Historic preservation projects, frequently subjected to one of the smallest budgets in any state economic plan, are often halted in lieu of grander, more noticeable opportunities. In recent years, many states have sought new, innovative ways to produce revenue to fund their historic preservation programs and projects. One of the most popular and profitable means of revenue has been limited stakes gambling. Several states have passed legislation allowing gaming into small communities on the premise that it will fund the restoration of local historic fabric, benefit statewide preservation projects and supplement statewide issues. Both South Dakota and Colorado boast seemingly successful gaming and preservation alliances, but at what cost? Is gaming truly a viable solution for funding preservation?

In the fall of 1990, Colorado voters approved the citizen-initiated measure known as Amendment 4, an amendment to the state constitution legalizing limited-stakes gambling in the three historic mining towns of Central City, Black Hawk, and Cripple Creek. The initiative began as a method of generating revenue for the economically depressed communities. The amendment proposed funding specifically for the historic preservation of the three communities, with a percentage of the gaming profits being collected for the State Historical Fund.

The original vision of the communities and city leaders was to continue regular business and have a few slot machines and a blackjack tables in the back of their establishment. The towns planned to limit gambling licenses in the historic districts, allowing slot machines, poker and, blackjack tables only, and require that new construction be consistent with the style of the town. The newly formed “State Historic Fund” managed by the Colorado Historical Society and State Historic Preservation Office was set up to allow money to be allocated strictly for historic preservation throughout the state by way of grants.

City leaders and residents of the towns felt that without gambling their communities would become ghost towns, while preservationists felt that the legalization of gambling would destroy the historic character and soul of the towns. The towns, originally built on mining, had managed to sustain themselves on tourism, and in the process began the struggle to redefine themselves and their future. The city leaders wanted gambling to enhance tourism, not become an industry, but that balance became more difficult to maintain than they had imagined.

Gambling continued on pg. 11)
Have you missed receiving the ASHP Journal? We hope that our loyal readers have, but at the same time we hope that you will accept our many apologies that it has not been delivered to you over the past year. Like a relay race, the ASHP Journal baton is passed from year to year and editor to editor. Unfortunately, our hand-off faltered during the 2002-2003 school year. Though the Journal did not fall by the wayside, it did not get to the point where we could publish it. Therefore, the Journal that you now hold in your hands is the product of at least a year’s worth of writing, editing, and polishing; and the efforts of many ASHP members. As the new ASHP President and Journal Editor, I hope that you will enjoy reading this issue after its long absence. It is also my intent that you will be receiving another issue by the time this school year is over as the Journal resumes its regular schedule. ASHP has strong leadership this year that is committed to seeing the organization succeed. With your continuing support and readership we are sure that we will have the inspiration to keep our publication on track and running at the front of the pack.

The ASHP Journal is a publication of the Associated Students for Historic Preservation; Suite 4, EMU; University of Oregon; Eugene, Oregon, 97403. E-mail: charvey1@darkwing.uoregon.edu. We actively seek articles and photos related to the discipline of historic preservation. Submissions should be sent to Caitlin Harvey, editor, care of the address or e-mail above.

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**A one-room rural schoolhouse in Clatsop County, Oregon**

By Rebecca Nielson

In my mother’s backyard, tucked against a hillside of tall second-growth fir trees overlooking a farming valley, sits an empty one room schoolhouse. Though awkward additions jut from several sides, much of its historic fabric remains and the century old wood is still strong. I took four months to research the Sylvandale School, one of the last extant one-room schoolhouses in Clatsop County, and learned a lot about a building that I had ignored for decades.

The first public school in Oregon was built in 1849 and by the mid-1870s there were 750 school districts in the state and 26,000 pupils attending public schools. Schools were in session about one-third of the year. (Almack, History of Oregon Normal Schools)

Though there was controversy throughout most of the state about public and private schools, Clatsop County’s largest city, Astoria, supported public schools from the beginning. Some scholars attribute this to its population having come from the northern and western states. Others note the strong immigrant population from Scandinavia that was strongly supportive of public education.

An 1873 newspaper article called Astoria schools "well supplied," continuing that "we doubt if any common school in Oregon is better supplied". (Cleveland, The Education History of Astoria) This rosy report is in direct contradiction with quotes from the first Oregon school Superintendent, Sylvester Simpson, who in 1874 said the "condition of the schoolhouse is bad. Schoolhouses are of inferior construction and built upon the most barren and unsightly spot in the neighborhood. Some of our schoolhouses are so dilapidated and befouled with obscene pictures and words that they are hardly fit for decent people to enter" (PSH Quarterly, vol. 21)

With the great influx of population in 1875, there was more money from the state and county for schools. In 1890 there were only eight cities in the state with a population exceeding 2500, one being Astoria. The small rural communities surrounding Astoria may have received some of the bounty from the increased county and state revenues. In addition, Oregon’s lumber industry supplied 20% of the nation’s harvestable timber in 1909. This brought in wood workers and carpenters who contributed to the construction of wooden schoolhouses.

The majority of Clatsop County one-room rural schoolhouses were built from 1885-1905. This was the heyday of one-room schools and Oregon students enjoyed a high academic standing; placing 13th nationally in 1890. (County School Systems of Oregon: Salem, Oregon) Though one-room schools still made up 72% of all schools in 1928, there was a steady decrease in their numbers. With only a few students, country schools spent more to educate students than their city counterparts.

