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Volume XXIV Summer 1981 Number 2

NEVADA HISTORICAL SOCIETY QUARTERLY

The *Quarterly* solicits contributions of scholarly or popular interest dealing with the following subjects: the general (e.g., the political, social, economic, constitutional) or the natural history of Nevada and the Great Basin; the literature, languages, anthropology, and archaeology of these areas; reprints of historic documents (concerning people, flora, fauna, historical or archaeological sites); reviews and essays concerning the historical literature of Nevada, the Great Basin, and the West.

Prospective authors should send their work to The Editor, *Nevada Historical Society Quarterly*, 1555 E. Flamingo, #238, Las Vegas, Nevada, 89109. Papers should be typed double-spaced and sent in duplicate. All manuscripts, whether articles, edited documents, or essays, should conform with the most recent edition of the University of Chicago Press *Manual of Style*. Footnotes should be typed double-spaced on separate pages and numbered consecutively. Correspondence concerning articles and essays is welcomed, and should be addressed to The Editor.

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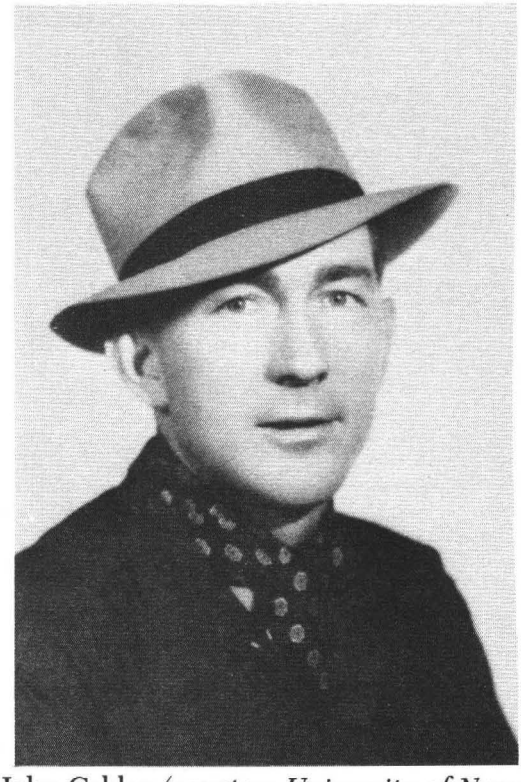
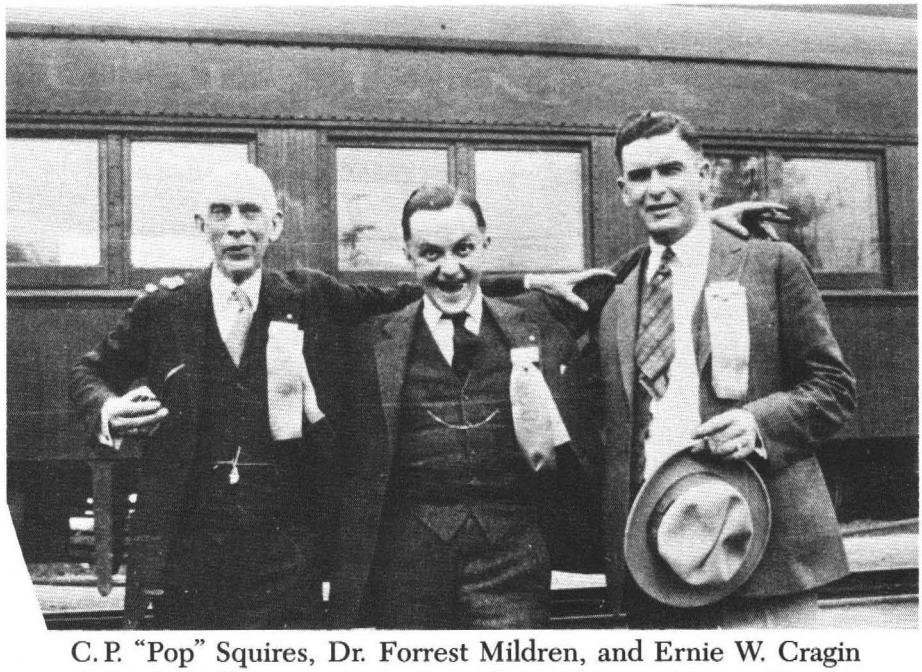


John Cahlan *(courtesy University of Nevada, Las Vegas Library and John Cahlan)*



C. P. "Pop" Squires, Dr. Forrest Mildren, and Ernie W. Cragin
(Squires Collection, University of Nevada, Las Vegas Library)

Public Works and the New Deal in Las Vegas, 1933-1940

EUGENE P. MOEHRING

BETWEEN 1933 AND 1940 THE NEW DEAL pumped millions of dollars into a depressed Nevada economy. In fact, by 1939, the Silver State ranked first in per capita federal spending with public works programs taking the greatest percentage. Among the major government agencies, Harold Ickes' Public Works Administration (PWA) spent over $33 million to build or improve roads, sewers, schools, water works and power plants. The Works Progress Administration (WPA) also played a key role, paving over 142 miles of new roads while repairing another 900. In addition, it erected fifty bridges, 133 public buildings and modernized dozens of schools, courthouses and recreation centers. Every county benefited from the federal largesse: Washoe alone received over $7.1 million for public works, while Elko was granted $3.8 million and Clark gained $23.1 million—$19 million of which went to finish Hoover Dam.[1]

When discussing the local dimensions of New Deal spending historians have usually focused on states and counties, but towns were also important.[2] Indeed, federal programs aided urban areas across the country. In Nevada, too, the record was impressive: a hospital for Winnemucca, a courthouse for Yerington, an electric transmission line for Pioche, a high school for Carson City, waterworks in Lovelock, Fallon, Carlin, Caliente and Mina, grammar schools in Wadsworth, Yerington, Alamo, Reno and Las Vegas, plus dozens of road, street

[1] Office of Government Reports, *Report No. 10, Nevada*, Vol. II, "State Report of Estimated Federal Expenditures," pp. 3, 36; Vol. I, "County Reports of Estimated Federal Expenditures," pp. 2, 4 and 16.

[2] See, for instance, Michael P. Malone, *C. Ben Ross and the New Deal in Idaho* (Seattle: University of Washington Press, 1970); James T. Patterson, *The New Deal and the States: Federalism in Transition* (Princeton: Princeton University Press, 1969); see also T. A. Larson, "The New Deal in Wyoming," James T. Wickens, "The New Deal in Colorado," Michael P. Malone, "The New Deal in Idaho," Leonard Arrington, "The New Deal in the West: A Preliminary Statistical Inquiry," and James T. Patterson, "The New Deal in the West," all in the August, 1969 issue of the *Pacific Historical Review*.

There is surprisingly little on the New Deal in the cities. Bruce Stave's *The New Deal and the Last Hurrah: Pittsburgh's Machine Politics* (Pittsburgh: University of Pittsburgh Press, 1970) is perhaps the best full-length study of the New Deal and urban politics, but public works themes are largely ignored. There are also a number of intriguing articles on urban politics and Roosevelt but, again, there is little or no coverage of public works and policy planning. In fact, even urban biographies of specific cities usually spend little time on the implementation and effects of New Deal public works policies; the focus is usually relief. About the only relevant article is Merwin Swanson's "The New Deal in Pocatello," *Idaho Yesterdays*, XXII (Summer 1979), 53-57.

and sewer projects in communities across the state. Reno, of course, was the leading beneficiary, receiving a municipal golf course and swimming pool, along with new bridge approaches to the Truckee, schools and a host of other improvements.[3] But to the south, Nevada's most recent boomtown, Las Vegas, also won a share of the patrimony.

Success, however, did not come easily. As Carl Condit and others have shown, towns with a strong Democratic majority and a "city plan" waiting to be implemented won preferential treatment from federal authorities. Chicago, for instance, with its potential political machine and elaborate "Burnham Plan" won millions of dollars for expressways, subways, parks and other projects. And the story was much the same in New York, Philadelphia and other large cities. In the west, aside from San Francisco and her rivals, there were few cities with advanced city planning or strong Democratic regimes. Nevertheless, New Deal projects did reach most places. In Pocatello, Idaho, for instance, federal money funded a variety of improvements, including additional sewers, a new park and City Hall, two street overpasses, a viaduct and several buildings at the nearby University of Idaho Southern.[4] Small communities like Pocatello and Las Vegas, lacking the political clout and Democratic majorities of the big cities, had to rely on aggressive campaigns spearheaded by local politicians, newspaper editors, prominent businessmen and congressional delegations. In Las Vegas most projects were jointly conceived and planned through informal meetings of the City Commission and Chamber of Commerce. Then, after some prodding by the local press, usually the *Evening Review Journal*, a consensus of support gradually formed around each enterprise. Once plans were completed, the town approached federal authorities on the county and state levels. In most cases, grant applications proceeded smoothly through the bureaucracy with final approval coming from Washington, D.C. But whenever roadblocks were encountered, Nevada's Congressman James Scrugham and Senators Key Pittman and Pat McCarran were quickly pressed into action by city officials. Indeed, more than once it took their combined pressure to free a stalled project.

Along with Hoover Dam the New Deal was a real boon to a city as dedicated to growth as Las Vegas. The prospect of substantial federal aid for public works buoyed the spirits of community leaders anxious to satisfy the need for new streets, sewers, schools and parks, but faced with the problem of a small tax base. Encouraged by Roosevelt's programs, the town's three mayors, "Ernie" Cragin (1931-1935), Leonard Arnett (1935-1938) and H. W. Marble (1938-39), joined the

[3] *Las Vegas Evening Review-Journal*, June 17, 1937, 3. For excellent coverage of the early years of the New Deal in Nevada, see Harold T. Smith, "New Deal Relief Programs in Nevada, 1933 to 1935," Unpublished Dissertation (University of Nevada, Reno, 1972), especially his bibliography. For an interesting look at the politics behind the administration of the Nevada Emergency Relief Administration, see Harold T. Smith, "Pittman, Creel and the New Deal Politics," *Nevada Historical Society Quarterly*, XXII (Winter 1979), pp. 254-270. Also, see Creel's papers at the University of Nevada, Reno Library, especially Box 4 which relate to Creel's ouster from N.E.R.A. The collection, however, contains little relating to Las Vegas.

[4] Carl Condit, *Chicago, 1930-1970: Building, Planning and Urban Technology* (Chicago: University of Chicago Press, 1974), 23-48; Swanson, 56.

city commissioners in waging lengthy campaigns for a variety of projects. Sometimes their efforts succeeded and resulted in, among other things, additional sewers, paved streets, a city park, a municipal golf course, a new grammar school and convention center, and sometimes, as in the case of a new airport and municipal electric system, they failed. But throughout the thirties the city was actively engaged in the fight for public works. The battle colored politics, especially the mayoral election of 1935, and energized the press. Project controversies sometimes divided the community, but, in the end, New Deal construction laid a needed foundation for future growth.

While many projects were discussed, those designed to improve the city's physical infrastructure won priority. Sewers, for instance, were a major consideration of officials who were anxious to service the newly "built-up" portions of town. In 1911 Las Vegas had floated a city-wide bond issue which financed pipe installation in the original Clark Townsite and the Buck's Addition (see MAP 1).[5] In this system wastes flowed north to a primitive disposal site near the Stewart Ranch. The improvement, however, was only temporary, for, as population rose in later years and spread beyond the existing main network, the "cesspool nuisance" worsened, thanks largely to the valley's high water table. Finally, in 1931, after years of debate, voters approved a new sewer bond issue which provided for conduits north, east and south of the original district. But the Westside area, where land values were low and buildings relatively scarce, was once again bypassed even though residents had been paying off the old bonds since 1911.[6] For months Westside discontent was sporadically vocal, but tensions eased in June of 1933 when the City Commission learned that $2 billion in federal funds would soon become available nationwide for state and local construction projects. Following a quick study, the city engineer put the cost of additional waste tunnels for Las Vegas at $110,000 including labor and materials. Under the proposed formula, Washington would bear thirty percent of the expense and would loan the rest to the municipality at low interest. Such liberal terms offered townsmen the rare opportunity to finance a badly needed improvement at low cost. So, with the enthusiastic endorsement of the Chamber of Commerce, local authorities presented an application.[7]

By August the commission had directed City Engineer A. R. Thompson to prepare a description of the district. At a September meeting, following no objections by property owners, the politicians approved the installation of lateral pipes branching from the main sewer line in "all the built up area including the Westside." The plan called for repaying the loan through a citywide bond issue

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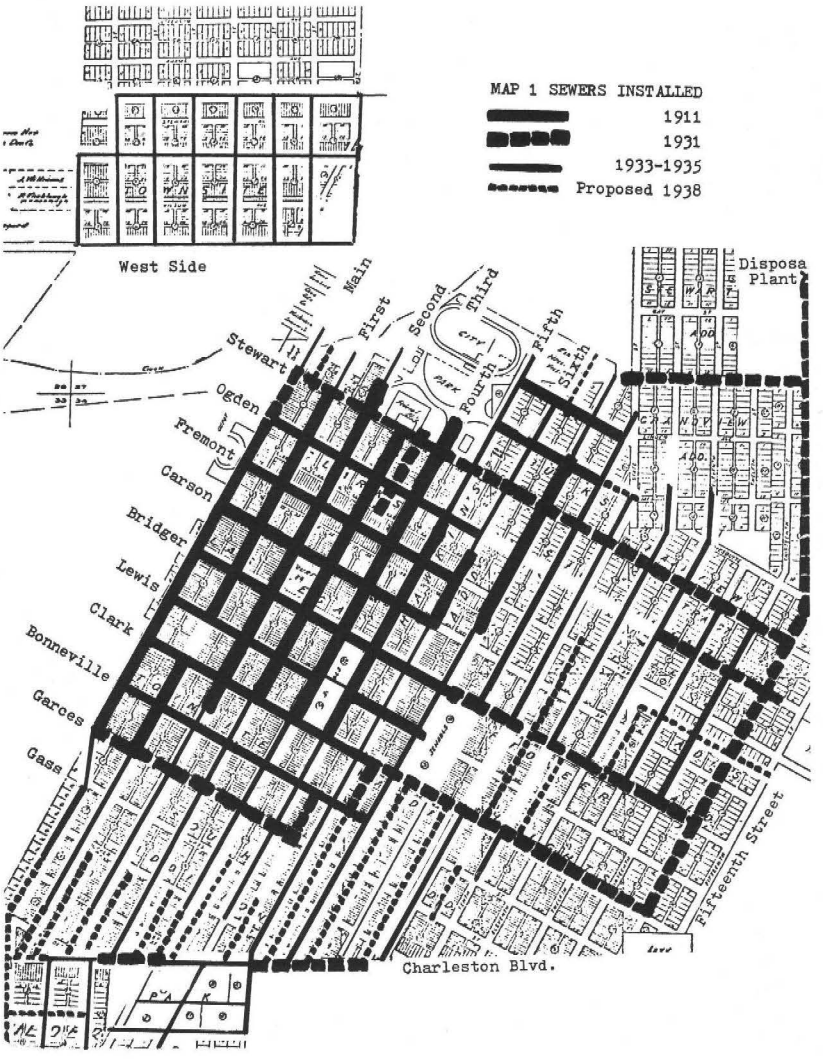
[5] *Clark County Review*, August 12, 1911, 1; October 14, 1911, 1; *Las Vegas Evening Review-Journal*, May 28, 1931, 1; September 7, 1933, 1, 4; see also Las Vegas Board of City Commissioners, *Minutes*, Vol. IV, August 31, 1938, p. 132. These Minute Books are located in Special Collections in the James Dickinson Library at the University of Nevada, Las Vegas.

[6] *Las Vegas Evening Review-Journal*, May 5, 1931, 1; February 7, 1932, 1.

[7] Ibid., June 13, 1933, 1-2.



with the town itself guaranteeing payment to the federal government. Within two months the project and loan had been approved by the Civil Works Administration's (CWA) regional office in Salt Lake City and forwarded to Washington.[8]

Hopes for immediate approval, however, dimmed when residents in the Clark Townsite outside the improvement district formally opposed the citywide assessment. Citing an amendment to the Las Vegas charter which required a positive majority of all "property owners" besides registered voters, enemies of

[8] Ibid., September 7, 1933, 1, 4; City Commissioners, *Minutes*, III, September 8, 1933, p. 300; *Las Vegas Evening Review-Journal*, October 18, 1933, 1.

the bond issue vowed to defeat the sewer effort. In fact, within a few weeks their opposition prompted state CWA Director Cecil Creel to cancel the enterprise temporarily.[9] Faced with the loss of a massive government grant, municipal leaders worked feverishly to save the operation. A chorus of voices rose to support them, including influential *Evening Review-Journal* editor John Cahlan, who argued persuasively that with "nearly half of the built up area of Las Vegas...without sewer service...there will never be an occasion when public improvements are selling for seventy cents on the dollar." Cahlan then reminded the project's opponents that pipes laid in 1911 were paid for by a citywide assessment. And, while granting that many dissidents were "sincerely concerned over the mounting bonded indebtedness of the community," Cahlan nevertheless urged a quick resolution of the crisis.[10]

A breakthrough came later in October when Creel and Clark County CWA Board Chairman William Ferron agreed to a new plan in which Las Vegas would pay $20,000 of the $35,000 cost of pipe through a general bond issue with CWA funding the rest and providing free labor. This drastically reduced the final cost and assessment, thereby quelling further opposition. After months of delay, work finally began in March of 1934. The CWA began construction, and in May, after the agency's demise, the Federal Emergency Relief Administration (FERA) took over.[11] The transition was smooth because Cecil Creel, former State Director of CWA and Claude Mackey, the Clark County Director, now assumed the same positions with FERA. This assured continued federal support for the project; however, the funding formula changed under the new setup. Like CWA, FERA agreed to provide free labor, but Las Vegas now had to supply all materials (mostly pipe). Mayor Ernie Cragin responded by announcing that while $16,000 raised from the sale of sewer bonds would cover part of the cost, the rest would have to be met by an assessment on benefited property owners. There would be no citywide levy as there had been in 1911.[12]

Once work began progress was rapid. By mid-May over 5,000 feet of sewer pipe had been laid. Throughout the spring FERA's four forty-man crews labored in the Westside and by July had finished and moved eastward to 1st, 6th and 7th Streets beyond Garces with men working simultaneously in all thoroughfares. But funds eventually ran out. By mid summer the city's original contribution of $16,000 had been exhausted and, thereafter, sewers were only laid in eastside blocks where residents agreed to bear the full expense. Cesspools remained everywhere else for a few more years.[13]

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[9] Ibid., December 9, 1933, 6; December 12, 1933, 6.

[10] Ibid., December 9, 1933, 6. We can also assume that Al Cahlan, an owner of the newspaper, exerted an influence over his brother's editorials.

[11] Ibid., December 14, 1933, 1.

[12] Ibid., May 4, 1934, 1.

[13] Ibid., May 11, 1934, 1; May 9, 1934, 1.

In 1938 city officials once again eyed New Deal funds as a means of extending the municipal sewer system. In June the commission approved the extension of mains as part of a massive $200,000 PWA street improvement designed to provide five months of work for 125 men. The sewer package alone totaled $43,700 with property owners facing both an assessment and the expense for connection pipes to their homes. The effort primarily centered in those suburbs (mostly east of 5th Street) not benefited by the earlier CWA-FERA program. Delays plagued the enterprise as a combination of bureaucratic red tape, local recession and spiraling debts tied up construction until the demise of the PWA in 1941. In fact, no mains were built until after World War II.[14]

Street paving, like sewers, was another major concern. At first, interest focused on the district bordered by Main, Stewart, 5th and Bridger Streets (see MAP 2).[15] Between 1928 and 1930, the city had laid an oil-bound surface over the roads' original dirt cover. This was intended as a temporary expedient until an asphalt top could be installed, but mounting debts and lingering assessments had postponed work until July 1933 when New Deal money became available. Again under the CWA formula, the federal government offered Las Vegas a thirty-percent grant and seventy-percent loan with payment spread over twenty years.[16]

It took little prodding from the Public Works Committee of the Chamber of Commerce to inspire action. By August city commissioners had drafted an application for the $45,000 project and asked Congressman James Scrugham to have CWA attach it to the original $110,000 sewer proposal. The benefits were obvious: not only would downtown throughfares be improved, but, according to Street Commisssioner William Mundy, the enterprise would be run entirely by the city Street Department "thereby assuring full benefit for local residents from the employment created." Mundy also stressed the importance of laying the asphalt now with the federal grant: "We have an investment of over $100,000 in this district and by the expenditure of an additional $16,000 by the city at this time, the streets can be made as permanent as possible with present-day construction."[17]

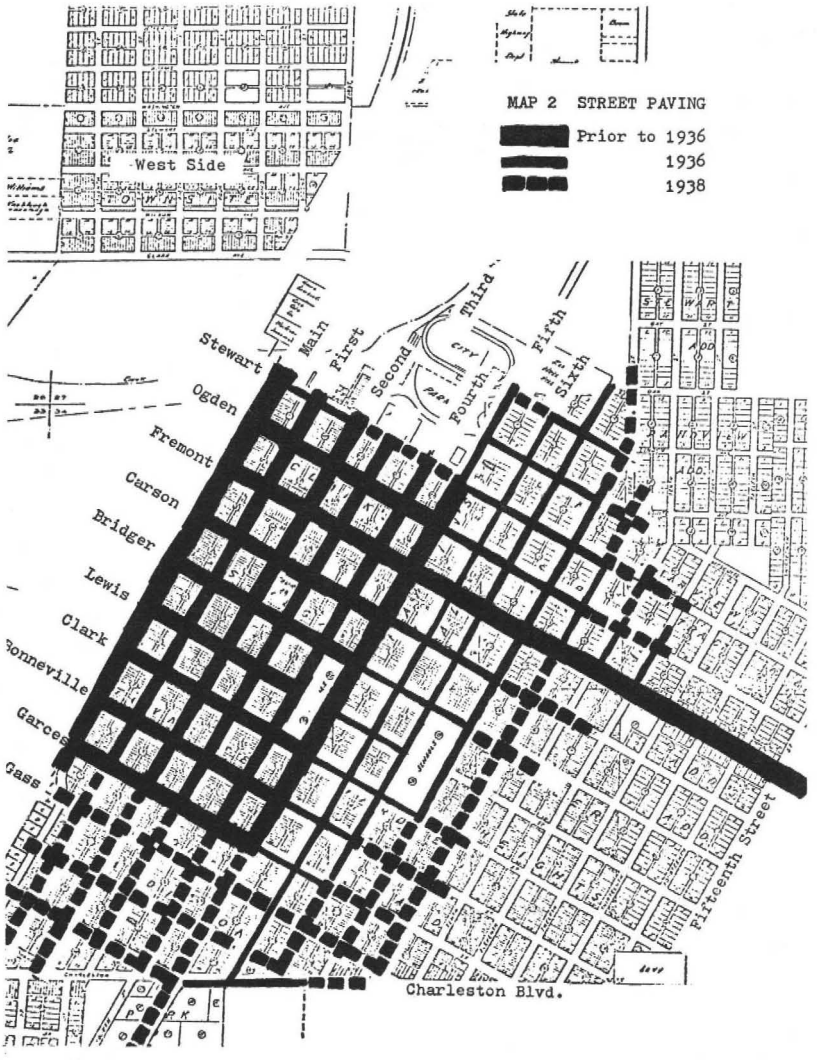
Throughout the summer of 1933 the city pressed its case, marshalling the state's three-man congressional delegation to push CWA for approval. In response, Senators Pat McCarran and Key Pittman joined Representative Scrugham in the effort to broaden the $110,000 sewer application into a $160,000 package for improving the town's sewers, streets and park. Specifically, the paving plan called for resurfacing the oil-gravel streets in the original 1928

[14] Ibid., June 24, 1938, 1,2.

[15] The sources for paving locations are: *Las Vegas Evening Review-Journal*, July 6, 1928; City Commissioners, *Minutes*, III, October 23, 1936, p. 471 and ibid., IV, August 31, 1938, p. 134. See also the *Las Vegas Evening Review-Journal*, June 24, 1938, 1,2.

[16] *Las Vegas Evening Review-Journal*, August 5, 1933, 1.

[17] Ibid.



paving district (Clark's Las Vegas Townsite) with a 1½-inch coat of concrete material and covering 6th-9th Streets from Stewart to Garces with an oil-based surface like the type then used on highways.[18]

By fall, CWA had approved a different version of the proposal. Instead of installing concrete in the downtown area, CWA agreed to gravel and in some places to grade all the alleys in the "paved district" along with other dirt roads in the built up portions of town, including the Westlake and suburbs surrounding the downtown area south of Garces and east of 5th Street. In addition, CWA

[18] Ibid., August 9, 1933, 1,6.

labor installed concrete sidewalks wherever lot owners supplied the materials. This plan was more beneficial to the city as a whole, because the gravel was laid in every neighborhood and helped reduce the dust blown by high winds. Furthermore, an expensive assessment was avoided since streets were only graveled. The downtown, however, received neither asphalt nor another coat of oil-based pavement; crews merely graveled over holes in the current surface. By February 1935, FERA crews (who had taken over when the CWA expired in 1934) had completed work in over fifty-eight blocks.[19]

Progress slowed in July 1935 as shortages of materials and FERA labor brought work to a virtual halt. In response, lot owners along unimproved streets pushed City Hall to find a solution. At first the local government planned to continue the job itself but, after weighing the expense, decided to apply for a PWA grant. In early August, at the town's encouragement, property owners in the unimproved district petitioned municipal authorities to form a fifty-five-block paving district. The commissioners, in turn, answered with a plan calling for creation of the zone if fifty-one percent of the affected lot owners agreed. The proposal provided for PWA to pay forty-five percent or $20,000 and the remaining costs to be borne by assessments on benefited property payable in lump sum or yearly installments. This would reduce expenses while also promoting employment, since the Street Department would hire only local workers.[20] In the meantime, the commissioners agreed to continue the old FERA project as a city job so that FERA employees could be used entirely for the War Memorial Building (see discussion below). Of course, under the new plan, the cost of street work rose because lot owners had to supply the paving materials formerly provided free by FERA. Despite the added expense, most citizens applauded the move. As one newspaper put it: "cities are judged by their schools, and conditions of streets, sidewalks and such. If Las Vegas is to continue to progress, these improvements must go ahead."[21]

By spring 1936 there was renewed hope that road projects might proceed more rapidly. In May, WPA's local administrator Claude Mackey reached an agreement with Street Commissioner H. W. Marble that for future work, property owners would furnish the paving materials, WPA the labor, and Las Vegas the equipment. Under this plan paving could be initiated in any district of town where lot owners petitioned for improvements.[22] A week later City Engineer C. D. Baker refined the scheme and proposed paving, grading, curbing, guttering and flagging over 7½ miles of dirt and graveled roads. To reduce the cost, the city commissioners approved a program which called for work to be performed in "block-long" sections and by assessment district, rather than by the "voluntary subscription" plan of the past two years which had produced a patchwork pattern

[19] Ibid., December 5, 1933, 1; March 29, 1934, 1; January 28, 1935, 1.
[20] Ibid., August 1, 1935, 1.
[21] Ibid., August 23, 1935, 6.
[22] Ibid., May 5, 1936, 1.

of improvements "hither and thither." According to the new proposal, assessments would be based on fifty-foot lots and vary according to the distance from the improvement, with grading at $3–4, gravelling $8–10, oiling $11–14, curbs and gutters $19–24, and sidewalks $10–27. The total cost per lot would range between $61 and $79, although individual property owners could veto certain items. Individual blocks could choose the cheaper gravel pavement or the more expensive oil depending on the will of a majority of lot owners.[23] But the enterprise was not without its problems. Controversy gradually arose over whether the job should be done by the WPA (which provided free labor) or by the PWA, which offered Las Vegas a forty-five percent grant or $33,750 of the $75,000 total, with the remaining costs to be handled by assessment. After some debate, the commissioners finally chose the PWA, which during the next two years paved, curbed and guttered the "built up" area east of 5th Street.[24]

With Uncle Sam providing street improvements at forty-five cents on the dollar, city authorities could not resist making further applications. Anxious to bring curbs, gutters and oil pavement to the Westside and newer neighborhoods on the eastern and southern peripheries of Las Vegas, the City Commission in 1937 voted to apply to PWA for a $35,000 grant (later expanded to $126,000) for more paving work. Despite the likelihood that PWA would approve the work, officials faced a major obstacle. Although most property owners in eastern Las Vegas north of Fremont Street signed the petition, relatively few Westside residents seemed interested. Noting that Westsiders had complained for years about muddy and flooded streets, Mayor H.W. Marble urged all property owners to take advantage of the federal grant wherever land values were high enough to justify the assessment. As the Mayor put it: "We are anxious to have all our city streets improved if possible, particularly on the Westside where property owners have been urging that the work be extended to their section." In fact, Marble later indicated that he eventually hoped to pave, curb, gutter and flag every lot in Las Vegas not yet benefited—and with PWA paying forty-five percent of the bill, why not?[25]

Marble's hopes were temporarily dashed in September 1938 when PWA headquarters in Washington formally rejected the $126,000 paving application. The city's response was swift. In an angry letter, the commissioners argued that since the town had recently "financed and constructed an identical project as to type of construction and method of law, and practically there exists here about the unemployment load as at that time, it is difficult for us to imagine why PWA has disapproved our application." At the city's urging, Nevada's congressional delegation investigated and found the problem to be bureaucratic delays at PWA and not Las Vegas' application. Indeed, as late as September 1938 only ten

[23] Ibid., May 14, 1936, 1.

