The Archaeology of Fort Vasquez

BY W. JAMES JUDGE

The historical site of Fort Vasquez is located on the east bank of the South Platte River, one mile south of Platteville, Colorado. Built in late 1835 by Louis Vasquez and Andrew Sublette, its primary purpose was to facilitate trade with Indians for beaver and buffalo hides. Active trading was carried on at the fort from 1835 until 1840 or 1841, when it was sold to Messrs. Lock and Randolph, presumably due to competition from three other forts—St. Vrain, Jackson, and Lupton—in the immediate vicinity. Lock and Randolph found the fort to be a losing proposition, and in 1842 they abandoned it, bringing to a close its brief seven-year trading period.¹

Little is known historically of the disposition of the fort following 1842, although it apparently was occupied (and probably pilfered) sporadically for some time before deterioration rendered it useless. Among passing mentions of its use are its service as a mail station in the 1860s,² as a station stop on the Overland Stage system,³ and as a camp for troops during the 1864-65 Indian uprisings.⁴

During the 1930s Fort Vasquez was partially reconstructed by the WPA. The exterior walls were rebuilt and a single room was constructed in the southwest corner. The dedication of the reconstructed fort took place on August 2, 1937.⁵ The structure

The ruins of Fort Vasquez, viewed from the southeast, as they were photographed by F. W. Cragin in 1903.



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was deeded by Weld County to the State Historical Society of Colorado in 1958, and a visitor center was completed at the site in 1964 after initial test excavations, made in the fall of 1963. determined whether construction of the visitor center would destroy any historic or prehistoric materials in the vicinity.6 These excavations, conducted by the State Historical Society in conjunction with Trinidad State Junior College, were directed by Galen Baker of the college.

In 1966, as part of a long-range project at Fort Vasquez, the State Historical Society decided to undertake a comprehensive archaeological investigation of the site in order to determine the exact location of the original fort structure as well as the location, dimensions, and functions of the original rooms. It was hoped that controlled excavation of the original features would yield sufficient information to permit an accurate reconstruction of the fort as it was at the time of original occupation. Pursuing this program in the summer of 1966, the State Historical Society contracted the services of Mr. Baker to conduct an initial archaeological survey of the fort. Under his direction the site was tested by Dennis Stanford of the University of New Mexico, and it was determined that sufficient evidence of the original structure remained to permit investigation of a more intensive nature.

During the summer of 1967 Mr. Baker continued the testing of Fort Vasquez with a crew of college students interested in gaining archaeological experience. The project was funded jointly by the State Historical Society and the Public Service Company of Colorado. Although some structural features were defined at Fort Vasquez at this time, the main thrust of the investigation in 1967 was directed toward Fort St. Vrain in an effort to define more clearly the original structure there.

No funding was available for archaeology during the summer of 1968. That fall, however, members of the Anthropology Club of Colorado State University in Fort Collins offered to initiate excavation of Fort Vasquez on a volunteer basis under the direction of the author. The State Historical Society, through





Aerial photos of Fort Vasquez in 1970, viewed from the west with the visitor center to the right of the reconstructed fort.

the coordination of the site curator, Ken Malone, offered to provide the necessary equipment; and weekend excavations began on October 12. It was decided to excavate in ten-foot grid squares, an accurate grid system being staked out with a transit before actual excavation commenced. The grid system was plotted on a map of the site, and all artifacts recovered were located in three-dimensional space with reference to a permanent datum point.

Weather permitting, work continued intermittently on weekends through the spring of 1969. On the basis of this volunteer work by interested students of Colorado State University, the State Historical Society decided to host a summer field school in archaeology at the site. Some forty students participating in the field school received scholastic credit for ten weeks of excavation at Fort Vasquez during the summer of 1969 and five

I The recorded history of Fort Vasquez is summarized in LeRoy R. Hafen, "Fort Vasquez," *The Colorado Magazine* 41 (Summer 1964):198-212. This article was reprinted as a separate booklet by the State Historical Society of Colorado and Colo

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2 LeRoy R. Hafen, "Early Fur Trade Posts on the South Platte," Mississippi Valley Historical Review 12 (December 1925):337.

3 Homer F. Bedford, "Dedication of Reconstructed Fort Vasquez," The Colorado Magazine 14 (September 1937):172.

4 Dean Krakel, South Platte Country: A History of Old Weld County, Colorado, 1739-1900 (Laramie: Powder River Publishers, 1954), p. 13.

5 Bedford, "Dedication," p. 171.

6 Galen Baker, "Preliminary Excavation at Fort Vasquez," The Colorado Magazine 41 (Spring 1964):158-64.

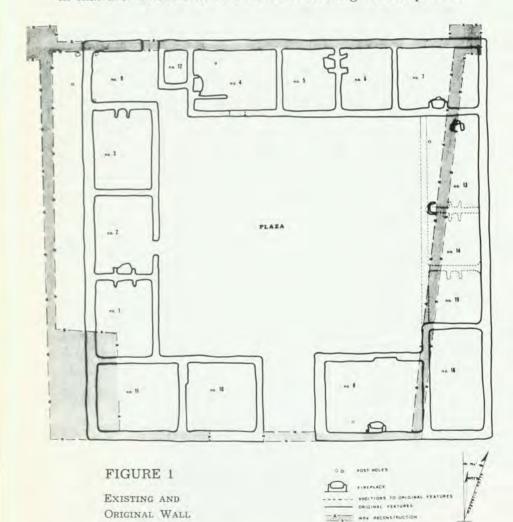
weeks in the summer of 1970. By July 17, 1970, when work terminated, extensive excavation inside the fort had revealed the original room structures, and a good deal of testing had been accomplished outside the original walls. In addition to the structural information revealed by the excavation, quite a few artifacts had been recovered; and an initial frequency distribution analysis of these artifacts had been performed.

The purpose of this report is to present a summary of the field work done at the site, as well as the tentative conclusions derived from an initial analysis of the data recovered. The following interpretations are based largely on the analysis of the archaeological data. In many cases, however, additional information from other sources will be presented in support of the interpretations.

At the outset it should be noted that the situation at Fort Vasquez presents the archaeologist with a rather unique set of problems not normally encountered in historic sites. As will be seen, they serve to compound the difficulties in interpreting the original structural-functional characteristics of the fort. First, there is a notable lack of historical records concerning Fort Vasquez, quite contrary to the situation at Bent's Old Fort or those forts operated by the military. LeRoy Hafen, an authority on Louis Vasquez and the fur trade in Colorado, has been able to compile only limited information which would aid in the actual excavation. There are no known plans of the fort, nor are there any helpful descriptions of its structural characteristics.

Second, the original occupation of the fort was quite brief (seven years or less), thus minimizing the accumulation of cultural debris upon which the archaeologist bases many of his interpretations. Furthermore, because the fort was subject after initial abandonment to virtually continual reuse in one fashion or another by a wide variety of temporary occupants, the stratigraphy is extremely difficult to interpret in a meaningful and reliable way. Such use probably was stimulated by the rather central location of the fort along a wagon trail that was to become the main road between Denver and Greeley. Indeed, its present location—in the median of a four-lane highway—hardly can be considered off the beaten path.

Third, during the 1930s all surface remnants (and probably a good number of subsurface features) of the original fort structure were completely destroyed by the WPA crew in preparing for reconstruction, which was accomplished by offsetting the walls approximately eight feet west of the original wall foundations due to the proximity of the highway to the east of the site. The rebuilt east wall was set at an angle (figure 1), effectively obliterating much of the original east room structure and reducing the interpretive potential of archaeological work in that area of the site. In addition to leveling the site prior to

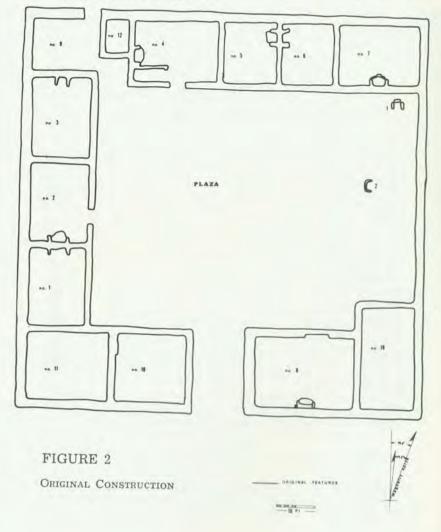


OUTLINES

⁷ Although preliminary interpretations have been formulated at this time, the data recovered from the site is presently undergoing more intensive analysis by Guy Peterson, a graduate student in anthropology at Colorado State University. The final report and conclusions regarding the archaeological investigation of Fort Vasquez will provide the basis of Mr. Peterson's master's thesis.

reconstruction, the WPA dug what appears to be an adobe mixing pit or trash pit in the central part of the west row of rooms, destroying much evidence in that sector.

Confronted with these difficulties, many of which are unique to Fort Vasquez, the archaeologist must be somewhat more cautious than usual in interpreting data derived through excavation. The interpretations which follow, therefore, must be considered tentative until a final report based on a more exhaustive analysis is completed.



The general features of the original structure are illustrated in figure 2. The fort was oriented 5.1 degrees west of true north, indicating a possible attempt to achieve a basic north-south orientation without the benefit of precise instrumentation. The dimensions inside the main walls were 100.0 feet east-west and 98.5 north-south. Measurement from the outside of the south wall to the inside of the north wall yielded an even 100.0 feet. Evidently a rather accurate system of measurement was employed by the builders, indicating that construction of the exterior walls was quite carefully planned.

The general construction of all walls in the fort was of adobe brick, the dimensions of which averaged 18.0 x 8.5 x 3.5 inches each. Samples of the original adobe were tested by the Soil Testing Laboratory at Colorado State University and were found to average 24 percent clay, 60 percent sand, 15 percent silt, and 1 percent or less organic material. The last was used in the original adobe as temper, although probably in a higher percentage since much would have been lost due to decay. The WPA's reconstructed fort walls exhibit a high percentage of small pebbles as temper, but this resulted from mixing the adobe inside the old fort plaza, which had been flooded after the initial abandonment, leaving an alluvial deposit of small rocks. Thus, the existing wall structure does not necessarily reflect the composition of the original adobe. An occasional bone and other extraneous matter found in the original adobe tend to confirm historical evidence of the method of preparation "by driving oxen around to tramp and mix it."8

Throughout the fort, including the interior rooms, walls usually were constructed by laying the bricks side by side, rather than lengthwise, thus achieving maximum thickness. Where they were set lengthwise, two rows generally were laid in order to maintain the same wall thickness. Excavation of the



The WPA adobes with a higher percentage of pebbles than in the original.

south wall has revealed some evidence that the exterior walls of the original fort were wider than the interior ones, in that an extra row of bricks was laid lengthwise beside the others, yielding an average total width of 26.5 inches at the base. The purpose probably was to permit building the exterior walls higher than was necessary for interior rooms. The exact height of the exterior walls is not known and could not be derived archaeologically. In 1860 they were estimated at fourteen feet.9 It is doubtful that the fire step built by the WPA existed in the original structure, since the roofs of the interior rooms would have served the same purpose. Nor would the "portholes" have been positioned as they are in the WPA reconstruction, since their present height would permit shooting into the fort as easily as out.

The main gate to the original fort was centered in the south wall and was fourteen feet wide. Assuming that there was a lintel over the gate, it well might have been arched as reported by F. W. Hammitt, 10 since no center support was found in the gateway. No definite evidence, decayed or otherwise, of the original gate doors was found.

A second entrance was located along the north wall, thirteen feet from the northwest corner. This entrance was only four feet wide and might have been used more frequently than the south entrance when security was necessary.11 There is some evidence of a watchtower of wooden construction in the northwest corner of the fort (see figure 1), as indicated by two-and possibly three—remnant postholes which could have served as structural supports. A tower in the northwest corner would permit easy surveillance and protection of the small north entrance, if security became necessary. Although a number of historical reports indicated that Fort Vasquez had at least one watchtower, the type and construction are not agreed upon. Archaeological investigation yielded no evidence of an adobe-based watchtower.

The interior plaza ("placita") of the fort was surrounded by a row of rooms on at least three sides. (The nature of the east side is in question, as will be seen.) Plaza dimensions were sixtytwo feet north-south by sixty-eight feet east-west, indicating



Professor W. James Judge, who supervised the Fort Vasquez digs in 1968-70, works in an area on the west side of the fort in 1969.

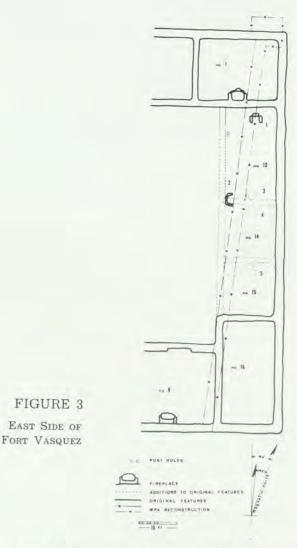
that the size of the plaza probably was dependent on interior room size and was not necessarily pre-planned, as were the exterior walls. These interior and exterior dimensions suggest strongly that the exterior walls were constructed first and the interior rooms built afterward. A well was reported to have been located inside the fort,12 but it was not found during our work since neither time nor funds permitted the complete excavation of the plaza.

The exact number of interior rooms in the original structure is unknown, due to the lack of reliable information from the east side. This side is by far the most difficult to interpret since the area not only was most disturbed by the WPA reconstruction but also was evidently reoccupied and altered structurally following initial abandonment of the fort. Sometime between 1842 and 1864 reoccupants of the fort built three rooms along the east side (figure 3). The purpose of utilizing this particular space for reoccupation is difficult to infer and is discussed in some detail below.

 ^{*} Hafen, "Fort Vasquez," p. 204, based on information in an interview of F. W. Hammitt by F. W. Cragin in 1903.
 * Ibid., p. 210.
 * Ibid., p. 211.

[&]quot;It is interesting to note that in his account of working at "Sublet's Fort,"
Beckwourth twice refers to the "door" of the fort. See T. D. Bonner, The
Life and Adventures of James P. Beckwourth, Mountaineer, Scout, Pioneer,
and Chief of the Crow Nation of Indians, ed. Charles G. Leland (London:
T. Fisher Unwin, 1892), pp. 369, 378. Elsewhere in this account, as in reference
to Fort Cass on page 324, he uses the term "gate."