(continued on page 3)

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“The physician can bury his mistakes, but the architect can only advise his client to plant vines.”

-Frank Lloyd Wright
Small schools closed and students were consolidated into larger, newer schools. Many of the old buildings were demolished or left to decay.

Historic photographs show a degree of similarity in rural Clatsop County school buildings from 1880-1900. They roughly follow the plan of a large rectangle with a front vestibule and, in many cases, a steeple. The styles vary greatly from simple log, to board and batten, to Italianate.

Sylvandale School is a rectangular building with three windows on each side and a hipped roof. The center vestibule, which was used as a coatroom, was entered through double doors. Above these is a transom and a full pediment pierced by a lunette vent in the gable. Rough sawn timbers, thirty-five feet long, run the length of the foundation, while horizontal weatherboard clads the building's exterior. A carpenter Gothic porch was added sometime during its first decade.

The Greek Revival style was thought to be a good style for school buildings and is generally found in Oregon buildings from the 1850s-1870s. Yet this circa 1900 schoolhouse exhibits simplified vernacular elements of this style, including a low pitched hipped roof, a main roof cornice line and porch emphasized with a wide band of trim representing a classical entablature, a traditional classical pediment above the entry porch, a front door with transom, and elaborate door and window surrounds.

Another explanation for the classic detailing lies in the Finnish makeup of the community. Almost all of families in the area at the time were of Finnish descent and came from the area near Oulu in Finland. This area has a strong tradition of vernacular architecture with classic detailing. The coved ceilings on the school's interior are also typical of the "cave" of wood favored by the churches in the Oulu area.

Through pictures, stories, newspaper articles and historic documents I have pieced together a bit of history concerning the life of and changes in the Sylvandale School building. In 1869, the land on which the school stands was purchased in Oregon City by John Davis. The purchase was for 80 acres, recorded April 8, 1872. School District #9 was established by 1898. The deed giving over one acre of land and granting road access from John Davis was recorded in October. Sylvandale School construction took place between 1899-1900. Classes began in the nearby home of Ed Wilman before the school was built. School Superintendent Lyman listed Blind Slough District #9 as up and running and in A-one condition in December 1901.

An original photo of what is believed to be opening day of the school shows no porch, a chimney on the north side, a flagpole, and no hawthorn tree. A carpenter Gothic full width porch was added between 1909-1911. Student, Oney Oja (my grandfather), born in 1902, appears to be about 7-9 years old in a photo showing him standing on the porch.

An October 2nd newspaper article in 1915, chronicles graduation at the school, the students and their program. "District No. 9 has attained an enviable reputation for the beauty of the grounds surrounding the school building. These are neatly laid out and ornamented with trees, shrubs and flowers, while a gravity water system has been installed and aids materially in improving the sanitary condition of the premises. The district has recently installed some new playground apparatus, the expense being met by an entertainment given by the young people of the Blind Slough."

After 1928, consolidation was becoming an increasingly viable threat. Local families helped delay the action, but in 1939, Sylvandale School consolidated with Knappa School and a farewell picnic was held for the last class. In the early 1940's, the school building was purchased by the Assembly of God church. The pastor, his wife and children lived in the building and held services there. Additional living quarters were added upstairs and in wings to the south and east. The existing design of wallpaper and linoleum are consistent with this era. Upstairs bedrooms were wedged into the attic and wood casement windows were added. A partition on the main floor was also added to stabilize the upstairs walls and block off the kitchen. A wood stove for cooking was piped into the chimney, now on the east side. The north side interior addition of a small stage was probably added at this time as well. Sometime between 1947-1989, it was purchased and lived in by local fisherman and in 1989 it was purchased by my family.

The Sylvandale School is an excellent example of a Clatsop County rural one-room schoolhouse from the turn of the century. It has a high degree of historic fabric, and is one of the few, if not only, of its kind in the county and the state. A new roof, gutter system and paint job are minimum requirements for its continued preservation. It tells a story of its time and place and is worthy of preservation.
Pressed Metal Ceilings
By Jessica Engeman and Rachel Force

Architectural critic Ada Louise Huxtable wrote that the popularity of what she called "substitute gimcrackery" in the last half of the nineteenth century was "fueled by the American desire to find ways of doing things that were cheap, quick, and easy." Various types of "substitute gimcrackery"-imitative building and decorative materials-became popular due to technological advances. These products were distributed by improved systems of mass transportation and their demand was often sparked by the emergence of large-scale advertising. Among many materials such as concrete block and linoleum, pressed metal ceilings illustrate the influence of new technology on popular culture.

The pressed metal ceiling is often incorrectly called a "tin ceiling." These ceilings were first made from rolled sheet iron and later sheet steel. Some were galvanized with zinc, especially when used outdoors. Only one or two companies actually coated the ceiling pieces with tin.

The sheet metal ceiling appeared on the scene as early as 1868. Like its roofing counterpart, it began as a simple, utilitarian product. Gilbert Patent Corrugated Iron Arched Ceilings produced the earliest known metal ceilings. These structural, unadorned, galvanized iron ceilings were used in prisons and factories and the like.