[24] Ibid., June 9, 1936, 1; November 5, 1936, 1.

[25] See Ibid., November 5, 1936, 1. See also City Commissioners, *Minutes*, IV, August 31, 1938, p. 134; *Las Vegas Evening Review-Journal*, June 21, 1938, 1.

percent of all PWA applications nationwide had been funded. The logjam finally broke in mid-October when PWA reversed itself and reinstated the paving work in the eastern and southern parts of town, agreeing to pay $56,700 of the $126,000 total cost.[26]

But the delay had invited other problems. By fall 1938 the city and state had again entered a mild recession, and the town's treasury surplus was rapidly diminishing. With revenues declining, the town fathers began to hesitate on the paving project, for, as Mayor Marble explained:

> We are loathe to proceed without the approval of those affected.... There is a petition urging us to create the improvement district and proceed under the PWA. Many of the signers of this petition have been among our severest critics in the matter of municipal expenditures, and we are not interested in proceeding with the work unless it is the wish of those who will have to pay the bill.[27]

In the end, limited paving was begun under a bond issue approved in 1937, but most of the work was postponed until the 1940s when financial conditions improved. Federal paving programs therefore largely bypassed the Westside and other peripheral zones with low property values and many vacant lots. These areas received only gravel. The key to this seeming neglect lay, of course, in the New Deal's funding formulas, which provided for only partial federal grants for construction with remaining costs met mostly by local assessment. Thus, in the Westside residents viewed sanitary reform as a major priority and opted to pay the sewer assessment of 1934. In subsequent years this extra burden was all most low-income homeowners could afford, and the further expense of guttering, curbing and paving work was out of the question. So the Westside and other sparsely-populated areas on the town's periphery had to wait until the 1940s when the income base of the various neighborhoods increased sufficiently to permit additional liens.

In addition to sewer and street improvements, civic leaders also viewed New Deal money as a means to "finish" the City Park. For years the "Park," located on the old fairgrounds between Bonanza, Stewart, 5th and Main, had languished for lack of trees, driveways and recreational facilities. But in July 1933, local officials, at the urging of the press, Chamber of Commerce and other groups, moved to include park improvements in the town's CWA street grant application. The City Commission estimated that landscaping, driveways and sports accommodations would cost about $15,000. The strategy was familiar: Nevada's congressional delegation applied pressure in Washington while municipal leaders lobbied the CWA office in Reno. Most active in the state effort were local druggist and county CWA Administrator William Ferron together with Dr.

[26] Ibid., September 22, 1938, 1; September 24, 1938, 6.
[27] Ibid., October 14, 1938, 1.

William S. Park and the Park Committee of the Chamber of Commerce. Once again the town's approach paid off. In December 1933 the CWA approved the project, agreeing to plant lawns and build sidewalks, a children's playground, two baseball diamonds, two tennis courts, several handball courts and a Boy Scout camp complete with huts for every troop in town. Under the plan, CWA provided all the materials and labor; Las Vegas paid nothing.[28]

Work began late in 1933 and continued until March of the following year. From the beginning, town leaders viewed the CWA enterprise as merely the first step in a long process toward making the park, in John Cahlan's words, "one of the greatest assets we have." Indeed, throughout the thirties, the *Evening Review-Journal* prodded authorities to continue park improvements, warning that "unless a definite program is adopted and adhered to strictly, there will always be something else that seems of more importance at the moment."[29] Many in the community shared this view, including the city commissioners who continuously pushed for more federal grants. In April 1935, for instance, FERA approved an application for a new baseball diamond with a "sizable grandstand" for spectators. Mayor Cragin, in the midst of a tough re-election campaign, enthusiastically announced plans for not only the field but also tree-planting in the "North End" and the completion of drives throughout the park. With an eye to the upcoming election, Cragin proclaimed it his "ambition to see the park thru to completion," along with "oil-gravel surfacing on every street in the city and curbs and gutters installed everywhere." In the end, Cragin's bid failed, leaving the challenge to finish the park to his successors.[30]

Cragin, however, successfully led the city through the first two years of the New Deal, and his accomplishments were not limited merely to street and recreational improvements. In fact, one of his administration's most practical achievements was the construction of the new grammar school at the corner of 4th and Bridger (today the Clark County Courthouse Annex). The need for a new structure had arisen in May 1934 when a fire gutted the town's old high school, which also had housed the upper grades of Las Vegas' grammar school. Worse still, the building had contained the school system's only auditorium.[31]

Following the blaze, the Board of Education moved quickly. Within three days it had opened negotiations to purchase land next to the new high school at 7th and Bridger. Plans called for erecting classrooms first and, as more money became available, adding an auditorium and gymnasium. At first, board officials hoped to float bonds to finance the project, but they later applied for a PWA grant, since that agency usually considered schools a priority.[32]

[28] Ibid., July 25, 1933, 6; August 9, 1933, 1,6; December 23, 1933, 1; December 26, 1933, 6.
[29] Ibid., March 16, 1934, 6.
[30] Ibid., April 17, 1935, 1.
[31] Ibid., May 14, 1934, 1.
[32] Ibid., May 16, 1934, 1.

Initially, the Board of Education approved blueprints for a $100,000 frame and stucco building, but later, at the request of citizen's groups, switched to a more durable and flame-resistant concrete structure costing $160,000. As a result, the PWA application was for $160,000 with the agency granting forty-five percent or $72,000 and loaning the rest, which would be secured by a bond issue. Prospects for a new school dimmed, however, when WPA chief Harry Hopkins vetoed the PWA project because there was not enough relief labor in Las Vegas to build both the school and the WPA water system in the North Las Vegas area. Apparently, Hopkins was anxious to preserve some local labor for smaller WPA jobs.[33]

Angered by Hopkins' action, community groups including the Chamber of Commerce pressured Washington to reverse the decision. At an October meeting the Chamber passed a resolution requesting the city commissioners to "use such influence as needed to impress upon our congressmen to secure the necessary aid in the errection (sic) of our local school building." The politicians approved the motion and once again contacted Pittman, Scrugham and McCarran, who in turn promised to intervene with Hopkins. The lobbying effort succeeded in January 1936 when Hopkins acquiesced and PWA endorsed an upgraded $191,000 application for the building and site. Of the original $160,000, the agency granted $74,000 to the Board of Education and agreed to loan another $91,000 through a bond purchase; the remaining money came from a public bond sale. With the funding settled, construction began in the spring of 1936 and, after feverish months of work, the structure was opened for classes in the fall. The project was an unqualified success. Not only did the building ease overcrowding, but it quickly became a community asset—truly, as one observer put it: "one of the most modern school buildings in the west."[34]

Buoyed by the seeming success of the street, park and school efforts, city fathers in 1934 also pushed to secure New Deal funds for a large convention center. With Hoover Dam scheduled for completion in 1936, everyone recognized that tourists and conventioneers would have to replace the departing construction workers if the town's fledgling casinos were to prosper. To this end, Las Vegas' forty or more fraternal lodges had for several years suggested that the community build a multi-story structure with a huge auditorium and offices sufficient to accommodate large convention meetings. Financing would be met by the lodges renting space. Little action was taken until 1934 when hopes arose that some New Deal agency might be persuaded to provide either a grant or free labor.[35]

Once again the press and Chamber of Commerce boosted the plan. Many agreed with John Cahlan who argued that "some structure must be provided

[33] Ibid., July 12, 1935, 1.

[34] Ibid., October 3, 1935, 1; City Commissioners, *Minutes*, III, October 18, 1935, p. 405; *Las Vegas Evening Review-Journal*, January 15, 1936, 1; January 5, 1937, 1.

[35] *Las Vegas Evening Review-Journal*, April 2, 1934, 6.

within the next year or two if the community is to continue to attract sizeable gatherings with Hoover Dam as the magnet." Over forty lodges were renting quarters and Cahlan feared that once "they start building homes of their own independently, all chance of bringing them together on a single project will be gone forever."[36]

For the next eight months the commissioners debated the matter. A unique solution was finally reached when the town's American Legion Post #8 offered to build a "War Memorial Building" in honor of local veterans if the municipality would lease a parcel of land on the exterior of the Park (today the site of City Hall). After some discussion, the commission approved the deal in January 1935 with the provision that the building be finished within a year and surpass $15,000 in value. In September 1935 the formal agreement was signed giving the Legion a fifty-year lease on the land. The Post had already showed its good faith by spending over $5,000 on the structure, but more money was needed. In the end, successful negotiations with FERA and later WPA solved the problem. Fortunately, the concept of a civic auditorium met the agency's project guidelines, and Washington sent a quick approval. Construction began in 1936 with WPA supplying over $80,000 worth of labor. To supplement this, Las Vegans purchased over $10,000 in bonds; the Six Companies, builders of Hoover Dam, donated tons of steel; and the American Legion, by 1936, put up its promised $15,000.[37]

The Legion's effort drew praise throughout the community, and the press lauded the Post for having "performed one of the finest community services in sponsoring the building." But complaints arose as early as the first year of the building's operation. Money was the problem. To pay off its $15,000 debt the Legion had been forced to rent space to private groups, thereby denying room for public events. Community criticism mounted throughout the late thirties until 1940 when the Legion offered to sell the building to Las Vegas. Under the proposed agreement the town would pay the veterans' group $15,000, $9,000 of which would retire the Legion's bonds. For this bargain price the city would get the use of the entire first floor with the convention facilities, although the Legion would retain "exclusive use" of second-floor rooms. City Commissioners favored the deal because of the low price and also because the growing municipal government needed more office space—buying the Memorial Building would eliminate the expensive alternative of erecting a new City Hall. In the fall, town leaders approved a tentative plan which called for buying the building and fifty-year lease from the Legion for $15,000 and allocating another $5,000 for remodeling.[38] The actual purchase, however, was delayed because of the gov-

[36] Ibid.

[37] City Commissioners, *Minutes*, III, January 7, 1935, pp. 358-359; January 14, 1935, pp. 359-360; September 12, 1935, p. 398; *Las Vegas Evening Review-Journal*, February 21, 1940, 1.

[38] City Commissioners, *Minutes*, IV, March 8, 1940, p. 236; *Las Vegas Evening Review-Journal*, August 7, 1940, 6.

ernment's worsening fiscal crisis. Finally, in the fall of 1940 the sale went through. Thanks in part to New Deal funding, Las Vegas got a badly needed City Hall and convention center at discount prices.

While the construction and acquisition of both the grammar school and War Memorial Building proceeded smoothly, some projects were debated for years before action was taken. A typical case was the plan to build a new municipal golf course for the use of tourists and local residents. The idea, pushed by the Las Vegas Golf Club, gained popularity during 1934 when New Deal funding encouraged development of the City Park. Supported by Club members, many of whom were influential businessmen, the city commission in 1935 tentatively approved drawing up a FERA application "if the cost of materials and the ground to be used could be secured without too much expense to the city.[39]

Nevertheless, progress was slow. For over a year golf enthusiasts and politicians haggled over details. Finally in April 1936 an impatient *Evening Review-Journal* urged the application be speedily completed. Claiming that tourists "expect to find modern golf courses in even the smallest of communities," John Cahlan reasoned that "if we are going to bid for tourist business we must have something to offer. Boulder Dam and Boulder Lake are magnificent but not enough." Alluding to the successful annual tournament in nearby Death Valley, Cahlan argued that "there's no reason why we shouldn't have one here in January or February when the rest of the country is freezing and snow-bound. There's no better advertising than that and it can be bought comparatively cheap." But there could be no major tournament without a first-rate grass course—something which Las Vegas lacked. Only the WPA could provide the free labor to build the facility at low cost.[40]

But despite Cahlan's insistence, the town delayed while officials and sportsmen bickered over the site. Comissioner James Down and City Engineer C. D. Baker, eager to cut rising expenses, contended that the present "dirt course" near the Los Angeles Highway be "improved" with more landscaping. The Golf Club, however, led by prominent dentist William S. Park, insisted on a new "grass" facility located near the WPA fish hatchery in the City Park. But Baker objected, claiming that the town's well supplies would be depleted by the need to water a grass course in summer. In October 1936 the Golf Club inched closer to victory when it won the endorsement of the Chamber of Commerce for a grass course near the hatchery. State PWA Administrator Gilbert Ross helped clinch the argument when he characterized the PWA-built course in Reno as being "of greater value to the city than any other project of recent development," bringing in "cash receipts... of more than a million dollars annually."[41]

[39] City Commissioners, *Minutes*, III, February 21, 1935, p. 363.
[40] *Las Vegas Evening Review-Journal*, April 20, 1936, 6.
[41] Ibid., May 14, 1936, 1; October 20, 1936, 1, 6.

The Chamber's backing boosted the momentum of the Golf Club's campaign. Indeed, throughout the fall of 1936 community pressure for a golf course mounted. But, despite the *Evening Review-Journal*'s continued support and the general public clamor, city officials waited a while longer. The mounting cost of the government's New Deal bond outlays and a declining tax rate set by county and state officials had stretched the budget to the limit, making further expenditures for a golf course fiscally unwise. Nevertheless, the Golf Club, the Chamber and the press were determined, and in the end the city fathers yielded. In December of 1937 Mayor Leonard Arnett finally signed the WPA application for a grass course on a twenty-two acre site near the fish hatchery. Under the terms of the agreement, WPA promised to furnish $21,846 for labor, the Las Vegas Golfer's Association guaranteed $6,500 for building materials and electrical power, and the city donated $2,500 for trees and equipment. Despite the pact, delays continued to plague the enterprise. With the city's fiscal crisis worsening, the commissioners became increasingly wary of beginning work on a project of peripheral importance.[42]

Once again John Cahlan pressed the issue, reasoning that if the city lost this opportunity it would "never again be able to finance this project for so small a sum of money." Since such a course would likely cost over $50,000 ten years hence, the discount offered by Uncle Sam could not be ignored. The editor also returned to his emphasis on tourism: "For several years we have been attempting to exist on the tourist business on the theory of taking everything, giving nothing except the sunshine and natural beauties of the desert we can't sell." He insisted that "the time has come when this area must be prepared to spend substantial sums of money if we are to continue in the tourist business." His visionary approach to the problem no doubt helped to stir community-wide support. Within a few months the commission approved the project and rapid progress followed.[43] Construction began in mid-1938 and continued into the spring of 1939. When the WPA crews departed, Las Vegas could boast of a first-rate golf course. Furthermore, the whole enterprise had been timely, for ensuing years saw golf grow in nationwide popularity and become a mainstay of the town's burgeoning tourist economy. Within a few years even the project's staunchest opponent had to agree the lengthy campaign for a grass course had been well worth the effort.

Like the golf course campaign, the movement for a municipally owned airport also lasted many years, but success proved more elusive. A new airfield within a few miles of Las Vegas was always high on the list of priorities. The original Western Air Express facility, Rockwell Field (today the land southeast of Sahara Avenue and Paradise Road) consisted merely of a dirt runway and shack.

[42] Ibid., December 10, 1937, 1.
[43] Ibid., February 9, 1938, 6.

Just after 1930, a local citizen, "Pop" Simon, purchased a larger tract of land about nine miles north of town (today the site of Nellis Air Force Base) and leased it to Western, which added a small primitive terminal. Initially, the Chamber of Commerce had tried to help Western Air acquire land closer to town, but prices for such a large plot were prohibitively high especially for an airline with few flights and a low profit margin. During the early 1930s, Western poured over $45,000 into improving their facilities, but distance remained the problem.

As early as 1933 the newspapers began urging authorities to seek New Deal funds for a new complex closer to town. As the *Las Vegas Age* contended, the community "will someday find it of great advantage to have its airfield within three miles instead of ten." The *Evening Review-Journal* echoed its rival, declaring that it was "ridiculous for a city the size of Las Vegas to accept the location of the airport as though it were settled forever." Several factors created a favorable climate for a publicly-owned facility. First, air traffic increased each year as more airlines began flying the "Boulder Dam route." Trans World Airlines, for instance, sought a San Francisco-to-Chicago route as early as 1934, and Western also planned to begin through service to the west coast. Then too, it seemed obvious that if airline business were to grow, oiled runways and hangars would become a necessity. The current airport had neither, and, in 1934, Western had no plans to build any. For these reasons the *Evening Review-Journal*, in particular, urged immediate action, arguing that "it would seem the height of folly NOT to proceed under the PWA program to build a first-class municipal airport close to town."[44]

In 1935 the city commission responded by buying a parcel of land about four miles south of town off the Los Angeles Highway (today the site of Hughes Air Terminal). A few months later upon receiving notification of the purchase the Department of Commerce, the clearing house for all New Deal airport projects, declared the site "satisfactory." Mayor Arnett inaugurated the enterprise in April 1936 when he and fellow commissioners together with representatives from T.W.A. and Western dedicated the site.[45]

But troubles arose within a few months when the Department of Commerce, because of Western's opposition, rejected Las Vegas' application for $148,000 in PWA funds for airport construction. The move caught local officials by surprise since the city had purchased the new land after the Commerce Department's regional office had approved the program. Apparently, Western Airlines had quietly lobbied in Washington for a reversal, fearing that a new airport would unfairly compete with its own. Indeed, the Commerce Department reflected this view when it suggested that Las Vegas offer the carrier a long-term lease at any new facility in return for the deed to the latter's airport.[46]

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[44] *Las Vegas Age*, May 23, 1933, 2; *Las Vegas Evening Review-Journal*, June 13, 1935, 6; Ibid., April 17, 1936, 1,2; July 22, 1935, 6.

[45] City Commissioners, *Minutes*, III, December 20, 1935, p. 420; *Las Vegas Evening Review-Journal*, April 17, 1936, 1, 2.

[46] Ibid., April 22, 1936, 6.

Municipal leaders were anxious to conclude the deal. In June Mayor Arnett traveled to Washington to confer with Commerce officials and Western's President Alvin Adams. Following several days of meetings, Arnett announced that "all of the main differences which stood in the way of immediate construction of the airport have been ironed out." The Mayor confidently predicted that the project would begin "within a very short time," but snags once again postponed an agreement. Western Airlines objected to the lease proposals offered by the city, and in addition it was reluctant to deed away its facility. As late as 1939, despite efforts by Congressman Scrugham and others, the stalemate persisted. Federal authorities provided some hope when they suggested that WPA funds might be used to build an airport for an army training school for military aircraft. Since Western Air would not be adversely affected, the Commerce Department indicated it might approve the base if it were located between Las Vegas and Boulder City. But although negotiations continued sporadically into 1940, the strong isolationist mood in Congress forced federal authorities to move slowly.[47]

By the summer of 1940 Las Vegas began to consider a new strategy: buying the existing airport for $50,000 to qualify for a WPA improvement program which would then subsidize the construction of hangars and oiled runways. By September the City Commission's Aviation Committee was touting the advantages of the once-maligned site, including its good drainage and lack of adjacent hazards. Later in the month, however, new hope arose for erecting a facility at the preferred southern location with the passage of congressional legislation authorizing the Civil Aeronautics Board to build more landing areas for civil and military planes. Perhaps more than anything else Hitler's growing success in Europe forced federal authorities to break the logjam of red tape and provide funds for new municipal airports all across America. Indeed, as Congressman Scrugham reported in late 1940, the CAB now considered a new Las Vegas airport "a necessary one in the second line of defense." Although an army gunnery school was begun in the spring of 1941 plans for a new civil airport south of town forged ahead. In the end, although WPA never actually built the complex, the availability of New Deal funds and the active lobbying of federal agencies had fueled the drive for a municipal field—a drive which proved successful after the war.[48]

While the airport, golf course, city park and street improvements all sparked their share of debate, no issue was more controversial than the plan to use federal funds to construct a publicly-owned electric system. Many consumers supported the plan because the local utility, Southern Nevada Power, had delayed installation of a Boulder Dam transmission line which would have slashed monthly bills throughout Las Vegas. Angered by the apparent indifference of the Mayor, the press and the utility, a group led by City Commissioner

[47] Ibid., June 8, 1936, 1; February 16, 1939, 1.
[48] Ibid., September 13, 1940, 1; September 25, 1940, 1.

Leonard Arnett proposed that the town apply for a forty-five percent grant and fifty-five percent loan toward either purchasing Nevada Power's facilities or building a separate municipal operation. In either case the town would put in a dam transmission line. In April 1935 the city commisssion adopted Arnett's resolution to put the question on the ballot during the municipal election in May. As a result, "public power" overnight became a central issue in the mayoral battle, for incumbent Mayor Ernie Cragin was clearly cool to Arnett's program. Arnett, however, sharpened the conflict when he formally declared his own candidacy for chief executive and charged Cragin with being a covert opponent of "municipal power."[49]

For the next few weeks charges flew back and forth in what proved to be one of Las Vegas' most heated campaigns. To a large extent, New Deal public works, especially the power plant, shaped the course of the 1935 mayoral contest. Of course, the town's rival newspapers eagerly led the debate. The Republican *Age* touted the candidacy of Arnett, a popular clubowner, and editor Charles "Pop" Squires characterized the election as a race between the "New Deal" of Arnett and the "Old Gang" of Ernie Cragin. Charging that Cragin's support came from "those special interests which have profited by Mayor Cragin's incumbency and who now fear the results of a new, vigorous and impartial administration of city affairs," Squires enthusiastically endorsed Arnett. The *Age*'s thinly-veiled allusion to Southern Nevada Power was eventually expanded to include local contractors who, the *Age* asserted, had won favorable treatment from Cragin for supplying materials and expertise for the major paving and sewer work performed under New Deal auspices. Furthermore, Squires alleged the issue was "more farreaching (sic) than merely the question of municipal ownership"; it also encompassed "the question of whether city affairs shall be placed in the hands of the general public or shall continue to be operated as a 'closed corporation' for the benefit of a comparatively small group."[50]

Arnett, his spirits buoyed by Squires' support, ran an aggressive campaign with Cragin's supposed "opposition" to municipal power and his favoritism of "machine" contractors as the key issues. Arnett, who as a commissioner had earlier championed a city charter amendment to permit municipal ownership of power, argued that such a plan "in power and light alone" would save the city $10,000 per year and would cut private citizens' bills by twenty-five to thirty-three percent. According to Arnett, only two obstacles stood in the way—Ernie Cragin's two alleged masters: C. C. Ronnow of Nevada Power, and John Cahlan. Focusing mainly on the former, Arnett justified the scuttling of Nevada Power because it had refused to buy Boulder Dam electricity "for the sum of six-tenths of one cent per kilowatt hour." For Arnett the utility represented "a small clique of persons reaping the harvest of Boulder Dam power," with Cahlan's *Evening*

[49] *Las Vegas Age*, April 5, 1935, 1, 4.
[50] Ibid., 4.

Review-Journal providing the main support. Arnett repeatedly tried to pin the issue of high utility rates on Cragin who, according to Arnett, opposed municipal ownership even though the PWA offered Las Vegas a thirty-percent grant for plant construction and a seventy-percent loan (at low interest with twenty years to repay) for the balance of the estimated $250,000 price tag. Throughout the campaign, Arnett attacked the city's inaction on the matter, charging that the town's annual $12,000 electric bill was "sufficient to pay the entire cost, with interest, over the twenty year period" for the distribution system. In short, Arnett portrayed Cragin's position as the height of both folly and scandal.[51]

Cragin, of course, responded angrily to charges he was "being run...for some sinister purpose." Claiming to be "under obligation to no one" and having "no special interests to protect," the Mayor justified his candidacy on the grounds of being a "large property owner... [whose] only interest [was] the development of [the] community." Cragin based his campaign primarily on the claim that he had presided over three years of public works' development which would eventually "lay the groundwork for the establishment in Las Vegas of industry which will consume cheap Boulder Dam power and bring large payrolls here to replace those of the construction period." Citing his administration's "close contact and cooperation" with New Deal agencies, he took credit for having "save[d] the individual property owners over $100,000 in street, park, sidewalk and curb and gutter improvements." And Cragin boasted that his re-election would insure continued public improvements. Indeed, he promised to "complete the pavement of our streets at low cost...finish our municipal park [and] proceed with sidewalk and curb and gutter improvements...[which] will provide employment for many of our citizens who are now out of work."[52]

On another front, Cragin characterized Arnett's charges that he opposed municipal power as "utterly absurd." In fact, Cragin claimed to be an eight-year advocate of municipal power while portraying Arnett as a newcomer to the cause. The mayor's views received added support from *Evening Review-Journal* editor John Cahlan who, in an "open letter" to Arnett, denied that either he or Cragin were part of "some mysterious machine." Instead Cahlan argued that this charge, along with the power issue, were mere "smokescreens" created by Arnett to conceal his own selfish ambitions. Describing Arnett, the proprietor of the popular "Mission Bar," as "one of the largest owners and operators of slot machines in the city," Cahlan accused the latter of wanting to end restrictions on the issuance of gaming licenses to "saloons," a move which would result in the "degeneration of most of our clubs and taverns to the status of 'joints' where knockout drops and crooked gambling games predominate." Concluding that it was "not in the best interests of Las Vegas to have a saloon-owner and slot-machine king in the office of mayor," Cahlan dismissed the machine and muni-

[51] Ibid., April 26, 1935, 10-11; May 3, 1935, 8, 9.
[52] *Las Vegas Evening Review-Journal*, May 2, 1935, 1, 6.

cipal power claims of Arnett and ridiculed the latter's estimates of reduced rates. The editor also raised doubts about Arnett's guarantees of PWA assistance. For, as Cahlan reasoned, with the PWA funding formula being currently re-evaluated in Washington, "nobody knows yet whether the 70-30 proposition held out before will be retained or not. Nobody knows whether any funds will be available for municipalities to purchase power systems under the new setup or not." In short, Cahlan viewed the entire issue as an attempt to mislead the voters into electing a "slot-king" mayor.[53]

The heated campaign continued throughout April and into early May when voters finally went to the polls and, in decisive fashion, registered their support for municipal power, electing Arnett mayor and passing his referendum question by a 7–1 margin.[54] Elated by this popular mandate, Arnett moved quickly to implement his program. Shortly after taking the oath of office he went to California to conduct the search for the project's consulting engineer. And later, upon his recommendation, the City Commission hired Barry Dibble to survey Nevada Power's current system, estimate its value and also compute the expense of building a competing city network. Dibble's investigation took over a month, and in August 1935 he reported that the cost of buying Southern Nevada Power's works would be $150,000 plus another $100,000 for building a transmission line to the dam. Later, using Dibble's figures, the government prepared a FERA application calling for $250,000 "to aid in financing the construction or purchase and remodeling of a municipal power system and incidental facilities." The city also empowered Arnett to petition the Colorado River Commission "for a sufficient allotment of power to supply the inhabitants of... Las Vegas, as, if and when, it is ascertained the amount of power which will be required."[55]

Although Southern Nevada Power opposed any purchase of its facilities, the mayor and his colleagues were undaunted; at their next regular meeting they passed a resolution reaffirming "the disposition, desire and intension (sic) of the Board of... Commissioners to carry into effect the wishes of the people as expressed in [the last]... election." By October a worried Nevada Power, represented by stockholders C. C. Ronnow and Samuel Lawson, pleaded in a letter to the city not to proceed with the plan. As a gesture of good will the utility promised to lower rates and quickly build a dam transmission line.[56]

Nevertheless, the mayor and commissioners pressed on. In October 1935 the board accepted Dibble's report and with FERA being phased out, voted to apply to PWA for $250,000 in grants and loans to "acquire or construct" a municipal power system. Plans called for a bond issue to repay the PWA loan

[53] Ibid., May 2, 1935, 6; April 30, 1935, 6.

[54] In the mayoral election the vote was: Arnett 1,472, Cragin 1,098, and James Down 188. The referendum on whether the city should buy or construct a municipal electric system was Yes, 2,117; and No, 285. *Las Vegas Evening Review-Journal*, May 7, 1935, 1.

[55] *Las Vegas Evening Review-Journal*, July 12, 1935, 1; City Commissioners, *Minutes*, III, July 11, 1935, p. 389; *Las Vegas Evening Review-Journal*, August 31, 1935, 1; October 5, 1935, 1, 2.