¹² Seletha Brown, Rivalry at the River (Golden: Silver State Printers, 1962),



In the original fort structure the east side may well have been the locus of the corral and hay storage area. It probably was roofed and fenced but lacked adobe partitions. There was no archaeological evidence of any adobe structure which would have served as the interior wall to a row of rooms on the east side. Here we should note a description of Fort St. Vrain, only a few miles from Fort Vasquez, written by Theodore Talbot, journalist with Frémont in 1843: "The interior or court is sur-

rounded by houses one story high, on one side is the 'Korall' or pen for the cattle and horses." Thus, although archaeological verification is lacking due to post-occupational disturbance, it seems likely that the east side of the original structure did not have adobe-walled rooms and may have been used as a corral.

At Fort Vasquez there were probably eleven rooms in the original fort, plus one small storage area off the kitchen (figure 2). These have been numbered arbitrarily in the order of excavation. In general, the rooms average about three hundred square feet each, although two (Rooms 5 and 6) are somewhat smaller and two (Rooms 4 and 8) are considerably larger. The exact original configuration of Room 16 is somewhat in question, since most of it was destroyed by the construction of the borrow pit along the west side of the highway bordering the site.

All but three rooms were equipped with fireplaces. These were constructed of adobe, also, and butted directly against the room walls. In two instances in the original structure, fireplaces were built back to back and evidently shared the same chimney. The remnant adobe "wings" of the fireplaces average about two feet in length, and the hearths themselves vary from two to four feet in width. Several fireplaces, notably those in Rooms 4, 7, and 8, seem to have been somewhat more elaborate in construction. There was no evidence of fireplaces or hearths in Rooms 10, 11, or 16 which could be directly associated with the original occupation of the fort.

Evidence of doorways leading into the interior rooms from the plaza was encountered in only three instances, one of which (Room 4) was only tentative. This lack of evidence stems from the fact that during construction, one layer of bricks was laid across the proposed doorway as a doorsill, probably to keep rainwater out of the rooms. Since the WPA evidently leveled the site before beginning construction, much of the wall structure was obliterated, frequently leaving only one layer or less of bricks by which walls could be defined. Due to further deterioration of individual brick structure, it was virtually impossible to define the exact locations of doorways. In one instance where original brick structure was preserved in the north wall of Room 8, it is apparent that bricks were set in a single width pattern in the doorway, reducing the wall thickness by

¹³ Journal of Theodore Talbot, quoted in LeRoy R. Hafen, "Fort St. Vrain," The Colorado Magazine 29 (October 1952):245. Moreover, at Fort Jackson, co-partner Henry Fraeb left instructions to keep the livestock "forted every night" during his absence on a trip to St. Louis, Letter from Fraeb to A. Baker, Jr., April 22, 1838, quoted in LeRoy R. Hafen, "Fort Jackson and the Early Fur Trade," The Colorado Magazine 5 (February 1928):15.

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one-half. Whether this practice was continued throughout the fort could not be determined due to deterioration of the bricks.

Aside from doorways and hearths, very few structural features were encountered in the rooms during excavation. An adobe partition in Room 4 set off an area three feet wide and eight feet long. The height of this partition could not be determined, but it well might have served as a place to stack wood. Aside from this feature and a few postholes which might be evidence of bench supports (Rooms 4 and 8), no other structural features were found.

There is, however, evidence that the room floors, which were of dirt, were generally four to six inches lower than the plaza level, so that one would step down on entering the rooms. The floors were excavated prior to the construction of the rooms The reason for this removal was not clear until a soil test of sterile soil from the plaza revealed that the clay content there was only slightly less than that comprising the adobe bricks.14 It is possible that some of the material used in making the adobe bricks came from the areas where the rooms were to be built. Only about 2 or 3 percent clay would be needed to bring the clay content up to that found in the bricks sampled. Even so, however, such excavation would only have produced sufficient material to build about one-tenth of the 33,752 bricks which, we have estimated, were used in the original fort structure.

In sponsoring an archaeological investigation of Fort Vasquez, the State Historical Society hoped to derive information regarding the functions of the various rooms in the fort, in addition to their structural characteristics. The interpretation of room function is based on a number of variables, including the structural features of the room in question, its position relative to other rooms, and the frequency distribution and loci of artifacts recovered from it. Although certain attributes may be considered "key" traits in deriving room function, ultimately the most reliable assessment must rest on the total configuration of traits, both structural and functional, displayed by each room. At this point in the interpretation of the Fort Vasquez material, the assessment of room function will not be phrased in definitive terms but rather as suggested functions pending verification through further, more intensive analysis of the artifacts and historical record.

A preliminary breakdown of artifacts recovered from the

original floor levels of the various rooms is presented in table 1.15 Based on these frequencies, on the room structure and loci, and on analogy with other forts of the same time period, the following functions are suggested for the rooms at Fort Vasquez prior to its abandonment in 1842.

TABLE 1 DISTRIBUTION OF THE MOST FREQUENTLY OCCURRING ARTIFACTS IN THE Original Fort Rooms. (Reoccupied Rooms 13, 14, and 15 are OMITTED, NO ARTIFACTS WERE FOUND IN ROOM 16.)

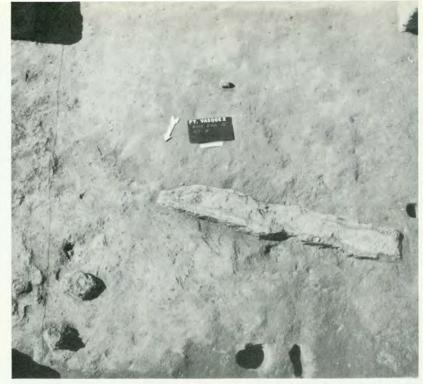
Room	Beads	Bone	Buttons	Ceramics	Metal	Nails	Pipes	Total
1	428	238	1112	5	61	43	14	789
2	12	265	11	2	5	8	1	304
3	85	158	4		33	30	2	312
4	11	912	2	3	66	180	11	1185
5	466	40	4	2	41	13	23	589
6	39	266		****	39	23	3	370
7	35	40		****	7	****	1	83
8	27	171	1	5	74	73	3	354
10	369	41	1000	1	17	12	2	442
11	41	1	1		3	1	9	56
12	18	53		****	1	2	1	75
Total	1531	2185	23	18	347	385	70	4559

Directly to the west of the main gate were two rooms (10 and 11), which were used probably for storage of trade goods.16 These rooms revealed relatively high quantities of trade goods and lacked fireplaces. The next room north, on the west side (Room 1), was probably the main trading room because it exhibited high frequencies of trade goods, was located next to a storage room, and possessed a fireplace. Room 1 could well be the "store" referred to by Beckwourth in the account of his stay at the fort.17 The next two rooms (2 and 3) are very difficult to interpret due to extensive disturbance from the WPA pit mentioned previously, as well as from a sewer line which bisected Room 2. Tentative interpretations suggest that these rooms, which both had fireplaces, were living quarters.

Of the row of rooms on the north side of the fort, the most westerly (Room 4) is tentatively being labeled as a kitchen/dining area. A very high frequency of burned bone, plus the structural characteristics of the room itself which include its "central" position with respect to other rooms, a small adjacent storage room, and a partition (possibly for wood), tend to sup-

¹¹ The sample, taken from below the original plaza occupational level, yielded 21.6 percent clay, 59.6 percent sand, and 18.8 percent silt.

A more extensive classification of artifact types is in preparation by Guy Peterson and will be included in his master's thesis on Fort Vasquez.
 Approximately 30 percent of Room 11 could not be excavated due to the WPA adobe structure overlying it.
 Bonner, Life and Adventures of James P. Beckwourth, pp. 368-69.



A view of the 1835 floor level of Room 4, showing a fallen roof timber and small postholes.

port this classification. At the outset of the analysis, it was felt that this room might have been the blacksmith shop due to the relatively high concentration of metal recovered, but this anomaly is offset by the high frequency of bone and clay-pipe fragments, which suggest kitchen-dining functions.

Room 5, to the east of Room 4, yielded the highest frequencies of beads and pipe fragments found in the fort, even though it is one of the smaller rooms (fourteen by sixteen feet). These materials, the room's location next to the kitchen, and the presence of a fireplace indicate it may have been a trade room. There is also the possibility that if there was a door between Rooms 4 and 5, the latter could have been used for dining functions as well. Some eggshell fragments found in Room 5 tend to support the latter interpretation.

Completing the northern row, Rooms 6 and 7 were apparently living quarters. The presence of fireplaces and relatively low frequencies of artifacts attest to this. Room 7, one of the larger rooms in the fort, exhibited an unusual fireplace with an adobe "retainer" around the perimeter of the hearth, which, together with the size of the room and its corner location, suggests a degree of importance. Perhaps it was the owner's quarters or guest quarters of some sort.



Room 5, showing a partial section of the north-south room wall and fireplace.



Rooms 5 and 6 separated by wall (left center), with double fireplace. Section to the right is stratification column.



In this view of Room 6, the arrow points to a fire pit, probably used during the construction period.



Profile showing stratigraphy of the fireplace excavated at east side of fort outside existing wall.

As mentioned, the east side of the fort is the most difficult to interpret due to the WPA disturbance. This is most unfortunate, since it evidently was the locus of most of the structural alterations which took place before, during, and after the initial construction and occupation of the fort. In order to explain the function of the east side during initial occupation, we must look at the data retrieved through excavation of this area in more detail. Figure 3 depicts the structural features found on the east side, including the existing WPA-constructed wall.

The most anomalous feature here is the absence of the interior adobe wall one would expect to find if there was a row of rooms built during the initial occupation of the fort. This "wall" has been included in the drawing because, although no evidence of an adobe structure was found, there was evidence of some sort of barrier at that location. This evidence is seen in the fact that when the fort was flooded some time after its abandonment, 18 flood gravels were stopped at this location (i.e., at the expected locus of the wall) by some sort of barrier, perhaps a log, which was later removed.

The situation on the east side is further complicated by the presence of five fireplaces. Two of these (1 and 2 in figure 3) are unusual when compared to the others found in the fort. Number 1 is set more than a foot away from the wall, as well as offset from the fireplace in Room 7. This prevents the sharing of a mutual chimney which would be expected if construction of these two fireplaces were planned in advance. In addi-



Fireplace in Room 7. The wall extends below the present wall to outside the wall line.

tion, as shown in figure 3, this fireplace is somewhat different stylistically from those found elsewhere in the fort. The other fireplace (2 in figure 3) is anomalous not only because it is oriented eastward but also because it *underlies* the adobe wall which defines the south end of Room 13. A heavy layer of hardpacked charcoal was found extending from this fireplace eastward and underlying fireplaces 3 and 4. It is apparent, therefore, that the wall separating Rooms 13 and 14, and the two opposing fireplaces all were built following the destruction of fireplace 2.

Similar anomalies occur with the wall and the fireplace separating Rooms 14 and 15. These also revealed stratigraphic evidence of having been constructed over a previous occupational level. The south wall of Room 15, however, appears to be an original wall, although a great deal of deterioration and disturbance in this area rendered interpretation tenuous.

Finally, as shown in figure 3, the WPA reconstructed the existing east wall of the fort at an angle to parallel the highway, which lies only a few feet to the east, and thus disrupted many of the original features.

A reconstruction of the events which took place on the east side may now be attempted to interpret room function there. It is possible that fireplaces 1 and 2 are associated with each other temporally. Pending further analysis, I would offer the tentative hypothesis that fireplace 1 was used for heating and cooking in the first structure built at Fort Vasquez. This was probably a log cabin, erected for shelter while the adobe walls of the fort were under construction. Fireplace 2 may have served as an outside forge, again during construction of the fort.

As the fort was built, however, there were evidently no plans to include an adobe wall to form a row of rooms along the east side. I suggest, therefore, that this area was used as a corral for stock during the main occupation of the fort. The

¹⁸ In the plaza the flood gravels stratigraphically overlie both the initial occupational level and the ensuing reoccupation, thus postdating both. A search of the historical record reveals that a record flood of Cherry Creek took place on May 19, 1864; for details, see A. B. Sanford, "The 'Big Flood' in Cherry Creek, 1864," The Colorado Magazine 4 (May 1927):100-05. If this is the same flood that inundated Fort Vasquez, we have the initial and reoccupational periods temporally bracketed at 1835-1864.

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postulated log cabin may have been torn down for use as vigas, firewood, or the construction of the corral itself. Whether or not the corral was roofed cannot be inferred at present.

Sometime following the initial abandonment of the fort in 1842 but prior to the time it was flooded, the fort was reoccupied for a short period of time. Evidence of this reoccupation is apparent in the plaza stratigraphy but not in the original room interiors, although there is some indication of the latter's serving as corrals during the reoccupation. It would seem, therefore, that the rooms constructed along the east side are associated with the reoccupation. The three rooms (including three fireplaces) which were built were used apparently as living quarters by the occupants. Oddly enough, no adobe wall was built along the west side of these rooms during this construction either. Logs or wooden planks probably served the purpose and later were removed.

With respect to the remaining rooms on the south side of the fort, most of Room 16 of the original fort was destroyed by grading for the highway borrow pit, and no artifacts were recovered from its excavation. Its function, however, might be understood in terms of the function of Room 8. Based on the artifacts recovered (including such things as chain, chain links, clinkers, and a large amount of charcoal), the well-made hearth, the relatively isolated location of the room with respect to living quarters, and the size of the door (approximately six feet wide), Room 8 is interpreted as the fort's blacksmith shop. Assuming the validity of this interpretation, it is suggested that Room 16 was used as storage for the fort's maintenance equipment and possibly trade goods. It should be noted that no evidence of a fireplace was found in this room.

To summarize briefly the interpretation of the data derived from the archaeological excavation of Fort Vasquez, it is suggested that a log structure was built first to provide shelter during the construction of the fort. This structure included an adobe fireplace and outside forge, both of which presently underlie Room 13. The main adobe wall surrounding the fort was built first, perhaps initially from the raw material gained through the slight excavation of planned locations. Once the exterior wall was completed, twelve interior rooms were built on the north, west, and south sides. A wooden watchtower was erected in the northwest corner, where a small doorway provided entrance to the fort. The main gate was located in the center of the south wall. The east side of the fort was converted into a corral after the removal of the original wooden structure.

Following seven years of occupation, the fort was abandoned peacefully. There is no evidence of violence, nor is there any evidence of destruction by fire as reported in one source. 19 The relatively low number of total artifacts recovered from the site most likely attests to a planned abandonment. Following desertion, the fort was reoccupied briefly prior to 1864, three rooms being built in an area which previously housed the corral. There is no evidence of reoccupation of the fort as a whole after the flood of 1864, although it undoubtedly was used many times as a temporary shelter by individuals or groups. The exterior walls were rebuilt by the WPA in the 1930s, at which time the east and west walls were shifted to the west due to the proximity of the highway on the east side.