Architects and critics did not immediately accept stamped metal as a building material. The Kittredge Cornice and Ornament Company built an elaborate pavilion out of sheet metal for the 1876 Centennial Exposition in Philadelphia as a means of promoting this new technology. Many critics condemned decorative sheet metal as a cheap imitation of carved stone, decorative plaster, and other more expensive materials. Probably for this very reason building owners began purchasing it - as an affordable alternative to handcrafted materials. During a time period when decoration was important on both the interior and exterior of buildings, buying mass-produced, sheet-metal ornament became a viable alternative for people who wanted style without the expense.

By the mid-1890s, metal ceilings and ornament were considered an acceptable material. Their size, shape, and construction had become standardized. Several manufacturers were now making the ceilings, and articles that frequently appeared in architecture and trade publications helped to further propel their popularity and use.

By the early twentieth century, metal ceilings had evolved into a very ornate decorative element stamped in steel. These ceilings were promoted as being fire-resistant, lightweight, inexpensive, and easy to install. They were installed primarily in commercial, industrial, and institutional buildings, and were particularly recommended for bathrooms, kitchens, and hospitals because they were considered sanitary. Other decorative elements such as cornices, medallions, and moldings were also available. After wood and plaster, pressed metal ceilings were the most popular ceiling material at the turn of the century. They remained popular until about 1925.

Pressed ceilings, walls, and ornament were made from very thin sheets of metal, less than one sixty-fourth of an inch thick. Panels were individually hammered out on rope drop hammer presses. To emboss the sheet metal with a design, it was placed on the die, or stamp, fastened to the bed of the press. By releasing a three-inch diameter rope, the operator dropped a giant hammer on the die to produce the decorative panel.

The repetition of a single pattern is the main characteristic of stamped metal ceiling and wall panels. In the early days of production, patterns were few and fairly simple, with flat, shallow embossing. As the industry progressed, more patterns were offered. Their designs were more complex and the stamping became deeper-up to three inches deep for some ceiling panels.

These patterns were illustrated in the manufacturers' trade catalogues. Following the fashions of the day, companies often grouped them according to style-Classical, Greek, Roman, Rococo, Colonial, Gothic, Renaissance, Romanesque, Empire, Oriental, and so forth. Patterns were organized according to the material they imitated, such as stucco and brick. Companies sold new designs along with old ones in the same catalogue. Creating the die itself was an expensive part of the manufacturing process and companies did not discard them from their inventory.

Between 1890 and 1930, some forty-five companies in the United States marketed metal ceilings. All were located along rail lines that served as vital arteries for getting the pressed metal products directly to contractors and, more especially, to the small "tin shops" that accounted for most of the orders and installation work. The production of most factories was too great to be absorbed locally, and these manufacturers relied on catalogues and advertisements to attract customers from all over the country.

Metal ornament was meant to blend with or imitate more traditional building materials. The ceilings were painted (continued on page 10)
Chrome: An Architectural Metal
By Rebecca Nielsen

No other non-precious metal reflects quite as brightly in the collective American psyche as chrome. A quick check of any database will reveal poetry, fiction, songs, bands, and computer software usurping the name of the bright coating known to the pocket-protector set as decorative chromium or chromeplate.

What gives this auto-industry icon its universal sex appeal is its associations and usage not its metallic make-up. However, it is the make-up that recommends it for its practical purposes. The metal commonly known as chrome gets its name from the silvery white metallic element called chromium. It is hard and brittle and can be very shiny. Its brilliance gives it popular appeal and its resistance to corrosion makes it highly desirable for construction and engineering.

There are at least three types of chrome: decorative chrome, black chrome, and hard chrome. Black chrome and hard chrome are used industrially. Black chrome is used for military purposes where a hard but non-reflective coating is desirable. Hard chrome has a lower friction co-efficient than any other metal, and is used for aircraft molds, cutting tools, and shafts. The projectiles in World War I were one of the first industrial uses of chromium plating.

It took over a century for the reflective glow of shiny or decorative chromium to catch the eye of designers. It was first used commercially in furniture and alloys in 1925, though it was discovered in 1798. Vauquelin, a French chemist, is credited for smelting chrome ironstone and getting chromium.

Chromium, along with aluminum, nickel, cadmium, terne metal chromium, lead and zinc are used as steel coatings in the architecture field. A chromium and iron alloy is often referred to as chromium steel. Stainless steel is iron alloyed with chromium and nickel. The strongest stainless steel can be up to 18% chromium. Adding more than 12% chromium to steel makes it almost totally resistant to corrosion.

There are six different procedures for placing metallic coatings on steel. They include: hot dip, thermal spraying, electroplating, a cladding process, a cementation process and a fusion welding process. Electroplating is one of the most common, and this is the method used for applying chromium.

Any coating on metal will help to keep it from reverting to its natural state, as it is wont to do. Metallic coatings however can add additional protection. If the coating is less noble than the base metal, it protects by sacrificing itself and corroding first. If the coating is more noble than the base, then it protects by making a neutral environment. Chromium belongs in this second category, making it cathodic. It is the second most common surface covering after nickel.

Electroplating is a method of covering an article with a thin coat of metal. Plating is also called electrodeposition. Two metals are placed in a solution through which an electric current passes. This releases ions (charged metal particles) into the solution. They pass from the positive terminal through the electrolyte solution and the positive ions become deposited on the negative terminal.