[56] City Commissioners, *Minutes*, III, October 4, 1935, p. 401.

without an election. The utility countered immediately with a lawsuit against the bond issue, contending that the ownership of a municipal power system serving the community at large violated the city charter. But despite the threats of Ronnow and Lawson, officials proceeded with the litigation which ultimately resulted in a 1937 victory for the city in the Nevada Supreme Court.[57]

Funding, however, proved to be the greatest obstacle. By April 1937 the public power effort had ground to a virtual halt, stalled by a fiscal crisis which threatened Las Vegas with possible bankruptcy. In April the mayor warned that cuts in city tax revenues by both the county and state seriously imperiled the town's meager surplus and raised the dreaded prospect of seeking an emergency loan just to meet the payroll. The time hardly seemed right for pursuing an expensive power project, but Mayor Arnett insisted on proceeding with the necessary bond election.[58]

Once again, as in 1935, controversy erupted. In the forefront of opposition was Nevada Power and the Las Vegas Taxpayer's League led by future Mayor John Russell and others, who argued that Las Vegas had already reached its taxable limit and further outlays would overburden property owners. The chief opponents of this view were Mayor Arnett, the city commission, and Charles "Pop" Squires of the *Las Vegas Age* who viewed the project as the first step toward lower rates, the crucial prerequisite for growth. The campaign was bitterly fought on both sides, but in the end the bond issue carried by 1,041 to 844.[59]

Still the financial problem lingered. By October 1937 the city's fiscal position was stable, though hardly much improved. Moreover, the power campaign had hit additional snags. First, the legality of the PWA building municipal power systems was under challenge in courts across the nation. In particular, a North Carolina suit brought by Duke Power Company was raising new constitutional doubts about PWA power projects in city halls from Raleigh to Las Vegas. Furthermore, the steadfast refusal of Nevada Power to sell had forced Las Vegas officials to choose the more expensive alternative of building an entirely new system, including a city power plant and dam sub-station, a transmission line to town, and a new street-wire network competing directly with Nevada Power for customers.[60]

As 1938 approached and the community's fiscal crisis deepened, this duplication of service seemed increasingly less attractive to voters and officials alike. Each month saw the city's financial condition decay as county commissioners, anxious to meet their own spiraling costs, granted less of the real estate and

[57] *Las Vegas Evening Review-Journal*, October 5, 1935, 1, 2.

[58] City Commissioners, *Minutes*, III, January 20, 1937, pp. 492-493; *Las Vegas Evening Review-Journal*, February 16, 1937, 1.

[59] *Las Vegas Age*, April 30, 1937, 6. The vote on the 1937 Power Bond Issue was: Among Property Owners: Yes 490; and No 485; for Non-Property Owners: Yes, 551; and No, 399. Under the city charter, the bond issue needed approval from both groups of voters. *Las Vegas Evening Review-Journal*, May 5, 1937, 1.

[60] Ibid., October 25, 1937, 1; October 27, 1937, 1.

property tax to municipalities. The following table graphically illustrates the problem faced by Arnett and his supporters:

Revenue to Las Vegas for Each $5.00 of Real Estate and Property Tax Collected by the County Within the City Limits[61]

1935	$1.50	1938	$1.17
1936	1.40	1939	1.15
1937	1.19	1940	1.05

By the spring of 1938 it was apparent that matters would worsen before they improved. Clearly, with a new recession developing, revenues would continue to decline, and with the city's bonded indebtedness approaching its legal limits, a new bond issue seemed unwise. These doubts eventually led commissioners to appoint a "Las Vegas Power Board" composed of prominent citizens to investigate the problem. After some study, the group recommended postponing the power project. Most city officials reluctantly agreed, but an irate Mayor Arnett first rejected the board's view and then, in a gesture of disgust, resigned his office on May 4, 1938.[62] Arnett was immediately replaced by Commissioner H. W. Marble who on the next day voted with his colleagues to delay the PWA application "to permit the matter to rest until conditions appear more favorable for the successful consummation of the plan." The group justified its action by citing a number of "changed conditions" which had occurred since the 1937 election. First, Southern Nevada Power had effected "a very substantial reduction in burdensome and excessive power rate schedules." Second, of course, was the city's fiscal crisis. The city fathers reasoned that the thirty-percent cut in tax revenues "adversely affects the power of the city in such an undertaking." Third, the politicians foresaw the power system producing problems of its own; namely, the "possibility of at least temporarily increased rates to the consumer." Finally, there was the "probable difficulty in securing the necessary allotment of power" from the Colorado River Commission, which certainly would have frowned on two competing transmission lines from the Dam to Las Vegas.[63]

Few people opposed the move. Even the *Age*, which had traditionally championed Arnett, now rejected his stance and applauded the commission's decision. In particular, the paper praised the report of the "Power Board" for raising concerns that the power issue might become a "political football." Indeed, "Pop" Squires was quick to agree, for, having observed the "scandals which have plagued other municipalities large and small and remembering some of the sad experiences of our own city," he noted that it was "hard to forget the fact

[61] Ibid., November 3, 1937, 1; City Commissioners, *Minutes*, IV, September 5, 1940, p. 261.

[62] Las Vegas Age, April 8, 1938, 4; City Commissioners, *Minutes*, IV, May 4, 1938, p. 110. There are some who attributed Arnett's resignation and earlier leave of absence as mayor to his poor health, but the defeat of his municipal power program seemed to be the deciding factor, especially when one considers the timing of his resignation.

[63] *Las Vegas Evening Review-Journal*, May 5, 1938, 1, 2.

that, inevitably, political mismanagement means political looting."[64] And so the power issue died in the spring of 1938 and never again rose to such a fever pitch. Yet even though the public system was never built, the community still accomplished its basic purpose. The threat of construction induced Southern Nevada Power to lower its rates substantially, and this relatively cheap power in later years became a major drawing card for new residents and businessmen alike.

In general, the various New Deal projects provided Las Vegas with a strong foundation for future growth by extending the town's physical infrastructure beyond the early boundaries to meet the needs of residents who arrived in the years after 1920. New sewers, for example, not only reached nascent suburbs but also older, impoverished sections like the Westside, which had been bypassed by earlier programs. Paving work was even more widespread. Virtually every neighborhood saw gravel or oil-based pavement coat its streets, although only the newer, more prosperous areas north, east and south of downtown received the full treatment—curbs, gutters, sidewalks and oil surfacing. Due to federal funding formulas, zones like the Westside with low property values and many vacant lots received only gravel. Despite these exceptions, New Deal public works benefited Las Vegas as a whole. Along with dozens of street improvements, the new school and park enhanced the town's ability to attract newcomers, while the convention center, golf course and eventually the airport boosted the city's reputation as a tourist center. In the long run, these New Deal projects along with Hoover Dam provided Las Vegas with a needed stimulus which, together with later military spending and resort expansion, prepared the city for its leap to metropolitan status in the years after 1950.

[64] *Las Vegas Age*, May 6, 1938, 1.

Virginia City's Chinese Community, 1860-1880

RUSSELL M. MAGNAGHI

HISTORICAL ANALYSIS OF THE ROLE of Chinese on the Comstock Lode has been neglected. In part because of historical circumstances that attended their arrival and departure too little has been preserved or even written about the Chinese past. Contemporary accounts often reveal a considerable misunderstanding of Chinese culture and life-styles; only the newspapers of the Comstock communities remain to provide detailed views, but these sources must be used with extreme care because of their inherent bias. Yet during the heyday of the Big Bonanza, about a thousand Chinese lived in the vicinity of Virginia City, and any history of the region and the era which neglects their role is necessarily incomplete. It is the object of this study to help fill this gap in our knowledge of the role of minorities and the handicaps they faced in the development of Nevada.[1]

The first Chinese to arrive in western Nevada came from California to the mouth of Gold Canyon in the late 1850s. Eventually there were between forty and fifty Chinese employed digging a ditch to carry water from the Carson River to the placer mines in the canyon. Upon completion of the ditch in 1858 many Chinese remained and were allowed to work banks and bars abandoned by the white miners. With a little luck and plenty of hard work they could collect an ounce of gold per day, and under these conditions other Chinese followed until there were nearly two hundred Chinese in the vicinity. Their settlement was called China Town until it was later renamed Dayton.[2]

[1] Studies dealing with the Chinese on the mining frontier: Effie Mona Mack, *Nevada: A History of the State from Earliest Times through the Civil War* (Glendale, Calif.: Arthur H. Clark, 1936); *Nevada State Journal*, November 16, 1958; Gary P. BeDunnah, *History of the Chinese in Nevada, 1855-1904* (San Francisco: R & E Research Associates, 1973); Grant K. Anderson, "Deadwood's Chinatown," *South Dakota History* 5 (Summer, 1975), 266-285; Duane A. Smith, *Rocky Mountain Mining Camps: The Urban Frontier.* (Lincoln: University of Nebraska Press, 1974), pp. 29-30; William S. Greever, *The Bonanza West; The Story of the Western Mining Rushes, 1848-1900* (Norman: University of Oklahoma Press, 1963); Patricia K. Ourada, "The Chinese in Colorado," *Colorado Magazine* 29 (1952), 273-284; Dana E. Balibrera, "Virginia City and the Immigrant," M.A. thesis, University of Nevada, Reno, 1965, pp. 60-67; Rodman W. Paul, "The Origin of the Chinese Issue in California," *Mississippi Valley Historical Review* 25 (1938-1939), 181-196; Thomas W. Chinn, ed. *A History of the Chinese in California: A Syllabus* (San Francisco: Chinese Historical Society of America, 1969); Rose Hum Lee, "The Chinese Communities in the Rocky Mountain States," Ph.D. dissertation, University of Chicago, 1947; Gregg Lee Carter, "Social Demography of the Chinese in Nevada, 1870-1880," *Nevada Historical Society Quarterly* 18 (Summer 1975), 72-89; George M. Blackburn and Sherman L. Ricards, "The Chinese in Virginia City, Nevada: 1870," *Amerasia* 7 (1980), 51-71.

[2] Myron Angel, ed., *History of Nevada* (Oakland: Thompson & West, 1881), p. 51; Hubert H. Bancroft, *History of Nevada, Colorado and Wyoming, 1540-1888* (San Francisco: The History Company, 1890), pp. 77, 95, 292; Dan De Quille, *A History of the Comstock Silver Lode and Mines* (Virginia City: F. Boegle, 1889, 1973 reprint), p. 102.

A rare panorama of Chinatown located between St. Paul's Episcopal Church and the C&C Shaft taken from the California Pan Mill in early 1877. *(California State Library, California Picture Collection, Watkins? Photo #1096)*

The discovery of silver on the Comstock Lode in 1859 began a great rush eastward from California; it attracted hundreds and then thousands of people, all seeking their fortunes. On March 27, 1860 the *Alta California* noted that "All are going—rich and poor, miners, merchants, doctors, lawyers, bummers, loafers, gamblers and Chinamen."[3] The typical Chinese who made the trip was usually a male in his late twenties; he retained his language, customs and dress, and planned to return to China once he made his fortune.

The Chinese were attracted to the Comstock Lode because of the prosperity and the opportunities there, and because there was a developing larger non-Asian community into which the Chinatown, a community within a community, could exist symbiotically attached to the economic, social and political base of the larger community.[4] It was in Chinatown that individual Chinese could "find fellowship, companions, social familiarity and solace. Chinatown acted as a partial buffer against the prejudices, hatreds and depredations of hostile whites."[5]

[3] San Francisco *Daily Alta California*, March 27 and 31, 1860; J. Ross Browne, "A Peep at Washoe," *Harper's New Monthly Magazine* 22 (December, 1860), 1-17; (January, 1861), 145-162; (February, 1861), 289-305.

[4] Rose Hum Lee, "The Chinese Communities in the Rocky Mountain States," p. 5.

[5] Stanford M. Lyman, *The Asian in the West* (Reno: University of Nevada Social Science and Humanities Publication No. 4, 1970), pp. 9, 11.

Chinatown was located on the only naturally level area within the limits of Virginia City, east of C Street, the main thoroughfare. Union Street ran through its center and was bisected by side streets (G through K) and numerous alleys. The quarter was described as a crowded, "narrow-laned shacktown" composed of unpainted dilapidated shanties. This is confirmed by the few photographs which exist of it. Some Chinese rented dwellings from white landlords, but many relied upon their own ingenuity in constructing dwellings. Since the price of brick and wood was high, the Chinese used a variety of building materials. Pieces of stone from the immediate vicinity were gathered along with empty coal oil cans which were used as building materials. The cans were filled with earth and piled one upon another, creating a fireproof and bulletproof structure. Other Chinese simply dug holes into the hillsides, covered them with sticks, straw and occasionally with planks, and fitted a door facing east. Wealthy merchants were able to purchase lots and they constructed substantial brick buildings whose windows were protected with iron shutters. As an added precaution against fire damage, they constructed special storage cellars. The opening was covered with a piece of iron and then covered with two inches of earth, which successfully kept out fire, water and smoke.[6]

Fire was always a serious and constant threat to frontier mining towns and Virginia City's Chinatown was no exception. The quarter possessed all of the ingredients for disastrous fires: crowded conditions, flimsy wooden shacks, open fires and unsafe chimneys, fireworks, and arson on the part of rival factions. During the twenty years under consideration, numerous fires destroyed substantial portions of Chinatown, and the great fire of October, 1875, completely leveled it. Since a fire in Chinatown could easily spread to the rest of the community, by 1877 a six inch water pipe had been laid under Union Street with a hydrant located at the intersection of I Street. The city fathers hoped that the excellent water pressure in the pipe would be enough to control Chinatown's fires.[7]

Besides living within their own community, the Chinese remained distinctive from the rest of the community through the wearing of traditional clothes. Both men and women wore wide-legged, blue cotton breeches, black smocks and slippers. The women tied their hair in red and blue gingham handkerchiefs while the men wore their hair in queues either hanging down the back or coiled up under their umbrella-like bamboo hats, "greasy and sooty in color." The trademark of the cooks was the blue frock and rimless cap. Wealthy merchants

[6] *Virginia City Territorial Enterprise* (hereafter cited: TE), January 25, 1876; *Virginia Evening Chronicle* (hereafter cited VEC), December 20, 23, 1875; Deeds, Recorder and Auditor, Storey County Court House, Virginia City, Nevada, Vol. 26, p. 424; Vol. 27, p. 657; Vol. 28, p. 174; Vol. 30, p. 81; Vol. 31, p. 630; Vol. 32, p. 403; Vol. 33, p. 35.

[7] TE August 31, 1869; March 5, 1870; June 25, 1872; July 17, 1872; July 19, 1872; August 22, 1872; July 13, 1877; 1877 Map of Virginia City, Bancroft Library, University of California, Berkeley; Thomas H. Kinnersley, "Virginia, Nevada, 1859-1890: A Study of Police, Water, and Fire Problems," Ph.D. dissertation, University of California, Los Angeles, 1974.

wore rich silks at festival time when they visited friends. Although it was not common, a few Chinese dressed in the "American-style."[8]

Many Chinese who moved to Virginia City sought to find employment; others started their own businesses. They were handicapped by white prejudice, and by traditions which viewed them as a threat to white organized labor. As a result of these attitudes and fears the Chinese often were forced into those economic corners of the community ignored by whites. The Chinese were employed either outside their community, or within to provide services for their countrymen.

Large numbers of Chinese were employed by whites who regarded them as cheap labor, and as especially dependable workers; the Chinese were often kept on in the face of opposition from anti-Chinese organizations. In 1880 there were over one hundred Chinese employed as cooks in boardinghouses, restaurants, hotels, mining companies and private homes. The Chinese cooks were taught how to prepare American cuisine, and did not present their employers nor their employers' customers with Chinese delicacies. Other Chinese found employment as servants in the homes of the wealthy. Saloons and other businesses hired Chinese to clean up, while the management of the six-story International Hotel employed Chinese to wash the exterior windows. Although it was not common, Chinese were hired by the municipal government on a number of occasions. In December, 1871, they were hired to sweep mud off the streets because, as a prejudiced Irish foreman pointed out, they could be hired cheaper than using mules.[9] In 1878 and 1879 Ah Kee, San Sing and Camp Sing were paid various fees ranging from $4.50 to $10.00 on a monthly basis by the county commissioners for undisclosed services.[10]

The remainder of the Chinese population was either self-employed or worked for other Chinese. The majority of people in this category were involved in the laundry trade, which became synonymous with the Chinese. Although Chinese laundries probably appeared as soon as Virginia City was settled, little is known of their origin. The first reference made to Chinese laundries appeared in the first *Directory of Nevada Territory* of 1862 which listed Lee Ching and Sam Kee as owners.[11] Laundries were not confined to Chinatown but were located throughout the city, providing ready and convenient service to customers. The laundries averaged six workers to a wash house and operated quite efficiently. A typical wash house consisted of several large barrel tubs through which water constantly passed. The soiled clothes were wadded and then hit with a board

[8] TE August 22, 1868; July 22, 1871; April 14, 1878.

[9] *Gold Hill Evening News* (hereafter cited: GHEN) July 15, 1864; TE September 20, 1867; November 12, 1871; December 17, 1871; July 2, 1879.

[10] Minute Book, County Commissioners, Storey County, Nevada, December 7, 1877–September 5, 1881, Clerk's Office, Storey County Court House, pp. 14 and 175.

[11] *First Directory of Nevada Territory of 1862* (Los Gatos, Calif.: Talisman Press, 1962), pp. 134, 161; Gregg Lee Carter, "Social Demography of the Chinese in Nevada, 1870-1880,", pp. 72-89.

until the dirt was removed. The clothes were then dried on the roof of the laundry after which they were ironed and packaged.[12]

During the winter months a common figure on the streets of Virginia City was the Chinese wood peddler. The Chinese displaced the Paiute Indians as wood retailers because the latter could not compete with them. Prior to the completion of the Virginia and Truckee Railroad in 1870, the Chinese dominated the retail wood market; when the roads were bad, or the snow too deep and the regular wood supply could not get through, everyone was happy to buy small quantities at their doorsteps from the Chinese.[13]

As was the case in other economic activities, the Chinese wood gatherers were at the mercy of white competitors. The white wood cutters first worked an area and removed the large trees; when they were finished, the Chinese were allowed to take the roots, stumps and brush. At first the Chinese were able to find wood conveniently located on Cedar Hill and other locations close to town, but that rapidly changed. By the summer of 1864 their donkey trains were seen in lengthy lines coming from the Palmyra District and El Dorado Canyon. Fifteen years later they were forced to travel sixteen to eighteen miles north of Geiger Grade and ten miles down Six Mile Canyon in order to find wood; in many cases they dealt in sagebrush.[14]

Even with the restrictions and dwindling supply, the wood business proved to be extremely profitable for many Chinese. During the summer of 1869 Kwong Toa gathered over seven hundred cords of wood; in 1877 a group of Chinese operating in Six Mile Canyon used fifteen donkeys in their operation. In warm weather wood sold for $1 per donkey load and the price could double when the weather got cold. One donkey load which cost $1.50 in 1868 gave the purchaser six fires in a common parlor stove. During the winter of 1866-1867 when there was six feet of snow on the ground and all transportation was halted, the Chinese sold firewood at $40 and even $60 per cord. With prices so high they even burrowed into the snow in search of roots. At this time there was a group of Chinese wood peddlers in Virginia City who were realizing a fabulous $300 per day with 50% profit. The Chinese themselves purchased sagebrush faggots since they utilized little fuel except for cooking and sold the larger pieces for higher prices to whites.[15]

The decline in the Chinese wood business came with the completion of the Virginia and Truckee Railroad, which brought in a steady and reliable supply of cheaper firewood and longer-burning Rocky Mountain coal. As a result the number of Chinese engaged in the trade dropped from a record high in 1868 of about 150, to only 66 listed in the 1870 census. Ten years later there were only

[12] Mrs. Mary M. Mathews, *Ten Years in Nevada* (Buffalo, N.Y.: Baker, Jones & Co., 1880), p. 252.

[13] TE March 8, 1868; October 23, 1870; February 14, 1878.

[14] Eliot Lord, *Comstock Mining and Miners* (Berkeley: Howell-North, 1959, reprint of 1883 edition), p. 204; TE August 19, 1877; February 15, 1878, January 22, 1881.

[15] TE August 28, 1869; August 19, 1877; January 16, 1868; GHEN April 5, 1866; TE January 22, 1881.

eight sawyers and four peddlers in business. Some Chinese began peddling coal and charcoal or sold their services as sawyers. In the hard economic times of the late 1870s whites further cut into their activities, but during their heyday the Chinese wood peddlers provided residents of Virginia City with an extremely important service.[16]

Another good example of a successful economic activity engaged in by the Chinese on the Comstock Lode is to be found in their development of agriculture. Due to crowded conditions in China, farmers there had a long tradition of intensive farming with an emphasis on high yields per acre. The Chinese approach to agriculture appeared in Virginia City where they constituted one of the few groups to successfully attempt to garden on the barren slopes of Mount Davidson. As early as the summer of 1863 the efforts of a single Chinese gardener on a small piece of land to the east of town proved to be productive. Soon other Chinese followed his example and a new business activity developed: the gardener and vegetable peddler.

Many gardens were developed along the outskirts of Virginia City, although the largest were located at the foot of Union Street close to Chinatown. These gardens were fenced in with a variety of materials ranging from scrap wood to flattened coal oil cans. Water—a most necessary and precious commodity in the desert—was expensive, and the Chinese solved the problem by diverting some of the run-off which went down Union Street and by tapping sewer water. In 1877 they contemplated using the hot water pumped from the Norcross & Savage Mine for additional gardens to the south.[17]

Planting began after the last frost, perhaps as early as mid-March, and continued into late October. The Chinese cultivated a variety of vegetables to be sold in the local markets, and Chinese vegetables used in their own cuisine. Their gardens received high praise from the community. A *Territorial Enterprise* reporter wrote in the summer of 1877 that "every patch of ground cultivated by them is a model of neatness, and they pay such strict attention to the rotation of crops that something is constructively growing in every bed and plot." Their vegetables were considered fresher and of better quality than those from California, and the term "Chinese garden" came to denote freshness and quality throughout the community.[18] After the harvest, with the aid of a polebasket or a donkey, they sold the produce to hotels, restaurants, saloons, and private homes.

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[16] TE November 22, 1877; December 31, 1879; January 26, 1881.

[17] VEC June 14, 1875; TE September 21, 1877; February 1, 1877. The Chinese were not the only gardners using sewer water. On September 9, 1873, for instance, John Dohle was granted the use of water flowing through Mill Street. The only stipulation was that he must keep the sewer in good repair (Record [Board of Aldermen, Virginia City, Nevada], January 1, 1867–March 28, 1876, Clerk's Office, Storey County Court House; VEC June 19, 1875; TE June 18, 1871; August 18, 1878; *Virginia Chronicle* (hereafter cited: VC) July 30, 1879; TE April 10, 1880; May 7, 1880.

[18] VEC January 14, 1875; June 19, 1875; September 2, 1875; TE June 18, 1871; July 10, 1877; Wilbur S. Shepperson, *Restless Strangers: Nevada's Immigrants and Their Interpreters* (Reno: University of Nevada Press, 1970), p. 111.

Mining, the life blood of the Comstock Lode, was an activity which the Chinese entered with great difficulty. From the time of the first settlements Chinese were legally prohibited from mining. However, by 1878 a number of them had moved into abandoned mine sites in Gold Canyon and by 1880 Seven Mile Canyon was the location of a Chinese mining operation which included six laborers and a cook. The Chinese miners were only allowed to work dumps and tailing sites not wanted by whites. They constructed special sluices to combat the blue sand, pebbles and stones. Although they were plagued by summer drought and winter floods some of the miners realized between $1.50 and $2.00 per day for their efforts. However, mining never did prove to be an important economic endeavor among the Chinese.[19]

Chinese chair repairman in the center of Chinatown. Note the construction detail of the quarter. *(California State Library, California Section Stereo Collection, Watkins New Series #4137)*

[19] TE July 17, 1878; August 24, 1881; July 28, 1880; January 22, 1881; March 31, 1881; June 19, 1881; October 15, 1881; November 4, 1881.

Chinese were also occupied in a variety of jobs and tasks throughout Virginia City. Some would visit homes and seek jobs repairing chairs, or chopping and sawing wood. Cigars produced in Chinatown were sold throughout the Comstock, although this endeavor was the object of an attack by the Anti-Chinese League. Chinese ragpickers scoured the town for rags, baled them and created immense piles at the Virginia & Truckee Railroad depot where they were shipped to be processed into paper and shoddy. Besides peddling firewood and home-grown vegetables, Chinese sold watercress gathered from the surrounding hillsides and even fresh fish. A one-eyed Chinese fellow made the rounds between 9:00 a.m. and midnight selling hot tamales for a Mexican woman and became a town character.[20]

In areas distant from Virginia City, Chinese found employment in activities otherwise barred them on the Comstock. After the completion of the Central Pacific Railroad in May 1869, there were thousands of unemployed Chinese, some of whom found employment in the construction of the Virginia & Truckee Railroad. Although Chinese were not employed by the V & T Railroad in Storey County, they were used elsewhere along the right-of-way; when the railroad was extended from Carson City to Reno, between 400 and 500 Chinese were employed. Chinese were hired as wood cutters in the mountains above Carson City and Genoa, although their presence angered many whites. Along the Carson River, Chinese were employed at the Union Mill.[21]

Many Chinese living within Chinatown found employment by providing services to their fellow countrymen. There were Chinese physicians and pharmacists who maintained health services for Chinese and also white clients. In 1870 there were two pharmacists, Quing Quong and Chung Ching, who operated stores in Chinatown; in addition, there were four physicians: Hop Lock, Wing Song, Al Leong, and Loonsing Tong. Eight years later there were six Chinese physicians and of this number three were located outside of Chinatown in order to cater to white clients. Hop Lock is the best known Chinese physician and was respected in both the Chinese and white communities. He arrived on the Comstock in the early 1860s and treated ailments with herbs and roots. An 1864 newspaper advertisement boasted that he "professes to cure all diseases on this coast" and in subsequent ads, pleased white patients testified to his successful treatment of their ailments without the use of poisonous medicines. Lock's office in 1867 was located on South C Street, and this assured white patients. His reputation attracted two rivals who rented space on either side of him in order to confuse prospective clients. Three years later he moved closer to Chinatown and

[20] TE July 23, 1880; March 28-29, 1869; May 12, 1878; June 1, 1875; September 20, 1878; March 17, 1877; June 8, 1879; November 29, 1876; *Gold Hill News* (hereafter cited GHN) May 25, 1864; TE September 9, 1876; May 4, 1878; May 10, 1878.

[21] Daniel W. Strong to George Strong, Dutch Flat, Calif., February 22, 1869, Nevada Historical Society, Reno, #2125; TE July 20, 1871; July 26, 1871; October 30, 1872; October 7, 1871; VEC January 19, 1875.

located on the northeast corner of D and Union Streets. Dr. Lock had a number of legal problems to face. He did not pay a special federal tax and was convicted and fined $75. Early in 1871, together with Chung Chow he was arrested on a murder charge. A two month long trial found Lock not guilty and he then passed from the Comstock scene.[22]

Chinese merchants operated stores which provided the population essential native foods and general goods. In 1878-79 there were six Chinese merchants in Virginia City. At this time Kong Tai Chong & Company (located at 7 North H Street) advertised in the *Virginia Chronicle* that they were "dealers in groceries, fresh fruits, etc., at San Francisco prices, freight added." Sam Sing and Hop Sing, two leading merchants of Chinatown, filled their stores with Chinese delicacies and attracted white patrons who sought their pork products. At New Year's these shops were filled with a special assortment of fancy goods.[23]

In addition to these grocery markets, there were sausage shops, restaurants, barbershops, cobblers, jewelers and tailors. Many Chinese used their skills to produce toys, festival candles and kits. Most of the kites flown by white children were purchased from the Chinese who were recognized as "experts in their manufacture." The kites ranged from ordinary ones to elaborate affairs shaped like birds, eagles or butterflies with lanterns attached; some were capable of discharging fireworks.[24]

Some Chinese, including wealthy merchants like Hop Sing, joined the whites affected by the stock mania and speculated in the hope of instant wealth. They waited on the fringes of white crowds anxiously seeking the latest news of their investments; in many cases the results were adverse.[25]

Prostitution, gambling, and the sale and use of opium were carried on by the Chinese and often flourished because of white patronage. The traditional family structure was deficient in Chinese communities in the United States because Chinese males planned on residing in the United States on a temporary basis and then returning to their families in China. Also, there were traditional prohibitions against Chinese wives leaving their homes. As a result, the Chinese prostitute was important for the services she provided the community and as a prospective wife. Various companies imported Chinese women for $200 and resold them on the Comstock for between $800 and $1000. The Chinese prostitutes were considered to be close to the bottom of the social structure. They were kept in tiny rooms and furnished with old clothes on which to sleep. There is no

[22] *The Daily Safeguard*, October 19, 1868; TE May 27, 1868; December 15, 1870; February 21, 1871; April 5, 1871; April 9, 1871; Wells Fargo Express, *Directory of Chinese Business Houses*. (San Francisco: Britton & Rey Litho, 1878), p. 84; Record Group 21, U.S. District Court, District of Nevada, Carson City–Reno, Criminal Case Files, 1865-1949, Series 1, Box 5, Federal Archives and Records Center, San Bruno, CA #519.

[23] VC September 23, 1879; February 11, 1880; VEC December 11, 1875; D.M. Bishop & Co. (compilers) *Directory of Virginia City, 1878-1879* (San Francisco: B.C. Vandall, 1878) p. 574.