In addition to this summary of the data derived from the excavation of Fort Vasquez, further comments about its relevance in terms of a broader perspective can be offered. Many professional archaeologists who have been actively engaged in the excavation of historic (as opposed to prehistoric) sites feel that they have a rather unique contribution to offer their fellow historians. Based on a cautious and critical analysis of the data derived through controlled excavation, it is possible to derive inductively specific hypotheses relevant to the explanation of historical events. Such hypotheses can be structured to be tested independently with reference to further archaeological investigation or further research of historical documents. It is felt that a methodology of this nature can serve to complement the historical record considerably as well as to foster interdisciplinary cooperation between historians and archaeologists.

A challenging problem in human behavior arises here, not so much from the study of Fort Vasquez itself as from an investigation of the whole complex of fur-trading posts operating contemporaneously with it. Yet, the data from Fort Vasquez may be informative in the postulation of hypothetical solutions to this problem.

The problem centers around the establishment of four trading posts on the South Platte River, all within fifteen miles of each other. It is understandable that Fort Vasquez would have been established in the general area of the South Platte, since the area was previously unexploited with respect to fur trade. Prior to 1835 Bent's Old Fort on the Arkansas and Fort William on the Laramie were the dominant trading posts in the central portion of the western plains. Vasquez and Sublette in locating

¹⁹ Brown, Rivalry at the River, p. 38.

their trading post on the South Platte-roughly midway between the other two-could have drawn effectively on Indian trade formerly allied with both Bent's Fort and Fort William. Thus, the establishment of Fort Vasquez in this location does not seem out of the ordinary, but the fact that three more trading posts were established in the immediate vicinity does stimulate further inquiry.

One wonders why these other forts (i.e., Lupton, Jackson, and St. Vrain) were not established in the areas intervening between Fort Vasquez and Fort William on the one hand, and Fort Vasquez and Bent's Old Fort on the other. For instance, why not locate farther downstream on the South Platte or on one of its tributaries such as the Poudre River or Crow Creek? Or to the south locations might have been selected farther upstream on the Arkansas or one of its tributaries, such as Fountain Creek. In my opinion, it is not possible to rationalize the choice of the trading post cluster solely on the basis of the need for navigable streams for two reasons. First, locations downstream on the South Platte or on the North Platte (downstream from Fort William) would have offered better opportunities for navigation. Second, apparently only one trip with furs was completed down the river, and that only after considerable difficulty.20

I suggest further that the establishment of three trading posts in a cluster next to Fort Vasquez is not easily rationalized on the basis of "competition" alone, the reason implicit in many of the historical accounts of the phenomenon. For example, in discussing the establishment of Fort Vasquez, LeRoy Hafen notes that "the advantages thus gained induced other traders to make their competition more effective by building similar posts."21 The "competitive" rationale is based on an assumption, frequently made about the establishment of trading posts, that they took the place of the traditional rendezvous. Following a decline in the beaver fur trade and a rise in that of buffalo robes, trading posts developed so that Indians (the primary source of the hides) could bring their goods in to trade. 22 Nevertheless, it seems odd to construct four posts next to each other if the primary purpose of the trading post was to attract Indians away from one's competition. The only context in which this strategy would be effective would be if one trading post offered a greater variety of trade items, higher rates of ex-

Hafen, "Fort Vasquez," p. 208.
 Hafen, "Fort St. Vrain," p. 241, Emphasis added.
 Hafen, "Fort Vasquez," p. 1.

change, or items unavailable elsewhere. Although perhaps not all the data of this nature is available at present, there is little to indicate that any one trading post on the South Platte could offer anything much different from any other in the way of material goods.

Based on this discussion, one may entertain the suggestion that some other method of trading, operative at the time, did not mitigate against the clustering of trading posts in the same vicinity. In other words, perhaps the trading posts were not adapted to a trading system which was oriented toward the attraction of Indians to the post location. At this point the data derived from the excavation of Fort Vasquez may aid in suggesting alternative interpretations.

A calculation was made of the amount of space in the original Fort Vasquez which was devoted to the four major functional categories of rooms, as interpreted archaeologically.23 These data are presented in table 2. Although the room functions in each case may not have been interpreted correctly, they can be utilized for the structuring of hypotheses which may be tested independently in other contexts. For instance, it is apparent from the calculation of space devoted to the various room functions that rooms in which actual trading was carried out comprise the smallest percentage of available space in the fort. On the other hand, storage facilities occupy the largest volume. Since the trading post was "fortified," the hypothesis can be offered that the primary function of this rather imposing structure was the security of trade goods rather than the "center" for trade, which would depend on the attraction of Indians for suc-

Implicit in the view presented here is a trading system which is more dependent upon taking the merchandise to the Indians than vice versa. Support for this view is found in Beckwourth's account of establishing trading sub-posts while he was working for Vasquez and Sublette.24 In addition, David Lavender, in his account of Bent's Fort, notes that rather than waiting for business to come to the fort, trade was solicited actively out among the Indians themselves.25 Such a system would require some method of transportation of trade goods to and from the fort (presumably by wagon), which in turn would tend to support

²⁵ These calculations assume a room height of eight feet. If ceilings were higher, it would alter the total volumes calculated but would not affect the

Bonner, Life and Adventures of James P. Beckwourth, p. 353.
 David Lavender, Bent's Fort (Garden City, N.Y.: Doubleday and Co., 1954).

the need for adequate maintenance facilities as implied by the statistics in table 2.

 ${\bf TABLE~2}$ Space Devoted to Various Functional Categories, Fort Vasquez

Function	Volume		
Storage (trade goods, furs, equipment) Maintenance (kitchen, blacksmith shop, etc.) Living quarters (personnel and guest rooms) Trade ("store" and trading rooms)	8,672 cu. ft. 7,128 cu. ft 6,480 cu. ft 3,240 cu. ft		

I suggest, then, that the primary function of the fortified trading post was to provide adequate security and maintenance facilities for a trading system in which the fort was more a base of operations for the traders than a center of trade for the Indians. Again, this hypothesis is derived inductively through an interpretation of the archaeological data and therefore cannot be verified with reference to those same data. However, I feel it can be tested with reference to additional data of either an archaeological or historical nature, or both, although temporal limitations preclude doing so at this time.

Assuming that when tested this hypothesis is found to be valid, it still would not explain the phenomenon of trading post "clustering" on the South Platte River in the 1830s. It does, however, indicate that the ability to contact and to bargain effectively with the Indians was more adaptive to competitive success than was the particular location of one fort with respect to others. Relative location, then, becomes secondary in importance.

Given these circumstances, if one could find some other factor common to the four forts along the South Platte River, a potential solution to the clustering phenomenon would be possible. Again, the archaeological data may suggest an hypothesis. It will be recalled that an analysis of the soil upon which the fort was built revealed that its composition was quite similar to that of the adobes themselves. This evidence suggests that soil type might have been a key factor in the selection of a site for the construction of an adobe fort. If cottonwoods were used for vigas or other wooden components, such would have been readily available in the river bottom. Other materials, such as clay in good supply, might have been available nearby along the Kersey terrace. I would offer a final hypothesis, then, that if the location of a given trading post with respect to the location of another can be demonstrated to be of only secondary importance due to the particular trading system involved, the clustering of such facilities might be explained simply by the availability of raw materials (adobe in particular) for their construction and maintenance.

I feel that these hypotheses can and should be tested by further, problem-oriented research by archaeologists and historians. I feel also that these are relevant problems which merit attention through continued investigation. The generation and testing of hypotheses through problem-oriented research of the sort suggested here can offer a genuine contribution to the study of historical process. Rather than simply documenting events of the past, we can begin to comment on why people behave as they do and thus approach a more complete understanding of ourselves and our history.

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Dean Henry Martin Hart and Public Issues

BY GEORGE N. RAINSFORD

The life of Henry Martyn Hart spanned a period of eighty-two years, forty-one of which, from 1879 to 1920, were lived in Denver as dean of St. John's Cathedral during a formative time in the history of the region. Hart's story is that of the man whom many consider to be the most famous clergyman ever to minister in Colorado. It is the fascinating and in many ways highly improbable story of an Englishman called by his God half way around the world, not simply to America but specifically to Denver, a raw western town. He was called to be dean of a

St. John's in the Wilderness, predecessor of the Cathedral.



cathedral and a cathedral system, both as yet unbuilt, at a time when Colorado was still the frontier in every sense of the word.

The monuments and mementos of Hart's life in Denver are many. He presided over the building of St. John's Cathedral at Fourteenth Avenue and Clarkson Street, the principal Episcopal church in Colorado. His books and sermons, both published and unpublished, tell eloquently his authority as a preacher. His journals and scrapbooks and the newspapers of the day also attest to his great concern that the life of the church speak to the everyday matters of the working world or, in the parlance of the 1970s, that the church be relevant. It is with that side of the many-faceted Dean Hart that this writer presently is concerned.

It has been said that Dean Hart was a great preacher, a great pastor, and a great administrator. It can also be said that he was by his person and position a great moral force in the community. Much of Dean Hart's life was lived in the public eye, and he was not reluctant to use his public position to speak forth on many of the subjects about which he held strong views, these being most of the subjects about which he held any views at all. He was a consistent contributor to the press and made great use of his newsworthiness to place the position of the church or his own views before the public. The English paper, the *Kentish Mercury*, even went so far as to write: "We are glad . . . to see that the dean is fully alive to the use of the Press as the Church's lever." This same article went on to quote from the *Western Churchman*:

We call the attention of the clergy to a way in which they might use the Press much more than they do. Our daily newspapers are made the vehicles of all kinds of thought, and it may be said to their credit that most of them are willing to admit *Christian* thought, properly and interestingly expressed. When the newspaper is utilised for the dissemination of anti-Christian tenets, let the clergy reply.

Dean Hart did reply, and often. Much of the material on his positions on public or social issues is to be found, therefore, in newspaper articles. That one can reach more people out of church than in it must have been his thought. He was even accused by one editor of writing provocative articles during a quiet spell simply to stir up some discussion in the public press.

Despite the good coverage which the press gave him, the dean was involved in a never-ending battle with what he considered the scandalous irresponsibilities of sensational journal-

¹ Kentish Mercury, February 13, 1885, clipping, Henry Martyn Hart Scrapbooks 1:28, Hart Collection, St. John's Cathedral, Denver,

ism, particularly as represented by the interests of Frederick G. Bonfils.² As he said:

Our papers are wholly immoral and have no more regard for truth than the father of lies himself. Indeed, I question whether they could state the truth if they tried. I have had more written about me than any man in Colorado, and I have never yet seen a statement absolutely accurate.³

His utterances in the press on public or social issues, nevertheless, are representative of Dean Hart as crusader. His positions on issues almost always in some way were related to his role as Christian priest, for he saw most public issues through the eyes of a man of God. But Dean Hart was also a practical Englishman who knew that no solution offered to any problem was valid unless it worked. This attitude applied to social and personal life, charity, and religion. Moreover, Dean Hart was not afraid to experiment in social matters. Sometimes his schemes worked and sometimes they did not, but he always was willing to subject his ideas to the scrutiny of public opinion and to the test of action.

The public and social issues that concerned Dean Hart were legion. Almost every aspect of public life came under the scrutiny of his voice or pen at one time or another, whether it was charity, morality, public education, or the distribution of wealth.

The first story we have of Dean Hart's work in charity is his organization of the Blackheath Mendicity Society. This organization was designed to deal with the hordes of beggars plaguing Blackheath, the town outside London where Hart lived in his earlier years. Feeling that public charity was destructive to the recipient's personality, Hart considered the close relationship between pauperism and mendicity. As beggers increased and "soliciting" prospered, so pauperism also increased, creating more of an evil than the begging. Hart reasoned: "Either the arm of the law must arrest mendicants, and by terror of the gaol, drive them to honest work, or the public must be induced not to give."

Adopting the latter course, the Blackheath Mendicity Society was formed in order to force applicants for charity to receive it through organized modes of relief. Each house in the town was supplied with a sheet of tickets which were distributed to beggars when they asked for alms. The tickets then were pre-

directly out over the dean's grave.

3 Philadelphia Ledger, May 31, 1914, cupping, Hart Scrapbooks, 3:45.

4 Clipping, n.p., January 9, 1869, ibid., 1 11.

sented to the society office. If the cause was real, information about the need was noted on a form which was forwarded to the "receiving officer" of the district. If the case was known to him, he in turn commented on the need and what he had done about it. If the case was not known, he confirmed the information secured in the original interview. If further action was required, the applicant was sent to the priest in whose parish he resided, and the "Society" provided necessary funds. If the need proved invalid, the "receiving officer" sent the applicant on his way. For those applications with no place of residence listed and, therefore, no parish connection but real need, the "receiving officer" had discretion to assist with food, money, or a railroad ticket.

Of the first 400 or so cases processed, Hart alleged, "16 have proved to be deserving poor; 200 were tramps, having no domicile, who passed on, and 10 presumed working men were sent by train. The other 190 must be imposters, who have lived upon us, dwelling in our immediate neighbourhood." These latter, realizing that tickets alone would be their lot soon moved on, allowing the community to concentrate its attention on the "deserving poor."

This experiment characterized the dean's approach to charity in Denver as well. The dean was not the kind of man to dole out a small sum of money to an unfortunate person and then rest serene in the consciousness of a good deed easily done. Thousands applied to the dean for aid. Imposters were turned away, but help was given to those in genuine need and "always extended in a way to be of the greatest help to the recipient." If a man needed work, the dean found him a job; or if a head of a family was improvident or irresponsible, the dean would lecture him in such a way as to help.

Another example of the extent to which the dean tried to find the appropriate answer to a problem is found in a story told by William W. Grant. The dean was on his way to Globeville to visit "some old adherent that was down and out." He said in his jovial way: "I've got some things in this basket for him, including a bottle of wine." This sort of gift was not a habit with the dean but to really minister to this old man some "cheer" seemed necessary.

² Dean Hart and Mr. Bonfils were bitter enemies. It is, therefore, somewhat ironic that the Frederick G. Bonfils memorial window in the cathedral looks directly out over the deap's graphs.

² Ibid.

Denver Republican, December 2, 1904, clipping, T. F. Dawson Scrapbooks, 38:151, State Historical Society of Colorado Library.

W. W. Grant, Jr., "An Address," September 29, 1929 (delivered in St. John's Cathedral in commemoration of the beginning of Dean Hart's ministry in Denver), Hart Collection.

In addition to his practical approach, two other concepts characterized the dean's charity. The first was that charity must be personal with the donor as well as the recipient.