The surface of the metal must be absolutely clean before plating. This will give the smoothest, brightest surface with the least amount of polishing needed. This may require electrocleaning to remove all dirt and grease, and electrostripping to remove any metal deposits. Electrostripping is used to remove old plating when a piece is being restored and replated. Chromium is usually plated over nickel or a copper-nickel base. It can also provide a good corrosion-resistant film directly over stainless steel, nickel-silver or Monel, but should never coat brass or silver. Chromium over zinc will look good, but the plating will quickly lift off.

Electroplating is not a do-it-yourself activity. It is a difficult and dangerous. Prolonged exposure to the fumes from plating can cause cancer. Waste from the process must be disposed of in an environmentally safe manner.

As mentioned previously, decorative chrome plating was first used commercially around 1925 and was an immediate success. It was debuted at the Exposition des Arts Decoratifs et Industriel Moderne in Paris, the event which became the birth of the style known as Art Deco. Art Deco was striving to be modern and find a style that would complement the machine age. It was post-WWI and design was working with the new alliances formed between manufacturing, government, business, design and labor. This integration of art and technology was the springboard for another short-lived design philosophy called Bauhaus. The exposition in Barcelona in 1929 featured these ideas and more chrome.

Chrome fit well into the industrialized look, which chose to emphasize material instead of ornamentation. It had durability, shine, and it could be mass-produced. One of its first applications was in coating tubular steel furniture. It was hard to imagine anything better than chromium steel in an age that delighted in impersonal art and simplified elegance. In 5 years furniture design shifted from woods to polished chrome.

There are two facets of Art Deco style: zigzag and streamlined. Streamlined, later called Moderne, focused on forms such as smooth walls, rounded edges, and circular windows. This look was forward moving. Mired in the Depression of the 30s, Americans embraced the progressive ideas (Fairbanks, pg. 494). Radio City Music Hall opened in December of 1932 with the sparkle of chrome as well as

(continued on page 9)
What We Did This Summer… From the Editor

Students in the University of Oregon Historic Preservation Program are required to complete one internship or training practicum, normally undertaken in the summer between their first and second years of enrollment. This past summer was a wealth of learning experiences and practical lessons in the field for many of our current students. Here is a sampling of some of the internships recently undertaken:

Heather Goodson, Shannon Bell, and Jeb Weinstein traveled to Alaska to intern at the National Parks Service Regional Office in Anchorage. Heather wrote Historic Structures Reports for the General Manager’s Office, the Recreation Hall, and the New Blackburn School at Kennecott, Alaska. Shannon and Jeb worked in the field at Wrangell-St. Elias National Park and Preserve documenting an aerial tramway that was part of the Kennicott Copper Mining operations between 1908 and 1936.

The Channel Islands National Park off the coast of Southern California was the site of another internship. Ben Carlson worked on a variety of projects related to the restoration and rehabilitation of the islands’ historic structures, which include lighthouses, WWII-era military installations, and ranch complexes. He took part in small construction projects, the restoration of a historic corral complex, building and landscaping documentation, architectural design proposals, and condition assessments.

Jessica Engeman worked in Yosemite National Park as the Heritage Preservation Department Intern. She performed archival research and field documentation of historic and cultural resources associated with the Half Dome Trail. She also completed a cultural landscape plan with preservation recommendations for the Yosemite Valley Historic District housing area, as well as taking part in hands-on masonry repair of the Pohono Bridge.

Back in Eugene, Rachel Force spent the summer with the City of Eugene Planning Department as the Assistant Preservation Planner. She processed city landmark applications, performed analysis of housing stock around the downtown core, and contributed to a local preservation newsletter.

Acting as Historic Preservation Intern, Vida Germano worked at the Chico Heritage Association in Chico, CA documenting a historic farmstead and preparing a National Register nomination for an 1852 farmhouse on the site. She worked extensively with the SHPO in Sacramento to document the building, which is scheduled to be relocated, and made progress toward saving it from demolition.

Caitlin Harvey spent the summer at Mission Mill Museum in Salem, OR writing a disaster plan for the site. She dealt with a collection of historic buildings, including an 1890’s woolen mill and houses belonging to the Methodist missionaries that first settled the Salem area.

The disaster plan involved analyzing natural and man-made disasters that might effect the site and addressing all aspects of disaster response, from evacuation of museum visitors to salvage and restoration of archives, artifacts and historic structures.

The Preservation Alliance of Minnesota had Allison Dahlin as their Historic Preservation Intern. She created a preservation resource directory, which included a comprehensive list of local preservation-related providers, vendors, craftspeople, and artisans.

Jamie Gaffke and Earen Russell worked alongside preservation carpenter Allen Nelson to rehabilitate the Wigle House in Albany, OR. The house is an 1865 Classical Revival farmhouse, and offered the opportunity to learn how to repair historic windows, doors, door hardware, siding, and floors. The owner will enjoy a house that has had its historic character returned and is ultimately more livable.

Earen also collaborated with Wiss, Janey & Elsner Architects of Seattle, WA to write a cultural landscape report for the Wolf Creek tavern in Wolf Creek, OR. She did fieldwork to identify and analyze the existing historic landscape features, researched the evolution of the property, assessed the condition of the present site, and made recommendations for the treatment of landscape features with sensitivity to the 1926-1945 period of significance.