[24] Mathews, *Ten Years in Nevada*, p. 251; GHEN February 14, 1866; VC July 29, 1879; VEC July 16, 1875.

[25] TE March 14, 1871; August 9, 1878; September 5, 1878; January 7, 1880.

record of the fees charged customers, but Asian brothels in San Francisco at the same time charged as little as $1.00. In 1870 there were seventy Chinese prostitutes in Virginia City, comprising most of the females in the Chinese community. Many of them were married and yet continued to ply their trade. For some, such an existence was intolerable and overdoses of opium provided a means of escape.[26]

Gambling flourished throughout the West and the Comstock was no exception. The Chinese gambler was an important figure in Chinese society in America. In 1870 there were forty-two Chinese who listed themselves in the census as "gamblers," and ten years later this figure had declined to thirty-two. They tended to amass large sums of money and gems in a relatively short period of time. A wealthy gambler in 1871 possessed the following personal estate: over a dozen cans of opium worth $200, $1250 in gold and silver coins, jewelry valued at $300, and silks and fine clothing valued at $200. One lucky gambler won $1600 in ten days and continued with his good fortune.[27]

Gambling halls were scattered throughout Chinatown and did a brisk business catering to Chinese and whites interested in trying their luck at lotteries, diana, fan-tan and a variety of poker games. Although the Chinese dominated gambling in Chinatown, some whites unsuccessfully tried to compete.

By the latter half of the 1870s the gambling parlors began to experience a serious decline. In response to a municipal ordinance which taxed them, most of the operators closed down by March, 1875. Eventually some of them reopened after paying the tax, but at about the same time the Chinese population began to decline as the Chinese left Virginia City seeking their fortunes elsewhere. It became difficult to operate at a profit, and by 1879 there were only two fan-tan games in operation.[28]

The smoking of opium, a habit-forming narcotic, had developed among the Chinese in the seventeenth century. Foreign traders introduced vast quantities in the 1830s and 1840s. By 1838 nine out of ten Chinese in Kwantung Province were addicts.[29] The importation of opium into the United States was legal in the nineteenth century, and in 1870 2,413,073 pounds of opium worth $13,824,535 were legally imported into the United States.[30]

The Chinese who arrived on the Comstock carried on this tradition of opium smoking. Opium dens were a feature of Chinatown and the smell of opium

[26] VEC September 11, 1875; October 25, 1875; TE February 18, 1871; November 13, 1875; Marion Goldman, "Sexual Commerce on the Comstock Lode," *Nevada Historical Society Quarterly* 21 (Summer, 1978), 110, 118.

[27] TE February 5, 1871; November 14, 1873.

[28] TE October 4, 1872; VC December 3, 1879; November 28, 1879; January 26, 1880.

[29] John K. Fairbank, Edwin O. Reischauer, and Albert M. Craig, *East Asia: Tradition and Transformation* (Boston: Houghton Mifflin Co., 1973), p. 450; Immanuel C. Y. Hsu, *The Rise of Modern China.* (New York: Oxford University Press, 1970), p. 217.

[30] Gregory Lee Mark, "Racial, Economic and Political Factors in the Development of America's First Drug Laws," *Issues in Criminology* 10 (Spring, 1975), 61.

wafted throughout the quarter. The Chinese were firmly entrenched as operators of the dens and their clients were both Chinese and whites. The exteriors of the dens were similar to surrounding structures, but the interiors consisted of a labyrinth of tiny rooms and numerous doors to be used as exits in case of a police raid. The dens were scattered throughout Chinatown and beyond, although a large number of them were concentrated on G Street.[31]

Opium smoking became extremely popular among whites by the mid-1870s. Both males and females as young as twelve years of age, young adults and older people made the trip to the dens. As a result of this white demand for opium, the Chinese opened new dens and expanded smaller, older and inadequate ones. In some cases they added special rooms for women. By 1875 some fifty young men were identified as addicts and after the great fire of that year, opium dens were some of the first structures to be constructed in Chinatown. Sing Woh, an operator of a den at the corner of Union and H Streets, observed that between 1871 and 1876 his annual purchases of opium had jumped from 5½ pounds to over thirty-five pounds.[32]

A trip to an opium den usually began at dusk, although some whites arrived at various hours of the day and night. Once in the den, having paid a policeman to look the other way, the scenario would develop as described in the *Virginia Chronicle* in 1875:

> I paid the Chinaman who fixed the pipe twenty-five cents, and he gave me a bunk. It was not elegantly fitted up. I lay on a piece of matting and had a small soap box for a pillow. The pipe, which was an eight-sided stone knob, with a small hole in the center just large enough to admit the end of a dangling needle, was placed in my hands. He gave me a small lamp, about a thimbleful of opium and a darning needle. I knew nothing about how to manage the pipe, but the old fellow was attentive, and I was soon as able as he. First he dipped the end of the darning needle into the little pot of opium, then held the end upon which the opium adhered above the flame of the lamp. The opium sputtered and finally swelled up into a little round ball. This was then forced into the little hole in the pipe and the flame again applied to the opium. I was told to inhale, and did so. That was the whole operation, and I repeated it until I felt that I could stand no more.[33]

As long as opium was smoked exclusively by the Chinese, whites were not concerned. The *Virginia Chronicle* in 1879 saw opium smoking among "loafers, roughs and desperadoes" as a social benefit since it calmed them down and saved the state money. However, when large numbers of whites took to smoking opium that was another matter. During the mid-1870s most of the city newspapers ran lengthy exposés of the horrible practice of opium smoking. The *Virginia Chronicle* summed up one of its articles on the subject: "There is no city on the coast where the Oriental custom of smoking opium is more thoroughly established

[31] VEC June 8, 1875; VC September 13, 1879; VEC January 19, 1876.
[32] VEC March 31, 1875; February 10, 1876; VC September 30, 1879; VEC February 15, 1876.
[33] VEC March 31, 1875.

than here [Virginia City], or in which it is calculated to produce more destructive effects."[34]

In response to these exposés the city, and eventually the state of Nevada, passed anti-opium laws. The Board of Aldermen passed an ordinance in September, 1876, which abolished opium dens and levied a $50 to $500 fine and/or a ten day to six month jail sentence on convicted operators. The state legislature passed an ordinance in September, 1876, which abolished opium dens and levied a $50 to $500 fine and/or a ten day to six month jail sentence. The state legislature passed a bill on February 9, 1877 which made it illegal to smoke opium or possess an opium pipe or a part of it. The guilty party could receive a $500 fine and/or six months in the state prison. Two years later the "opium law" was amended to increase the fine to $1000 and the prison sentence to two years. It also made it mandatory that only pharmacists could dispense opium with medical prescriptions and landlords became liable for opium smoking among their tenants.[35]

Despite all of these ordinances and laws, opium smoking continued. The operators were arrested and charged with violations of the law, but not the smokers. In many cases the smokers were asked to act as witnesses against the operators. A major obstacle to enforcement was the fact that both regular and special policemen assigned to Chinatown accepted bribes and looked away when smokers arrived. White informers, in Chinese pay, gave advance warning of an impending raid and operators usually destroyed incriminating evidence before the police could arrive, making a conviction extremely difficult to obtain. Despite all of these obstacles the police did make successful raids and were given strong encouragement by the Special Board of Police Commissioners in 1879, which called for more frequent and irregular raids.[36]

Both the smokers and operators reacted to these laws and their enforcement in a variety of ways to circumvent the law. At first large numbers of smokers traveled to Gold Hill and Sutro because enforcement of the law was temporarily lax. Some Chinese smoked tobacco heavily saturated with opium or 14%-16% morphine in regular pipes to avoid detection. As the regular dens were raided and closed, operators moved into the numerous abandoned tunnels in the vicinity and into cellars and backrooms of restaurants and stores.[37]

In retrospect Virginia City's anti-opium campaign proved to be a failure. Even after police reform and many successful raids, both Chinese and whites continued to smoke. In 1881 the *Territorial Enterprise* had to report that there

[34] VEC June 8, 1875.

[35] J. H. Graham, *Revised Ordinances of the City of Virginia* (Virginia City: Enterprise Steam Printing House, 1878), p. 116; TE March 29, 1879; February 18, 1880; March 9, 1881; April 1, 1881. Henry C. Cutting (compiler) *The Compiled Laws of Nevada in Force from 1861 to 1900 (Inclusive)*, (Carson City: Andrew Maute, 1900), p. 937.

[36] TE April 3, 1879; *The Footlight* (hereafter cited: TF) November 1, 1877; TE August 27, 1877; November 1, 1877; November 3, 1877; November 24, 1877; April 2, 1877; July 23, 1879; September 3, 1879; September 11, 1879; September 30, 1879; VC July 21, 1879.

[37] TE April 10, 1877; April 22, 1877; VC March 20, 1880; February 24, 1880; July 2, 1879; March 13, 1881; April 1, 1881.

were a dozen or more dens patronized "quite openly and in broad daylight" by a variety of people.[38]

It is unfortunately true that nineteenth-century analysis of, and commentary upon, Chinese culture and amusements often began and ended with the opium den; furthermore, the white use of various drugs, including opium, was too often passed over fairly lightly. A closer look at the sources reveals a variety of amusements, a dedication to the rich, traditional forms of Chinese religion and culture, and a complex set of social and protective organizations.

The Chinese relied on amusements that were both American and Chinese in origin. Youngsters played marbles and ball games, and spun tops. One white reporter wrote that they were more proficient at these games than the white boys. Both males and females attended performances at Piper's Opera House and the circuses that frequently visited Virginia City.[39]

Among the traditional forms of amusement, kite flying predominated. On windy days the sky above Virginia City might be filled with beautiful and elaborate kites shaped as eagles, serpents, birds and some with special chimes that could be heard a mile or more away, while others were mounted with lanterns and fireworks for evening flying. They played a form of shuttlecock during the progress of which the participants had to remain in a twenty foot circle while the shuttlecock was kicked and hit and at times kept in the air for a solid ten minutes. These games usually attracted large numbers of Chinese and white spectators. Orchestras composed of gongs, drums, cymbals and horns played for festivals, in music halls or to advertise gambling parlors.[40]

Numerous traditional festivals held throughout the year provided some respite from the drudgery of daily life. The chief holiday for the community was the two week celebration in late January and early February (depending on the lunar calendar) leading into Chinese New Year. The pop and sputter of firecrackers and fireworks was mixed with the sounds from numerous orchestras. Dressed in their finest attire, men and women visited friends, exchanged gifts, and partook of elaborate feasts. In the early autumn there was another important festival which was celebrated in a similar fashion, and throughout the year there were other minor festivals.[41]

At the other end of the spectrum of life in Chinatown were the elaborate funeral ceremonies and colorful processions to the cemetery. The Chinese had two cemeteries in Virginia City: one was located on a hillside to the east of town

[38] TE March 8, 1881.

[39] TE April 17, 1878; VC May 16, 1879.

[40] TE July 22, 1871; VEC June 2, 1875; TE May 24, 1877; April 5, 1878; May 7, 1878; VC May 16, 1879; TE March 24, 1869.

[41] TE February 19, 1871; GHEN February 14, 1866; February 15, 1866; V.R. Burkhardt, *Chinese Creeds and Customs* (Hong Kong: The South China Morning Post, Ltd., 1953); Walter Van Tilberg Clark, ed., *The Journals of Alfred Doten* (Reno: University of Nevada Press, 1973), 2:877. (Cited as Doten, *Journals*.)

A rare photograph of three Chinese women, "Mary, Susie and Nellie" and a little boy on the Comstock taken in August, 1866. *(Special Collections, Library, University of Nevada, Reno)*

beyond the county hospital, and the other beyond the Sierra Nevada Mine dump to the north of town. The burial grounds were totally barren, and the headstones were made of unpainted boards with the name of the deceased written in pencil. These cemeteries were of a temporary nature since the bones were eventually disinterred, packed and shipped to China for reburial.[42]

[42] TE July 24, 1877; John Taylor, *A Kid on the Comstock: Reminiscenses of a Virginia City Childhood*, Dolores Bryant Waldorf (ed.) (Palo Alto: American West Publishing Company, 1970). pp. 84, 86.

Prominent and influential members of the Chinese community were accorded elaborate funerals, which included lengthy processions involving numerous individuals. If the individual were known to the white community the procession would travel along C Street through the heart of the white areas of the city. On November 30, 1878, a typical large funeral took place. An American brass band led the procession, followed by men wearing special badges, then a large vehicle followed by the hearse, a number of female musicians, a regular Chinese band, and a wagon loaded with food for the graveside ceremonies.

Although completely surrounded by an alien culture, the Chinese did not abandon their religion. A number of temples or joss houses were constructed by the companies. One of the earliest temples was completed and dedicated in June, 1864. It was a pagoda-style structure with an intricate entrance gate which led into a courtyard; the main building, with a wooden statue, was located on the east side of the courtyard.[43]

In 1872 the Yeong Wo Company planned to construct a new temple. The members purchased the necessary land from George Downey, but the house in which a celebratory dinner was being held was stoned by the rival Sze Yup Company. Still, by September 2 the new temple, which was located on the corner of H and Union Streets, was ready to be formally dedicated. Its front was decorated with Chinese asters, and for eight days musicians played, firecrackers and fireworks exploded and members prayed. The rivalry between the companies did not end; temples had to be rebuilt on a number of occasions after fires set by rival arsonists destroyed them.[44]

The temples were presided over by two priests dressed in long blue robes. They were kept in neat condition, and the aroma of sandalwood incense filled the area where worshippers could go daily to pray. During the New Year festivities the temples were illuminated with thousands of colored candles and paper lanterns.[45]

Although Chinese culture and religion predominated, there were a number of attempts to develop schools and Christian churches so that assimilation would be accelerated. One of the more successful of these was sponsored by the Episcopal Bishop, Ozi William Whitaker. In June, 1875, an extremely enthusiastic Chinese convert, Ah For, arrived in Virginia City and persuaded Bishop Whitaker to back his plan for the construction of a chapel in Chinatown. Within two months Ah For had collected pledges totaling over $200 from the Chinese

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[43] GHEN June 8, 1864; TE June 10, 1871.

[44] TE September 3, 1872; June 19, 1872; March 13, 1878; VC December 4, 1879. One temple was located 61.2 feet north of Union Street on the west side of I Street. The other was located approximately 150 feet north of Union Street on the west side of K Street. (Map Book, 1875, Assessor's Office, Storey County Court House, p. 89.)

[45] Mathews, *Ten Years in Nevada*, p. 251. In 1928 one of the temples was still standing in Virginia City but it was exposed to the elements. It measured approximately 30 x 60 feet. William Marks, Jr. to the author; Virginia City, Nevada, March 8, 1976; C. Grant Loomis, "Chinese Lore from Nevada, 1867-1878," *California Folklore Quarterly* 5 (January-April, 1946), 185-196.

community, while white residents and eastern friends of the Bishop provided an additional $300. A neat, comfortable chapel was built on the northwest corner of Taylor and I Streets, just below St. Paul's church. The dedication ceremonies were held the evening of August 14 with 150 Chinese and whites attending. Bishop Whitaker gave a sermon which was translated into Chinese by Ah For, who also preached a sermon of his own.[46]

The chapel was used for religious and educational purposes for the next two months. Two Sunday services were conducted in Chinese and English and were regularly attended although the St. Paul Parish Register shows no evidence of Chinese being baptized. However, on September 28, Wow Heo and Ah Wo were married there by Reverend R. S. Eastman. On September 2, evening classes were commenced where the English language was taught to a number of Chinese.[47] This experiment in assimilation ended on October 26, 1875, when a terrible fire destroyed the chapel along with the entire northern section of Virginia City. There was some talk of rebuilding the chapel and continuing the work, but this was never done. Ah For left the Comstock and eventually went to China where he worked as a missionary.

Crime prevention and the implementation of justice in Chinatown were unique. The Chinese were barred from white courts because they could not testify. In general, the white community was not concerned with justice within the Chinese community as long as white citizens were not threatened. As a result, law enforcement resided with both the Chinese social and political organizations known as companies, and the courts, depending on who acted first. Crimes committed by the Chinese varied greatly all the way from tong wars and murders to burglaries, and various minor offenses.[48]

The Chinese quarter was patrolled by regular city police and at times by special police appropriately called "specials" who were hired by the city. For many years the Chinese community had a great friend in George Downey, who was an impartial officer of the law. He first became acquainted with the Chinese in the 1860s when he acquired property in Chinatown; he maintained a close relationship with them until his death. As an officer on the beat and chief of police he attempted to understand the Chinese and their culture and was greatly respected by the people because of his impartiality. In return, the Chinese presented him with gifts as in January, 1864, when several wealthy merchants gave him a magnificent diamond ring. Earlier he had been given a solid gold badge. The Chinese also feted him at banquets during their festivals. It was sometimes stated that Downey knew every Chinese in the quarter, which was

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[46] "Inventory of the Church Archives: Protestant Episcopal Church," The Nevada Historical Records Survey Project (WPA), Reno, 1941, p. 12; TE July 3, 1875; July 14, 1875; August 15, 1875; March 28, 1876; VEC August 14, 1875; August 16, 1875; September 2, 1875.

[47] "St. Paul's Parish Register" Vol. I, 1862–September 1868; Vol. 2, 1868-1883; Nevada State Historical Society, Reno; Record Marriages A, Recorder and Auditor, Storey County Courthouse, p. 323.

[48] TE January 19, 1878; January 27, 1878; February 19, 1878; February 21, 1878.

close to the truth. His death, caused by an overdose of laudanum on August 14, 1872, caused a serious gap between the police and the Chinese.[49]

After Downey's death, relations between the Chinese and the police deteriorated. Some of the "specials" were retained by various companies and tended to provoke trouble rather than to stop it. The Board of Aldermen sought to end this problem by eliminating the "specials" and replacing them with regular police. The Chinese were against this change because of the loss of control over the police, and because of the slow service tendered by the regular police.

Even the regular police were not beyond taking bribes. Police sent to control opium smoking would "look the other way" for a dollar or two. In 1876 the *Virginia Evening Chronicle* carried a story about Chief of Police Charles White who allegedly was collecting money on a weekly basis from the Chinese at the following rates: 25¢ per household, $1.00 per store, and $2.00 per gambling parlor. The chief denied these charges, but the paper recommended that "specials" be rehired to deal with Chinese problems.[50]

During the 1870s, true family life was non-existent although the population was relatively young. Few Chinese women came to the United States during the period of unrestricted immigration (1850-1882) because custom forbade them to leave their homes, and very few males expected to remain permanently in the United States. This situation was clearly reflected in Storey County where in 1875 there were 1,254 Chinese males and only 87 females.[51]

The women who did come to the United States were introduced in most instances by the companies and forced into prostitution. When a Chinese sought a wife he was forced to purchase her for a price which varied between $400 and $800. Once the woman had been purchased, her husband faced the problem of protecting her from kidnappers. Some Chinese tried to make their marriages more secure by taking their vows before a judge or clergyman.[52]

There were few powerful and wealthy Chinese in Virginia City. The thirteen laundrymen who listed their personal worth in the 1870 census averaged $411, while the four physicians averaged $1,000 and the two pharmacists had

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[49] *Gold Hill News* June 10, 1864; GHEN February 8, 1866; February 14, 1866; TE February 24, 1868; May 5, 1868; GHEN April 19, 1865; TE May 19, 1869; Doten, *Journals*, II: 839, 866-867, 877, 1171. For an in-depth study of Virginia City's police force see Thomas H. Kinnersley, "Virginia, Nevada, 1859-1890: A Study of Police, Water, and Fire Problems," Ph.D. Dissertation, University of California, Los Angeles, 1974, pp. 57-98; *The Daily Union* January 6, 1864 (Bancroft Library).

[50] VEC February 15, 1876; February 17, 1876.

[51] Sandmeyer, *The Anti-Chinese Movement*, pp. 17, 34; Lyman, *The Asian in the West*, pp. 18-19. *Appendix to Journals of Senate and Assembly of the Eighth Session of the Legislature of the State of Nevada.* (Carson City: John J. Hill, State Printer, 1877), III, 615.

[52] TE May 25, 1866; October 23, 1866; October 9, 1866; December 17, 1867; November 2, 1870; October 3, 1872; June 7, 1878; January 11, 1876; April 11, 1875; May 28, 1875; January 12, 1878; Record, Marriages A, Recorder and Auditor Storey County Court House [1865 and 1879], pp. 66, 108, 195, 301, 323, 340, 441, and 462.

personal estates of $2,000 and $3,000. Merchants had the greatest wealth, power and influence within the community, and they were usually connnected with the companies. In 1870 the four merchants listed in the census averaged $2,500 in their personal estates.[53]

When discussing Chinese activity in the Far West the term "company" is used. The company was a social organization which promoted solidarity and mutual aid in order to cope with the hostile social environment. The first companies were established in California and spread to Virginia City; they included the Sam Yup or Three Districts Company (1851); Sze Yup or Four Districts Company (1851); Yeong Wo or Masculine Harmony Company (1852); Ning Yung Company or Association of Masculine Tranquility (1854); and Hop Wo Company or the Company of United Harmony (1862). There is no evidence that the Yun Wo (Human Harmony) Association founded in 1852 or the Kong Chow (Ridge Region) Association founded in 1867 were active on the Comstock.[54] These companies offered a variety of services to their members and insulated them from white society. For example, in 1866 when sixteen Chinese migrating to the Idaho mines were dumped off in the Nevada desert, they wired Ah Kee, agent for the Sze Yup Company, for assistance in returning to Virginia City. Companies owned and operated stores, brothels, gambling halls, and opium dens, all of which brought them considerable profit. They controlled the labor force, the payments of debts, and one even sold licenses at $30 per month for laundries.[55] Among their members, the companies maintained their own law and system of justice. When Ng Tong Low and Ah Moo, officials of the Ning Yeong Company, were involved in a stabbing during a dominoes game, the company attempted to keep the police from becoming involved. At other times when white justice interfered, the companies hired lawyers and backed their respective members by filling the court room.[56]

Rivalry among the companies predated their arrival and establishment on the Comstock. Officer Downey stopped trouble before it started on June 30, 1864 when he arrested fifteen Chinese, after bitter feelings led to written challenges appearing on the streets. By 1871, due to sporadic fighting, shootings and killings, Chinatown had gained a reputation as a center of crime and violence among the whites.[57]

Two of the most prominent leaders in Chinatown were Sam Sing and Hop Sing. Sam Sing got his start as a sagacious businessman and labor contractor for

[53] Population Schedules of the 9th Census of the United States, 1870. Roll 835. Nevada, Volume 1 (313-592A). National Archives Microcopy No. 593.

[54] William Hoy, *The Chinese Six Companies* (San Francisco: Chinese Consolidated Benevolent Association, 1942); Lyman, *The Asian in the West*, p. 227; Gunther Barth, *Bitter Struggle: A History of the Chinese in the United States, 1850-1870* (Cambridge: Harvard University Press, 1964), pp. 76-99; William Speer, "Democracy of the Chinese," *Harper's Monthly Magazine*, XXXVII (November, 1868), 839-848; Stanford M. Lyman, "Conflict and the Web of Group Affiliation in San Francisco's Chinatown, 1850-1910," *Pacific Historical Review* 43 (November, 1974), 473-499.

[55] TE May 16, 1866; VEC April 27, 1875; TE November 16, 1878.

[56] TE November 16, 1878.

[57] TE July 14, 1871; November 11, 1871.

the railroads. He eventually moved to Virginia City and opened his store-headquarters (valued at $1,200) on the southeast corner of H and Union Streets.[58] Whites considered him a reliable businessman with excellent credit, and he was so influential among the Chinese that he virtually controlled Chinatown. At times he courted influential members of the white power structure. On February 1, 1875, for example, he invited Charles De Long, former minister to Japan, Colonel R. H. Taylor, Major R. M. Daggett and a number of police officials to a forty course dinner served on solid gold ware by waiters dressed in white linen.[59] His chief rival was Hop Sing, a merchant whose power was nearly equal. In 1879 Hop Sing contracted 260 Chinese laborers to complete work on an irrigation project in Truckee Meadows. Hop Sing had his headquarters in three structures valued at $2,161 located on the northwest corner of K and Union Streets. When he died in 1887 at 62 he was accorded an elaborate funeral as a distinguished member of the Chinese community.[60]

A brief study of the war which developed between these two men and their respective companies during 1875-1876 gives an excellent picture of the nature of these struggles and the various forces in action. The cause of the trouble, which developed early in 1875, is unclear although economic rivalry was probably an important factor. Throughout most of 1875 Chinese went about armed with six-shooters, and periods of violence were followed by periods of calm. Then in December, large-scale fighting broke out and fighters from Carson City were imported. In an attempt to ward off further violence Mayor John C. Currie met with the Chinese leaders and warned them that unless peace was restored there was the possibility of action by white vigilante groups.

The mayor's warning was ignored by the Chinese, and they prepared for increased hostilities. Sam Sing had 6 x 10 inch loopholes cut into his building and stationed his fighters at the rear of the building. These fighters included local Chinese, a few whites, and Chinese imported from Carson City, Reno, and Sacramento. Hop Sing's store was fortified with an old box-stove filled with earth and flanked by numerous coal oil cans filled with dirt. Sheet iron shutters protected the windows and guns and knives were ready for action. One of the groups even constructed a reflector at Union and G Streets which kept the street illuminated at night to counter the possibility of a sneak attack.[61]

After two weeks of preparation, fighting broke out in earnest and continued until February. Sam Sing went through the streets with body guards, and there

[58] Deeds, Vol. 28. Recorder and Auditor, p. 174; Plat Book, 1872 and Map Book, 1875, p. 75; Assessor's Office, Storey County Court House.

[59] VEC December 11, 1875; February 14, 1876; TE February 1, 1876; Record of Births and Deaths, "A"; November 10, 1887 Recorder and Auditor Office, Storey County Court House, p. 25. Identification of the leadership of the various companies is lost due to a lack of white understanding of the companies.

[60] TE December 13, 1879; Doten, *Journals*, 3: 1686; Deeds, Recorder and Auditor, Storey County Court House; Vol. 26, pp. 424 and Vol. 27, p. 657. Plat Book, 1872, Assessor's Office, Storey County Court House.

[61] VEC December 11, 15, 23, 1875; TE February 15, 1876; VEC January 15, 1876.

were rewards posted for the leaders of both groups. Other Chinese merchants were equally cautious and only ventured out of doors heavily armed.[62]

These hostilities had a negative effect on Chinese businessmen. They lost business because individuals feared to enter Chinatown under the circumstances. Whites who lived in the vicinity of Chinatown feared that they would become the victims of stray bullets. A *Territorial Enterprise* editorial warned that the death of an innocent white would bring the entire white population down against the Chinese. To impress upon the Chinese the level of the white community's concern, the grand jury met with both Sam Sing and Hop Sing and warned them of possible interracial violence. The fighting formally ended with the signing of a peace treaty under the mediation of Charles De Long. If one of the two parties to the treaty violated the agreement it would lose the support of the Chinese community. It looked as if the peace would be permanent.[63]

Soon after this development a number of white people living in the vicinity of Chinatown formed the Home Protection Society in an attempt to maintain law and order among the Chinese. At the first meeting held on February 29, 1876 over four hundred people applied for membership. The Society met regularly on Saturday evenings. Its members divided themselves into twelve lodges and were always ready for action at the sound of exploding giant powder cartridges.[64]

A hatchet attack on a Chinese resident soon after brought the Protectors out and they began their own investigation. The Hop Wo Company was considered the guilty organization; it was given a date by which the guilty party would have to be produced. When the March 28th deadline passed and a culprit was not presented, members marched on Chinatown and searched all of the houses without warrants while the police watched passively. This action caused some Chinese to flee to Gold Hill and it greatly concerned many innocent Chinese. The Society also issued a warning to special policeman Bamfield to leave Chinatown. He was residing at Sam Sing's establishment, and was considered a source of the trouble.[65]

Trouble continued sporadically through 1877; both sides used the courts and newspapers to protect themselves and influence the public against their rivals. In February of 1877 the Board of Police Commissioners met to discuss the trouble and how it might be terminated. The Board came to the conclusion that the special police, who were paid by the Chinese, were extremely lax in enforcing the law. It was recommended that the specials be removed and replaced with regular police. All of this white-sponsored activity helped the violence to subside, although the fear of renewed hostility lingered.[66]

[62] TE February 6, 15, 1876.

[63] TE February 16, 24 and 27, 1876; VEC February 28, 1876; Lyman, *Chinese Americans* (New York: Random House, 1974).

[64] VEC March 1, 13, 1876; TE, March 19, 1876.

[65] TE March 21-22, 1876; March 28, 1876; April 11, 1876; May 3, 1876; March 3, 1876; July 20, 1876.

[66] TE, February 1, 3, 1877; May 22-23, 1877; October 18-19, 1877.

There was a great deal of white racial prejudice directed against the Chinese of Virginia City. On September 20, 1877, *The Footlight* best summed up this attitude:

> They refuse to adopt our language, dress, customs, and the manner of living. By means of their strange language they attain a secrecy, unenjoyable by even the most secret societies in our midst. They have their own courts, tribunals, and though in every respect they are a race entirely alien to us, yet they enjoy the protection of our laws, as well as the meanest white man.