Just as the power of the Holy Spirit works best through individuals, so also in charity personal contact was necessary. For example, before leaving for Denver, Dean Hart had a London School in which the children maintained one of the beds in a hospital in the slums of London. Every year, Hart would take forty or fifty of his children out to the hospital so that they would know where their money was being spent.

Secondly, the dean felt that those who had should share. He was, in fact, a kind of nineteenth-century Robin Hood, who with great joy would take from the rich and give to the poor. Many was the time he "raided" the Denver Club for help with one of his pet projects. It was said that at times his manner was almost brusque or chiding.9

Several of the dean's programs of charity gained him a great deal of publicity. A bill had been introduced in the city government to prohibit cafe owners from serving drinks to "females." The dean took this opportunity to preach a sermon on the evils of drink and drinking women. In his practical manner, however, he felt that he should see conditions for himself in gathering material for his sermon. Consequently, one night he went on a tour of Denver's "gay white way" disguised in a small black motoring cap and accompanied by Sheriff Daniel Sullivan and Alderman James O'Driscoll, the author of the bill, Although this tour was done with great secrecy a photographer caught up with the Dean outside a cafe. When he made known to the crowd that the dean was inside, "joy reigned in the district of the bright lights."10

The dean's sermon from the pulpit the next day was interesting, to say the least. He said that it was silly to try to abolish the saloons and the red light districts, as they have always existed and always will:

Men insist on drinking and going to the tenderloin. . . . You can't cure them of the desire for those things until you breed a new race of men. That would take centuries and the thing we have got to deal with is things as they are now. Recognize facts and start your work of reform to control as far as possible what you cannot abolish.11

As a practical man, Hart said he was unalterably opposed to the kind of reform the average minister urged. He would have

DEAN HART VISITS CURTIS HALLS WITNESSING SCENES OF GAYETY

DEAN HART'S CAFE EXPERIENCES.



plenty of saloons where anyone who wanted a drink could get it, but they should be well run and strictly supervised. Houses of prostitution should be confined to three or four blocks. "All the painted women" should be removed from residential areas and rooming houses, and there should be rigorous medical and police control over their own district. Abolishment would merely drive

Denver Republican, December 2, 1904, clipping, Dawson Scrapbooks, 38:151.
 Denver Republican, January 26, 1913, clipping, Hart Scrapbooks, 2:3.
 Clipping, n.p., n.d., ibid.

the women underground where they could not be controlled. Moreover, in his sermon Hart urged a hardening of the laws against the men who force women into white slavery:

If only the same punishment were meted out to men, if they were submitted to the same surveillance and were treated with the same social scorn, justice would be done.¹²

The newspapers, of course, had a great time with the dean over these issues, carrying headlines that shouted: "Episcopal Dean is for Saloons" and "Dean Defends Fallen Women." But far from annoying him, this publicity probably delighted the dean, who felt that thereby more people would read what he had to say.

Less controversial but equally newsworthy was the institution by the dean of his "Ye Mor-ov-it Tavern," known also as "Dean Hart's Boozeless Bar," at 1724 Lawrence Street. When

Y^e Mor-ov-it Tavern

1724 Lawrence St.

Everything—5c

TABLES, ETC., FOR LADIES

Working Men's Club after 7 o'clock

It is hoped that the Tavern may support the Mission at 1313 13th St., at which an average of 25 men sleep every night; 35 at prayers at 7; 60 at services at night—a most active mission.

Patronize the Tavern to Aid the Mission

Colorado adopted prohibition, many of Denver's saloons went out of business. Dean Hart concluded that because of this situation "many poor men who were in the habit of making the saloons their club would have no place to go." With bar owners selling their fixtures at great sacrifices, Dean Hart, out of his own pocket, bought the fixtures of a saloon, moved them to a vacant downtown building, and furnished "Ye Mor-ov-it Tavern." It was all there—long mirror, brass rail, long bar, and card tables. The only difference was that no liquor was sold,

Dean Hart behind the bar of Ye Mor-ov-it Tavern.



only coffee, near beer, and food, at five cents a serving. There were facilities for sleeping, talking, and mingling, and it soon became known as the Working Men's Club. Workingmen were given a place which they could call their own without feeling themselves to be objects of charity. The proceeds over and above the costs went to the support of "Brother George's Mission" at Thirteenth and Larimer streets.

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With a rich and fashionable parish on one hand and his tayern on the other, an editorial writer commented that Dean Hart was providing a lesson in religious practicability and humanity in his effort to bridge the gap between Capitol Hill and Larimer Street.13 When one of the dean's rich parishioners objected to the tavern, the dean replied: "You people have your golf and tennis, and this poor man's tavern is my amusement."14

As Hart worked to relieve poverty and distress in some individuals, he worked to overcome the sham and self-conceit that characterized others. Among his favorite targets were the politicians whom he felt to be interested only in getting votes. High or low, from Governor Elias Ammons to the police chief, they all felt the weight of the dean's scorn, Mayor Robert Speer, a man whom the dean appears to have admired greatly, was a notable exception.

In the matter of political integrity, as in other areas, the dean felt that his people and all the citizens of the city had to realize to what depths of immorality they themselves gradually had sunk. A story told by William Grant in his autobiography is illustrative. After a particularly notorious murder trial in Denver where the accused was acquitted with evidence of tampering with the jury and of perjury, the dean addressed a Thanksgiving Day service in the Auditorium. Advancing to the front of the stage and literally shaking his fist at the surprised audience, he shouted:

You . . . all of you ought to be ashamed of yourselves! What is there about you that makes you think you can flout all the decencies and escape the consequences? Take that disgraceful affair yesterday in the West Side Court. I'm ashamed of the judge and I'm ashamed of the jury. What's come over you-an attack of mushy sentimentality and soft headedness? The foreman of the jury is a member of my parish. I've talked with him and he's sorry he didn't hold out for conviction. Are your ideals upside down? The Romans . . . couldn't stand that sort of thing, and you are no better stuff than they were. For the first time I blush to say I'm from Denver. Your whole attitude is disgusting. The fact that the newspapers are full of mush is no excuse for you. Pray to God that He'll give you a chance to regain your self-respect.

Grant's account concludes: "Thereupon, he turned indignantly and tramped off the stage. For a moment there was a stunned silence and then tumultuous applause."15

Alert to municipal justice, Hart argued in the press that when a police magistrate handed down unjust rulings or did

not administer the law as he should, he should be dunked in the Platte River. 16 As a clergyman, a law which he felt should be most strictly enforced was the keeping of the Sabbath. The Creator had set aside one day in seven so that man could spend one-seventh of his time preparing for the next life. God "commanded that on one day in seven his people should cease all secular employment and devote the time to the concerns of the spiritual life."17 Moreover, God ordained that everyone should observe the same day so that there would be nothing to disturb "public worship or private devotion."

The dean's public effort to enforce the Sunday laws perhaps gained him in one incident more public notoriety than anything else he did in Denver. Five pages of one of his scrapbooks are filled with newspaper clippings from Denver, New York, Chicago, Toronto, San Francisco, and other places about the "closing of the Sunday theaters" and the "stoning of the Parsonage." As Hart said in recounting the story:

In Denver we have a State and city law which forbids any exhibition on Sunday. In 1893 one or two second class theatres began to defy the law. Believing that it is injurious to the stamina of a community to permit a law to be persistently broken with impunity, I said, as long as the law is on the statute book every right minded citizen ought to see to its observance. I therefore brought action against one of the theatres.18

The dean had never been to a theater in his life and boasted of it. As he said: "When I became a young clergyman of the evangelical school I, of course, looked upon the theatre as a very distinctive agent of the World which I was urging my congregation to eschew."19 In addition, Hart said:

Women would tell me that they had wept copiously, but apparently it had resulted in no change of habit, no desire to alleviate suffering, plenty of which lay close at hand. Feelings are given to us as incentives to action, and if feelings are evoked which produce no effect in actual life, it is plain that there must be spiritual waste, which cannot but be deleterious to effective character building.20

Apparently, Hart had been agitating for the closing of the theaters for some time before he finally took action against them. Quite a good deal of public sentiment already had been

<sup>Clipping, n.p., n.d., ibid., p. 72.
Chicago World, October 1916, clipping ibid., p. 78.
William W. Grant, Such Is Life (Denver Privately printed, 1952), pp. 167-68.</sup>

Clipping, n.p., December 6, 1900, Hart Scrapbooks, 1:53.
 Henry Martyn Hart, The Teacher's Catechism (New York: Thomas Whittaker, Inc., 1908), p. 21.
 Hart, Recollections and Reflections, p. 21.
 Ibid., pp. 19-20.
 Ibid., p. 20.



Dean Hart and other crusaders against evil, as seen by the Rocky Mountain News. This copy from the dean's scrapbook carries his own identifications.

stirred up over the issue, the minority siding with the dean and admiring his courage. Reports in the press revealed the majority's opposition. The dean even received substantial criticism for being an Englishman and an alien who was interfering with the personal liberties of the private citizen.

Not to be outdone by the dean in their observance of the law, the Board of Police and Fire Commissioners on Sunday, January 22, 1893, raided the "Tabor Grande Theater" and arrested the manager and the members of his "Austro-Hungarian Concert Orchestra." Similar raids and arrests were made at the "Wonderland" and the "Denver Turn Verein." In all three places there were only concerts going on. As a result, the public felt that this was a legitimate Sunday occupation. Even Hart felt the police chose the three music halls particularly to make his



"Demonstration at the Dean's."

cause unpopular. At any rate, a mob gathered and marched on the deanery. From some accounts in the papers, there appeared to have been thousands of people who completely demolished the deanery, would have lynched the dean if they had caught him, and were driven back only after a bloody battle with the police. The truth probably lies somewhere between this impression and the dean's version of several small boys throwing stones at a window and disappearing with the approach of a solitary policeman. The incident, however, served to cement

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both the dean's already well-established position as the conscience of the community and his view that the press would take every opportunity to exploit and distort any situation for its own unworthy ends. The episode also showed how far the dean would carry an issue if he thought he was right.

In two other major areas of social morality Dean Hart was the reformer. These two areas were closely related in the mind of the dean. They were the appalling increase in the rate of crime and the failure of our system of public education to provide moral education.

In addition to numerous articles about himself in his scrapbooks, there are countless clippings about the annual numbers of murders and suicides in places like Denver, Chicago, New York, and London. Dean Hart seemed to have been fascinated by these figures and used them over and over again to document the steady decline of both our public and private morality. To the dean, the explanation for crime was simple:

The natural and reasonable cause for the persistent increase in crime is a steady decrease in morality. And what else can be expected, when the little moral training children receive is diminishing.22

The moral training the children received was diminishing, he believed, because there had been an almost complete cessation of religious training in the public schools. The dean held that the only power which could aid the establishment of self-control was religion, and the best way to get religion was through education. If religious education was decreasing, so was the power of self-control. Murder was an extreme want of self-control; therefore, the way to cut down on murder was to provide religious training as part of formal education with the teaching in the public schools of the Ten Commandments, the only rules we have for the education of the heart of men.

To Hart, the public school education was a failure for several reasons, but the primary one lay in the fact that it did nothing to harden the moral fiber of the people:

It is the heart which governs man, not the head. A clever man with a bad heart is a constant menace to society. And, yet, the great public school system of this country makes no definite attempt to train the heart, and gives all its attention to the education of the head.23

The Ten Commandments, Hart thought, must be taught like any other subject, by rote and by strict discipline of the mind and

tion. 23 Ibid., p. 3.

memory. With characteristic vigor, Hart organized meetings at which the issue was discussed and proposals were made as to how the teaching of the Ten Commandments could be made law. At one such meeting, reported in some detail,24 Hart charged that the blame for the shockingly low morals of Colorado youth could be laid directly at the door of the public school educators, and he named them by name. This accusation, of course, produced a tremendous storm in the press. Hart also stated that it was solely Roman Catholic opposition that prevented the teaching of the Ten Commandments in the public schools.

Hart played the role of prophet as well as reformer. He pictured a national decline worse than that of any European nation if we did not correct the situation:

This country is rapidly deteriorating in its moral fibre, and the material decline will inevitably follow; and unless our citizens arise and grapple this demon of irresponsibility and immorality by reorganizing Public Education, even this land of vast opportunity, rapidly becoming a land of license, will fall from her majestic height into an unimaginable chaos of public disaster.25

The dean believed there were other things wrong with public education than simply the lack of religious training. Hart was firmly convinced that it was wrong to tax everyone so that the children of the few could be educated. It was the duty of the state to make sure that its citizens could read and write at public expense. Furthermore, all education should be provided at individual consumer cost. Public education, therefore, should stop at the sixth grade, with education above that level provided at cost to the parents of the students. With the savings thus incurred, the number of teachers in the lower grades could be quadrupled, taking care of another serious problem in public education-too many students per teacher. Under this arrangement the teacher would have the time to attend properly to the intellectual (and hopefully the moral and spiritual) needs of the students.

Dean Hart was also reformer and prophet for the major social issues of the ownership, use, and distribution of wealth and the social consequences of the abuse of wealth as seen in the rise of the labor class, socialism, and even Bolshevism. It has been said of Hart that he felt those who had should share. "The unequal distribution of wealth is a shocking parody on justice," he said in one newspaper article.26 "Unionism is a

²² Henry Martyn Hart, The Ten Commandments (n.p., n.d.), p. 6, Hart Collec-

Clipping, n.p., n.d., Hart Scrapbooks, 1:96.
 Hart, The Ten Commandments, p. 10.
 Philadelphia Ledger, May 21, 1914, clipping, Hart Scrapbooks, 2:45.

justified attempt to get for labor more of the good things of life." In a sermon after the famous Ludlow coal strike in Colorado, the dean preached with full vigor and criticism against laws of the country which allowed the accumulation of great wealth, particularly by means of usury, which he considered a sin.27 In another sermon entitled "Usury and Profiteering," also reported in the press, Hart predicted the rise of socialism and Bolshevism. "In one form or another, soviet government will be the future seat of law."28

The dean's proposal for sharing of wealth was spelled out in 1898 in a rather amazing plan which became known as "The Dean's Divine Income Tax." The theory was to have Congress formalize the old Hebrew concept of the tithe, whereby each person in the community would be forced by law to give onetenth of all his income to charity. Charity would not be administered by public officials, in whose efficiency or honesty Dean Hart had no faith, but rather by the clergy of the various churches acting in concert with one another.29 The idea of a tithe prophesied the federal income tax instituted years later.