In San Francisco, Carin Peterson joined Carey and Company Architecture, a firm devoted exclusively to preservation, restoration, and adaptive reuse. She worked with preservation architects, conservators, historians, and planners on projects that ranged from creating measured drawings to performing environmental impact surveys and systematic designs for reuse. Some of the firm’s current projects include the Palace of Fine Arts, Point Cabrillo Light and Keeper’s houses, and Stanford University’s Jordan Hall.

Chris Bell spent the summer in the Adirondack Mountains at Camp Santanoni conducting preservation on the camp’s historic buildings. This included log repair, rebanking buildings, and general restoration of historic wood fabric. He also helped to interpret the site for visitors and did some historical research.

Earen Russell and other students worked with alumnus Dave Pinyerd and his company, Historic Preservation Northwest, Inc. They performed Section 106 reviews for cellular tower installations throughout the Willamette Valley. This included field work, historic resource surveying, analysis of historic structures, and report writing.
**Half Dome Trail**  
By Jessica Engeman

Entering the heart of Yosemite Valley visitors are awestruck by the granite face of Half Dome towering 4,000 feet above the valley floor. The 9-mile hike to the top is one of the most challenging and by far the most popular in the park. It has received continuous maintenance, though never with a preservation approach. Additionally, formal interpretation of the trail in the form of wayside signs or panels is also lacking. The Historic Preservation Department at Yosemite was awarded a grant by the Yosemite Fund to document the trail’s historical features, establish key findings to be considered in future treatment of the trail, and to propose options for public interpretation of this important resource.

Jessica Engeman, a graduate student in the Historic Preservation and Community & Regional Planning Programs, completed this project during her internship at the park in summer 2003. The following are highlights from the research and fieldwork she presented to the park in a document entitled "George Anderson’s 1875 Ascent of Half Dome and the Building of the Half Dome Trail."

In 1869, prominent geologist Josiah Whitney declared Half Dome to be "perfectly inaccessible, being probably the only one of all the prominent point about the Yosemite which never has been, and never will be, trodden by human foot." However, this proclamation came on the eve of a decade that saw the birth of modern rock-climbing in America, with many of the most dramatic climbs happening in and around Yosemite. It was an era still fueled by Manifest Destiny and a desire to conquer the western frontier and its seemingly inaccessible summits. For some climbers, like the men working on the California Geological Survey in the 1860s, these ascents were opportunities to gather scientific knowledge. For others, climbing simply fulfilled a powerful desire to explore this wild and awe-inspiring landscape.

By 1874 most of the prominent peaks lining Yosemite Valley had been explored. Only Half Dome, with its sheer vertical face and precipitous sloping back, had not been conquered, making it an irresistible attraction for early climbers in Yosemite. However, the problem Half Dome presented was unique in North American climbing history up to that time: the bare granite had a smoothness unlike any other mountain previously scaled. While the curve of the eastern side stood at an angle of only forty-six degrees, the lack of secure foot- and handholds still meant it was too steep for unaided climbing.

Many known attempts were made to reach Half Dome’s summit before George C. Anderson succeeded in 1875. Born in Scotland in 1838, Anderson got his start in climbing as a sailor scaling tall ship masts. He was most likely drawn away from his life at sea and into the mountains by the prospect of striking gold in the Sierras. Anderson was described as "a brawny, powerful man with tattooed arms."

Anderson began his ascent of Half Dome with a rope attached by bolts driven into fissures in the granite left behind after an attempt by John Conway and his sons in 1873. He climbed for several hundred feet, but soon encountered the large overlapping granite shingles "as smooth as glass". Anderson realized that in order to continue, bolts or pins would have to be drilled in the granite. He hauled a forge to the base of the dome and fashioned his own iron eyebolts.

Whenever possible Anderson free-climbed, but when he could climb no farther, he would reach as far as he could and drill a six-inch hole into which he drove an iron eyebolt. This drilling was done using a chisel-like tool that was turned by hand and struck with a hammer to dislodge the rock. Each eyebolt was a half-inch in diameter and stuck out approximately two inches from the rock. Anderson then fastened his rope through the ring-shaped end of the bolt. The greatest challenge arose in pulling himself up onto the bolt, balancing on its protruding ring while drilling the next hole. He continued this painstaking process for approximately 450 feet up the side of the Dome.

It is not known how long it took Anderson to reach the top, but historians estimate about one month. The most time-consuming aspects of this feat were the making of the eyebolts and rope, as well as the constant resharpening of tools. Nonetheless, Anderson reach Half Dome’s summit on October 12, 1875 at 3:00 PM. What he found was a ten-acre bald granite crest practically barren except for a few wildflowers, some shrubs and pine trees, and of course, the breathtaking view of the valley below.

Anderson’s ascent was especially noteworthy for two reasons: First, no one climbed Half Dome unaided by Anderson’s skein of fixed ropes and bolts until 1931; and second, this climb marked the debut of extensive bolt placements in the American climbing scene.

