td>2003-FS-31</td>
<td>1</td>
<td>42BO1060</td>
<td>One opium tin fragment</td>
</tr>
<tr>
<td>862</td>
<td>2003-FS-31</td>
<td>2</td>
<td>42BO1060</td>
<td>Two opium tin fragments</td>
</tr>
<tr>
<td>863</td>
<td>2003-FS-31</td>
<td>1</td>
<td>42BO1060</td>
<td>One opium tin fragment; folded over onto itself</td>
</tr>
<tr>
<td>864</td>
<td>2003-FS-31</td>
<td>1</td>
<td>42BO1060</td>
<td>One opium tin fragment</td>
</tr>
<tr>
<td>865</td>
<td>2003-FS-31</td>
<td>1</td>
<td>42BO1060</td>
<td>One opium tin fragment; folded over on itself</td>
</tr>
<tr>
<td>Catalog Number</td>
<td>Field Specimen</td>
<td>Count</td>
<td>Site Number</td>
<td>Description</td>
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<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>866</td>
<td>2003-FS-31</td>
<td>3</td>
<td>42BO1060</td>
<td>opium tin lid fragment; broken into 3 pieces; coffin shaped, framed cartouche with character that identify the tin with the Source of Beauty brand name; characters read: Hu'an Shang, Li Yuan (Wegars 1993: 168, 170)</td>
</tr>
<tr>
<td>867</td>
<td>2003-FS-31</td>
<td>1</td>
<td>42BO1060</td>
<td>One opium tin fragment</td>
</tr>
<tr>
<td>868</td>
<td>2003-FS-31</td>
<td>1</td>
<td>42BO1060</td>
<td>One opium tin fragment</td>
</tr>
<tr>
<td>869</td>
<td>2003-FS-31</td>
<td>1</td>
<td>42BO1060</td>
<td>One opium tin fragment; folded over on itself</td>
</tr>
<tr>
<td>870</td>
<td>2003-FS-31</td>
<td>1</td>
<td>42BO1060</td>
<td>one opium tin fragment; folded over on itself</td>
</tr>
<tr>
<td>871</td>
<td>2003-FS-32</td>
<td>3</td>
<td>42BO1060</td>
<td>Three body fragments of a orange earthenware opium pipe bowl; two of the fragments exhibit exterior burnishing</td>
</tr>
<tr>
<td>872</td>
<td>2003-FS-32</td>
<td>30</td>
<td>42BO1060</td>
<td>30 orange earthenware fragments of an opium pipe bowl; some fragments exhibit exterior burnishing and interior striaions; five of the larger fragments were identified based upon identifiable physical attributes as one bowl top fragment, one shoulder fragment, one flange/stem fragment, one flange fragment, and one fragments exhibiting portions of the shoulderbase and flange</td>
</tr>
<tr>
<td>873</td>
<td>2003-FS-32</td>
<td>1</td>
<td>42BO1060</td>
<td>One orange earthenware body fragment of an opium pipe bowl; exhibits exterior burnishing and interior striaion</td>
</tr>
<tr>
<td>874</td>
<td>2003-FS-33</td>
<td>1</td>
<td>42BO1060</td>
<td>One semi-automatic aqua glass bottle lip/neck fragment; lip is hand applied</td>
</tr>
<tr>
<td>875</td>
<td>2003-FS-33</td>
<td>5</td>
<td>42BO1060</td>
<td>Five aqua glass, paneled, bottle body fragments; molded lettering on 3 fragments (1) &quot;...W...&quot;, (2) &quot;...YO...&quot;, (3) &quot;...P...&quot;</td>
</tr>
<tr>
<td>876</td>
<td>2003-FS-33</td>
<td>6</td>
<td>42BO1060</td>
<td>Six aqua bottle body fragments</td>
</tr>
<tr>
<td>877</td>
<td>2003-FS-34</td>
<td>1</td>
<td>42BO1060</td>
<td>One hand wrought, arched, iron knife; thick blade with curled tip; rounded handle</td>
</tr>
<tr>
<td>878</td>
<td>2003-FS-35</td>
<td>1</td>
<td>42BO1060</td>
<td>One metal carpet/luggage bag frame fragment; L-shaped corner with brass button</td>
</tr>
<tr>
<td>879</td>
<td>2003-FS-36</td>
<td>1</td>
<td>42BO1060</td>
<td>One curved metal fragment with two nail holes; appears to be complete; may be a shoe plate</td>
</tr>
<tr>
<td>880</td>
<td>2003-FS-37</td>
<td>1</td>
<td>42BO1060</td>
<td>One bakelite button, 2 holes</td>
</tr>
<tr>
<td>881</td>
<td>2003-FS-38</td>
<td>1</td>
<td>42BO1060</td>
<td>One white milkglass button; 4 holes</td>
</tr>
<tr>
<td>882</td>
<td>2003-FS-39</td>
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<td>42BO1060</td>
<td>One body fragment of a stoneware jar; gray paste, material is hard and slightly porous, with dark brown salt glaze on both the interior and exterior surfaces</td>
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<td>One body fragment of a stoneware jar; gray paste, material is hard and slightly porous, with dark brown salt glaze on both the interior and exterior surfaces</td>
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<td>2003-FS-39</td>
<td>1</td>
<td>42BO1060</td>
<td>One body fragment of a stoneware jar; buff paste, material is hard and slightly porous, with dark brown salt glaze on the exterior surface; interior is unglazed with horizontal striations</td>
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<td>885</td>
<td>2003-FS-39</td>
<td>3</td>
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<td>Three body fragments of a stoneware jar; gray paste, material is hard and slightly porous, with dark brown salt glaze on both the interior and exterior surfaces</td>
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<tr>
<td>886</td>
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<td>42BO1060</td>
<td>One grooved flange fragment from a stemless gray stoneware opium pipe</td>
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<tr>
<td>887</td>
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<td>Five body fragments of a stoneware jar; buff paste, material is hard and slightly porous, with dark brown salt glaze on the exterior surface; interior is unglazed with horizontal striations</td>
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<tr>
<td>888</td>
<td>2003-FS-39</td>
<td>1</td>
<td>42BO1060</td>
<td>One rim/partial shoulder fragment of a stoneware jar; buff paste, material is hard and slightly porous, with dark brown salt glaze on the exterior surface; interior is unglazed with horizontal striations</td>
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<td>889</td>
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<td>42BO1060</td>
<td>Five body fragments of a stoneware jar; two of the fragments have buff paste with dark brown salt glaze on the exterior surface and unglazed interior; 3 of the fragments have grey paste and dark brown salt glaze on both the interior and the exterior</td>
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<td>893</td>
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<td>Seven body fragments of a stoneware jar; grey paste, material is hard and slightly porous, with dark brown salt glaze on both the exterior and interior surfaces</td>
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<td>Three body fragments of a stoneware jar; two of the fragments have buff paste with dark brown salt glaze on the exterior surface and unglazed interior; one of the fragments has grey paste and dark brown salt glaze on both the interior and the exterior</td>
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<td>N/A</td>
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APPENDIX D