The advent of the great war of 1914, like the labor strikes and the rise of the labor union, seemed a judgment of God for the collapse of moral values and the rise of materialism, not only in Germany but also in this country and around the world. Those who travel in Germany. Hart said in 1915, "are confronted with a philosophy of life which is perhaps the crassest and most destructive form of materialism which the world has ever known or the mind can possibly conceive. Is there any country in the world in which moral decay and the rapid relapse into paganism are so strikingly and visibly manifest?"30 Hart strongly urged sending aid to our allies for reasons of self-survival. 31 as well as for overcoming "a Society of the Devil." However, when the war was won and there was talk of revenge, Hart vigorously opposed the spirit of an "eye for an eye."

In addition to concerning himself with these major social and public issues, Hart in his writings and in his speeches covered the gamut of less important items from advocating a new pistol law to a vigorous attack on doctors. The water commissioner, retail merchants, a new bicycle law, the McKinley Tariff Act, the press, and many other issues were discussed by Hart in sermons or newspaper articles. Always Hart was trying to



Henry Martyn Hart, minister, crusader, and social reformer.

improve, correct, and stimulate to action. He considered the public to be his, whether in church or out. His effectiveness was sometimes questionable, his reasons likewise, but his Christian goodwill and concern never.

There are many indications of what his contemporaries thought of Dean Hart. To the people of his parish he was controversial but beloved and respected. They were by and large behind him in almost every enterprise to which he set his mind, from the building of two great and expensive cathedrals to his difficulties with his bishops. To those outside the parish he was a great public figure. Governor Oliver H. Shoup ordered all the offices of the state closed during his funeral, which was attended by thousands of people-white, black, yellow, Protestant, Catholic, and Jew. He was numbered with the great men of his times by his contemporaries because he concerned himself with the major social and political issues of the day. Denver Mayor Dewey C. Bailey, when informed of Dean Hart's death, said:

Dean H. Martyn Hart was one of those outstanding men whose number during a generation is so limited that we can count them on the fingers of one hand. Such men may be great public leaders, builders, philanthropists, authors, social workers, or ministers of the Gospel, but to attain to this select class they must first be big men to whom the betterment of humanity is the great problem.32

²⁷ Clipping, n.p., n.d., ibid., p. 25.
²⁸ Clipping, n.p., n.d., ibid., p. 120.
²⁹ Clipping, n.p., n.d., ibid., 158.
³⁰ Clipping, n.p., May 9, 1915, ibid., 2:59.
³¹ The Churchman, October 9, 1915, clipping, ibid., p. 64.

³² Clipping, n.p., n.d., ibid., p. 132.

In much the same vein is the following comment from an editorial found in his scrapbook:

No less than Evans and Moffat and Tabor and Stratton, he takes rank with the constructive geniuses of the frontier days who established the foundations on which the Colorado of the present has been reared. As they aided in molding the physical and material future of the commonwealth, so he aided in shaping the spiritual and moral development of the pioneer community. They worked with things of the earth, while he labored with the things of the spirit. In the final analysis, his was the greatest contribution, for the dreams and wealth of most of his contemporaries have long since come to naught, but the truths he preached and lived have no death.³³

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Colorado and the Arkansas Valley Authority

BY MARY FARLEY

In the early 1940s southern Colorado missed an opportunity to share in a major water development comparable to the Tennessee Valley Authority. Both President Franklin D. Roosevelt and Secretary of the Interior Harold Ickes supported federal legislation introduced in January 1941 sanctioning the Arkansas Valley Authority. Representative Clyde T. Ellis and Senators John E. Miller and Hattie Carraway, all of Arkansas, proposed in House Bill 1823 and Senate Bill 280 a project similar to, but much larger in scope than, the Tennessee Valley Authority. Incorporated in the proposed Arkansas Valley Authority were the drainage basins of the Arkansas, St. Francis, White, and Red rivers between the Rocky Mountains and the Mississippi in a territory several times as large as that developed by TVA. Transmission lines, the development of hydroelectric and other power, improved navigation, flood control, swamp drainage, dust and wind erosion control, and irrigation of semi-arid regions like southeastern Colorado were goals of this large project. An annual \$9,000,000 flood loss on these rivers would be alleviated, and the recovery of farmlands from the dust bowl and

ILLUSTRATION ABOVE: The dust bowl of the 1930s, near Holly.

from Arkansas swamps made this an attractive project. Some four billion kilowatt hours of hydroelectric power would be produced; and the vast coal, oil, and natural gas deposits of the area would be used to produce additional power. Transmission lines up to seven hundred miles long provided Arkansas with her power, and supporters of the AVA pointed out that natural power losses over such long lines were wasteful and caused higher electric rates.

Once established, the AVA could issue a total of \$150,000,000 in 3½-percent, fifty-year bonds guaranteed by the government. Responsive to state objections concerning the tax-free status of federal projects, the bill provided that the authority was to pay 5 percent of its gross receipts to the states in which it operated. Earnings, if any, were to be paid to the United States Treasury.

Years of reclamation and flood control work gave supporters of the AVA the argument that a large amount of work had already been completed. There were thirty-six dams in the area which were either completed or being constructed. On the Arkansas River alone seven dams were under construction (at \$66,000,000), six were authorized (\$50,000,000), and seven more were recommended for the AVA (\$84,000,000). Thus, major Arkansas River dams worth \$116,000,000 were planned, and \$84,000,000 more in projects would be needed in appropriations. In addition, the St. Francis, Red, and White rivers could claim \$119,000,000 in built or authorized dams, while dams proposed for the AVA on those rivers would cost an additional \$85,000,000. The major dams in the AVA, in sum, would cost about \$404,000,000; but that figure did not include the myriad smaller projects such as reclamation dams, irrigation systems, drainage systems, powerhouses, power lines, river locks, reforestation, wildlife protection and propagation, recreational developments, and economic planning which were envisioned.

> The need for flood control on the Arkansas was demonstrated by the great Pueblo flood of 1921.



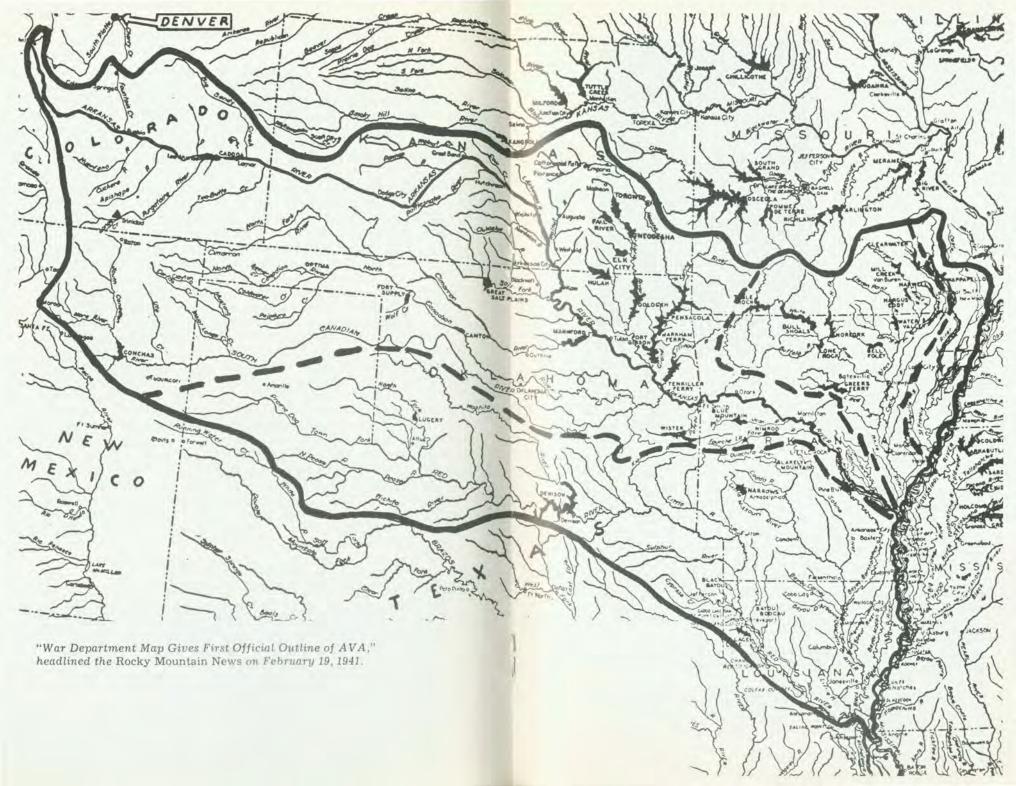
AVA's supporters hoped to avoid problems with Colorado by allowing the state to write its own ticket regarding irrigation rights. They argued that the Arkansas in Colorado was useless for hydroelectric production and that flood control was the key goal. Water stored for flood control could be used for irrigation.1 Nevertheless, opposition to the AVA appeared immediately after introduction of the proposal to Congress. Clifford H. Stone, director of the Colorado State Water Conservation Board, warned Colorado members of Congress that the AVA would destroy Colorado's control over the Upper Arkansas Valley and would provide an opening wedge for extension of general federal legal control over water.2

The Denver Chamber of Commerce, too, announced early its opposition to the proposed AVA. Richard J. Osenbaugh, president, stated that the board of directors unanimously approved a fourteen-point objection to the AVA based on states' rights. These objections charged that the AVA would destroy the independence of Colorado and reduce it to the status of a "territory, subject exclusively to federal control." Basically the fourteen points showed three fears: (1) that Colorado would lose water rights, (2) that the federal government would enlarge its power over the states, and (3) that the federal government would establish the principle that it alone had supreme power over the water rights of the United States.3

The Southwestern Interstate Coal Operators' Association joined the attack on the AVA when, during their February meeting in Pittsburg, Kansas, they said that creation of the AVA would be a major catastrophe for coal mines of the region. They contended that the supply of electricity was adequate for local needs.4 Their opposition ignored the proposed establishment of a coal-fueled steam power plant at Trinidad, Colorado, which was shown on a U.S. Army Corps of Engineers map of the official outline of the AVA.5

Governor Ralph Carr, in his own words, declared "civil war" against the AVA and organized a conference of seventeen western states to discuss water and other common problems. The key issue was the AVA, which Carr and others felt might appropriate and misuse irrigation rights. A resolution unanimously opposing the AVA was adopted by the conference, although there was strong opposition to an all-out attack on the AVA.6

Gazette and Telegraph (Colorado Springs), March 9, 1941, p. 8.
 Denver Post, January 10, 1941, p. 11.
 Rocky Mountain News (Denver), February 9, 1941, p. 1.
 Ibid., February 20, 1941, p. 16.
 Ibid., February 19, 1941, p. 6.
 Ibid., February 8, 1941, p. 1; Denver Post, February 7, 1941, p. 1.





Ralph Carr

Probably most of Governor Carr's opposition centered around the fact that he feared the authority would subordinate irrigation to power and navigation, both of which demand even flows of water while irrigation demands an uneven flow. Governor Carr feared that water would be released when it should be stored for irrigation.⁷

All of Colorado's congressmen opposed the AVA in its original form. Representatives J. Edgar Chenoweth (Republican of Trinidad) opposed the loss of control over water rights in Colorado streams by Colorado courts. Representatives Edward T. Taylor (Democrat of Glenwood Springs) and William S. Hill (Republican of Fort Collins) announced that they opposed the measure unless changes were made to protect Colorado water users' rights. Senator Alva B. Adams (Democrat of Pueblo), like Governor Carr, opposed the AVA in its entirety and was unwilling to see it pass in any form. Representative Laurence Lewis (Democrat of Denver) was merely indifferent to the bill, for he saw no real conflict between Arkansas's and Colorado's interests.⁸

Senator Adams, vehement opponent of the AVA, closely questioned David E. Lilienthal, vice-chairman of TVA, when



Edwin C. Johnson

Lilienthal testified during Senate subcommittee hearings on the "independent offices appropriation bill for 1942 (HB2788)." Lilienthal testified that TVA officials drew up the AVA bill on behalf of the president at the request of Representative Ellis. There was no field investigation of the Arkansas Valley, and they simply set up a regional authority. He also repeatedly pointed out that the TVA was not sponsoring the AVA but had been called upon because of its general experience in the field.⁹

Colorado's sole congressional champion of the AVA was Senator Edwin C. ("Big Ed") Johnson (Democrat from Craig). In interviews and speeches in late February Johnson, admitting the need for admendment, gave his reasons for wholeheartedly supporting the AVA and attacked those opposing it:

Worthy and industrious as they [the people of Colorado] are, the ability to develop and improve the blessings which are their heritage is limited by a lack of funds to provide the development and improvement of the God-given natural advantages which surround them on all sides. The Arkansas Valley Authority is designed to overcome that difficulty and to provide the funds which will develop and improve these natural advantages.¹⁰

Johnson contended that the large supply of electrical power

See Donald Barnard Cole, "Transmountain Water Diversion in Colorado,"
 The Colorado Magazine 25 (May 1948):131, for an account of Carr's position.
 Rocky Mountain News, February 22, 1941, p. 41.

Denver Post, March 1, 1941, p. 1.
 Edwin C. Johnson, "Alarmists and the AVA," radio address given on KOA (Denver) on February 18, 1941, at 9:15 P.M. Typescript in the Western History Department, Denver Public Library.

which would result from the AVA could have only beneficial effects for the whole of the Arkansas River basin in Colorado. Cheap power would attract many industries to the Arkansas Valley, where they could utilize the good location and readily available raw materials of the area. Mining and associated industries would be stimulated by cheap power which would allow the profitable processing of low-grade ores. A relatively new electrolytic process, for instance, would allow the Colorado Fuel and Iron Corporation to galvanize iron economically if there were a source of cheap power available. The molybdenum operation at Climax badly needed more electrical power, also, In addition, the use of hydroelectric power would free coal and oil resources of the Arkansas Valley for producing fertilizers and other key chemicals which the United States would use in time of peace or war. Johnson carefully pointed out that the coal industry would not be injured by the AVA. The National Coal Association had argued that TVA's hydroelectric power would displace steam generation and that miners would be out of work, railroad revenues would decrease, and a general industrial lag would occur because of federal interference in business. All of these fears had proved groundless, as would similar fears regarding the AVA, Johnson argued.11

Contending that the electric rates of the area were clearly excessive. Johnson felt that if the AVA began to provide power at "fair" rates, the private power companies would be forced to meet these rates. He believed that the opponents of the AVA were not concerned with the best interests of the American people but were clearly attempting "to protect the vested interests of the gas companies and the power companies."12 Johnson said:

The power trust has let out a squawk which has been heard half way around the world. One of these naughty, naughty electric energy yardsticks is about to reach the southeast corner of the State and make it known how much the people are being gyped [sic] on their electric light and power bills.