Anderson hope to one-day build a staircase to the summit of the dome and a hotel on the "saddle" or lower dome. The Yosemite Board of Commissioners also recognized the need to improve public accessibility to the dome and in 1882 they requested that two thousand dollars be set aside for the construction of a "safe flight of steps up the rock, with balusters on the side and fenders to protect the structure against danger from snow-slides in winter." However, neither the staircase nor the hotel was ever built and visitors continued to make the climb using Anderson’s rope system.

In the early 1900s, David Curry-proprietor of Curry Village-advertised the ascent to draw more tourists to Yosemite Valley. Some of these hikers made the climb as part of outings with the Sierra Club. Around 1910, the Sierra Club supplied funds for a new single cable to the top. In 1919, the club paid for the construction of the Half Dome Trail, which included a series of granite steps over the lower dome and a double handrail of steel cables to the summit. When the work was complete the Sierra Club turned the trail over to the Park Service for public use.

*(continued on page 10)*
Kennecott Mines Ariel Tramway Documentation

By Jeb Weinstein

This past summer I spent in Alaska performing preservation work for the National Park Service. It was wonderful learning about historic preservation by working on a Historic American Engineering Record (HAER) project and documenting the aerial tramway structures at the Kennecott Mines. Although my time was spent doing measured drawings of the structures, our team of preservationists became very knowledgeable of the terrain and the scope of the overall project of which the tramway is only a part.

The mine is located in the Wrangell-St. Elias National Park, the largest park in North America. The National Park Service purchased much of the property around the small mining town of Kennecott in 1998. Slowly, funding has become available for work on the structures in the mill town and most buildings have been recorded and condition assessments made, although it was just this summer that funds were available for work on the aerial tramway structures. The tramway system includes timber-frame towers, breakovers and stations supporting lengths of wire ropes that carry ore from the mountains into the mill town for processing.

At this point in the project, NPS has focused on prioritizing structures according to decay rates and historic importance. Some structures will be restored, rehabilitated or reconstructed, while others are left to decay. The fate of the tramway has yet to be decided. When the operation at the mine was shut down in 1938, the corporation removed only small amounts of the expensive equipment and much of the remains as it existed in the 1930’s. Surprisingly, much of the tramway system also remains intact, towers and support cables still stand, machinery is greased and ready for a long awaited start up.

Throughout the 12-week internship, I and two other intern architects, Shannon Bell and Kimber Lerwick, worked to fully record the Jumbo Tramway. Due to the mountainous terrain and dense underbrush of the Wrangell Mountains it was only possible to document the Jumbo Tramway, just one of three tramways. The team made two site visits for 6 and 8 days at a time and worked 10 to 14 hours a day, utilizing the time available to the fullest extent.

During the first visit the uppermost portions of the Jumbo Tramway were documented. A small helicopter brought the team and supplies to the top of the Jumbo Mines where remnants of the loading station, first breakover, and bunkhouse lie. From here work progressed down the line. At each site 35mm, digital and Polaroid images were taken and measured drawings completed in order to fully recreate each structure using Auto-CAD at a later time. During this first visit we had unprecedented summer weather. Hot, dry days persisted for much of the week and it was typical to see mountain ranges up to 50 miles away, across the valley.

Work days in the backcountry were long and rewarding. We carried all our gear in heavy packs loaded with cameras, tents and drawing equipment, including a Trimble GPS mapping unit for recording tower locations. Luckily, most of our gear was transported by helicopter, but we still had to manhandle it through dense alder and willows between towers at lower elevations. The backcountry experience in Alaska was a reminder of just how challenging it is to document sites as remote as the tramways in Kennecott.

After this visit the team returned to Anchorage where the long process of redrawing the measurements of each tower began. Every kind of jointing, timber and style of construction was recorded and drawn on the computer. Detail drawings began to take shape as the smaller pieces of the mine system came together. Carts, wheels, timber connections and cables, shoes, gears and pulleys took a few weeks to complete. Also, at this time, some of the first complete drawings of towers and breakovers came to fruition.

The documentation was complete after the second site visit, in which we had fairly typical cloudy, rainy weather. When we returned to the office in Anchorage the pressure was on to finish the HAER drawings before the September 20th deadline. As the drawings were completed more attention was paid to the layout and creation of individual pages in the drawing set. Standard title blocks, scale bars and fonts were selected based on previous HAER and HABS documentation projects at Kennecott. One of the challenges of the project is making sure to illustrate how the mining process worked and how each piece of the system worked with neighboring pieces. It is not enough to simply document individual pieces of a system, for the heart of the project deals with recreating the mining method on paper in such a way that the process is clear to those not familiar with copper mining.

This opportunity with the National Park Service is a wonderful way to see preservation in action. The staff of the Alaska Regional office is a diverse and intelligent community of dedicated enthusiasts who inspire wonder through the various projects they consistently have in their hands. Working in Alaska is a highly recommended chance to learn and practice valuable preservation skills, both old and new, in an amazing landscape. #

Top of the Jumbo Ariel Tramway (Photo by J.Weinstein)
other materials such as Bakelite, mirrors, aluminum and neon lights. This started a rush to do public buildings, especially theaters and movie houses in the new style. The public wanted change and to feel strong and excited about something. Since the design was about progress and motion, power, light, speed, and efficiency, transportation buildings were another natural magnet for Art Deco style. Cars, gas stations, car dealerships, airports, and bus stations followed the trend. When wind tunnel research revealed that the teardrop shape decreased wind resistance, this form transformed everything from toasters and coffeepots to airstream trailers.