The newspaper further stated that it held "the whole Chinese Companies responsible for aggression against white life and property."

White prejudice was based on ignorance, fear and misunderstanding. Whites generally ignored Chinatown and the Chinese and never attempted to understand their culture. Chinatown itself was an island surrounded by Virginia City, and appeared to be filled with strange people, exotic foods, and sights that had nothing to do with the average citizen. The white conception of Chinatown was that it was filthy and a breeding ground for disease. Mary M. Mathews, who only visited a number of washhouses, a store and a temple, recorded her impression:

> Chinatown, of Virginia City, like Chinatown of every other city of the coast—a loathsome, filthy den—it is enough to breed cholera or any other pestilential disease.[67]

She further recommended that visitors to Chinatown saturate themselves from head to toe with bay rum and camphor to ward off disease. The newspapers constantly referred to Chinatown as that "odoriferous suburb" or that "savory suburb."

The quarter did attract whites seeking the special services Chinatown had to offer, or the exotic sights and sounds, especially at festival-time. Whites seeking opium, gambling or prostitutes kept many of these businesses in operation and allowed them to expand. The sounds and sights of Chinese New Year attracted large numbers of whites of all ages. They visited the gaily-decorated stores and temples and witnessed the "strange carryings-on of the Celestials." The Chinese gave the women and children candies and nuts while the men drank gin or whiskey.[68] The staff of the *Territorial Enterprise* (usually led by Dan De Quille) would make the rounds of Chinatown for liquid refreshments after a hard day. Alfred Doten, editor of the *Gold Hill News*, had close friends in Chinatown and visited it often. On the evening of June 28, 1865 he led a distinguished group of men including Schuyler Colfax (soon to be Grant's vice-president), Lieutenant-Governor Bross of Illinois, a Mr. Bowles (editor of the *Springfield Republican*), the *Enterprise* staff, and police officials through Chinatown.[69]

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[67] Mathews, *Ten Years in Nevada*, p. 249. GHDN January 7, 1870; TE January 9, 1873; April 27, 1871.
[68] GHEN, February 15, 1866; Doten, *Journals*, II: 877.
[69] Doten, *Journals*, II: 817, 839.

Most whites found traditional Chinese food "loathsome to look at and taste." *The Virginia Daily Union* printed a racist description of Chinese cuisine: "The long tailed brutes are delighting themselves with worm soup, stewed kitten, roasted puppies, young entrails fried with batter and bird's nest dressing, opium, whiskey and other favorite viands and drinks." Some, like Doten, tried the food but found it to be "queer looking messes," while others detested what they regarded as gruesome smells of doubtful meats. For many the food looked good, but they would not eat it unless they were starving. Whites usually avoided the food offered by a Chinese host but enjoyed his brandy and cigars.[70]

The Chinese found little justice in the legal system since they could not testify in court, and many whites took advantage of the situation. When an old Chinese sawyer demanded his promised wages he was viciously attacked with a ten pound rock and severely injured. I. Arnold of Gold Hill passed around bogus $20 gold pieces to the Chinese knowing that he would never be convicted. Chinese were beaten and shot at when they sought to collect their bills or wages or were totally ignored by unconcerned whites. Spurred by parental attitudes and encouraged by onlookers, young boys often attacked the Chinese. Washhouses were set ablaze or had their windows broken. Chinese laborers innocently pursuing their tasks were tripped, stoned, pelted with snowballs, rocks and broken bottles, much to the amusement of white bystanders. The violence often knew no bounds: an armed youth coasting down icy Union Street shot a Chinese worker when he did not promptly get out of the youth's way.[71]

Whites showed a lack of compassion toward the Chinese following the great fire of October 26, 1875 which destroyed the north end of Virginia City including Chinatown. Large quantities of food and clothing were sent to Virginia City by the citizens of California and Nevada, and San Francisco's Chinese community generously contributed cash and provisions to be distributed without any restrictions. But at first, while whites enjoyed the comfort of the warm basement of the Third Ward School well supplied with hot food and drink, over two hundred Chinese waited outside in a freezing mist for scraps tossed to them. Officer Thomas Jackson finally intervened with the Distribution Committee, and had large quantities of rice, oil, flour, sugar and red woolen shirts divided among the representatives of the five companies for distribution. The *Territorial Enterprise* admitted that "the neglect of these people was not entirely Christian," but later justified this behavior as being caused by tradition rather than the fault of individual whites.[72]

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[70] Ibid., II, 866-867; Mathews, *Ten Years in Nevada*, p. 250; Lord, *Comstock Mining*, p. 199; GHN, November 26, 1864; GHEN, February 14, 1866; *The Virginia Daily Union*, February 4, 1867.

[71] GHEN January 9, 1865; VEC January 6, 25, 1875; May 8, 1877; February 8, 1868; September 24, 1868; GHEN September 2, 1865; TE March 17, 1876; August 29, 1880; February 11, 1873; October 28, 1870; October 18, 1870; GHEN July 18, 1854; TE May 27, 1880; Waldorf, *A Kid on the Comstock*, pp. 42, 44.

[72] For an eyewitness account of the fire see Lewis Atherton, ed. "Fire on the Comstock," *American West* 2 (Winter, 1965), 24-34; TE, November 4, 27, 30, December 2, 3, 1875.

Throughout this period white laborers feared that cheap Chinese labor would displace them and took appropriate action to see that this would not happen. On October 30, 1866, a "Grand Democratic and Anti-Chinese Torchlight Procession" made its way through Virginia City in a show of strength. In the following months an anti-coolie frenzy developed in California; the *Territorial Enterprise* pointed out that such agitation was limited in Nevada, and to calm white fears noted that Chinese could not become naturalized citizens and thus could never gain the power of the ballot box. French-Canadian wood choppers organized in 1867-1868 against the Chinese who were hired to cut wood above Carson City. They had a brief skirmish with the Chinese which led to a stalemate.[73]

The greatest reaction against Chinese laborers was directed against their use on the construction of the Virginia and Truckee Railroad between Carson City and Virginia City. Soon after grading began on February 18, 1869, railroad officials led by William Sharon found it difficult to get laborers to work on the railroad. As a result they began to hire unemployed Chinese who had formerly worked on the Central Pacific Railroad as it was being hacked through the Sierra Nevada. By April 4 there were two hundred whites and three hundred Chinese scattered in some fifteen camps along the railroad. Plans called for increasing the number of Chinese workers to one thousand because of their desire to work and willingness to accept cheap wages, which were half those paid to whites.[74]

White opposition to the influx of Chinese laborers grew steadily. On August 3 a Workingman's Convention consisting of leaders from the Miner's Unions of Virginia City, Gold Hill, Humboldt, and White Pine; the Washoe Typographical Union, and the Brewer's Association was convened in the Storey County Courthouse. At the end of their meeting they issued a statement of solidarity:

> We call upon all men who favor our views to join with us in the endeavor to save our State from the pollution of Asiatic serfdom now threatening its social and material prosperity.[75]

They further condemned "short-sighted capitalists and unthinking men" who favored the use of coolie labor, planned on the use of legal action and thus to avoid violence in their efforts to drive the Chinese from Nevada. The miners further rationalized that if the Chinese remained they would destroy the prosperity of Nevada by driving out the white population because of their cheap labor. Some 1500 handbills were distributed condemning the "foul body of conspirators" headed by Sharon.

As the opposition grew, words gave way to action. On Wednesday, September 29, a mob of between 350 and 400 miners from the Gold Hill and Virginia

[73] GHEN October 29, 1866; TE May 3, 1867; January 9, 1868; *Carson Daily Appeal*, May 1, 3, 5, 1868; Shepperson, *Restless Strangers*.

[74] TE February 20, March 11, 23, April 9, May 6, 1869; Lucius Beebe and Charles Clegg, *Virginia and Truckee: A Story of Virginia City and Comstock Times* (Stanford: Stanford University Press, 1949), p. 15.

[75] TE August 3, 1869.

City Miners' Unions, led by a fife and drum and followed by a large body of spectators marched on the Chinese who were grading the railbed south of Gold Hill just outside of Storey County. Sheriff W. J. Cummings and his deputy sheriff tried to stop the crowd, but they were pushed aside by the president of the Gold Hill union who said they would cease their activity only after they had gotten rid of the Chinese. Even before the miners reached the site some 60 Chinese had fled into the hills; the remainder were given thirty minutes to pack and leave. The miners then proceeded to level their shanties and threatened their employers with reprisals if the Chinese were returned to work.[76]

On the following day editorials in the *Territorial Enterprise* and *Gold Hill Daily News* thoroughly condemned the entire affair, the first of its kind in Storey County. The newspapers called for the arrest and conviction of those involved, but lamented it would be impossible to find a jury in the area that would convict the men. The *Territorial Enterprise* further indicated the real nature of the problem: "There are many persons who are very anxious to take the place of the Chinese, but we have not seen any of them as yet, except as such wished to act as bosses."[77]

During the first week of October the Chinese who had been laying a half mile or more of track per day were idle while Sharon tried to allay the miners' fears. He met with them and explained that by using white laborers it would cost the railroad $3 million to construct the line between Carson City and Virginia City, while by employing Chinese laborers, costs would be reduced by half. The miners also heard him explain that allowing construction to continue would eventually mean low grade ore could be shipped out, thus giving the miners more work and reducing the price of lumber and fuel. Eventually both parties signed a mutual agreement whereby Sharon would not employ Chinese on the railroad, or in the mines and mills within Storey County, and the miners would not bother the Chinese workers. With these conflicts resolved, construction of the railroad returned to normal on October 21.[78]

Organized resistance against Chinese labor developed again in May, 1876, when the Virginia Anti-Chinese Union was formed. The organization passed a series of resolutions which stated that the presence of the Chinese in Nevada "was injurious to the welfare of the State and a danger to the Republic," and that the Chinese caused white unemployment which led to unrest among the jobless.

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[76] TE September 29, 1869.

[77] TE September 30, 1869; October 1, 1869; GHDN September 30, 1869. Conrad Wiegand, editor of *The People's Tribune*, theorized that'(January 1870, Nevada Newspaper Miscellany, 1862-1905, [broken], Reel 1, Bancroft Library, Vol. 1) Sharon's spies in the labor unions orchestrated the affair so that the financial backers of the Virginia and Truckee Railroad would return their support. Wiegand proposed that the state investigate the matter. [Gold Hill] *The People's Tribune.*

[78] TE October 3, 5-9, 13, 21, 1869. The agreement between Sharon and the miners to not allow Chinese railroad workers to work in Storey County was violated in April, 1875 when the Chinese started to work on a siding into the Caledonia and Overman mines. Two hundred miners from the Gold Hill Miners' Union marched to the site and drove 25 to 30 Chinese away. The Chinese were paid and discharged and white workers took their place. VEC April 28, 29, 1875.

Since it was impossible to "civilize" the Chinese, the union proposed to use legal means to remove them and keep other Chinese out; the leaders could not predict future developments if legal means did not work.[79]

In August the original union was incorporated as the Order of Caucasians with branches in Virginia City and Gold Hill. It was the seventh such branch on the Pacific Coast and the second in Nevada, following Reno. The new organization demanded that whites stop hiring Chinese and give whites an opportunity to work. "Watty" Hall of Hall's Pioneer Laundry planned to discharge his numerous Chinese employees in July, but to be on the safe side traveled to the Bay Area to seek white replacements. After searching San Francisco and Oakland and offering prospective workers high wages, he returned to Virginia City alone. The Ashland House on The Divide took more direct action and fired all of its Chinese employees.[80]

Many businesses advertised in the newspapers that they did not use Chinese labor nor did they sell products made by Chinese. In January, 1867 Kingsbury's Chop House announced: "None of your Hongkong John fixings" here, while Barnum Restaurant explained: "The establishment is kept by Mrs. Hancock, a French lady who has her own views on the China question. She bars all Celestial chefs de cuisine from her restaurant. White cooks alone are employed." The International Cigar Store let it be known: "No Chinese Cigars kept in this Establishment."[81]

The Order promoted its anti-Chinese position through meetings, lectures and street rallies. Lectures like the one given by P. S. Downey, Supreme Chief of the Order of Caucasians, entitled: "Labors of the Late Congressional Committee of Investigation on the Mongolian Question" stressed moderation and called for Federal action to rid the Pacific Coast of the Chinese.[82]

In response to this activity the *Territorial Enterprise* editorialized that it was a good intention to displace the Chinese labor, but whites must prove themselves as good or better than the Chinese. The paper continued:

> The fact that Chinese domestics are so generally employed on this coast is because... they have proven themselves to be better servants than white men and women. John is a heathen, but he is not in the habit of getting drunk; he is a Pagan, but he is patient, industrious and faithful; he may steal sugar from the pantry, but he never makes the kitchen howl with the presence of a big cousin; he is a worshipper of Joss, but he is punctual in his duties and never carries slander between his own and the next kitchen.[83]

In a challenge to white workers the newspapers stated that opportunity was available and the whites should live up to its demands.

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[79] TE May 17, 1876; *The Daily Mining Reporter* (Silver City) May 6, 18, and 23, 1876.
[80] TE June 8, 18, 29, August 25, September 3, 5, 1876; July 2, 1876; July 11, 1876.
[81] TE January 13, 1872; January 5, 1876; December 27, 1878.
[82] TE July 14, 1876; March 28, 1877; January 6, 1877.
[83] TE June 24, 1876.

Official discrimination against the Chinese is to be found in the ordinances of both Gold Hill and Virginia City and in laws passed by the state legislature. The earliest dates from June, 1859 when the miners of Gold Hill sought to bring law and order to the community. In a series of rules and regulations governing them one read: "No Chinaman shall hold a claim in this district," which extended on a meridian from Dayton to Steamboat Valley.[84] In 1864 Gold Hill passed an ordinance which made it illegal for a Chinese resident to live within four hundred feet of a white person unless permission was granted. The reasons given for this ordinance were that the Chinese were considered unhealthy, created fire hazards, and caused property values to drop. The fines for violations ran from $100 to $500.[85] The territorial legislature of Nevada passed a law in 1861 which discriminated against the Chinese and others. It was a misdemeanor punishable from one to two years in prison if a white person married any black, mulatto, Indian or Chinese. The person who performed the ceremony could get a one to three year sentence. The penalty for a white cohabiting with a Chinese person was a $100-$500 fine and/or one to six months in jail. The fine was to be placed into the county treasury and set apart for the common school fund of the territory.[86] Virginia City passed an ordinance in June, 1875 whereby any citizen residing within the city limits west of H Street could petition for removal of Chinese residents. If an inhabited structure were declared a nuisance by the Board of Aldermen, the chief of police was to have the individual removed within ten days. Fear of fire caused Chinese firecrackers and fireworks to be declared illegal in 1877, with $100 fines and/or fifty days in jail.[87] When the State of Nevada took a census in 1875, the census takers did not bother to list the individual Chinese by name and occupation but merely listed "Chinaman" or "Chinawoman."[88] The extent of the anti-Chinese feeling in Nevada perhaps is best seen in the outcome of a vote taken in 1880: 17,259 voted against Chinese immigration and 183 in favor.[89] This anti-Chinese sentiment was not a local phenomenon; during the latter half of the nineteenth century there was a strong upsurge of nativism throughout the United States and it often found expression in legislative enactments.[90]

Anti-Chinese feeling also prevailed among the Paiutes who lived in the vicinity of Virginia City. From the beginning of their encounters, the Indians despised the Chinese for their aggressive work ethic, their tendency to use even the scraps of the environment such as the roots of pine nut trees, and their

[84] Lord, *Comstock Mining*, p. 44; U.S. Bureau of the Census, *Tenth Census of the United States: 1880. Mining Laws*, XIV, 509-510.

[85] GHN September 10, 1864.

[86] *Laws of the Territory of Nevada* (San Francisco: Valentine & Co., 1862), pp. 93-94.

[87] Graham, *Revised Ordinances*, p. 114.

[88] Appendix....8th Session of the Legislature....Nevada, III, 1-615.

[89] TE February 3, 1881; John Koontz (ed.), *Political History of Nevada* (Carson City: State Printers Office, 1960), p. 60; for an in-depth study of Nevada newspaper reaction to the Chinese, see: Be Dunnah, *History of the Chinese in Nevada*.

[90] Robert H. Wiebe, *The Search for Order, 1877-1920* (New York: Hill and Wang, 1967), pp. 54-58.

proclivity to take Indian jobs. As whites initially moved into the area, Paiute males found employment as wood choppers, and females as servants and launderers. The Chinese cut into this activity by selling precut wood and returning finished laundry.[91] On the streets it was a question of survival, with both races fighting over scraps of wood, coal and charcoal and sometimes attracting crowds of 200 to 300 amused whites who watched the struggles of desperate groups.[92]

The Paiutes seized many opportunities to ridicule and to physically attack the Chinese; and they often bragged to newspaper reporters there would be a massacre if the whites would not interfere. A frequent complaint was that the Chinese worked hard and then refused to spend their money in town, sending it instead to China, while the Indians spent theirs locally. Paiutes also took great pleasure in tracking Chinese suspects, attempting to catch them quickly and collect rewards.[93] For their part, unhindered by white laws against selling Paiutes intoxicating liquors, the Chinese sold them horrible concoctions called "China gin" which they passed off as expensive whiskey. They tried to control unruly and threatening Indians by simply cutting off the supply if they got too violent.[94]

The Chinese of Virginia City constantly migrated to new gold and silver strikes seeking their fortunes. The only criterion was that enough whites had preceded them to offer protection against the Indians. Beginning in the spring of 1865 numerous Chinese left the Comstock for the mining camps of Idaho and Montana. Both Virginia City and Dayton became important stops for California Chinese who were making the trip. In May, 1867 there were over four hundred Chinese resting at Dayton and three hundred and fifty more were anticipated.[95] Pioche's boom in the early 1870s drew many of Virginia City's Chinese, and the depressed economic conditions of the late 1870s caused half of Chinatown's population to leave for Belmont, Bodie and Tuscarora. The Chinese who remained usually were too poor to leave and as a result the few Chinese businesses that remained were adversely affected.[96]

By 1880 the Big Bonanza on the Comstock was over. The price of stocks was down, and many people were unemployed. Both whites and Chinese left the area. In 1880 there were 642 Chinese in Storey County. By 1890, the figure had

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[91] TE January 5, 1877; September 21, 1877; Waldorf, *A Kid on the Comstock*, p. 79.

[92] TE May 19, 1872; November 30, 1872; GHN October 31, 1864.

[93] TE September 3, 1876; June 17, 1871; Waldorf, *A Kid on the Comstock*, pp. 85-86; VEC April 6, 1875; September 1, 1875. Novelist Frank Norris observed the same type of behavior being practiced by Caucasian women in San Francisco during the late nineteenth century.

[94] Fred H. Hart, *The Sazerac Lying Club: A Nevada Book* (San Francisco: Henry Keller & Co., 1878), p. 208.

[95] GHDN May 15, 1865; May 20, 23, 1865; April 20, 25-28, May 16-18, 1866; TE May 23, 24, 1867.

[96] TE February 9, 1871; December 19, 1877.

declined by nearly 50%, and in 1900 there were only sixty-one Chinese remaining.[97] There were a few who remained in Virginia City after the turn of the century, like Charlie Ching and Chung Kee, both of whom operated small shops. By 1940 all were gone. The collection of shanties called Chinatown had slowly succumbed to fire and the elements.[98] Today nothing remains of the original Chinatown and its people except sagebrush-covered lots and the bitter memory of their struggle to survive.

[97] U.S., Department of the Interior, Census Office, *The Compendium of the Eleventh Census: 1890. Population, Part I.* (Washington, D.C.: U.S. Government Printing Office, 1894) p. 560; U.S., Department of the Interior, Census Office, *Twelfth Census of the United States, Taken in the Year 1900. Population,* Vol. I, Part I (Washington, D.C.: U.S. Government Printing Office, 1901), p. 627.

[98] *Carson News,* October 19, 1913; Rose Zannini, "Charlie Ching," (1932), manuscript at the Nevada State Historical Society, Reno; Dorothy Young Nichols, *Virginia City.... in My Day: A Memory Album,* Halmar F. Moser, ed. (Placerville: privately printed, 1973), p. 17.

Israel Cook Russell in the Great Basin

JAMES A. YOUNG

ISRAEL COOK RUSSELL DIED IN 1906 at the height of his career as a geologist. Pneumonia ended his life at the age of fifty-two after he became the second professor to occupy the original chair of geology at the University of Michigan, the President of the Geological Society of America, and the author of 124 scientific publications.[1] Some of the biographies and obituaries that appeared soon after Professor Russell's death cast a bitter pall on this record of achievement. His mentor, Grove Karl Gilbert, suggested it was too bad his departed understudy had proven incapable of completing assigned tasks;[2] Bailey Willis, a geologist who had known Russell since their days as students at Columbia University, found it necessary to couch praise of his departed friend in terms of "you cannot deny" and "at least," with the hint of reproach that Russell was at his best in unexplored territory. The Ann Arbor faculty members assigned to prepare his obituary described him as a frail-looking, modest man—of boundless energy and tenacity of purpose, but proceeded to cite his greatest achievement in the Mono Basin as being near Yellowstone Park instead of in the correct location near Yosemite, hundreds of miles to the southwest.[3] Russell was even damned by the then infant resource conservation movement, championed by John Muir, because of his association with Clarence King and the U.S. Geological Survey.[4]

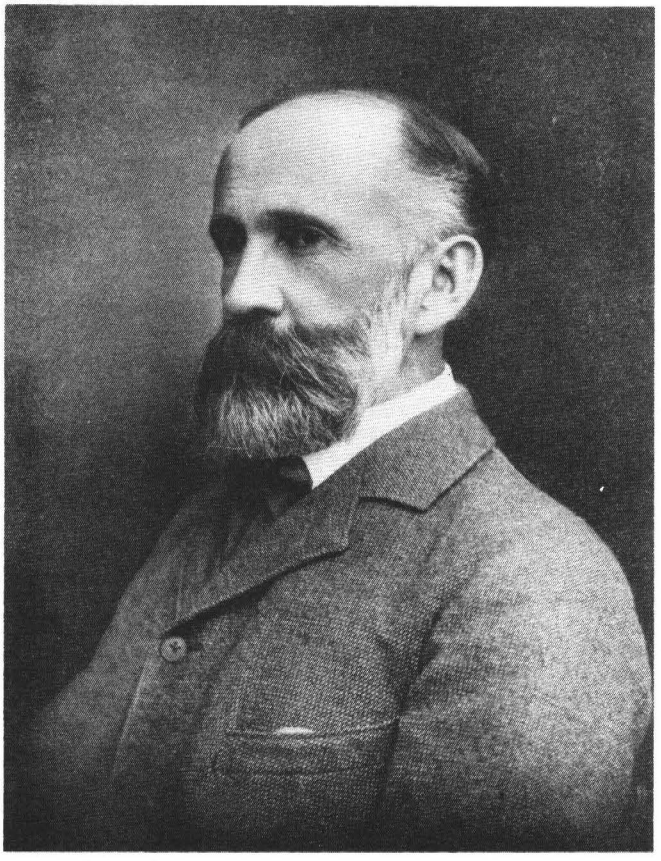
A century now has passed since Russell's initial fieldwork, and it is possible to view his scientific work with more detachment. At least four aspects of his career have involved lasting contributions: (a) his achievements in Quaternary geology have withstood the test of time; (b) this morose, quiet little man was a giant with a pen, writing vivid descriptions of the nineteenth-century environment in the deserts and mountains of western North America; (c) through his lectures and writings Russell was able to transfer scientific knowledge to the

[1] Bailey Willis, "Memoir of Israel C. Russell," *Bulletin of the Geological Society of America* 18 (1908): 582-592.

[2] G.K. Gilbert, "Israel Cook Russell, 1852-1906," *Journal of Geology* 14 (1906): 663-667.

[3] W.R. Lombard and M.L. D'Ooge, "Israel Cook Russell," *Science* 24 (1906): 426-431.

[4] John Muir, "Living Glaciers of California," *American Journal of Science* 5 (1873): 69.



Israel Cook Russell *(U.S. Geological Survey)*

general public; and (d) through his writings Russell exposed the very basic human feelings all scientists experience while conducting original research.

In western North America the nineteenth century was the golden age of scientific field exploration. For a brief period scientists had the opportunity to observe a relatively pristine environment—before the onslaught of twentieth-century technology.

Meriwether Lewis and William Clark ushered in the age of exploration with their daring overland expedition (1804 to 1806) to the Columbia River and the Pacific Ocean.[5] In those early expeditions, scientific pursuit, of necessity, took a backseat to survival. The journals of Lewis and Clark, plus the specimens they collected, later described by Pursh, cracked the door and gave American and

[5] Bernard DeVoto (ed.), *The Journals of Lewis and Clark* (Boston: Houghton Mifflin Co., 1953).

European scientists a glimpse of a new environment awaiting study by scientific disciplines still in their infancy.

Following the explorers came the collectors. The herbalists, exemplified by David Douglas, combed the forests and deserts of western America to fuel the botanical wars of Kew and Glasgow.[6] They underwent tremendous hardship and even death (e.g. John Jeffrey) to glean new species from the West. Scientific immortality was provided by an occasional species epitaph (*douglassi* or *jeffreyii*) amongst those honoring patrons who financed the expedition from the safety of English drawing rooms.

Manifest Destiny helped usher in the next stage in the scientific exploration of the American West. The territory acquired by purchase and war required establishment of boundaries and transportation systems. Congress financed a series of expeditions, usually led by military engineers, to set boundaries and to determine alternative railroad routes to the Pacific Coast. The scientist on the expedition often made combined zoological, botanical, and geological observations while acting as medical advisor to the party. The 40th Parallel Expedition, which was scientifically motivated,[7] pressed a mule packer, Sereno Watson, into service as a plant collector and produced a leading botanical explorer.[8] By the beginning of the last quarter of the 19th century, the West was sufficiently explored and documented to usher in a new stage of scientific investigation in which observations were synthesized into explanations of environmental phenomenon.

The Great Basin and Pluvial Lakes

Any early nineteenth-century resident of the eastern seaboard would testify that all rivers eventually flow to the sea. This universal reckoning was tested when early explorers reached the Great Basin. Peter Skene Ogden demonstrated, in 1829, that the legendary San Buenaventura River did not exist and so did not drain the vast area from the Wasatch Front on the east to the Sierra Nevada in the west. He followed the only internal river of the Great Basin, the Marys (the modern Humboldt River), to its termination in a salt marsh in northwestern Nevada.[9]

John Charles Fremont of the U.S. Army's Topographical Engineers led a scientific para-military expedition that in 1843 discovered in a stark desert setting a huge, fresh-water lake a few miles west of the salty Humboldt.[10] Following the Truckee River from the terminal lake, which he named Pyramid, he found the east slopes of the Sierra Nevada, which provided the watershed for

[6] A. Cronquist, A.H. Holmgren, N.H. Holmgren, and J.L. Reveal, *Intermountain Flora, Vascular Plants of the Intermountain Area, U.S.A.*, Vol. I (New York: Hafner Publishing Co., 1972), p. 41.

[7] R.A. Bartlett, *Great Surveys of the American West* (Norman: University of Oklahoma Press, 1962).

[8] Cronquist, et al., p. 42.

[9] Gloria Griffen Cline, *Exploring the Great Basin* (Norman: University of Oklahoma Press, 1963), p. 91.

[10] J.C. Fremont, *The Expeditions of John Charles Fremont*, Donald Jackson and M.L. Spence, eds. (Chicago: University of Illinois Press, 1970), Vol. I, p. 598.

the perennial streams that fed the lake. Fremont crossed Nevada again in 1853. The maps drawn by the various members of the Fremont expedition, in contrast to previous efforts, were based on hundreds of latitude and longitude sightings and provided the first concrete evidence of the geographical extent of the Great Basin.

Despite the implications of its name, the province is not a single great basin hedged by mountains, but is an aggregation of more than 150 closed basins separated from each other by more than 160 mountain ranges. These ranges are usually not of great length and they are dispersed in echelons, so that the nineteenth-century traveler winding among them could traverse the basin, from east to west, without crossing many mountain passes.

Many of the basins that compose the Great Basin contain remnant lakes or other evidence of extensive bodies of water in areas now completely arid. The most extensive of these, Lake Bonneville, at its maximum had an area of more than 20,000 square miles (nearly equal to that of the existing Lake Michigan) and an extreme depth of more than 1,000 feet. These lakes are evidence of a much wetter or pluvial time and hence are called "pluvial lakes." The highly saline Great Salt Lake is the most well-known remnant of pluvial Lake Bonneville, and the conspicuous strand lines along the Wasatch Mountains attest to its former depth.

The 40th Parallel Survey was, in terms of the number of scientists and intensity of study, scientifically superior to all previous explorations of the Great Basin.[11] Based on the prospects for profitable investigations enumerated in the reports of the 40th Parallel Survey, the United States Geological Survey began a study of the surface geology of the Great Basin in 1880. The survey party based in Salt Lake City, Utah was under the stern leadership of Grove Karl Gilbert.