Since opponents of the bill did not dare face the power issue squarely, they attacked the measure indirectly. They contended that Colorado's irrigation and water rights were going to be destroyed. In fact, Johnson readily admitted, the original bill did ignore irrigation rights, and it had to be amended. The sponsors of the bill agreed to any guarantees of these rights which Colorado might want; in any case, Congress would not pass a bill which interfered with the irrigation system along the Arkansas River. Johnson felt that Carr was using a timehonored private utility ruse in his advocacy of states' rights:

Whenever you hear a politician or corporation attorney raving about state's rights, look under the proverbial wood pile! Generally these fellows are powerful strong for state's rights but powerful weak for state responsibilities. They want the federal government to take care of their unemployed and their needy. build their roads, construct flood control dams and finance irrigation projects, but never, no, never build a power plant or regulate utility rates. 13

To show that the private utility companies opposed the AVA, Johnson discussed George H. Shaw's activities and friendship with Governor Carr. Shaw was a director of the Arkansas Natural Gas Corporation, a director of the Arkansas-Louisiana Gas Company, and a director of Cities Service Company. Cities Service controlled the Public Service Company of Colorado and, according to Johnson, bled PSC dry to collect very high dividends. Johnson claimed that from 1931 to 1938 PSC never paid less than 8 percent, and in 1938 the dividend was in excess of 12 percent. In addition, PSC had paid George H. Shaw and his law firm \$261,452 in various fees. Consequently, the gas and light users of Colorado had to pay excessive rates in order to allow the PSC to pay high dividends. Shaw, as a personal friend of Governor Carr, hurriedly visited Carr before the governor called his conference of western states in February.14 Johnson believed that electric energy was a key to technological, industrial, and economic advancement for the area:

The Federal Government is now offering to help us acquire the one thing we need most-cheap power. Shall we cooperate with our great President, or line up with the selfish and short sighted vested interests? 15

Cautious Colorado supporters of the AVA included the Lamar Daily News, which on January 13, 1941, suggested it might be worthwhile to look closely into the AVA proposal. The Daily News ventured the opinion that the legislation might not be as bad as some people had claimed.16 But the Denver Bulletin editorialized that increased industrial activity would be good for Colorado and that the few farmers displaced by the AVA probably would be pleased to be relieved of their mort-

Edwin C. Johnson, "Why I am for Arkansas Valley Authority," Rocky Mountain News, February 19, 1941, p. 6.
 Edwin C. Johnson, "The Arkansas Valley Authority," undated typescript in the Western History Department, Denver Public Library; Rocky Mountain News, February 20, 1941, p. 16.
 Johnson, "Arkansas Valley Authority."
 Lamar Daily News, January 13, 1941, p. 1.

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gages.17 An editorial discussing the AVA appeared in the March 1941 Colorado Granger, the journal of one of Colorado's two strongest farm organizations. The writer believed that most Colorado congressmen would quite properly support the AVA when the bill was amended to guarantee water rights. He did, however, note that key opposition stemmed from the power interests, adding: "Why should we pay 85 percent more per kilowatt-hour than the people of Washington and Oregon, or Tennessee and Alabama?"18

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Representative Ellis, who had introduced the legislation in the House, campaigned vigorously for the AVA. In a March 11 speech over the NBC radio network, he argued for navigation, flood and erosion control, hydroelectric production, and particularly the alleviation of postwar adjustment problems. He pointed out that President Roosevelt had stated repeatedly that water rights, guaranteed by the due process clause of the Constitution, would be protected. Ellis also argued that states in the AVA area not only had overpaid for electricity to the tune of \$79,500,000 in comparison to TVA rates but also faced an imminent power shortage in the area, according to the Federal Power Commission. Such a power shortage would seriously injure chances of industrial growth. The use of the federal government to achieve control of interstate rivers would not infringe on states' rights because the states could not achieve such control by themselves.19

Part of Governor Carr's campaign included an address to the United States Chamber of Commerce which had already announced its opposition to the AVA. On May 5, 1941, before the House of Representatives, Ellis discussed Carr's position that the AVA was not too important because it affected only a small part of the country with only a small share of the population and because additional power production and flood control were unnecessary. Ellis claimed he would send Carr a map of the United States marked to indicate the area included in the AVA. Then Governor Carr could not mistakenly believe the area of the AVA unimportant. He pointed out that the AVA would contain all of Arkansas and Oklahoma and sizable parts of Missouri, Louisiana, Kansas, Texas, New Mexico, and Colorado. Some 293,160 square miles and 8,398,000 people would be included. Ellis, "amused"

by Carr's statement that flood control was not essential in Colorado, asked:

Have we been misinformed about the floods of the Arkansas and particularly at the devastations at Pueblo and Lamar? Are we wasting the \$14,600,000 which we are spending on the John Martin Reservoir-Caddoa-on the Arkansas River above Lamar to accomplish 270,000 acre feet of flood control? Were the late John Martin, the able Congressman from Colorado, and the present very able congressional delegation from Colorado mistaken in their statements . . . of this great project when they asked for its authorization and subsequent appropriations?

Carr's fear of losing water to navigation needs was groundless since the lower Arkansas could provide all of the water necessary, Ellis commented, and the only real problem for navigation was the sand and gravel which washed down from the upper Arkansas. Also, he pointed out that in the postwar economic emergency the AVA was a ready-made reservoir of projects to provide jobs for returning servicemen. Hoping to allay the fears of coal mine owners, he compared the 89 percent increase in nationwide use of coal for power production to the 800 percent increase in the area of AVA.20

Governor Ralph Carr and like-minded supporters defeated the AVA for Colorado and Kansas, although Arkansas and Oklahoma later succeeded in obtaining improvements of the Arkansas from the Mississippi to Catoosa, Oklahoma. In 1942 Representative Ellis unsuccessfully introduced a revised AVA bill which would not have affected the Arkansas above Hutchinson, Kansas,21 and in 1946, when the war emergency was over, Congress passed such a bill. This project was authorized by a section of the 1946 River and Harbor Act titled "Arkansas River and Tributaries, Arkansas and Oklahoma." Its multiple purpose plan of development provides a navigable waterway on the Arkansas River from the Mississippi River to Catoosa, Oklahoma, the port of Tulsa. The channel will be 450 miles long and will pass through 17 locks. With the completion of the project (scheduled for 1972) a large new area will be served by inland waterways, and the estimated annual commerce on the new waterway will be about 13,200,000 tons. The project also provides for hydroelectric production; flood control; game, fish, and recreational development; and sediment control in the river.22

¹⁷ The Denver Bulletin, n.d., quoted in U.S., Congress, House, Congressional Record, Appendix, 77th Cong., 1st sess., January 27, 1941, 87, pt. 10:A266-67.

18 Colorado Granger, March 1941, quoted in U.S., Congress, House, Congressional Record, Appendix, 77th Cong., 1st sess., March 11, 1941, 87, pt. 10:A1117.

¹⁹ U.S., Congress, House, Congressional Record, Appendix, 77th Cong., 1st sess., March 20, 1941, 87, pt. 11:A1263-65.

²⁰ U.S., Congress, House, Congressional Record, 77th Cong., 1st sess., May 5, 1941,

^{87,} pt. 4:3596-98.
21 U.S., Congress, House, Congressional Record, Appendix, 77th Cong., 2nd sess., January 26, 1942, 88, pt. 8:A236-38.

²² Arkansas River and Tributaries: Multiple-Purpose Plan, Arkansas and Oklahoma, descriptive sheet published by the U.S. Army Corps of Engineers, Little Rock, Arkansas, February, 1961; Arkansas River and Tributaries:



Webbers Falls Lock and Dam in Oklahoma, one of seventeen such installations which make the Arkansas navigable to Catoosa.

TVA has proved its worth to the area it serves in countless ways which contrast with the plight of the Arkansas Valley. As an example, in Tupelo, Mississippi, the first city to use TVA electricity, the 1970 residential monthly rates for electricity were \$3.28 for the first two hundred kilowatt hours,23 but in Pueblo in the Arkansas Valley the residential rates for electric power were \$7.08 for the first two hundred kilowatt hours.²⁴ Jim J. Gigoux, the new director of the Southern Colorado Economic Development District, in addressing a district meeting in Pueblo

Multiple-Purpose Plan, Arkansas and Oklahoma, descriptive sheet published by the U.S. Army Corps of Engineers, Little Rock, Arkansas, and Tulsa, Oklahoma, revised 1968.

²³ Martha Webb, Secretary, Community Development Foundation, Tupelo, Mississippi, to Mrs. John B. Farley, November 7, 1969.

24 Southern Colorado Power Company, electric rate schedule, n.d.

LEGEND

Reservoir projects authorized by Flood Control Act of June 1936

In operation

Not started

Reservoir projects included in comprehensive plan for flood control and other purposes as approved by Flood Control Act of 28 June 1938 and subsequent acts of Congress

in operation or under construction Not started

Incorporated in multiple purpose plan Multiple-purpose plan (approved by River and Harbor Act of 24 July 1946 as modified by subsequent acts of Congress)

In operation or under construction Not started

The Arkansas River Basin, 1961.



on September 16, 1969, said: "We must accelerate our economic base to enable Southern Coloradoans to make an acceptable living." Gigoux also noted that southern Colorado must establish a program to economically revitalize the area and to induce its youth to return when they had completed their higher education. Pueblo County is one of the few southern Colorado counties which have not lost population since 1950, and the per capita income in many southern counties is below \$2,000 a year. 25

Pleading for enactment of the Arkansas Valley Authority in 1941 Congressman Ellis said:

If Governor Carr would declare a civil war on the high power rates of his own State instead of declaring it on an effort to develop his own State and the West, he would make himself immortal in the pages of Colorado history . . . If the power trust will just leave us alone, we will develop the water resources of the West and the power companies will get their share of the benefits.26

Pueblo Chieftain, September 17, 1969, p. 6A.
 U.S., Congress, House, Congressional Record, Appendix, 77th Cong., 1st sess.. February 6, 1941, 87, pt. 10:A511.

By opposing the AVA, for whatever reason, Governor Carr and his followers deprived Colorado of a key economic resource which might have reversed the present trend of decreasing population and low income for much of southern Colorado.

> MARY FARLEY has maintained a keen interest in Arkansas Valley history for many years. Before her marriage to Dr. John B. Farley of Pueblo she attended Webster and Loretto Heights colleges.

Otto Mears and the Silverton Northern Railroad

BY MICHAEL KAPLAN

The San Juan district of southwestern Colorado, rich in mineral deposits, was opened to the white man in 1873, the year the Brunot Treaty was ratified by the Utes. According to the treaty, the Indians surrendered the area in return for an interest rate paid annually on a half million dollars set aside for them by the government. Chief Ouray, at Otto Mears' suggestion, was to receive one thousand dollars a year for ten years. The next spring brought thousands of prospectors into the area, and fabulous discoveries of silver, gold, copper, and sulfides were made. As thousands of settlers and miners were attracted to the district in succeeding years, towns such as Silverton and Durango sprang up. The need to bring supplies into the mining area and to haul ores out brought about the introduction of toll roads to the area by Otto Mears in the seventies and eighties.²

Mears was one of the most important persons in the development of the San Juan region of the Western Slope of Colorado. Born in 1840 in Kurland, Russia, he emigrated to the United States when he was ten years of age. The next decade of his life was spent in tinsmithing, merchandising, and prospecting in California.³ At the outbreak of the Civil War Mears answered Lincoln's first call for volunteers and enlisted in Company H of the First Regiment of California Volunteers on August 17, 1861, in San Francisco.⁴ Arriving in the Territory of New Mexico, Company H helped prevent a second Confed-

¹ Helen M. Searcy, "Otto Mears," Pioneers of the San Juan Country, Publication of the Sarah Platt Decker Chapter, D.A.R., Durango (Colorado Springs: Out West Printing and Stationery Co., 1942), 1:23. See also LeRoy R. Hafen, "Otto Mears, 'Pathfinder of the San Juan,' "The Colorado Magazine 9 (March 1932):71-74.

² Later the Denver and Rio Grande was extended to Durango in 1881 and to Silverton in 1882. Silverton Weekly Miner, November 11, 1910, p. 2.
³ Searcy "Otto Means" in 1812.

Searcy, "Otto Mears," pp. 16-17.
Richard H. Orlon, Records of California Men in the War of the Rebellion, 1861-1867 (Sacramento: State Printing Office, 1890), p. 371.



Otto Mears

erate invasion at the battles of Pigeon's Ranch and Valverde. Later the company reinforced Kit Carson's troops in the fight against the Navajo. 5

Discharged at Las Cruces, New Mexico, in 1864, Mears spent the following year working in a general store in Santa Fe. In 1865 he moved to Conejos, Colorado, where he opened a store and built a gristmill and a sawmill. The next quarter century saw him engaged in a multitude of activities. In the late sixties he was awarded a contract to supply the Utes with foodstuffs. Learning their language, he won the favor of Chief Ouray and was, thus, instrumental in inducing the tribe to sign the Brunot Treaty and in persuading the Indians to leave the state in 1881. Realizing the value of the newly vacated Indian land, Mears seized the opportunity to build toll roads in southwestern Colorado, opening the area for settlement. Mears also was engaged in several commercial ventures such as the opening of general

stores in Saguache and Lake City. He found time, somehow, to participate in politics and was chosen as the messenger to carry Colorado's three electoral votes to Washington in 1876. During the next decade he was elected to Colorado's house of representatives and senate.⁷



Mt. Abram from Mears' Silverton-to-Ouray toll road.