Architecturally, the on-the-go look manifested itself in horizontal stringcourses. A recent redesign of Chicago Union Station includes these “speed stripes”. Chrome-plated gates, doors and railings were also common features. When it was discovered that plating wore away in high traffic areas such as entrances and lobbies, chrome appeared mostly as accents.

It was my great pleasure to have the opportunity to take part in a recent class trip to Harriman Ranch State Park in Idaho. Lead by our program’s own Don Peting, six of the second-year class members went on a week-long trip to conduct a survey of the ranch buildings that were left to the State of Idaho by the Harriman family, a notable railroad influence in the early half of the 1900’s.

Consisting of vacation cabins, barns, and other buildings, the ranch was a dichotomy of work and play for the Harrimans, their friends, and employees. We found it much the same during our stay, even without taking time to experience the world renowned flyfishing on the Henry’s Fork of the Snake River just outside our dormitory door. From attics to crawlspaces, we took a whirlwind account of the rich historic fabric on the ranch property and even managed to get a peek at Old Faithful Lodge, Fort Yellowstone, and a few bison at nearby Yellowstone National Park. The pictures below are only a cursory glimpse at the amazing landscape and intriguing buildings that we were fortunate enough to work in over that week, but I hope you will appreciate them nonetheless.
(Half Dome Trail continued)

In 1919, the Sierra Club also installed a wooden arch on stone piers at the base of the granite steps to commemorate Anderson’s ascent. Only the retaining wall, steps, and arch piers remain today and the original granite steps on the lower dome have almost been entirely replaced.

The Half Dome Trail is significant as one of the earliest trails to a Yosemite Valley high mountain summit and as one of the most difficult trail-building projects in the park. It opened an inaccessible mountain peak to Yosemite visitors and became a principal point of interest for hiking and climbing enthusiasts all over the world. Though the climbing technique used with the double cable system is not much different from the use of a single rope or cable, this new system provided the average hiker a safer and more comfortable trip up the dome. The cable system can be likened to that of a gangplank on a steam ship. The metal posts are set into sockets drilled in the granite every ten feet. At intervals of one hundred feet, heavy chains are bolted into the rock to help strengthen the cables, and wooden footrests are place at ten-foot intervals on the slope.

The recommendations section of the Half Dome research project focused on the stabilization and preservation of the remaining features on the trail, and specifically the Anderson Memorial Arch. The major masonry pieces that comprised the retaining wall, steps, and piers still exist in the original locations, though the mortar on the piers is no longer intact and the pieces have been roughly stacked to suggest their original form. Some smaller pieces are missing, but can be reconstructed based on historic photographs. The preservation of the arch is now considered a high priority, because this cultural feature acts as an important historical marker and a gateway to the most dramatic portion of the Half Dome climb.

(Pressed Metal continued)

On the Half Dome trail. (Photo by J. Engeman)

the same colors as plaster and wood ceilings depending on the architectural style and fashions of the period. Many colors were not recommended, nor was the use of gold, silver, or bronze. Panels often came from the factory with a coat of primer such as white lead or iron oxide. Manufacturers understood that unprotected pieces would deteriorate. White glossy oil paint was recommended for kitchens and bathrooms with humid environments. Customers were discouraged, as they are today, from using calcimine and water-based paints because they promote rust. Installation of a pressed metal ceiling was relatively easy and inexpensive, partly due to the fact that highly skilled workers were not needed. Because the metal panels do not easily attach to plaster, they were nailed to a grid of wood furring strips.

Judging by their high survival rate, metal ceilings have performed well during their century of existence. Rust is the main enemy of the metal ceiling made of iron or steel. The rust that forms on iron and its alloys is highly corrosive. It is a porous substance that allows each layer of the metal to oxidize and ultimately destroys it entirely. Corrosion occurs rapidly on thin sheet metal, resulting in a reduction of the object’s strength and usefulness.

If slight rusting has occurred on a metal ceiling and damage is not extensive, it can be cleaned by hand scraping, sandblasting, or with chemical rust and paint removers. Oil-based paint or other coatings must also be applied to prevent further corrosion. In the process of cleaning the metal and preparing it for paint, an analysis could be conducted to determine the historic paint colors and perhaps reveal interesting details about the historical treatment of these ceilings.

If complete replacement of all or part of the ceiling is necessary, several companies still use original machinery to produce pressed metal ceilings and decorative pieces. The W. F. Norman Company in Nevada, Missouri still operates out of its original factory, using drop hammers to create metal pieces in the same 140 patterns and architectural styles that they were producing at the turn of the century. While product quality is better controlled using the old hammers, some companies now use hydraulic presses. If a particular pattern or style cannot be found, there are companies that will create fiberglass replacement pieces or create a new die if a large quantity must be reproduced.
As stated in the amendment, limited gaming was only to be conducted in buildings that met the guidelines of the 1989 Uniform Building Code. Consequently, each building had to be remodeled to not only pass code requirements, but also to structurally accommodate the heavy load of slot machines. The amendment also resulted in some extreme actions. Structures that were determined too expensive to stabilize or too small to adequately provide a casino environment were simply demolished. In numerous cases, a “facadectomy” occurred in which the original historical façade was restored, but the side and rear walls were demolished and then reconstructed to encompass more square footage than the original building ever had. In addition, many original interiors were significantly altered or destroyed to accommodate the new layout requirements of a casino.