G. K. Gilbert solidly established himself as a geologist of the first rank with his monograph on Lake Bonneville.[12] In the environs of the Great Salt Lake, Gilbert found all of the erosion and sedimentation of the Late Pleistocene age preserved by the post-Pleistocene aridity. Interpretation of the beach ridges, strand, and sediments of the current basin provided the key to reconstruction of the history of pluvial Lake Bonneville. All of this may seem relatively trivial in comparison to our current level of understanding, but we must keep in mind the state of knowledge in 1880. When Washington Irving first published his accounts of the colorful adventures of Captain Bonneville, it was assumed his descriptions of Great Salt Lake as an inland sea without an outlet were a little too colorful.[13] With confirmation that the lake had no direct drainage to the Pacific Ocean, the

[11] Clarence King, *Systematic Geology: U.S. Geological Exploration of the 40th Parallel* (Washington, D.C.: Government Printing Office 1878), Vol. I, p. 1,803.

[12] G. K. Gilbert, *Lake Bonneville* (Washington, D.C.: U.S. Geological Survey, Monograph 1, Government Printing Office, 1890).

[13] Washington Irving, *The Rocky Mountains: Or Scenes, Incidents, and Adventures in the Far West: Digested from the Journal of Capt. B.L.E. Bonneville of the Army of the United States* (New York: G.P. Putnam and Sons, re-ed., 1902), p. 212.

accepted explanation was that a subterranean outlet drained the Great Basin. This idea was well fixed even in the minds of literate laymen. When Madison Moorman traveled the overland trail to California in 1850, he eagerly awaited the great vortex at the end of the Humboldt River where it disappeared down the sink![14] It did not take Gilbert long to correctly interpret the geologic record of Lake Bonneville, and to suggest that not one but several deep pluvial lakes had existed in the basin. The last and deepest lake overflowed into the Snake River drainage to trigger a flood and erosion cycle of catastrophic dimensions.

Soon it must have occurred to Gilbert that the recurring pluvial periods interspaced with periods of aridity shown in the Late Pleistocene sediments of Lake Bonneville could have been related to glaciation. It must be remembered that it was not until 1837 that Louis Agassiz had first voiced the comprehensive idea of an "Ice Age" in which glaciers and ice sheets covered much of the northern continent and emerged from mountains far to the south.[15] The glacial theory progressed slowly against resistance in America until V. D. Dana's advocacy of the theory in 1863. Gilbert's supervisor, Clarence King, the first Director of the U.S. Geological Survey, was among the first to recognize abundant evidence of glacial ice in the mountains of the far west. King violently opposed the view expressed by the fledgling environmentalist, John Muir, that glaciers could still exist in the Sierra Nevada. King described Muir as an ambitious amateur, hopelessly floundering in science. (This conflict was later to involve Israel C. Russell through guilt by association.) Glacial theory had been formulated, but certainly tenuously, when Gilbert first searched for the cause of the pluvial lakes.

Russell and the Mono Basin

In 1879, Gilbert received authorization to hire a geologist assistant for field studies. He hired Russell, a twenty-eight year old geologist some five years out of the Columbia University School of Mines. They had worked together during a summer of geologic exploration in New Mexico as assistant geologists on the U.S. Geological Survey west of the 100th meridian.[16]

Israel C. Russell did not fit the stereotype of a western explorer; he was slight to diminutive in stature, taciturn by nature, and a self-contained individual. Bailey Willis remembered him as a student at Columbia, a silent, bent figure constantly at home among the natural history collections. Russell endured rather than enjoyed the comforts of conventional life and human companionship. Now he had his big professional chance, the opportunity to work under Gilbert, who had a rising reputation as a physical geologist.

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[14] I. P. Paden (ed.), *The Journal of Madison Berryman Moorman, 1850-1851* (San Francisco: San Francisco Historical Society, 1948), p. 143.

[15] R. F. Flint, *Glacial and Quaternary Geology* (New York: John Wiley and Sons, 1971), pp. 1-892 *passim*.

[16] Lombard and D'Ooge, "Israel Cook Russell."

The opportunity was not wasted. After one season under Gilbert's direct supervision, Russell was assigned to conduct independent research on Mono Lake Basin located far to the west, on the rim of the Great Basin.

Fortunately, Russell worked and published at a time when even the disbursement records (down to the oats for the government mule) of the U.S. Geological Survey were annually printed on gilt-edged paper and bound in marble board. Israel was a prolific writer, and the archives of the Geological Survey allowed him to tell his own story.

Mono Lake is situated in east-central California, within a few miles of the California-Nevada boundary. The hydrographic basin is relatively small by Great Basin standards, and at least one-half of the basin lies in the Sierran or coniferous forest/alpine environment rather than in the *Artemisia*-cold desert environment typical of the Great Basin. The eastern portion of Mono Basin where Russell initiated his visit is high, cold, and arid. In his report on the Quaternary history of Mono Valley, Russell chose to introduce his narrative by taking the reader on a verbal trip from the Central Pacific railhead to the crest of the Sierra Nevada, just as he himself had actually first made the journey.[17] One must wonder what Karl Gilbert's reaction was as he reviewed this highly colorful format for the reporting of research findings.

Russell began his journey by riding the narrow gauge Carson and Colorado Railroad along the margin of the southern Carson Desert from Reno to Hawthorne, Nevada. This is the same route on which Joseph Walker and his party almost perished in the sandy desert in 1834 on their return from California as part of the Bonneville Expedition.[18] The arid desolation of the Carson Desert appeals to few people and indeed repels most. Few parts of the United States have so starkly forbidding an aspect of parched lowlands and somber mountains.[19] Russell however, was driven to ecstasy by the virtually complete depositional record of later Quaternary time. No sediment had been lost to external drainage. The deposits were only sparsely covered with vegetation. Because the Carson Desert is the terminal basin for a huge watershed, the sediments are rich with soluble salts that limit plant growth. Osmotic stress and drought also limit plant life. The Sierra Nevada to the west casts a rain shadow across the Great Basin that reduces annual precipitation in the valley floors to four inches or less.

The Carson Desert is the lowest portion of pluvial Lake Lahontan, which Clarence King named for Baron Lahontan, the French explorer.[20] It is the western counterpart of Lake Bonneville.

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[17] I.C. Russell, *Quaternary History of Mono Valley, California* (Washington, D.C.: U.S. Geological Survey, 8th Annual Report, Part I, Government Printing Office, 1889) p. 271.

[18] Cline, *Exploring the Great Basin*, chapter 8.

[19] R.B. Morrison, *Lake Lahontan: Geology of the Southern Carson Desert, Nevada* (Washington, D.C.: U.S. Geological Survey Professional Paper 401, Government Printing Office, 1964).

[20] King, *Systematic Geology*, p. 390.

The valleys, even more dreary than the mountains, are without aboreal vegetation and without streams, and form a picture of desolation and solitude. In traveling through the Great Basin one sometimes rides a hundred miles without sight of a tree, and many times that distance without finding shade enough to protect him from the intense summer sun.[21]

Russell experienced the solitude of this environment during the next three years as he rode 3,500 miles on muleback crossing the treeless basins. However, before he studied the Lahontan Basine in detail he had to pass his first trials in the Mono Valley.

Leaving the railroad at Hawthorne, Russell continued his journey by stagecoach to Aurora. Aurora was a gold mining town that boomed in the 1860s and was well on the way to becoming a ghost town by the time of Russell's visit. His stagecoach ride took him over Lucky Boy Pass in the Wassuk Range and brought him to Aurora at sunset:

The deserts are shrouded in purple shadows and the rugged peaks above are drawn in strong outline on a sky of amber, merging upward into purple and blue—the lofty peaks and sharp crests of the Sierra Nevada and the Sweetwater Mountains arrest the eye and excite the wonder and admiration.[22]

The next day the rising sun made the ugliness of the nearly-abandoned mining camp only too apparent. Russell mounted his mule and took the trail to Mono. The previous night's euphoria was gone, as was the convenience of railroad or stagecoach. Stopping to fill his canteen, Russell calculated that the roadside spring yielded less than a quart of water per minute, but he also noted it was the last water fit to drink for forty miles. Nevada, thanks to numerous mining booms, was relatively well-settled in 1881 compared to the time of Fremont's visits thirty to forty years before. However, in 1870 it was estimated that half of the Great Basin Indians were still in a Stone Age hunter-gatherer culture.[23]

Russell did not have long to contemplate his fate for he soon reached the ancient beaches eroded by the currents of pluvial lakes on the arid *Artemisia*-covered slopes of Aurora Valley. On many beaches in Aurora Valley he found evidence of tufa deposits. Tufa, composed mainly of calcium carbonate, was deposited by the waters of ancient lakes. Russell recognized three forms of tufa: lithoid, thinolitic and dendritic. Later, he used these three tufa types plus the level of the eroded beaches on which they occurred to reconstruct three stages of filling and desiccation for Lake Lahontan. Because the tufa is deposited rela-

[21] I.C. Russell, *Geological History of Lahontan, A Quaternary Lake of Northern Nevada* (Washington, D.C.: U.S. Geological Survey Monograph 11, Government Printing Office, 1885), pp. 12-13.

[22] Russell, *Quaternary History of Mono Valley*, p. 271.

[23] J.W. Powell and G.W. Ingalls, *Report of the Special Commissioners on the Conditions of the Ute Indians of Utah, the Paiutes of Utah, Northern Arizona, Southern Nevada, and Southeastern California* (Washington, D.C.: Government Printing Office, 1877), p. 201.

tively evenly throughout the pluvial basins, Russell reasoned that the lakes must have been relatively fresh. When sublacustral springs mingle with the water of lakes that are very brinish, such as Mono Lake, the dissolved calcium carbonate is immediately precipitated. Thus tufa domes and crags were deposited. Bailey Willis considered that the development of the history of pluvial lakes based on the sequence of chemical deposition was an independent discovery of Russell's that was not enhanced by Gilbert.

The panorama of mountain peaks to the west of Mono Lake is breathtaking. Sitting on a tufa crag, on the eastern shore of the lake, Russell described the succession of peaks that forms the backbone of the central Sierra Nevada:

> No prosaic description, however, can portray the grandeur of fifty miles of rugged mountains, rising beyond a placid lake in which each sharply cut peak, each shadowy precipice, and each purple gorge is reflected.... At times the waters reflect the mountains with strange distinctness and impress one as being in some way peculiar, but usually their ripples glow and flash in the sunlight like the waves of ordinary lakes.[24]

Many of the emigrants crossing the Lahontan Basin during the great migrations of the 1850s were mystified and exasperated by the many alkaline lakes. Crossing the 40-Mile Desert from the Humboldt sink to the Carson River, Madison Moorman complained that if he had to die of thirst crossing a desert at least he should not have to look at lakes of deceptively placid water reflecting in the moonlight.[25] Russell captured the same emotion:

> No one would think from a distant view that the water which seems so bright and enticing is in reality so dense and alkaline that it would quickly cause the death of a traveler who could find no other way with which to quench his thirst.[26]

The plant communities of the central Great Basin which are dominated by *Artemisia* and, at lower elevations, by *Atriplex* are virtually monochromatic. Leaves are covered with silver or gray hairs that reflect the maximum amount of incident radiation. Green is a luxury color in this drought-ridden land.

> On the desert valleys the scenery is monotonous in the extreme, yet has a desolate grandeur of its own. At mid-day, in summer, the heat becomes intense, and the mirage gives strange delusioned shapes to the landscape, and offers false promise of water and shade where the experienced traveler knows there is nothing but the glaring plain. When the sun is high in the cloudless heavens and one is far out on the desert at a distance from rocks and trees, there is a lack of shadow and an absence of relief in the landscape that makes distances deceptive—the mountains appearing near at hand instead of leagues away—and causes one to fancy that there is no single source of light, but that the distant ranges and the desert surfaces are self-luminous. The glare of the noonday sun conceals rather than reveals the grandeur of this rugged land.[27]

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[24] Russell, *Quaternary History of Mono Valley*, p. 272.
[25] Paden, *Journal of Madison Berryman Moorman*, p. 201.
[26] Russell, *Quaternary History of Mono Valley*, p. 273.
[27] Ibid., p. 270.

Russell described Mono as a dead sea, but without the mysterious charm that history and tradition have given the Biblical Dead Sea. Sixteen years earlier in Paris the archeologist Louis Lartet had published the results of his studies in the region of the Dead Sea.[28] He had found deposits, evidently left by the Dead Sea, high above its present shores, and he inferred that the lake had expanded during the Ice Age, which he believed was recorded by glacial features on Mt. Lebanon. Russell did not indicate whether he was aware of Lartet's report even though he traveled in Europe during 1874.

Russell was well acquainted with the studies of Lartet by 1888, when Russell published the "Jordan-Arabah Depression and the Dead Sea."[29] His monograph on the Mono Basin was not published until 1889, but it might have been in press when the short article on the Dead Sea was written. Russell's ideas on the association of pluvial lakes and glaciation may have been completely original, independent of Lartet's suggestions, or they might have represented the development, refinement, and extensions of those ideas.

Whatever Russell's preconceived ideas, the mule ride from Mono Lake to the streams rushing down the Sierra escarpment produced the hypothesis that the shore line of the formerly expanded Lake Mono was contemporaneous with the lateral moraines extending from the canyon mouths and, therefore, the lake and glaciers must have existed at the same time. No one knows exactly where or when the relationship of pluvial lakes and glaciers first occurred to Russell, but the physical evidence was first available to him between Mono and the mountains; in this respect, the position of Mono Lake, perched in a high basin against the Sierra Nevada, was vital. For example, the terminal moraines on the Truckee River and the highest beach-ridges of Lake Lahontan are miles apart and the same is true for most of Lake Bonneville. Mono Lake's proximity to the glacial debris provided the proof and perhaps the conception of one of Russell's contributions to Quaternary geology. He had formulated an apparently original hypothesis that pluvial lakes and glaciers existed contemporaneously, and that they therefore must reflect the same climatic fluctuations. What remained was the nuts and bolts effort of physically mapping the stratigraphy. He proved equal to this utilitarian aspect of research despite the fact that he had to develop his own base map.

While engaged in this mapping he journeyed to the crest of Mount Dana to view the entire Mono Basin. The description of this journey is resplendent, and features descriptions of wild flowers, waterfalls, and glacial ice-cut topographic features. From the top of Mount Dana, Russell looked down to the west on the glory of Yosemite. He related his feeling with a candor that bared a disconcerting view of his inner feelings. He realized that the scientist who would be the first to report the glacial geology of Yosemite would be guaranteed instant and lasting

[28] Lewis Lartet, *Sur la Fermation du Hassir de la Mer Morte ou Lac Asphaltite et sur le Changements Survenus dans le Niveau de Celac* (Paris: Academie des Sciences, Comptes Rendus, 60, 1865), pp. 796-800.

[29] I. C. Russell, "The Jordan-Arabah Depression and the Dead Sea," *Geological Magazine* 5: 387-395.

fame in his profession. However, he himself was not a scientist of independent wealth who could support his own research. He had been hired by the U.S. Geological Survey to study Mono Basin, and he had to reluctantly turn his back on Yosemite and return to the cold deserts of Nevada.

Despite his self-expressed misgivings about his research assignment, Russell returned to his work with vigor. He completed his field work, analyzed the data, developed a stratigraphic sequence, and prepared a manuscript for publication at a speed that left his superiors aghast. His efficiency was rewarded with a much expanded assignment to elaborate the pluvial geology of the Lahontan Basin of northern Nevada. He conducted this research with the same originality and efficiency he had displayed in Mono Basin. The scale of work was greatly enlarged, and he logged thousands of miles on his mule before it was completed. Russell captured this impression of the Carson Desert, which perhaps reflects a homesickness for his native New England, during his study of the Lahontan Basin:

> The bare mountains reveal their structure almost at a glance, and show distinctly the many varying tints of their naked rocks. Their richness of color is sometimes marvelous, especially when they are composed of purple trachytes, the deep-colored rhyolites, and the many hued volcanic tuffs so common in western Nevada. Not infrequently, a range of volcanic mountains exhibit as many brilliant tints as are assumed by the New England hills in autumn.[30]

His basic premise was that the tufa deposits coating many of the rocks on the old beach ridges at Lake Lahontan were precipitated from waters of the long-evaporated pluvial lakes and, therefore, the chemical structure of these deposits reflected the chemistry of the original lake environment. Unfortunately, Clarence King, a former director of the Geological Survey, had formed definite opinions of the nature of Lake Lahontan tufa deposits when he led the 40th Parallel Survey. Russell was forced to continually justify his interpretations that tufa was formed by a calcium carbonate precipitate from the lake waters and was not a pseudomorph or ghost of chloro-carbonate.[31]

Despite these problems with King, Russell completed and published his studies of Lake Lahontan with his customary dispatch. Among the significant finds that Russell reported in his monograph of Lake Lahontan was the suggestion that a period warmer and drier than the present climate existed after the last glaciation and rise of the pluvial lakes. The recognition of this period, usually termed "altithermal," was another of his original ideas. Russell's major deductions on the history of Lake Lahontan later were confirmed by the detailed studies of Morrison.[32] Russell's career seemed destined to involve the study of

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[30] Russell, *Geological History of Lake Lahontan*, p. 13.
[31] Ibid. pp. 203-223.
[32] Morrison, *Lake Lahontan*, p. 106.

Quaternary geology in the western United States. He himself stated that his goal was to develop an understanding of glacial geology in the arid areas of the western United States where vegetative cover did not hide the stratigraphy, and then to transfer these concepts to more humid areas of the country.

Russell's Later Career

Just as he had established his reputation with the publication of the monograph on Lake Lahontan, the administration of the U.S. Geological Survey saw fit to transfer him and Gilbert, his supervisor, to the southern Appalachians to work on the Triassic Newark System. Although this geologic formation had been the subject of his research at Columbia, he never was to attain the creative insight and productivity in his eastern assignments that he demonstrated in the Great Basin. To quote Gilbert, Russell proved "uncompatible with the Appalachians." Gilbert's later disappointment with Russell probably stems from the failure of this project, which was of greater interest to Gilbert than to Russell.

However, the Mono Basin and Lake Lahontan reports paved the way for a new aspect of Russell's career. He could interpret the developing science of geology, and through his skill in writing and lecturing convey the synthesis to a segment of the general public.

Russell left the Geological Survey in 1892 and joined the faculty of the University of Michigan. He inherited two attic rooms above the old museum. He rapidly produced five books on the lakes, glaciers, volcanoes, and rivers of North America, and finally a synthesis volume, North America. These books contained numerous references to his studies in the Great Basin and gave eastern scientists a view of the geology and resources of Nevada. Essentially, he was giving voice to the emerging sciences of physical geography and geomorphology, and enhancing physical geology. The students and townspeople at Ann Arbor could cross the museum, climb the stairs past the brooding walrus and other stuffed wonders of the western world, and learn the processes of erosion and soil formation that had shaped the very landscape upon which they lived.

In the last stages of his career before his untimely death, Russell found a natural affinity with the National Geographic Society, which he helped found. The Society provided both a source of funds for financing his field research and an outlet for his prolific pen.[33]

I.C. Russell unknowingly wrote his own epitaph. As president-elect of the Geological Society of America he had prepared the president's address for the 1906 annual meeting. Due to his untimely death the paper "Concentration as a Geological Principle" was read by the acting president. The paper dealt with the evolution of landforms and the concentration of economic minerals; however the concluding paragraph serves as a fitting summation of his career:

[33] I.C. Russell, "Volcanic Eruptions on Martinique and Saint Vincent," *National Geographic Magazine* 13 (1902): 415-436.

From the sands of our feet I have selected a pebble and held it to the light. It is, perhaps, not a flawless crystal, but can with greater truth be termed bort (industrial grade diamond), which may be put to industrial uses instead of treasured on account of beauty or rarity. The pebble, as I have identified, is a true and broadly underlying principle, which is worthy of recognition, which should be given a place by geologists, and especially in books dealing with the application of our science....[34]

[34] I.C. Russell, "Concentration as a Geological Principle," *Bulletin of the Geological Society of America* 18 (1907): 28.

The 'New' Labor History and Hard Rock Miners in Nevada and the West

NEWELL G. BRINGHURST

Hard Rock Miners: The Intermountain West, 1860-1920. By Ronald C. Brown. (College Station: Texas A & M University Press, 1979. 202 pp. $15.95)

Hard Rock Epic: Western Miners and the Industrial Revolution, 1860-1910. By Mark Wyman. (Berkeley: University of California Press, 1979. 332 pp. $15.95)

UNTIL RECENTLY, studies of the American worker were primarily written by labor economists who confined themselves to the study of trade unionism and collective bargaining. Such an approach had its obvious deficiencies since throughout American history only a minority of U.S. workers have joined labor unions and participated in union activities. This approach changed by the early 1960s as an increasing number of historians trained in a variety of disciplines became interested in American workingmen's activities beyond the narrow confines of trade unionism. This so-called "New" Labor History has attempted to present a more complete picture of the American worker.[1] In this spirit, recent works by such noted labor historians as Herbert Gutman, Irving Bernstein, and David Brody have examined the lives and activities of a wide variety of workers—non-union as well as union, unskilled and semi-skilled as well as skilled, women along with men—within the larger framework of American society.[2]

Ronald C. Brown's *Hard Rock Miners* and Mark Wyman's *Hard Rock Epic* both reflect the fact that, at long last, the "New" Labor History is exerting a major influence on the writing of Western mining history. Both of these works move well beyond the narrow confines of "traditional" labor-union conflict history that almost completely dominated the history of Western hard rock miners until the

[1] For a perceptive essay describing the emergence of the "New" Labor History see David Brody, "The Old Labor History and the New: In Search of an American Working Class," *Labor History,* XX, Winter 1979, pp. 114-126.

[2] See in particular, Herbert Gutman, "The Workers Search for Power: Labor in the Gilded Age" in H. Wayne Morgan, ed., *The Gilded Age: A Reappraisal* (Syracuse: Syracuse University Press, 1963), 47-101; Irving Bernstein, *The Lean Years; A History of the American Worker 1920-1933* (Boston· Houghton Mifflin Co., 1960); David Brody, *Steelworkers in America: The Non-union Era* (Cambridge, Mass., Harvard University Press, 1960).

early 1970s.[3] While Brown and Wyman describe the beginnings of mine union activity and consider the formation of the Western Federation of Miners in 1893 and the Industrial Workers of the World in 1905 and related labor strikes and conflict, they also give the reader a feeling for the broader life of the Western hard rock miner.

Brown is particularly effective in this regard, presenting a lively, colorful portrait of the miner's varied existence. He sweeps the reader along with his flowing prose, beginning with an intriguing examination of the reasons why certain individuals migrated West to work in the mines. According to Brown, "most" of the early migrants came in search of quick wealth. A significant number, moreover, were attracted by the relatively high wages offered in Western mines, while others migrated for health reasons, or were lured by the inducements offered by railroads and mining companies. Still others came to "escape" from their checkered pasts or from labor strife in the East or were "social and psychological casualties" of the Civil War. The "typical" migrant, according to Brown, was usually a "young bachelor," often of foreign birth. In fact, Western mining communities contained a disproportionately high percentage of foreign born migrants.

Brown is vivid in his description of the miner's kaleidoscope existence within the larger mining community. He gives the reader a feeling for the family life of those miners who managed to bring their wives and children west with them. While presenting a colorful view of town amusements, including prostitution and gambling, Brown is careful to note that life was not all fun and games in these communities. He outlines the problems that plagued them—the lack of adequate housing, fires, lawlessness, contagious diseases, and epidemics. In addition, he readily admits that these Western towns were not very conducive to family life, due, in part, to the fact that facilities for children, excluding schools, were virtually non-existent.

The miner's "work amidst the ore" which constituted almost his entire raison d'être is described in considerable detail. Since mines varied in size and degree of mechanization throughout the mining West, and indeed often within the same district, there was, according to Brown, no "such a thing as a typical mine."[4] The workshifts also varied from eight to twelve hours a day, six to seven

[3] The classic study in this regard is Vernon H. Jensen, *Heritage of Conflict: Labor Relations in the Non-Ferrous Metals Industry Up to 1930* (Ithaca, New York: Cornell University Press, 1950). A more recent work in this same spirit is Richard E. Lingenfelter, *The Hardrock Miners: A History of the Mining Labor Movement in the American West, 1863-1893* (Berkeley: University of California Press, 1974). For Nevada in particular see Russell R. Elliott, *Radical Labor in the Nevada Mining Booms, 1900-1920*, (Reno: University of Nevada Press, 1961). It should be pointed out that works indicating a movement away from the narrow labor union-conflict approach were starting to appear by the mid 1970s. See: Richard H. Peterson, "Conflict and Consensus: Labor Relations in Western Mining", *Journal of the West*, XII, No. 1, January 1973, pp. 1-17; and Otis E. Young, Jr. *Black Powder and Hand Steel: Miners and Machines on the Old Western Frontier* (Norman, Oklahoma: University of Oklahoma Press, 1976).

[4] Brown, p. 64.

days a week. The miners performed a variety of duties depending on the size and complexity of the operation in which they labored, including tramming, mucking, drilling, and loading and firing the powder.

Brown also outlines the hazards confronting miners in "the deadly depths" and the difficulties of employee-employer relations above ground. Through detailed statistics, he concludes that "falling objects" caused the largest number of mine accidents. But there was also danger from inadvertent explosions, accidental falls, and foul air. In addition, the new mining technology created additional hazards from power drills generating quartz dust which caused miners' consumption, the high speed mine cage, and electricity. These dangers, as Brown notes, exacerbated the natural adversary relationship that already existed between the miners and their employers—particularly mine managers. Strains in this relationship boiled to the surface when mine managers tried to reduce wages in the face of declining profits, or tried to play up national or ethnic rivalries in order to keep the miners divided.

Mine workers responded to such dangers and difficulties in several ways. Within those bonanza mines containing valuable gold ore, miners engaged in the practice of "highgrading"—the picking up and smuggling out of valuable ore and selling it to local assayers. Disgruntled miners also acted through legal channels, forming miners' associations and unions which served as a basis for the later formation of the Western Federation of Miners and Industrial Workers of the World. While this "need to organize" represents, according to Brown, the culmination of the miners' frustrations, Brown limits his discussion of such developments to only 15 of the total 168 pages in his study. Thus Brown is able to keep his work from falling back into a narrow labor union focus and maintains a broad perspective of the hard rock miners' wide range of activities in the spirit of the "New" Labor History.

By contrast, Wyman assumes a somewhat narrower focus despite the fact that his book is 100 pages longer than Brown's. Wyman's study is also less descriptive and more interpretive. Utilizing a vigorous, persuasive prose style, Wyman builds his central thesis around the impact of the Industrial Revolution on hard rock miners living on the Western frontier. According to Wyman, Western miners were "usually drawn from a non-industrial tradition," and yet they tended to work for modern, complex, industrialized enterprises which he dubs "outposts of modernity" in a "primitive" geographic setting near "unconquered peaks, wild game, and Indians..." These "tradition-bound" miners thrust into such an environment and faced with changing demands in job skills and work discipline frequently experienced "severe tensions."[5]

These tensions were exacerbated by the Industrial Revolution or "new

[5] Wyman, pp. 5-6.

technology" which according to Wyman "betrayed" the miner despite the fact that new labor-saving machinery appeared to be in the best interests of the miner. Instead, inventions such as the Burleigh drill, dynamite (or Giant Powder), the mine cage, and electricity introduced new hazards. Such inventions, moreover, made it possible for mine operators to extend their operations to greater depths and over a wider area, thus exposing the miner to further dangers. Ultimately, the hapless miner had the feeling of being little more than an insignificant cog in the huge industrial enterprises that came to dominate western mining by the early twentieth century.[6]

The tensions of hard rock miners in this new industrial environment were increased in other ways. The "new technology," combined with the growing size of mining enterprises, created the need for larger capital investment, which, in turn, led to an increased number of absentee mineowners. Such owners, according to Wyman, tended to be less sensitive to the needs and problems of their workers. When these problems led to accidents resulting in injury or death, the involved miner or his family found it almost impossible to gain monetary compensation or legal redress through the courts. Traditional Common Law, rooted in the tradition of a pre-industrial society, placed the burden of proof in any mine accident case on the miner himself rather than the mine operator. Because of the difficulties resulting from the "new technology" the frontier traditions of self-government and individualism were severely challenged.

All of these difficulties caused hard rock miners to band together, initially into miners' cooperatives and eventually into miners' unions which formed the antecedents of the Western Federation of Miners and the Industrial Workers of the World. In noting the miners' need to organize, Wyman agrees with Brown. But in contrast to Brown, Wyman focuses much more on union activity, which is extensively discussed in three chapters—more than a third of his total text. According to Wyman, early miner unions up to 1897 were essentially "conservative," and sought to preserve existing wage scales in various mining camps. However, by the late nineteenth and early twentieth centuries the Western Federation of Miners expanded its objective to include such matters as the eight hour workday and improved mine safety. However the WFM was frustrated in securing these objectives and as a result became more radical by the early 1900s. It manifested its new-found radicalism by forming a new organization, the Industrial Workers of the World in 1905. The IWW called for the abolition of the existing capitalist system and for worker control of the means of production. However, this lurch to the left was short-lived since Western miners secured their eight hour workday and mine safety legislation in the spirit of the Progressive reform movement. The WFM returned to its more conservative ways and

[6] Ibid., Chapter 4.

disassociated itself from its own radical creation—the IWW—and petitioned for readmission to the American Federation of Labor in 1910. In summary, while Wyman's study, like that of Brown's, is clearly influenced by the "New" Labor History, particularly in the first 150 pages, the last part of Wyman's work tends to revert to a more traditional labor union approach, similar to that in earlier studies of Vernon Jensen and Richard E. Lingenfelter.