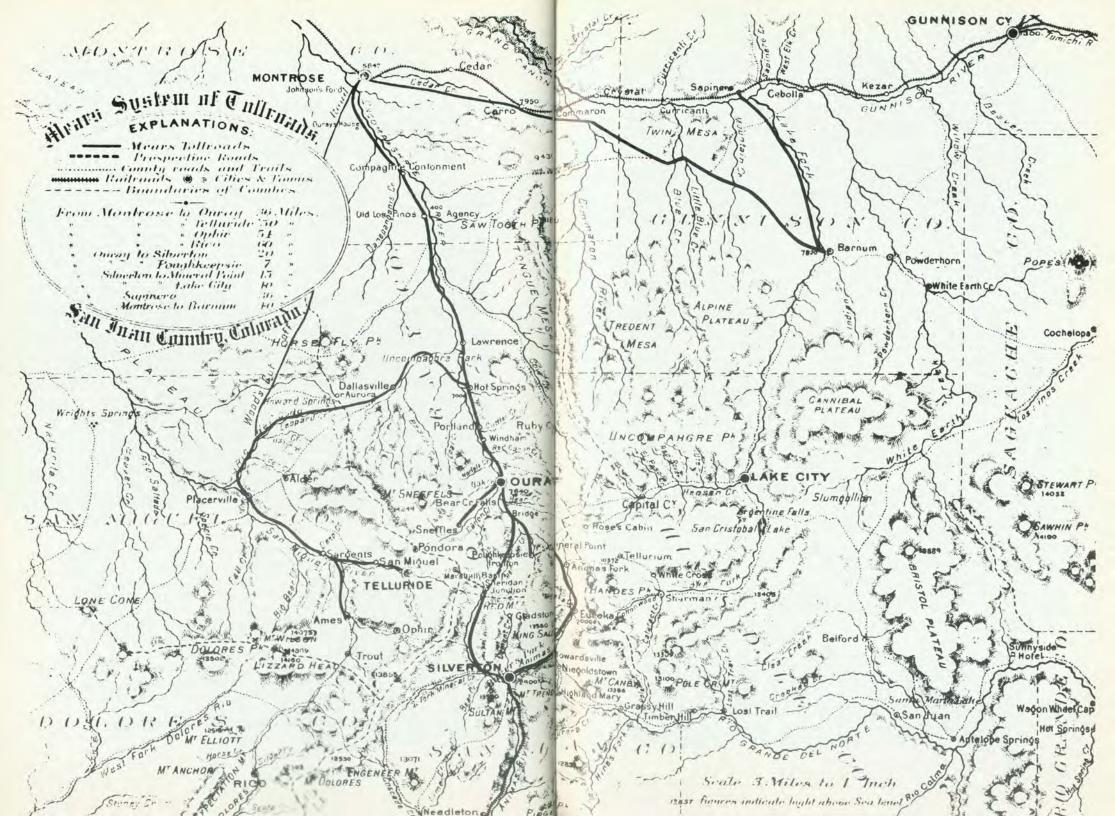
In the late 1880s Mears turned to the building of railroads in the San Juan region. More deposits of high-grade silver and copper ores had been discovered, and the region swarmed with prospectors. In June 1887 the construction of the Silverton Railroad was begun, and it was completed in November 1889. The narrow-gauge railroad, built at a cost of three-quarters of a million dollars, was sixteen miles long. Mears hoped to monopolize the traffic of the region and to reinvest the revenue in more railroads, thereby building a transportation empire.

In 1889 the railroad builder, taking the next step in his "grand design," built a five-mile section of track from Silver-

8 Silverton Weekly Miner, November 11, 1910, p. 2. 9 Searcy, "Otto Mears," pp. 34-35.

Searcy, "Otto Mears," p. 17. See also Ida Libert Uchill, Pioneers, Peddlers, and TSADIKIM (Denver: Sage Books, 1957), pp. 51-52
Searcy, "Otto Mears," pp. 18-19; Uchill, Pioneers, Peddlers, and TSADIKIM, pp. 52

Mears' career is traced in Uchill, Pioneers, Peddlers, and TSADIKIM, pp. 52-68.





Such operations as the Iowa Mill in Arastra Gulch would yield business for the railroad.

ton to Howardsville to service Cunningham Gulch and Arastra mines.10 Originally contemplated as an extension of the Silverton Railroad, this stretch of track later became the first section of the Silverton Northern Railroad, incorporated in 1895.11

The Panic of 1893 momentarily disrupted Mears' plans for the construction of a system of railroads in the San Juan area. He was unable to pay the interest12 on the bonds for his Rio Grande Southern Railroad and, as a consequence, lost his control over the line. By the summer of 1894 he was in danger of losing the Silverton Railroad, too. In a letter to Charles H. Graham, a Philadelphia investor in the line, he stated:

There is no way for me to raise any money here on any other property I have. I am very sorry the circumstances are such that it is impossible for me to do anything at present. It is very hard for me to-day to raise even sufficient money for my household expenses.13

Mears managed to retain control over the Silverton Railroad for five more years, until 1899, when it went into receivership because he could not pay off the interest on its bonds.14

Always optimistic, Mears thought he could regain control of his railroads if William Jennings Bryan were elected to the presidency in 1896. Hoping that Bryan's election would raise the price of silver and help to reopen the mines on the Western

 10 Ibid., p. 36.
 11 At the same time that Mears was building and running the Silverton Northern Railroad he was engaged in activities far too numerous to be delineated ern Railroad he was engaged in activities for long activities for the property of the scope. In addition to his Silverton or even mentioned in a study of this scope. In addition to his Silverton or even mentioned in a study of this scope. In addition to his Silverton or even mentioned in a study of this scope. or even mentioned in a study of this scope. In addition to his Silverton Northern enterprise, he was very active politically, was building the Rio Grande Southern and the Chesapeake Beach railroads, investing in real estate, buying mining stock, purchasing smelters, associated with Mack trucks, and contributing to philanthropic societies. Searcy, "Otto Mears," p. 25.

p. 35. 12 Otto Mears to Charles M. Graham, December 18, 1893, Otto Mears Letter Book, August 14, 1893-April 2, 1896, p. 111, Otto Mears Papers, State His-torical Society of Colorado Library

14 Alexander Anderson to M. J. Harrington, September 12, 1901, Silverton Railroad Letter Book, June 1, 1901-July 11, 1904, p. 99, Otto Mears Papers. 13 Ibid., June 8, 1894, p. 252

Slope, he campaigned throughout the state for his candidate. Believing that Bryan would be victorious and that prosperity would follow. Mears decided to build another railroad in the San Juan region on the premise that when the depression lifted the mines would operate at full capacity and he would make a tremendous profit in servicing them. 15 Accordingly, on September 20, 1895, the Silverton Northern Railroad Corporation was formed with Otto Mears, Fred Walsen, Alexander Anderson, Jerome B. Frank, and Thomas L. Wiswall, residents of Denver, the part owners. The railroad was incorporated on November 4, 1895.16 Bonds were issued for construction of a railroad from Silverton along the Animas River north to Howardsville, Eureka, and Mineral Point, a distance of approximately fifteen miles. It was decided, also, that the railroad should purchase the Silverton and Animas Forks Toll Road Company from Otto Mears so that the track could be laid on the old road. The stockholders elected as the corporation's first officers Fred Walsen, president; Otto Mears, vice president; and Alexander Anderson, secretary-treasurer.17

Mears' organizational genius becomes apparent at the outset. One of the reasons for his previous financial success and for his later wealth was his selection of highly competent associates and employees. With such assistance Mears could devote time to additional ventures. Though usually trusting to the efficiency and honesty of his men, Mears from time to time would inspect the investment, get a financial report, and, if everything was in order, resume his other activities. The officers and men of the Silverton Northern were unusually competent. The first president, Fred Walsen,18 had been associated with Otto Mears and others in building toll roads and railroads for at least two decades. Alexander Anderson, the secretary and treasurer in 1895 (later designated superintendent after Mears went East). had unusually wide experience also. Anderson was hired by Mears in 1892 with ten years' previous training in railroad work. Upon his death fifteen years later, the Silverton Weekly Miner eulogized:

¹⁵ See Otto Mears to Louis R. Ehrich, August 14, 1893, Otto Mears Letter Book, Otto Mears Papers, August 14, 1893-April 2, 1896, pp. 2-3.
¹⁶ Minutes, Board of Directors, Silverton Northern Railroad, pp. 1-10, Otto Mears Papers, Incorporation took place in the office of David A. Mills, secretary of state of Colorado. The following day the owners each subscribed for one share of stock at the par value of one hundred dollars. It also was agreed to call a meeting of stockholders on December 20 to conduct further business. The stockholders agreed to issue \$300,000 in bonds to be dated. business. The stockholders agreed to issue \$300,000 in bonds to be dated January 1, 1896, and to be due on the same date fifty years later. The In-ternational Trust Company of Denver was trustee and interest was to be 5 percent per annum.

¹⁷ Ibid., pp. 11-17. Purchase was with the remaining 1,494 shares of stock in

¹⁸ For anecdotes about Fred Walsen, see Searcy, "Otto Mears," passim.

Colorado has lost one of her best railroad men; one who was painstaking and conscientious to the minutest detail of routine work; one who had a large grasp of affairs.19

Even the engineers and trackmen were highly competent. Working hard on the job, sometimes laboring until midnight to fulfill contracts and to keep the tracks open.20 they used their leisure time profitably. In February 1912 and in March 1913, for example, the employees of the railroad held benefits at the Miners' Union Hall in Silverton for the Silverton Miners' Union hospital. Two dances brought in two hundred dollars in 1912 and a hundred and fifty in 1913. Both donations occasioned letters of thanks from the editors of the Silverton papers.21 Playing in organized baseball leagues was another spare-time activity of the employees, who thoroughly enjoyed themselves while entertaining the spectators. A newspaper account of one such game reveals the enthusiasm that such contests engendered:

A fair sized crowd of spectators was on hand and indulged in considerable rooting and did not in the least appear to mind the rain that was falling during a portion of the game.

Mr. Casey, of Eureka, was the umpire. He had a number of advisers who aided him greatly in making his decisions, but after they were made, his six feet of avoirdupois made them stick.22

Mears rewarded well-done work and good behavior with Christmas bonuses and would, from time to time, give presents to individuals who had performed their duties especially well.23 On one such occasion he rewarded Alexander Anderson for faithful service. Anderson's response is indicative of the feelings for Mears held by his employees:

My dear Mr. Mears. I received your recent letter on which you allowed me \$1000 for my past services. I thank you very much for your kindness and trust that I shall always prove worthy of your confidence and respect.24

While the Silverton Northern Corporation was being formed, Mears was busy laying track to Eureka. The mining town was approximately four miles north of the old terminus, Howardsville. Construction began on this extension in 1894,25 and in the



Five miles from Silverton, Howardsville served for a time as a terminus for the Silverton Northern.

early spring of the following year the Silverton Weekly Miner was able to report that ties were being distributed and laid on the proposed grade and that rapid completion was expected.26 When the line was finished in June 1896,27 the townspeople of Eureka held a large celebration, the highlight of which was the driving of a golden spike at rails' end by the wife of the mining magnate Edward G. Stoiber.28

In the meantime, the Silverton Northern Corporation had acquired enough money to buy from Mears two miles of track extending to Howardsville and the Silverton Railroad for forty thousand dollars in first mortgage 5 percent bonds. On August 5 at a meeting of the Silverton Northern board of directors, an additional \$140,000 in bonds was given to Mears in payment for the construction of the seven miles of track to Eureka.29

The Silverton Northern Railroad began to procure equipment at this time. In a letter dated December 8, 1896, to Moses Liverman, the general manager of the Silverton Railroad Company. Mears directed the turnover of one locomotive and ten box cars to the Silverton Northern.30 Seven years later three more engines were purchased from the Baldwin Locomotive Works. These machines, designated as numbers 3, 4, and 34, cost \$8,648.75 each. They were adapted for narrow gauge and propelled by powerful steam-driven motors.31 When more freight cars were needed, they were borrowed from the Denver and Rio Grande Railroad. To its one passenger car the railroad added a luxury car. It was purchased from the Denver and Rio Grande, painted green on the outside, and renovated inside so that it had sixteen berths, a kitchen, and a spacious dining area. This car.

<sup>Silverton Weekly Miner, February 15, 1907, p. 1.
Alexander Anderson to Otto Mears, November 28, 1900, Silverton Northern Railroad Letter Book, August 9, 1900-April 2, 1902, p. 84, Otto Mears Papers.
Silverton Standard, February 17, 1912, p. 2, and March 8, 1913, p. 2; Silverton Weekly Miner, March 7, 1913, p. 1.
Silverton Weekly Miner, July 8, 1910, p. 1.
Alexander Anderson to Otto Mears, November 28, 1900, Silverton Northern Letter Book, p. 84, Otto Mears Papers.
Alexander Anderson to Otto Mears, December 14, 1901, Personal Letter Book, p. 366, Otto Mears Papers.
Searcy, "Otto Mears," p. 35.</sup>

²⁶ Silverton Weekly Miner, April 29, 1910, p. 2; May 13, 1910, p. 4; and May 27,

²⁷ Alexander Anderson to S. K. Hooper, November 7, 1900, Personal Letter

Book, p. 333.

28 Josie Moore Crum, Three Little Lines (Durango: Durango Herald News,

^{1960),} p. 29.
29 Minutes, Board of Directors, Silverton Northern Railroad, pp. 55-56, Otto

Otto Mears to Moses Liverman, December 8, 1896, Silverton Railroad Company Letter Book, April 15, 1896-November 5, 1897, p. 95, Otto Mears Papers.
 Unsigned letter to I. S. Hixson, September 9, 1941, Silverton Northern Papers, Otto Mears Papers.

called the "Animas Forks," was equipped with food and drink to satisfy the standards of the most exacting gourmet.32

After the election of 1896 Mears, disappointed by Bryan's defeat, went East for a decade, deciding that for the time San Juan mining would continue to be unprofitable. Consequently, during the period from 1897 to 1903, no more construction was done on the Silverton Northern. Although proposals were made to extend the railroad to Gladstone,33 to Ouray,34 and to Lake



Prior to the railroad Gladstone's mill, seen at far right, was served by wagons and sleds.

City35 in those years, Mears needed all the money he could raise for the building of the Chesapeake Beach Railroad in the East. A policy of retrenchment and belt-tightening prevailed on the Silverton Northern, and salaries were relatively low. A skeleton crew was kept employed, and every expenditure, no matter how trifling, had to be justified. Just how tightly controlled the company's finances were in this period is shown by a letter from Alexander Anderson to J. L. McNeil, the superintendent, dated September 16, 1897:

One of our engines struck a milk cow yesterday on Northern about a guarter of a mile above station. Butcher will not buy the cow. I have had her appraised and seen the owner. I can settle claim for thirty dollars which is less than appraised valuation. If you approve of it I will make payment and get release.36

Because of careful management and heavy traffic the Northern had avoided the financial problems which had plagued the Silverton Railroad and was showing a good profit by 1902.37 Mears was enjoying financial success and was able to report that "I have been frozen up in Colorado for the last thirty years and am just thawing out."38 Because of the upturn in both his and the company's finances, he decided to extend track to Animas Forks, four miles north of Eureka, to take advantage of the increased business which would result because of recent important mineral discoveries in that area.39

Under the direction of Thomas H. Wigglesworth, an engineer with nearly a half century of experience, the survey was begun between Eureka and Animas Forks in the spring of 1903. For a month the surveyors worked on the east side of Animas Canyon. The difficulties were so great that Wigglesworth reported to Mears that it would be much easier to use the western side of the canyon which already had a wagon road. To the engineer's surprise, as the story goes, Mears answered, "Vell, Vy not, it's mine, I built it; go ahead and take it if you vant it!" Consequently, much of the new track was built over his old toll road.40

Upon completion of the survey in late spring, grading and tracklaying began. The four hundred men employed to do the grading were billeted in four boardinghouses: one at Eureka, one at Animas Forks, and the other two between those two towns.41 One hundred and twenty-five Navajo Indians were in the force⁴² and proved exceedingly difficult to supervise. Mears, who happened to be visiting in Silverton at this time, decided to utilize his past experience with Indians in an endeavor to

Trum, Three Little Lines, p. 34.