Owners of historic structures were encouraged to retain their original businesses and an attempt was made at preventing them from filling their buildings with gaming devices by limiting gaming square footage to 35 percent of the building footprint. The result was a creative manipulation of the rules by casino owners combined with a very loose interpretation from the gaming commission, ultimately allowing for entire floors full of gaming devices.

Architectural style has become the most loosely interpreted section of the amendment. The architectural style of Black Hawk and Central City was to conform to a style common in those areas prior to World War I. However, the amendment gives the individual governing bodies the power to determine the styles. In the early stages of gaming, both Central City and Black Hawk utilized the expertise of the State Historic Preservation Office (SHPO) in an attempt to retain their historical fabric. Over time, however, the casino developers and Gaming Commission stopped seeking the advice of the SHPO.

The three thematic zones established in Black Hawk have provided the groundwork for the Black Hawk City Council to allow Vegas-style casinos constructed of incompatible materials and completely out of scale with historic buildings. In the Mill District, the Colorado Central Station Casino tops out at almost 50,000 square feet, and has a large masonry smokestack made to resemble the mills that once lined Clear Creek. Bowing to the casino industry, the Black Hawk City Council interpreted compatible new construction to mean immensely scaled mills, railroad stations, and mineshafts.

In the eleven years since the inception of gaming, Black Hawk and Central City have undergone drastic changes in their make-up, style, and atmosphere. These changes have altered the towns’ way of life and historic fabric for better and for worse. Gaming was only intended to supplement and revitalize the tourist economy, but eleven years later, gaming has become a central focus, especially in Black Hawk.

Due to the demolition of historic structures, alteration of historic fabric, considerable development, and incompatible new construction in the towns, the National Park Service put the three gaming communities on their list of most endangered historic landmarks less than one-year after gaming began. For the first time in their history, the historic communities are in danger of being de-listed from the National Register of Historic Places.

Property values doubled, and in some cases tripled, after the amendment passed. Almost immediately, the increased property values began to have a negative effect on local businesses. Only two gas stations existed in Gilpin County prior to gaming, and within the first few months of legalized gambling those establishments were converted into casinos. By 1998, Colorado Preservation Inc., a non-profit preservation organization, listed Black Hawk on their annual list of “Colorado’s Most Endangered Places”.

Many original residents have now relocated, and those that remain continually struggle with availability and access to basic services such as grocery stores and gas stations. Housing for casino employees and their families is non-existent, forcing them to drive long distances on windy canyon roads to get to work. Crime, violence, and drunk driving arrests have increased substantially and traffic jams and accidents are a daily hazard.

On the other hand, the casino industry brings in over $10 billion dollars per-year to the state of Colorado. Casinos have created over 6,500 jobs in the affected communities and gaming taxes have paid for parks, open space, state troopers, and the rebuilding of the towns’ public utilities and infrastructure. In addition, gambling has contributed millions of dollars to the statewide Historic Preservation program. The State Historical Fund, has received $141 million since 1991 in tax revenue, issuing 1,873 grants statewide since 1992. Money returned directly to the communities for preservation has helped restore homes, municipal buildings, and churches in need of stabilization, roofing, and general maintenance.

Gambling is one of the fastest growing industries in America. Many small communities are looking to the gaming industry to revive their communities and economies, but residents of communities in which gaming has been legalized, especially small historic communities, are beginning to question the economic benefits of gaming verses the quality-of-life issues that often result. Issues such as land use, development, and preservation of historic resources are coming to the forefront as local businesses and residents begin to compete with large-scale casino operations (Chadbourne, Walker, Wolfe, 1997). Preservation enhances the livability and viability of a community, and the goals of historic preservation are achievable and maintainable with planning and consideration for the town’s historic fabric, even within the high demands created by a new and growing industry.
www.recentpast.org - An Important Website for Open-Minded Preservationists
By Rachel Force

In one of my preservation classes a fellow student remarked on the ugliness of WalMart stores. Many of us in the preservation field are probably of a similar mind; that older is better and certainly prettier. But how dangerous this attitude is. In another class I am learning that Second Empire Baroque style buildings, of which the U of O’s beloved Deady and Villard Halls are both examples, have barely escaped extinction after falling out of favor in the years following the style’s popularity. Sadly, it is safe to say that architecture we collectively find abominable today will be some preservationist’s cause celeb in another 50 years. Imagine people chaining themselves to 100-year-old WalMart stores, facing down the wreaking ball. No! My artistic sensibilities cannot take this. Surely big box buildings are not equivalent in any way to mansard roofs and oversized bracketed cornices. Well, a visit to www.recentpast.org has shown me the light. I may have looked at the threatened buildings on the webpage with distaste, but I could not ignore the reality that taste is relative. Someone likes them, someone liked the designs well enough to pay to have them built, and someone is trying to make sure they aren’t lost to history. It is easy to dismiss things we dislike, but thankfully we can’t entirely, or else no single building would still be standing. There is no universal “good” design...unfortunately. #