The role and place of Nevada's hard rock miners figures very prominently in both Brown's and Wyman's studies. The Comstock, according to both of these authors, was the first mining region in the West to be subjected to the "new technology" or industrialization during the 1860s, setting the pattern for large scale operations in other districts and regions. Square set timbering and steam power hoists were introduced to the Comstock in 1860. The Comstock was also the first region to confront the problems of maintaining tolerable working conditions in those deep lode mines subjected to intense heat and hot water generated by hydrothermal activity. The Comstock also led the way in labor union activity, with the formation of the Miners Protective Association in 1863 which set the pattern for union activity throughout the rest of Nevada and the mining West generally. In addition, as Wyman notes, the Comstock was the first region to adopt the eight hour workday for its miners, even though this principle was not enshrined in state law until 1904. Nevada mining districts also stood out as a result of their ethnic composition. In the words of Wyman, "Nevada... became the nation's immigrant capital, percentage wise by 1870."[7] In the state as a whole over 40% of the population was foreign-born, while within bustling Virginia City, the percentage of foreign-born shot all the way up to 63.5%. It is not surprising, therefore, that Comstock mine operators (according to Brown) tried unsuccessfully to play on the national rivalries of their mine workers in order to keep them divided and prevent them from organizing.

Generally speaking, both Brown and Wyman are effective in presenting their accounts of hard rock miners in Nevada and the West within the context of the "New" Labor History. Brown's study is particularly convincing in this regard. However, both books have gaps and leave certain crucial questions unanswered. One wonders why Brown's study, which purports to be an extensive examination of hard rock miners in the Intermountain West, failed to include Idaho and Montana—areas of crucial importance. Also, Brown's extensive discussion of company and non-company towns in the mining West would have been much more effective had he enlightened his readers about the ratio of company as opposed to non-company towns. Brown's discussion of Tasker L. Oddie fails to cite Loren B. Chan's biography of the Tonopah Bonanza King who went on to

[7] Ibid., p. 41. The definitive work on Nevada's important and varied immigrant population is Wilbur S. Shepperson, *Restless Strangers: Nevada's Immigrants and their Interpreters* (Reno: University of Nevada Press, 1970).

become governor of Nevada and United States Senator.[8] Also deficient is Brown's discussion of the socio-economic mobility of hard rock miners due to his failure to utilize or even cite the most recent studies on this subject by Richard H. Peterson.[9] Also one must question Brown's rather sweeping assertion that "the frontier" in contrast to other parts of the country did not glorify "the future and youth."[10]

As for Wyman, he fails to provide any hard evidence to support his crucial observation that hard rock miners were "usually... drawn from a non-industrial tradition" (p. 5). His extensive discussion of absentee mine owners does not enlighten the reader concerning the percentage of absentee as opposed to non-absentee mine owners in the West. Wyman also fails to disclose if and how this ratio changed over the fifty year period covered by his study. In addition, his discussion of hard rock miner involvement in politics would have been stronger had he tried to assess the influence of the Populist and Progressive movements on mine reform legislation implemented during the late nineteenth and early twentieth centuries.

Beyond these gaps and loose ends, both of these books have problems in justifying their established chronological parameters. The beginning date of 1860, utilized in both of these studies, cannot be faulted, since this is the date marking the beginning of deep lode mining on the Comstock. However, the terminal dates of 1910 for Wyman and 1920 for Brown seem much more arbitrary and open to dispute. The dates are abrupt and the criteria justifying them unconvincing. Brown and Wyman's works are not unique in this problem, but their ending dates of 1920 and 1910 are no more satisfactory than Lingenfelter's concluding date of 1893 or Vernon Jensen's ending date of 1930. Clearly, future studies of hard rock miners in the West need to give more thought to finding a satisfactory terminal date and presenting the criteria justifying it.

Despite such problems, both books are valuable contributions to Western historical scholarship; they considerably broaden our understanding about the life and times of hard rock miners in the West. Moreover, both books, inspired by the "New" Labor History, will serve as invaluable guides for future studies of hard rock miners in Nevada and the West, and will stand as the basic standards against which all such studies will be judged.

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[8] Loren B. Chan, *Sagebrush Statesman: Tasker L. Oddie of Nevada* (Reno: University of Nevada Press, 1973).

[9] Richard H. Peterson, "The Frontier Thesis and Social Mobility on the Mining Frontier," *Pacific Historical Review*, XLIV, No. 1, February 1975, 52-67; and his *The Bonanza Kings: The Social Origins and Business Behavior of Western Mining Entrepreneurs, 1870-1900* (Lincoln: University of Nebraska Press, 1977).

[10] Brown, p. 34.

Nevada Humanists View MX

FRANK WRIGHT

SINCE ROUGHLY 87 PERCENT of the land within the state of Nevada is federally owned and administered, Nevadans have long been accustomed, if not always reconciled, to the fact that decisions which profoundly affect the state are often made at the national level. Passage in 1976 of the Federal Land Policy and Management Act, which makes multiple use the law of the public lands and, by the way, declares the federal government's intent to retain federal ownership, was viewed by would-be "sagebrush rebels" as another instance of the colonization of Nevada by the Washington bureaucracy. Another commonplace of Nevada history has been the recurrence of boom and bust cycles, as once flourishing boom towns fall victim to ore depletion or fluctuating market prices. Little in the experience of Nevadans has prepared them, however, for the potential consequences of the decision announced by President Jimmy Carter in September of 1979 to proceed with full scale engineering development of the MX missile system. The preferred location for this gigantic construction project, the largest in American history, was announced to be the unappropriated federal land in the desert valleys of eastern Nevada and western Utah. This decision, if implemented (at this writing, a final decision is still pending), will bring both boom and hardship to Nevada, but on a scale previously unimaginable.

In 1980, operating under a broad mandate from the National Endowment for the Humanities to fund programs which bring the humanities to bear upon issues of public policy, the Nevada Humanities Committee funded three separate but closely related programs concerning the proposed MX project. An eighty page booklet, *MX in Nevada: A Humanistic Perspective*,[1] was produced under the sponsorship of the Center for Religion and Life in Reno, and the editorship of Francis X. Hartigan. Nine articles by Nevada scholars and an introduction by Professor Hartigan address different aspects of MX from particular vantage points within the humanities. Eight discussion programs were conducted throughout Nevada with apparently mixed reception and enthusiasm. The third program funded by NHC was an hour-long film documentary, "Battle Born: MX in Nevada," directed by Russell McNeil. The three programs do not, indeed cannot, examine (much less answer) all of the myriad

[1] Francis X. Hartigan, ed. with intro., *MX in Nevada: A Humanistic Perspective* (Reno: Center for Religion and Life, 1980). Hereafter cited as *MX in Nevada*.

questions raised by the proposed MX project. Given the constraints of dealing with a massive hydra-headed subject and of writing on highly complex and technical matters for a largely non-specialist audience, the booklet and film are remarkably successful in elucidating some key issues.

Is this colossal weapons system necessary? Since the system will cost in the range of $100 billion by some estimates, is this a "reasonable cost to the American taxpayer" as President Carter suggested? Might another deployment mode, for example small, relatively inexpensive submarines, be as effective at less cost? If a land-based system is required, is there a better alternative to basing it in Nevada and Utah? In the short term, during the intensive construction phase, what will be the impact of huge expenditures and an influx of twenty to thirty thousand construction workers on rural Nevada and Utah communities? (Recent estimates indicate that this figure would likely double or triple.) During the construction and operating phases, what are the likely impacts on Nevada industries, mining, ranching, air quality, wildlife and vegetation, water supplies, and general quality of life? Will Nevada Paiutes and Shoshones bear a disproportionate share of the social costs of development as they have so often in the past? In the event of the "unthinkable" occurring, will Nevada become a "nuclear sponge" absorbing thousands of Russian warheads? The list of critically important questions is seemingly endless.

The MX missile and its deployment mode defy succinct description. David Lundberg has pointed out its major features and places it in the context of the ever-expanding post World War II arms race between the United States and the Soviet Union.[2] The Air Force proposes to locate 200 MX missiles in a twelve county region of Nevada and Utah.[3] The MX missile itself is but the latest, most sophisticated and deadliest in a series of inter-continental ballistic missiles whose recent cousins include the currently deployed Minuteman and Titan. Each 190,000 pound MX missile (the administration chose the largest of several proposed designs) will carry ten "MIRVed" (Multiple Independently-Targetable Re-entry Vehicles) warheads, each with an explosive force in the range of 350 kilotons. Each of these two thousand warheads is thus over twenty times the force of the bomb dropped at Hiroshima.

As Lundberg points out, the uniqueness of the proposed system does not lie in its awesome capability, but in its method of deployment. Air Force plans call for the construction of 4,600 horizontal concrete structures in clusters of twenty-three, with connecting roads and support facilities. The object, in a macabre variant of the "shell game," is to permit Soviet satellites to observe that only one missile is contained in each cluster, while concealing which of the twenty-three structures actually shelters the missile. Huge Transporter-Erector-Launchers

[2] David Lundberg, "Why the MX: American Defense Policy Since World War II," in *MX in Nevada*, 19-28.

[3] Alternative locations and basing modes are still under consideration at this writing, but this essay assumes full basing in Nevada and Utah, the position favored by the Air Force.

will shuttle the missile from shelter to shelter at infrequent intervals. This procedure, so the theory goes, requires that the Soviets, in a first strike, target at least one warhead at each of the shelters in each cluster, only one of which actually contains a missile. In strategic planner argot, the Soviets are thus faced with an "adverse exchange ratio" of 23:1. Some of the ramifications of this arrangement will be examined below, but the fundamental purpose is seen to be "survivability."

The paramount issue of MX is of course the question, need it be built at all? On this question, the materials under discussion provide little guidance. Lundberg notes critics have suggested that present submarine and bomber weapons are sufficient to deter attack, that Minuteman missiles could be launched from under an attack, and that the Russians are certain to perceive MX as an offensive, first strike weapon. He also correctly identifies the proximate impetus for MX as the perception of American strategic planners that the presently deployed Minuteman missile system is increasingly "vulnerable," but he does not question the accuracy of this assessment. This vulnerability is seen to result from rapid developments in missile guidance technology which make it possible for Soviet missiles to strike within a half-mile or less of a target the size of a missile silo. In "Battle Born: MX in Nevada," Air Force spokesman General James P. McCarthy, in the first of his recurrent appearances in the film, begins at this (unanalyzed) fundamental point.

A closely-related factor in the decision to deploy an additional two thousand warheads, but a factor not examined in the film or text, is the conclusion drawn by the U.S. intelligence community that recent years have seen a very rapid build-up of strategic arms spending by the Soviet Union. In fact, neither fundamental assumption is universally acknowledged.

Thomas L. Clark, in his short contribution on the rhetoric of the. MX debate, makes an important point relative to the difficulty encountered by interested citizens when trying to make an informed decision on matters of national security, namely that available information may not only be limited by secrecy requirements, but may also be colored by highly motivated political interests.[4] A case in point for Clark is the concept of Circular Error Probable. C.E.P. is one measure of missile accuracy; it refers to the radius of a circle centered on the intended target in which one-half of all re-entry vehicles are expected to land. Exact data on missile accuracy are among the most closely guarded national security secrets, but the Minuteman III missile is estimated to have a C.E.P. of 200 yards.[5] Figures for MX are said to be significantly better. While this mathematics has an awesome air of certainty about it, it is well to remember that "missiles...do not exist in the orderly universe of the strategic

[4] Thomas L. Clark, "The Rhetoric of MX," in *MX in Nevada*, 11-18; see pp. 15-16.

[5] Andrew Cockburn and Alexander Cockburn, "The Myth of Missile Accuracy," *New York Review of Books*, Vol. XXVII, No. 18, Nov. 20, 1980, p. 41.

theologians but in the actual world of contract mismanagement, faulty parts, slipshod maintenance, bureaucratic cover-up, and the accidents that have afflicted military equipment since the world's first bowstring got wet in the rain."[6] The point here is not that these authors are right and the Air Force wrong, but that highly qualified experts have questioned the rationale for the MX at its most fundamental point.

The second fundamental assumption—the "fact" of a massive Soviet build-up in strategic and conventional forces—is not seriously questioned in the mass media or, for that matter, very widely in the academic community. This new orthodoxy among the strategic theologians is freighted with uncomfortable echoes of the non-existent "missile gap" of the late 1950s and early 1960s. As Lundberg observes:

> By 1959, despite accusations of a "missile gap," Russia had at most 10 ICBMs and only 150 long-range bombers. Its military efforts were still directed toward protection of the Russian homeland. America, by contrast, possessed a large diversified force consisting of almost six hundred B-52s, twelve hundred B-47s... and over two hundred carrier based aircraft dispersed on fourteen attack carriers. In addition, the United States had over one hundred ICBMs.[7]

As with the question of missile accuracy, effective public discussion of the matter of supposed Soviet strategic superiority is confounded by the difficulty of obtaining and evaluating highly technical material, by the requirement of secrecy in matters of national security, and by specialist jargon. Indeed, theorizing in the field of nuclear deterrence is one of the most arcane of contemporary subjects; one suspects that it is very heady and stimulating stuff to its practitioners. Nonetheless, some knowledgeable analysts have temerariously suggested that the Soviet arms build-up has been "consistently and sometimes hysterically exaggerated."[8] Arthur Macy Cox, for example, has attributed recent exaggerated (in his view) estimates of Soviet military spending in part to dubious accounting methods used by the CIA, whereby the dollar cost of Soviet defense is obtained by estimating what the United States would pay for the same defense establishment. No allowances are made for higher military salaries in the United States. No adjustment in the figures takes into account the far higher efficiency of American defense industries. Cox cites the January, 1980 CIA estimates: "Estimated in concrete dollars, Soviet defense activities increased at an average annual rate of 3 percent [during the years 1970-1979.] "In other words," Cox concludes, "the Soviets have indeed been increasing defense budget, each year, at about the same rate as the United States and most of its NATO partners have raised their military spending during each of the last four years."[9]

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[6] Ibid.

[7] Lundberg, pp. 19-28, *passim.*

[8] Arthur Macy Cox,"The CIA's Tragic Error," *New York Review of Books,* Vol. XXVII, No. 17, Nov. 6, 1980, p. 21.

[9] Ibid.

The point again is not to attempt to reconcile Cox's apparently minority view with the very disparate official view; rather, there is a need as Professor Clark has cautioned, to carefully examine the rhetoric of public debate, alerted to the possibility of manipulation of numbers and statistics, terminological tangles, specialist jargon and hidden political motivations. It is here that humanists can make (and in the book and film considered here, have made) positive contributions to the clarification of extremely complex public issues. Clemenceau's famous observation that war is much too important to be left to the generals is especially pertinent in the present context.

Harvard historian and influential National Security Council analyst Richard Pipes warns us that Russian generals theorize about waging, surviving and winning a nuclear war. His conclusion seems to be that the United States must think and plan on the same basis.[10] One of the unhappy constants of human existence since the days of Lagash and Ur is that warriors tend to think and act in such terms. Sociologist C. Wright Mills called this tendency to define situations in purely military terms the "military metaphysic." In times when the military metaphysic permeates official thinking, humanists can remind us that other approaches are available and *mirabile dictu*, perhaps even effective. Scott L. Locicero, in his concise analysis of the French experience with their small independent nuclear force, has reminded us of one such approach which has not been given a great deal of attention of late: diplomacy and statesmanship.[11]

Gen. McCarthy, able spokesman as he is for the Air Force proposal, is extremely reassuring in "Battle Born: MX in Nevada." Soothingly, he assures us that military personnel and civilian employees of the MX complex will, as residents of Nevada, have a "vested interest" in preserving the environment, that there will be "low levels of activity" in the valleys, and that the Air Force does not view the proposed MX deployment area as a "wasteland." Historian Joseph A. Fry's essay reviewing past experiences of defense expenditures in Nevada[12] gives the reader cause for skepticism.

In the past, Nevadans have not begrudged the use of substantial chunks of real estate for military purposes—especially when local prosperity was thereby advanced. Early military forts protected trails and settlements from depredation by displaced Shoshones and Paiutes. In the Twentieth Century, defense-related expenditures have become an important part of the state's economy. The establishment of the Naval Ammunition Depot at Hawthorne in 1930 provided a key boost to the local economy, as did the establishment of air bases near Reno,

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[10] See for example, Richard Pipes, "Militarism and the Soviet State," *Daedalus*, Fall, 1980, p. 10: "In the case of the Soviet Union, dissuasion needs to be fashioned in terms that correspond to its own notions of 'science and war' and 'correlation of forces.' It must challenge head-on the Soviet view of warfare in the age of strategic weapons...."

[11] Scott L. Locicero, "Nuclear Weapons and International Influence: The French Example," in *MX in Nevada*, 29-35; see p. 35.

[12] Joseph A. Fry, "The History of Defense Spending in Nevada: Preview of the MX?" in *MX in Nevada*, 37-50.

Fallon, Tonopah and Las Vegas during the World War II era. At Las Vegas, for example, the Army Air Corps Gunnery School (later Nellis Air Force Base) monthly payroll of approximately 6,000 military and civilian employees was an important boost to a town just discovering its gambling and tourist potential. The construction of the massive defense-related Basic Magnesium Plant at Henderson at about the same time contributed mightily to the Las Vegas economy.

The nuclear era also brought economic benefits to Nevada with the establishment of the Nevada Test Site in 1951. Las Vegas hotel and casino operators noted a pronounced increase in business as dates for announced tests neared. Television reporters and tourists mingled with locals to watch mushroom-shaped clouds begin their eastward drift over Nevada toward Utah. Not only did the media provide welcome notoriety for the new gambling mecca, but the Test Site became the third largest source of income for Las Vegas.

Can these previous experiences help Nevada prepare? Fry gives a qualified answer. He notes the episodic and erratic nature of defense-related spending in Nevada. Closure of Stead Air Force Base near Reno and the prospects of sharp cutbacks at Hawthorne testify to the sometime boom-and-bust nature of defense projects. Construction and operation of defense facilities proved to be a mixed blessing. The opening of the Gunnery School and construction of Basic Magnesium near Las Vegas were accompanied by an acute housing shortage. Legal suits against the federal government abound, as the incidence of leukemia along the path of those mushroom clouds is shown to be far above average.

Employing the insights of the "dismal science," economist Mike Reed observes that economic benefits to Nevada and Utah will be questionable at best, since the capability for growth of communities within the deployment area is already low and the magnitude of the demand for construction materials will be such that major economic benefits will accrue to states outside the area.[13] He warns that MX construction will require too much of everything—too much water which is sorely needed for ranching and mining, too much in the way of manpower needs in an area where mining is enjoying a growth period and other projects are in planning stages, too large a population for which medical care, educational facilities, sewage facilities, police and fire protection must be provided, too much inflation, and on and on. The tone of the essay is dry, but the impact is substantial.

Anthropologist Martha Knack points out that Nevada's Indians already have extensive experience with federal social manipulation and broken federal promises.[14] In "Battle Born: MX in Nevada," Topsey Swain of the Moapa Reservation shows skepticism born of long experience as she comments, "You people already got it down here now—you white people." Janey Mike of the Duckwater reservation, asked why she doesn't trust the Air Force, replies that they give

[13] Mike Reed, "'The Biggest Thing that Man Has Ever Done,'" in *MX in Nevada*, 45-50.
[14] Martha C. Knack, "MX Issues for Native-American Communities," in *MX in Nevada*, 59-65.

only "rough answers" and are "too polite." Professor Knack is careful to point out that Indian views on MX are divided—some anticipating jobs and prosperity, others fearing unanticipated consequences. No one knows for sure, she says, whether MX will be the death knell of the Indian way of life or a bright new future, but the film captures predominantly the former view. Most of those interviewed for the film express concerns about the possible desecration of land considered sacred by the Indians, and about disruption of traditional life-ways. One of those interviewed is convinced that Indians will have to bear arms.

Not only are current life-ways threatened by MX; archaeological and historic sites, which still have much to reveal about Nevada's past, are vulnerable as well. Based on recent experience, such as damage to sites in the Colorado and Mojave Desert portions of Southern California, archaeologist Margaret Lyneis is pessimistic about educating people to reduce damage to these important cultural resources. Until recently, relative isolation and the sparcity of population have afforded some degree of protection; 10,000 miles of new roads and a massive influx of workers, many with off-road vehicles, will almost certainly result in irreversible damage.[15]

The booklet and the film each convey the wide diversity of views held by Nevadans as they await developments which in advance can be known only in general outline. Reviewing the background of the sometimes complicated relationship between Nevada and the federal government and the recent developments of the "Sagebrush Rebellion," Michael J. Brodhead states that we should not expect to find battle lines clearly drawn.[16] In the film, a Nevada rancher expresses exasperation at "federal government abuse" while a hotel operator and a brothel proprietor anticipate increased revenues. A Pioche miner offers his basement as a missile silo; historian James W. Hulse is concerned lest Pioche lose that sense of continuity which has sustained it through boom and bust.[17] A Goldfield prospector shrugs and says boom and bust is "just the way life is."

MX in Nevada and "Battle Born" do not provide an exhaustive view of MX and its consequences. Together, they constitute, in a sense, a primer on the subject—not an insignificant accomplishment on so gargantuan a topic. The film, which has already received a wide audience (it is scheduled on national T.V.) and the book, which deserves a wider readership, share one important theme. They help to dispel the notion of Nevada's desert valleys as a vast wasteland, a notion which one suspects lies beneath the surface of official expressions of concern by the strategic planners.

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[15] Margaret M. Lyneis, "Archaeology and the MX—A People Problem?" in *MX in Nevada*, 75-79.
[16] Michael J. Brodhead, "The Sagebrush Rebellion and MX," in *MX in Nevada*, 51-57; see pp. 56-57.
[17] James W. Hulse, "A View from Pioche," in *MX in Nevada*, pp. 67-73.

Book Reviews

Meyer Lansky: Mogul of the Mob. By Dennis Eisenberg, Uri Dan and Eli Landau. (New York and London: Paddington Press, 1979. 346 pp. Index)

THIS IS AN AMERICAN rags-to-riches success story—perhaps not in the classic Horatio Alger mold, but a success story nonetheless. It is a biography of one of the most important organized crime figures ever to appear in this country, one whose financial acumen and farsightedness were largely responsible for the nationwide organized crime network established in the United States during the second quarter of this century.

Meyer Lansky: Mogul of the Mob traces its subject's career from the time of his youth on New York City's Lower East Side (where he and his parents, Max and Yetta Suchowljansky, had immigrated from Russia just before World War I) to the late 1970s. From the age of ten, Lansky learned to take care of himself in the tough, crime-ridden environment of the East Side, a place where money was as scarce as respect for capricious law enforcement. Extremely ambitious, he formed a friendship with an older Sicilian youth who was equally determined to "make something" of his life. Charles "Lucky" Luciano, whose loyal aide was Frank Costello, and Lansky, with his lieutenant Benjamin "Bugsy" Siegel, formed an unprecedented alliance of Italian and Jewish gangs, and thus the nucleus of an organization that would soon dominate organized crime in America.

Bootlegging, which emerged as a new field for racketeering in the Prohibition Era, was the illicit activity pursued most intensely by the upstart Luciano-Lansky group; as the group's profits and power increased, it found itself in conflict with the old guard Mafia leadership in New York, which was the organized crime capital of the nation. In 1931, during the so-called Castellammarese War and its aftermath, the Luciano-Lansky crowd assassinated the reigning New York Mafia chieftan, Giuseppe Masseria, and then his successor, Salvatore Marazano. Following this coup there was no more "boss of all bosses" to whom the country's Mafia leaders nominally pledged their loyalty; instead, Luciano and Lansky, the "Little Man" who was rapidly becoming recognized as the financial genius and planner of the "new" Mafia, set out from their New York power base to support and coordinate the activities of various independently run regional "crime empires." They were quite successful, consolidating their positions as leaders of a national crime system.

When Prohibition ended, taking with it the enormously profitable bootlegging industry which had provided the economic base of the new Mafia, Luciano and Lansky directed their energies and funds toward an expansion of their gambling operations. There was also a move to tap new crime markets in the far West; operations in that region were stepped up during World War II when expansion into foreign gambling centers, such as Cuba, was curtailed. The entrance of Bugsy Siegel and several associates into legal gambling in Las Vegas during the early and middle 1940s represented an underworld consortium's attempt to "get in on the ground level" of Nevada's nascent casino-resort industry. Despite some "problems," such as the gangland execution of Siegel in 1947 for stealing money from the Flamingo hotel-casino which he had opened the previous year, underworld involvement in Las Vegas gambling grew during the 1940s and 1950s, with profits apparently being skimmed off and used to finance mob ventures elsewhere in the country.

The mob was involved with or controlled a number of major Las Vegas casinos, including the Desert Inn, Riviera, Stardust and Sands, and individuals with old underworld ties, such as Gus Greenbaum, Moe Sedway and Moe Dalitz, were actively managing several of them. Still more underworld figures held interests in the casinos. (When the Nevada Project Corporation, which had been created in 1946 as a vehicle for financing the Flamingo, was dissolved in 1958, Meyer Lansky was still a stockholder of record, with a substantial share of the operation; it has been charged that he continued to hold hidden interests in the Flamingo and possibly other casinos for another decade.

Following Luciano's deportation to Italy in 1946, Lansky's power grew, first as Luciano's voice and right hand in the United States, and then, when his old friend's authority waned because of his physical absence, as a leader in his own right. By the 1950s, Lansky occupied a virtually undisputed position of power and influence in the national organized crime hierarchy.

Lansky began a gradual retirement from his business pursuits in the 1960s, but remained very much in the public eye as the result of a series of federal indictments charging him with siphoning money from the Flamingo and other offenses. In 1970, government "harassment" caused him to move to Israel, where he sought citizenship. With United States authorities applying pressure on the Israelis to send Lansky back, he was unsuccessful in his quest; in 1972 he left Israel, journeying first to South America and then back to the United States, where legal proceedings against him resumed.

Although the Israeli journalists and investigative reporters who authored this study have drawn heavily on such previous publications as Hank Messick's *Lansky* (1971) and Martin A. Gosch and Richard Hammer's *The Last Testament of Lucky Luciano* (1975), what they have produced tells us more about Lansky and his activities, including his relations with certain Israeli government officials, than any other published work. Much of the new material (and new slants

on oft-told tales) is derived from extensive interviews with Lansky and his long-time close associate Joseph "Doc" Stacher.

This is probably the most intimate biography of a major organized crime figure yet to appear, with the authors delving deeply into Lansky's personality, character and motivations. Thus it is not surprising that one major criticism which can be leveled against the book derives from its authors' closeness to their subject. Their apparent sympathy with the old man's efforts to find sanctuary in Israel and their conscious attempt to "set the record straight" regarding him have, perhaps, narrowed their perspective to the point that Lansky's actions are often rationalized as being merely what was necessary, and his role and importance in certain events are somewhat exaggerated.

While the book provides few definitive answers to long-standing questions about Lansky's role in underworld affairs, it does present still another view of events in which he was involved and adds new fuel to old controversies (Who, for instance, was ultimately responsible for Siegel's death? Lansky claims it wasn't he.) And the book provides more pieces to a puzzle which some future historian will put together and interpret to produce an authoritative study of organized crime in twentieth-century America.

Meyer Lansky: Mogul of the Mob is an absorbing, generally well-written work, and a significant one, not only for those interested in organized crime in America, but for anyone tracing its particular development in the West and inside Nevada's trademark industry. The Las Vegas gambling mecca, as Lansky pointedly reminds us, was to a great degree established by mob figures and with mob money: "We were in at the beginning, the pioneers."

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The Silver Tombstone of Edward Schieffelin. By Lonnie Underhill. (Tucson: Roan Horse Press, 1979. 64 pp., map, illustrations, bibliography, index. $3.95)

THIS PAMPHLET, published under the aegis of the Tombstone Centennial Commission, is a brief survey of the prospecting of the Tombstone, Arizona, silver district from 1877 to 1879, by the trio of Edward L. and Albert D. Schieffelin and Richard Gird. Avoiding sensationalism, the author straightforwardly relates the reasonably familiar story of how Ed Schieffelin, while acting as a sentry at the Brunckow mine, observed indications that there might be mineral deposits within the distant plateau overlooking Goose Flats along the San Pedro River. Schieffelin recruited his brother and the assayer Gird to launch a year-long quest which was ultimately rewarded by discovery of rich manganese-silver and

hematite-gold orebodies. After their location, the partnership's man of business, Richard Gird, helped in the promotion and development of the district and safeguarded the interests of the somewhat naive Schieffelin brothers. The format suggests this work was made up primarily for local sale to visitors to the "town too tough to die."