Table of All Sites in Park and BLM Project
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<th>No.</th>
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<th>Comments</th>
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<td>1</td>
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<td>FFT1 (#13)</td>
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<td>D &amp; E</td>
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Table D.1. All Known Archaeological Sites Identified in Association with the Golden Spike National Historic Site

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<th>Comments</th>
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<td>Exact location of this site is unknown although it appears in an 1869 A.J. Russell photograph. Evidence on the ground is lacking because of extensive sheet erosion in the area during the first part of the 20th Century.</td>
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<td>R</td>
<td>SAGE 2003</td>
<td>Identified by SAGE 2003 - Private Lands Within the GOSP Authorized Boundary</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Date from August 21, 2006

Site Type:  H = Historic  P = Prehistoric  M = Multi-Component  U = Unknown
Site Status:  R = Recorded  N = Not Recorded  L = Located  U = Unknown

* No. 66-68: Site identification correlations are tentative
** 2002 Addendum
APPENDIX E

Cultural Reports Previously Completed for the Golden Spike National Historic Site
Ayers, James E.

Giles, Ralph B., and Dawn A. Frost

Homstad, Carla, Janene Caywood, and Peggy Nelson.

Weymouth, Heather M., and Don Southworth

Weymouth, Heather M., Sandy Chynoweth Pagano, and Angela L. Garrison

Weymouth, Heather M., Sandy Chynoweth Pagano, Andrew Williamson, and Angela L. Garrison