Although the author seems to have made a sincere effort to hold to scholarly research and writing methods, it is equally apparent that the attempt was not totally successful. The backbone of the account is (properly) Ed Schieffelin's various personal narratives of events. However, the author used the truncated and badly-copied transcript held by the Arizona Historical Society instead of going to the much better transcript which is at the Bancroft Library. Thus there appear to be dislocations and omissions which could easily have been avoided. It is obvious, for instance, that the author used an awkwardly-posed photograph of Schieffelin as the documentary basis for the assertion (p. 17) that Ed's rifle was a .44 Henry—actually, a "prop" supplied by the photographer—whereas in the Bancroft MSS, Ed noted that his weapon was a "needle gun," a primitive bolt-action rifle that was frequently in need of repair. In itself the point is unimportant, but the implications for evaluation of methodology are clear. Indeed, Ed's own narrative as embodied in the Bancroft MSS is often more lucid than is Underhill's redaction.

Equally apparent is the author's lack of familiarity with prospecting and mining techniques. A photograph captioned "stamp mill machinery" (p. 40) is of a quartz mill steam engine, whereas a stamp mill itself is labeled "rock breaker" (p. 58), a term which really should be reserved for primary jaw-crushers. While not fundamentally and demonstrably wrong, neither are these captions acceptably correct. The author takes literally (pp. 20 ff.) Schieffelin's reference to the "Bronco" mine, which was actually the Brunckow. Assayers' cupels are rendered as "cuppels" and so forth. Little or no reference is made to the fact that the Tombstone lodes were remarkably well-concealed, and that Schieffelin's detective ability was crucial in following up the deceptive clues to a successful discovery.

In summation, *The Silver Tombstone of Edward Schieffelin* is perfectly adequate for the purposes of the tourists who will buy it; indeed, it is several cuts above the usual compendium of ignorance and sensationalism that is found for sale on the book racks of ghost-camp curio shops. To this extent, the reviewer wishes it well. The bibliography may be of some utility to students, and the photographs are interesting. On the other hand, its methodological shortcomings are such that it falls somewhat short of being a serious contribution to the history of the mineral frontier.

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Three Caravans to Yuma: The Untold Story of Bactrian Camels in Western America. By Harlan D. Fowler. (Glendale, California: Arthur H. Clark Company, 1980. 173 pp. $25.00)

DURING THE 1850S, quite a number of persons involved in transportation believed that the camel possessed certain advantages that made it superior to the horse or mule as a beast of burden. A camel could carry twice the load of a mule, required little water, could run faster than a horse, and possessed great endurance. Under the guidance of Secretary of War Jefferson Davis, the War Department began to experiment with the use of camels in the Far Southwest. The outline of that episode is fairly well-known to readers of Western Americana, and in an earlier work entitled *Camels to California* Harlan Fowler recounted the successes and failures of the military's camel project. This current book, *Three Caravans to Yuma* serves as a sequel to Fowler's earlier effort, and tells the story of the employment of camels as freight carriers for private companies in the 1860s and 1870s.

Before this review can proceed, definitions are needed for the two types of camels—dromedaries and bactrians. First, the dromedary is the type of camel with which most people are familiar: it is the one-humped creature featured on cigarette packs. As a native of the hot deserts of Arabia, the dromedary was especially well-adapted to deserts of the Southwestern United States. When Edward Fitzgerald Beale completed his extensive testing of camels for the military in the 1850s, he pronounced the dromedaries superior in all respects. The other camel, the bactrian, has its origin in the high elevations of central Asia, and consequently is better acclimated to cold weather than the dromedary. The bactrian has a distinctive physical appearance—two humps, with a great beard of hair growing from its long neck. The military experiment with bactrians proved unsuccessful; the animals died before they could be tested.

This book is strictly about the bactrian camels. Chapter One of *Three Caravans to Yuma* describes the efforts of Otto Esche, a German importer and commission merchant in San Francisco, who decided that significant profits could be generated by using bactrian camels to haul salt over the Sierras to Virginia City. In the spring of 1860, Esche journeyed to Mongolia and purchased thirty-two bactrians. By the summer, fifteen animals had reached San Francisco (seventeen others died en route). Esche soon made plans for additional purchases. While he sailed for Asia, he consigned the camels to Julius Bandmann, who took them over Ebbetts Pass, then north into the Carson Valley. The camels were sold and found employment in mining-related freighting. Meanwhile, in San Francisco, additional camels arrived from the Far East, and Otto Esche found an interested buyer—Frank Laumeister, who was acting as agent for a British Columbia freighting syndicate. The author's research indicates that Laumeister used the camels to haul supplies to the Fraser River mines between

1862 and 1865. The profitable venture lasted until an excellent wagon road was constructed, which permitted the use of long ox-teams to pull heavily-loaded wagons. Still, even the construction of the road did not end the use of the bactrians, and they continued to be employed in other parts of British Columbia and in Nevada.

In the middle of the 1870s, a caravan of bactrian camels, formerly employed to carry salt to the Nevada mines, was driven to Arizona to serve as pack carriers to newly-opened mining camps. The title of this book seems to stem from the author's belief that three caravans passed through Yuma on their way to packing service farther east. When they eventually proved unprofitable, presumably replaced by wagon freighting, many of the camels were turned loose to roam the Arizona deserts.

As both reviewer and reader, I encountered several problems with this book. First, the author lacked sufficient source material to produce a book. Consequently, much of *Three Caravans to Yuma* consists of block quotations of entire newspaper articles about camels. Oftentimes, when I have encountered such articles in reading newspapers, I have felt the editors were using camel stories as filler to flesh out issues that appeared lean on news. Thus, Fowler has provided us with his raw research material and asks the reader to sift through it to find the story of the bactrian camels. Second, his book contains far too much speculation. For example, when describing Frank Laumeister's freighting operation in British Columbia, the author includes several pages (pp. 66-73) of speculation to prove that Laumeister and his associates earned $95,000 on their business. He might well be right, but he arrives at this conclusion from circumstantial evidence and just doesn't have the type of solid supporting evidence (account books, receipts, company records, tax rolls, etc.) that make for convincing history. This is not so much a criticism of Fowler's research, which is pretty thorough, but shows that the author has extrapolated too much from the scanty documentation available. This work is a good example of an article that somehow grew to book length, probably due to weak editing.

Despite these criticisms, Fowler's study has merit for those persons with a special interest in camels and freighting. Readers who simply desire to learn more about the employment of camels in the Far West would be far better served by reading Fowler's earlier work, *Camels to California*, or Odie Faulk, *The U.S. Camel Corps*.

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The Churches and the Indian Schools, 1888-1912. By Francis Paul Prucha. (Lincoln: University of Nebraska Press, 1979. xii + 278 pp., notes, bibliography, index)

THIS RECENT WORK BY PROFESSOR PRUCHA is drawn from a body of materials treating Indian-White relations that he knows very well. It also covers a period of time, 1888 to 1912, that complements the publication pattern and the subject matter of his previous work. Although the title is "The Churches and the Indian Schools," the churches were very much involved with the politics of Indian relations during the period, and the government responded to pressure from the churches in the establishment of policies governing the operation of Indian schools.

This was a period when the Protestants had the political advantage and the Catholics found it necessary to pull all the political strings available to them in order to maintain a holding position, for these were times when government Indian education policies matched Protestant goals for Indian school children much better than did Catholic goals. "Protecting the right of Catholic Indians to send their children to the mission schools, using Indian tribal funds for the maintenance of the Catholic schools, and obtaining religious rights for Catholic Indians in the government schools were important elements in the Catholic's strategy against attempts to impose a Protestant brand of civilization on the Indians."

The encounter between the Catholics and the Protestants ("They were described in military terms at the time") involved the alignment of the Bureau of Catholic Indian Missions on one side and the Indian Rights Association on the other. The most powerful figures in the Indian establishment within the Executive Branch, the Secretary of the Interior and the Commissioner of Indian Affairs, were regularly involved in the strategy of the opposing forces, and sometimes the President himself was appealed to in attempts to bring officials within the Department of the Interior into a favored strategy alignment.

To place this encounter between opposing religious forces in perspective, it is necessary to remember how prior to 1888 the government had depended on the churches almost entirely for the education of Indian children. The move from that earlier period to a takeover of Indian schools under government programs where Protestant philosophy was a dominant influence was one that the Catholic leaders of Indian missions felt they must resist.

With the involvement of the courts in the case of *Quick Bear vs. Leupp*, the third branch of government joined the executive and legislative in an effort to find the appropriate role for those faced with the problem of the application of Indian policy.

The final argument in the controversy was engaged in during 1911 and 1912, and involved the use of "religious garb and insignia" in the Indian schools. While this ended in a compromise, "The principle that Catholic Indian parents had

some say in where their children went to school and how their share of tribal money was spent for education had been pretty well established." As a result of the experience gained in the controversy from 1888 to 1912, the Catholics were thereafter able to pursue a more equitable role in Indian Affairs.

Professor Prucha treats the matters that arise during the controversy in considerable detail and draws upon a vast collection of sources in his analysis of the period. Photographs of the key figures involved are appreciated by the reader, and a good index makes it possible to follow related topics as they appear in different parts of the book. This work is recommended for those interested in the Indian and the American West, and for libraries that include such subjects in their collections.

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The Dust Bowl: Men, Dirt, and Depression. By Paul Bonnifield. (Albuquerque: University of New Mexico Press, 1979. viii + 232 pp. Maps, illustrations, notes, bibliography, and index. $12.50)

IN THE 1930S, the people of the southern Great Plains experienced twin catastrophes—the Great Depression of the nation's economy and the Dust Bowl created by prolonged drought and dirt blizzards. Historical analyses of the economic collapse have been numerous, but until very recently scholars neglected careful examination of the environmental disaster. Now, with Paul Bonnifield's book supplementing Donald Worster's 1979 monograph, we have two substantial accounts of the causation and impact of the tragic Dust Bowl. Offsetting the *Grapes of Wrath* image of the Okie migration to California, Bonnifield has focused upon the more numerous victims who remained on the scene of ecological misfortune and who struggled to survive their vicissitudes. Subtitled "Men, Dirt, and Depression," the book is based largely on personal interviews, newspapers, and other local source materials. It is a detailed but readable case study, written from the perspective of the dust storm victims and deeply sympathetic to their plight.

The heartland of the Dust Bowl, as defined by Bonnifield, was composed of twenty counties of five states—the northern Texas panhandle, northeastern New Mexico, southeastern Colorado, southwestern Kansas, and the Oklahoma panhandle. There the pioneer settlers of the early 1900s tamed the grasslands and the sagebrush hills, and their "dry farming" wheat cultivation brought considerable prosperity during the 1920s. Beginning in 1931, however, parching droughts and wind erosion created stinging, blinding "black blizzards" of dirt. The prolonged debacle of 1932-38 inflicted misery, poverty, and malnutrition

upon the unfortunate region, and journalists exploited the dust bowl concept to the point of national notoriety.

The book approaches the questions presented by the dust bowl from varied angles. Among the chief developmental topics are the nature of the climate, the causes of wind erosion, the strength of the economy, the role played by government, and the character of the resident population. Approximately one-third of the volume presents the geography and economics of the region, including the thirty years of good times during the "wet cycle" of 1905-35 and the conditions of semi-arid agricultural development. In mid-passage, Bonnifield analyzes the regional impact of the depression of the 30's and also traces the evolution and impact of national land utilization policies. The author then explains that the New Deal programs ignored the wishes of the "grass roots" farmers of the Great Plains to support the goals of reformer-theoreticians, and he is severely critical of Uncle Sam's relief, land use, and conservation policies. In the last chapter, "Living Through it All," the narrative turns into a testimonial concerning the hardy men, women, and children who endured and survived the misery of dust bowl years.

The Dust Bowl is a solid job of historical research and writing. Its documentation of extensive local source materials is thorough, and its photographic illustrations are excellent. The general reader will appreciate its readable prose style and its interspersed local color vignettes that add human interest and concrete realism. The historical scholar will find value in pondering Bonnifield's criticisms of the Department of Agriculture's planners of 1920-40 and of the New Deal's shortcomings in dealing with the dust bowl catastrophe. The volume thus provides both interesting local history and revisionist contributions to agricultural history. Moreover, in view of the pervasive contemporary concern with ecological issues, this book has relevance and merit as a case study of the causes and effects of an environmental disaster, as well as the human and governmental efforts to cope with the attendant problems.

Roman J. Zorn
University of Nevada, Las Vegas

The New Deal and American Tribalism. By Graham D. Taylor. (Lincoln: University of Nebraska Press, 1980. xiii + 203 pp. $14.50)

IN THIS SLENDER, SCHOLARLY BOOK, Graham D. Taylor sets out to determine the long-range effects of the Indian Reorganization Act of 1934 upon Native Americans. He proposes an examination of both the accomplishments and the failures of the so-called Indian New Deal. In doing so he has written a detailed administrative history which concentrates chiefly on the latter. Citing the nega-

tive 1977 findings of the American Indian Policy Review Commission which indicated that Indians remained at the bottom of the economy and society in America, he concludes that the efforts to help the tribes during the Great Depression brought little permanent improvement in the lives of most Indians. Thus the author sees the Indian New Deal as having failed to accomplish most of its major goals.

According to Taylor many factors helped defeat the reformers' efforts to aid the Indians during the 1930s. The ideas held by the whites, as has often been the case, included erroneous assumptions about the nature and functioning of Indian societies. As Robert Berkhofer noted in *The White Man's Indian*, Native American individuals and groups rarely, if ever, correspond to the mental pictures of them held by the whites. Certainly John Collier and his associates failed to recognize the variety and complexity of Indian groups. As a result, their insistence in basing practically all of the 1934 reform efforts on the tribe as a basic unit, rather than accepting the idea that for some Indians the village, band, or other group made the most sense, brought immediate and continuing difficulties for both the bureaucrats and the Indians. For example, the bureaucrats' ideas pitted full-bloods against mixed bloods on some reservations. On others the partially-assimilated Indians quarreled with those who chose to retain most of their tribal customs. Administrative rulings and practices placed Indian religious leaders in opposition to Indian political leaders on occasion. In short, the attempt to use a single pattern for local economic and political development doomed the IRA to failure on many reservations.

Another problem grew out of the whites' refusal to relinquish control over local Indian affairs. The new tribal governments and their economic activities drew approving nods from Bureau of Indian Affairs officers, but those same bureaucrats proved loath to allow the Indians to make their own decisions. Instead, the whites feared that somehow the Indians might be swindled out of their funds, land, or other resources. Thus nearly all tribal actions remained subject to review by BIA officials. Directly related to this was the issue of handling tribal funds. According to Taylor, the BIA failed to promote economic self-determination because its ideas and personnel remained too conservative. That charge seems somewhat unfair, because tribes had such a weak economic base with which to work. In fact the general economic problems of the depression almost insured failure or at best limited success for the Indians at the time. Continuing low prices for agricultural products meant disaster for the Indians because most tribal efforts involved crop or livestock production.

Other factors limiting the New Deal efforts to help Indians included the continuing opposition from western communities and their congressional representatives. This resulted in limited appropriations, and annual budgetary battles, which the BIA usually lost. Thus programs which needed substantial funding over a ten or twenty year period never had much chance. BIA employees themselves often sabotaged improvement efforts accidentally or even by design.

As noted earlier the Indians themselves frequently failed to understand or accept the goals and methods of the New Deal, and certainly played a major role in limiting its successes.

In this study Taylor used material related to many tribes. Groups as different as the Sioux, Ute, Hopi, Winnebago, Cherokee, and the Alaska Natives all receive atttention. Using the records related to the Wheeler-Howard Act, the papers of John Collier, and records of several Indian reform organizations, the author presents a judicious and thorough discussion. His findings differ somewhat from those earlier studies of Indian policy and relations during the 1930s by Donald Parman, Larry Kelly, and Kenneth Philp, particularly in his stress on the shortcomings of the program and the program's failures. For the most part he focuses on how and why the Indian Reorganization Act failed to accomplish the goals its supporters and designers had hoped to achieve. Despite his disclaimer that the administration of the act brought both success and failure, from this study it is difficult to get much sense of accomplishment or success from the government dealings with the Indians during the 1930s. At the same time, the careful reader will certainly get a clear understanding of the complexity of Indian affairs, and will gain a heightened appreciation of how difficult long-range change and improvement for the Indians are to obtain through government action.

Roger L. Nichols
University of Arizona

The Dime Novel Western. By Daryl Jones. (Bowling Green, Ohio: Bowling Green University Popular Press, 1978. 186 pp., bibliography)

DARYL JONES HERE OFFERS a good survey of formula westerns written between 1860 and 1900, one of the most popular subgenres of the dime novel. The books Jones surveys are "poorly written, highly melodramatic, and embarrassingly derivative"—much like modern day television programs. And, like TV, they were also extremely popular. As many as 60,000–70,000 copies of a book might be sold in a matter of a few weeks, with ten to twelve editions being called for within a year and an ultimate total sale of half-a-million. Most copies were undoubtedly read by several individuals, and the total readership was probably four to six times as great as the sales. Typical of the style is the following passage from *Deadwood Dick, The Prince of the Road* (1877):

> [Fearless Frank] stood there, to behold a sight that made the blood boil in his veins. Securely bound with her face toward a stake, was a young girl, of perhaps seventeen summers, whom, at a glance, one might surmise was remarkably pretty.

She was stripped to the waist, and upon her snow-white back were numerous welts from which trickled diminutive rivulets of crimson. Her head was drooped against the stake to which she was bound, and she was evidently insensible.

With a cry of astonishment and indignation Fearless Frank leaped forward to sever her bonds, when like so many grim phantoms there filed out of the chaparral, and circled around him, a score of hideously painted savages. One glance at the portly leader satisfied Frank as to his identity. It was the fiend incarnate—Sitting Bull.

Not until the Hollywood horse operas of the 1930s and 1940s does one find anything so bad and so popular.

Jones manages to maintain objectivity as he explores the changing characteristics of the hero of the dime novel western. He resists the temptation to apologize for or to sneer at his subject. Unfortunately, he also rarely comments on the social significance of the changes he observes, for when he does comment—as in the final chapter—his remarks are astute.

Most readers of Jones' book will probably be surprised to recognize in the heros of the dime novel western kissin' cousins of popular figures in our own experience. My generation will see prototypes of Hopalong Cassidy, Lash LaRue, Gene Autry, Roy Rogers and so on. Our children may recognize Paladin, Matt Dillon, the Cartwrights or The Rifleman. Particularly interesting is the section on the outlaw as hero. The implications about Americans' attitudes towards society and heroism are profound and rather disturbing. Anyone seriously or casually interested in the American hero would do well to examine Jones' book.

Leon Coburn
University of Nevada, Las Vegas

Water for the West: The Bureau of Reclamation, 1902-1977. By Michael Robinson. (Chicago: Public Works Historical Society, 1979. 117 pp., photographs, maps, bibliography, index. Paper, $6.00)

MICHAEL ROBINSON'S *Water for the West* is a liberally illustrated paperback dealing with the history of the Bureau of Reclamation and its role in water development and public works in the American West. According to the author, the book was "conceived as a definitive or 'matrix' history that would stimulate further retrospective analysis of the Bureau of Reclamation" and "add perspective to current debates over stewardship of the West's water resources." The book is divided into four chapters. The first chapter traces the origins of the Bureau of Reclamation and the remaining chapters focus on the history of its major public works in the West. The book is well written and should appeal to a wide audience.

The major problem with the book is that it is biased and self-serving. It continually extolls the accomplishments of Reclamation while identifying the environment as an adversary to be subjugated by the marvels of Reclamation's planning and engineering. This lack of objectivity possibly results from the fact that Robinson is a Research Coordinator for the book's publisher—The Public Works Historical Society. This organization's stated goal is to promote public understanding of the role of public works in the growth and development of "civilization."

In addition, Robinson clearly has no understanding of historical man/land interrelationships in the West. He frequently characterizes the West as an arid or barren "wasteland" where life for humans, before the advent of Reclamation, was harsh, "depressing" and "unbearable due to hostile environmental forces." He repeatedly points out that rivers that are not "tamed" or "controlled" are of little value; for example, in the section "Taming the Colorado River" he notes that "uncontrolled, the Colorado River was of limited value."

Although *Water for the West* does cover the numerous contributions of Reclamation in the modern development of the American West, its naive, often simple-minded approach to the environment detracts from its potential contribution to the growing literature on water resources in the West.

Conrad J. Bahre
University of California, Davis

NHS ACQUISITIONS

Lucius Beebe Letters

In 1949, when Lucius Beebe left New York to take up residence in storied Virginia City, Nevada, one of the strangest "marriages" ever seen between the Old West and literary America began. Beebe, a nationally known social commentator and bon vivant, and an effete Eastern snob who gloried in the label, resurrected the faded mining camp's famous newspaper, the *Territorial Enterprise*, and soon had it boasting the widest circulation of any weekly in the country. In the pages of his irreverent journal he proceeded to incarnate his own eccentric vision of frontier journalism. Between 1952, the year in which he commenced publication of the *Enterprise*, and 1960, when he sold the paper and became a columnist for the *San Francisco Chronicle*, Beebe and his friend and literary collaborator Charles Clegg made the *Enterprise* a household name, produced several books about the Comstock and railroading, and launched Virginia City on its course as the popular tourist attraction it is today.

The Nevada Historical Society recently acquired from Roger Butterfield some twenty letters written by Beebe during the period 1950-1954. Addressed to Butterfield, a former *Life* magazine editor and a "staff contributor" to the *Enterprise*, they deal in lively fashion with the establishment and operation of the Virginia City newspaper, and the colorful, often outrageous activities of Beebe while he was the Comstock's most famous inhabitant.

The Beebe correspondence, along with several accompanying letters written by Charles Clegg upon Beebe's death in 1966, and a selection of unusual Christmas cards from Beebe, Clegg and their bibulous St. Bernard, Mr. T-Bone Towser, constitute a notable addition to the Society's manuscript collections and should prove intriguing to anyone with an interest in Beebe, Nevada journalism or the mid-twentieth century revival of Virginia City.

Margaret Bartlett Thornton Papers

Georjean Bartlett Putnam of Miami Beach, Florida, has donated to the Society correspondence and personal papers of her sister, Margaret Bartlett Thornton (1901-1981). Margaret ("Monte") Thornton was a pioneer woman aviator in the 1920s, when she formed lasting friendships with Amelia Earhart and Anne and Charles Lindbergh, as well as a writer who had poetry published in

Saturday Review and other literary magazines. She edited *Men, Women and Conflict* (1931; reissued in 1947 under the title *Is Marriage Necessary?*), a widely read treatise on "love, marriage and divorce" by her father, Reno judge and Nevada congressman George A. Bartlett.

The donated papers include numerous photographs of the Bartlett family and their friends from the 1860s to the 1970s, and a number of original drawings by Nevada artist Robert C. Caples, whose long friendship with Mrs. Thornton began in the 1920s. There are many letters to and from Caples, and smaller amounts of correspondence with Norman Cousins, Robert Nathan and Archibald MacLeish.

We thank Mrs. Putnam for her generous gift of a collection that deals importantly with a prominent Nevada family as well as with several nationally-recognized writers and artists.

Nevada Military Records

UNDER A COLLEGE LIBRARY RESOURCE GRANT provided by the Department of Health, Education and Welfare, the Society has recently acquired the microfilmed records for Fort Churchill (1860-1869), Camp Ruby (1862-1869), Camp Dun Glen (January-February, 1866), Fort Halleck (1867-1886), Fort McDermitt (1865-1889), Camp McGarry (1865-1868), Camp Winfield Scott (1866-1871) and Goldfield (December 1907–February, 1908).

Most of these records have never previously been filmed and were available only to researchers able to travel to the National Archives in Washington, D.C. NHS personnel have recently prepared a finding aid to the collection which briefly summarizes the content of each roll of film. This finding aid is ten pages long and is available in a xerox format for $1.50.

NHS NEWS AND DEVELOPMENTS

Director's Column:

I WOULD LIKE to take this opportunity to say hello to all of you and to thank you for the very warm welcome my wife Diane and I have received since our arrival.

Since I began as the Director of the Nevada Historical Society on January 5, we have been going through a period of reorganization. This is my first chance to discuss with you some of the directions the Society will be taking. First let me say, however, that I feel very fortunate in having inherited a superb staff, two first-rate facilities, and the support of the historical community of Nevada.

As you know, due to a generous appropriation from the Legislature, we are constructing a new 10,000 square foot storage building adjacent to our museum and research facility in Reno. With the ability to control both the temperature and the humidity levels inside the new building (every drop of ten degrees doubles the life of manuscript materials), we will be able to provide the ideal environment for our library, manuscript, and material artifact collections. All of these will be transferred from our present research facility and from temporary storage at Stead. That is not the only benefit, however. Our new building is the first state building in Nevada to be specifically designed for solar power. We are looking forward to the energy savings that will result.

Presently the research area in our main building houses thousands of books, manuscripts, maps, photographs, ephemera, reference files, and much else. When the new addition opens, all of these materials will be moved there, which will allow us to refurbish and expand our research facilities. We will also construct a new, smaller, gallery where we can schedule a series of changing exhibits—highlighting aspects of our own collections as well as bringing in traveling exhibitions of distinction. This changing exhibit gallery will give us great flexibility in hosting future functions, such as lectures, concerts, art shows, films, and receptions. A new conference room is also planned.

We will also be taking our exhibits out to the community. For example, to mark the Golden Anniversary of Gaming in Nevada, we mounted a special exhibit for the gala celebration held at the MGM Grand Hotel in Reno on March 19. Afterwards we moved that exhibit back to our museum and will keep it up throughout the summer for all to enjoy. Several other exhibits are in the planning stages.

Our other expansion will be in Las Vegas. The Nevada Department of Museums and History's new facility is scheduled to open in Lorenzi Park in 1982. Since the Society is a component of the Department, we will maintain a reference and research area in the new museum, as well as be involved in the design of the exhibit galleries. Once our Las Vegas staff has moved from our present office at 1555 Flamingo Road, we will transfer our southern Nevada materials from Reno to Las Vegas to make them more accessible to those who use them most. In the meantime we are beginning to build up the reference library in our present Las Vegas office.

In the fall we will begin a docent-volunteer program for those who want to learn more about Nevada's fascinating heritage by working with our many fine collections and exhibits in Reno and Las Vegas. Leading tours, both in our museum and outside in our communities and countryside, is another area of participation for our docents. Additionally we are planning a gift shop which will fall under the direction of the docent council. We will also be making the expertise of our professional staff available to historical societies and museums throughout Nevada. Our wish is to help. Later this year we will launch a membership drive, asking more people to join us in what we are doing.

Let me finish by inviting you to use our facilities in Reno and Las Vegas as often as you can. We look forward to meeting you.

Peter L. Bandurraga

Contributors

Eugene P. Moehring is an Assistant Professor of History at the University of Nevada, Las Vegas. In addition to writing scholarly articles in the field of urban history, he is the author of *Public Works and the Patterns of Urban Real Estate Growth in Manhattan, 1835-1894* and *Urban America and the Foreign Traveler, 1815-1855*. He has begun research on a new work, *Building a Recreation City: Las Vegas, 1930-1970*.

Russell M. Magnaghi received his Ph.D. from St. Louis University, and is a Professor of History at Northern Michigan University, Marquette. He specializes in the history of the Far West with an emphasis on minority groups, and is the author of several scholarly articles.

James A. Young is a Range Scientist with the Science and Education Administration of the U.S. Department of Agriculture in Reno, Nevada, and is also an Adjunct Professor of Range Science at the University of Nevada, Reno. Dr. Young has published numerous articles on the ecology and history of sagebrush rangeland, and is working on a booklength manuscript concerning the ranching activities of John Sparks.

Newell G. Bringhurst is an Assistant Professor of History at Indiana University at Kokomo. He edited and introduced "'Life in Mercur': The Recollections of a Young Girl in a Great Basin Mining Town at the Turn of the Century" (*NHSQ*, Vol. XXI, No. 3, pp. 214-21), and has written a number of other articles. His book-length study, *Saints, Slaves and Blacks: The Changing Place of Black People Within Mormonism* is scheduled for publication by Greenwood Press in December 1981.

Frank Wright is the Curator of Education of the Nevada Historical Society, and is based at the Society's Southern Nevada Office. He taught courses in international relations at the University of Montana, and for several years was a member of the faculty of the University of Nevada, Las Vegas. He has been associated with the NHS since late 1979.

NEVADA HISTORICAL SOCIETY

FOUNDED IN 1904, the Nevada Historical Society seeks to advance the study of the heritage of Nevada. The Society publishes scholarly studies, indexes, guidebooks, bibliographies, and the *Nevada Historical Society Quarterly*; it collects manuscripts, rare books, artifacts, and historical photographs and maps, and makes its collections available for research; it maintains a museum at its Reno facility; and it is engaged in the development and publication of educational materials for use in the public schools.