Silverton Weekly Miner, July 29, 1898, p. 4.

Denver Republican, January 31, 1900, p. 9.

Silverton Weekly Miner, November 28, 1908, p. 1.

³⁶ Alexander Anderson to J. L. McNeil, September 16, 1897, Personal Letter Book, p. 73, Otto Mears Papers.

³⁷ The net earnings from hauling passengers and freight for 1900 was \$17,809.30; Alexander Anderson to A. B. Gray, May 30, 1901, Silverton Northern Railroad Letter Book, p. 202, Otto Mears Papers. Business was so good in the following year that the board of directors decided at a meeting on January 22, 1902, to declare a 10-percent dividend; Minutes, Board of Directors, Silverton Northern Railroad, p. 73, Otto Mears Papers.

³⁸ Otto Mears to David H. Moffat, June 23, 1899, Otto Mears Letter Book, June 13, 1899-December 5, 1902, p. 7, Otto Mears Papers.

³⁹ Alexander Anderson to Otto Mears, April 14, 1902, Personal Letter Book, p. 390, Otto Mears Papers. 40 George Vest Day, "The Animas Forks Railroad," Pioneers of the San Juan

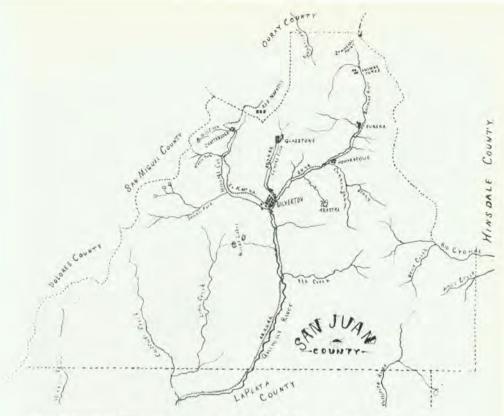
Country, 1:182. 41 Silverton Weekly Miner, July 17, 1903, p. 1.

⁴² Ibid., August 14, 1903, p. 1.

make the Navajo more productive. Arriving while a big fill was under way, he tried to direct the Indians by the means of hand signals. The Navajo, thinking Mears funny, laughed at him, whereupon the latter in anger began windmilling his arms. Now thoroughly amused, the Indians stopped work and mimicked him. Mears gave up his attempt to supervise the Indians and went home to his Denver residence disgusted. The grading was finished in August, and, as the supply of rails ran out, tracklaying was deferred to 1904. On September 7 of that year Mears was able to report the completion of the extension. The Silverton Northern Railroad then purchased the four-mile track from Mears' construction company for eighty thousand dollars in first mortgage bonds and twenty-seven thousand dollars in cash.

The Silverton Northern's impact upon Animas Forks was as immediate as it was profound. The Panic of 1893 had brought disaster to the mining town as it did to so many others in the Rocky Mountains. The town's depression lifted, however, when people realized that "Animas Forks is to be on the map again" as a result of the railroad's extension. Old properties were reworked and many new ore deposits were discovered. The most important development was the building in 1906 of the Gold Prince Amalgamating and Concentrating Mill. Equipped with machinery of the most modern design, the mill soon become one of the most productive in the state.

Mears was still intent upon capitalizing upon the renewed activity of the San Juan region. After the completion of the Eureka to Animas Forks extension, he built a branch line a mile and a half long from Howardsville to Green Mountain where the Green Mountain Mining and Milling Company property was being erected. Although this was the last new track ever laid by the Silverton Northern, Mears still hoped to develop a San Juan railroad empire. He renewed his old projects of constructing roads to Ouray and to Lake City but was foiled due to a lack of capital. In 1907 and 1909 he employed a surveying crew to plot a roadbed from Animas Forks to Mineral Point, a distance of four miles, where rich ore deposits had been found.



The Silverton Standard reported on July 11, 1903, that in a one-mile radius three million dollars' worth of minerals had been extracted and that "there is enough ore within this radius, if properly opened up, to keep 1000 stamps pounding the remainder of this century." This line was never built because of the difficulty in traversing the steep grades of the mountain passes along the proposed route.

Although Mears was unsuccessful in his attempts after 1905 to lengthen the Silverton Northern by laying more track, he was able to consolidate his holdings by acquiring the Silverton, Gladstone and Northerly Railroad. This line, built in 1899, extended from Silverton to the town of Gladstone, a distance of seven and a half miles. It should be recalled that in 1898 Mears attempted to build a railroad to Gladstone but could not raise the necessary funds. After a rival company had built the Silverton, Gladstone and Northerly, he lost interest in this scheme and turned his attention to improving the organization of his own lines by attempting a merger of the Silverton Railroad, which had been reorganized and refinanced after its bank-

⁴³ Day, "The Animas Forks Railroad," pp. 182-83.

⁴⁴ Minutes, Board of Directors, Silverton Northern Railroad, p. 78, Otto Mears

⁴⁵ Silverton Weekly Miner, May 20, 1904, p. 3.

⁴⁶ Silverton Standard, May 4, 1907, p. 1, and April 23, 1910, p. 1.

⁴⁷ Railroad Gazette 38 (February 17, 1905) 64 and 38 (May 12, 1905) 160.

⁴⁸ Silverton Weekly Miner, April 21, 1905, p. 1.

⁴⁹ Ibid., July 27, 1906, p. 1.

⁵⁰ Railroad Age Gazette 47 (November 26, 1909):1038.

Silverton Standard, July 11, 1903, p. 1.
 Crum, Three Little Lines, p. 25.

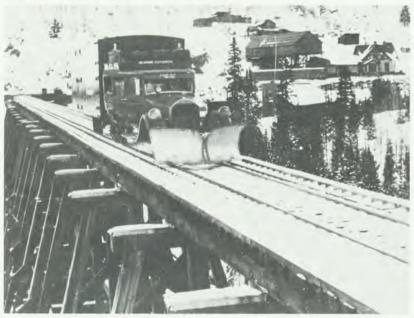
ruptcy in 1899, and the Silverton Northern.53 This project, too, was unsuccessful because he did not have the necessary capital. After spending years in the attempt to implement this plan he again became interested in the Gladstone region because of the revival of mining there. On January 10, 1910, at a board of directors meeting of the Silverton Northern, he received permission to lease the Silverton, Gladstone and Northerly Railroad for a period of ten years. Five and a half years later, on June 8, 1915, the board decided that the Gladstone line should be bought at the foreclosure sale, allowing forty thousand dollars for this purpose.54 Thus, Mears' dream of monopolizing all railroad traffic from the mines to Silverton was at last realized.

Mears' financial genius as exemplified by his eventual takeover of Silverton's railroad traffic was matched by his inventive wizardry. He always had plans for some device which would make railroading in the Rockies easier and was continually attempting to utilize the inventions of others. In 1906, for example, he conceived of a snow-fighting scheme which had remained untested in the San Juan area. Because of the heavy winter snows, railroads in that region had great difficulty in operating for more than two-thirds of a year. To keep the track usable year-round, he decided to erect snowsheds over the roadbed. In a newspaper interview he described their construction and purpose:

The roof will be constructed of heavy timbers, stretching in tiers over the track and sloping to the ground on either side on a grade conforming to the mountain slope, so that slides from any direction will glide over the sheds without harm. There will be a station built in each shed and section hands will live there during the winter and keep the road clear between the sheds.55

This proposal was greeted with scorn by many readers; but in a following issue the paper debunked those who could so easily disparage Mears' idea without a fair test and said that if he could implement it, it would be "the crowning act of a useful and well spent life."56 By December all of the necessary arrangements had been made. 57 but heavy snowslides ruined the sheds and carried them into the Animas Canyon.58

Mears had more luck with his automobile railroad schemes. He was the first individual in the San Juan area to use automobiles to improve railroad service. One way in which he successfully combined the two forms of transportation was by devising an automobile which could run on rails, carry twenty-eight passengers and, if necessary, pull a passenger coach. This machine was the first of its kind and was expected to increase tourist traffic greatly in the summer.59



A Rio Grande Southern "Galloping Goose" in the 1930s.

Mears used the machinery he had with great facility despite the high grades and steep canyons which made the terrain his railroads traversed so difficult. Between Eureka and Animas Forks, for example, the grade was between 7 and 7½ percent, so steep in fact that to Animas Forks the engine could pull only a coal car and an empty freight car. On the return trip downhill to Eureka the engine was run backwards to brake the train because of the precipitous grade and could, consequently, pull no more than three box cars. 60 Despite such conditions the Silverton Northern had an outstanding safety record. The only acci-

Otto Mears to Charles H. Graham, January 8, 1900; February 13, 1901; and April 11, 1901; Otto Mears Letter Book, pp. 106, 371, 396, Otto Mears Papers.
 Minutes, Board of Directors, Silverton Northern Railroad, p. 100, Otto Mears Papers; Silverton Weekly Miner, February 4, 1910, p. 4, and July 2, 1915, p. 3.
 Silverton Standard, June 2, 1906, p. 1.

⁵⁶ Ibid., June 9, 1906, p. 2. 57 Silverton Weekly Miner, December 21, 1906, p. 1. 58 Crum, Three Little Lines, p. 36.

⁵⁹ Silverton Weekly Miner, April 28, 1905, p. 2. Not until June 1908 was it used. See ibid., June 5, 1908, p. 1.
69 Searcy, "Otto Mears," pp. 35-38; Crum, Three Little Lines, p. 35.

dent of consequence occurred on August 4, 1906, when between Eureka and Animas Forks the train overturned.61

The efficiency of the railroad's employees as exemplified by the very low accident rate was put to the test in 1909 when Silverton experienced what was until then the greatest natural disaster in her history. Heavy rains lasting for days in early August caused rockslides which swept away track in some places and covered it with debris in others. All the railroads in the area were out of commission, and Silverton was cut off from the outside world. First putting his own lines in working order, Mears volunteered his services and those of his men to the Denver and Rio Grande Railroad so that the blockade around Silverton could be lifted. The officers of the D&RG accepted Mears' assistance⁶² in clearing the route between Silverton and Durango, which was blocked by many slides.

It was decided to begin clearing the track at Silverton and to labor south towards Durango. Work began rapidly but about fifteen miles from Silverton at a spot near Needleton the workers were baffled by a gigantic rock fall. At Mears' suggestion the old track was left covered and a new one was constructed about eight feet over the old bed with a grade of about 5 percent.63

Two weeks later the crew, after very arduous work, had cleared the track as far as Cascade, a town a few miles below Needleton. The situation at Cascade involved "the clearing away of thirteen heavy rockslides, the rebuilding of that portion of Mineral Creek bridge which was swept away, the filling and grading of miles of washed out roadbed and track, and the cutting of a new roadbed through hundreds of feet of rock in the cliffs some distance above Cascade."64

In the meantime the D&RG crew, headed by Superintendent P. B. McAttee, working north from Durango, had restored the tracks to Tacoma. At this point a few miles south of Cascade was the largest slide. "A heavy rock cut from 150 to 200 feet in length through perpendicular cliffs over fifty feet high in places"65 was required. By September 24 Mears' crew had worked its way to the north side of the slide and on the following day lifted the forty-six-day blockade of Silverton. 66

On the evening of September 26, 1909, in appreciation for

Mears' work, the citizens of Silverton paid him the highest accolade ever accorded to a resident of the town. The Silverton Cornet Band, headed by a Professor Estabrook, led a large group of people across the city to Mears' residence on Reese Street. J. T. Joyce, the editor of the Silverton Standard, presented him with a silver punch bowl, on which was inscribed: "Presented to the Hon. Otto Mears, by the people of Silverton in recognition of his earnest and faithful work in opening the Rio Grande railroad to traffic, September 25, 1909." After Mears thanked the people the crowd gave him three cheers and dispersed.67

Just a week later he again was called upon to help a San Juan town. All railroad traffic to Telluride had been ended since the August storm. Residents were being charged exorbitant rates for supplies of food and fuel which had to be freighted in. With the approach of winter the town was "on the verge of a coal famine of serious proportions," and unless the track could be cleared, the people would have to evacuate before winter.68

At this juncture the officers of the Rio Grande Southern, Mears' old railroad, asked for his assistance. In response he equipped sixty-five workers and went to Trout Lake where the worst damage had been done. When a dam had burst there, two thousand feet of track had been washed away.69 Taking just two weeks to accomplish a task that had baffled others, he was able to open up the track to Telluride; and on October 25 the first train in fifty days steamed into town. When Mears got off the train, he was greeted by a large crowd and the city band. He then was escorted to the New Sheridan Hotel where twenty of the town's most prominent citizens hosted a banquet. A reception after the banquet was held in the Elks' Club for the general public. His exploits were related to those present by ex-Congressman Hirschel M. Hogg. L. W. Allen, an attorney, presented Mears with a decanter inscribed, "Otto Mears, Telluride, October 25, 1909, "70

Two years later disaster again struck the San Juan area. In early October of 1911 a large thunderstorm culminated a monthlong period of intermittent rain. A flood ensued and farms, fields, ranches, and orchards were swept away; but the most serious damage was done to the railroads. The San Juan region was closed to railroad traffic; and, since merchants had not yet acquired coal and food enough to supply the residents of the

Silverton Weekly Miner, August 10, 1906, p. 1.
 Silverton Standard, September 4, 1909, p. 3.

⁶³ Ibid. 64 Ibid., September 18, 1909, p. 5.

⁶⁶ Silverton Weekly Miner, September 24, 1909, p. 5; Silverton Standard, September 25, 1909, p. 1.

⁶⁷ Silverton Weekly Miner, October 1, 1909, p. 1: Silverton Standard, October

⁴⁸ Silverton Weekly Miner, October 15, 1909, p. 1.

⁷⁰ Ibid., October 29, 1909, p. 1.

mining towns for the winter months, catastrophe was certain unless the blockade could be lifted.71

Mears repaired the track of his Silverton railroads and volunteered his services to the Denver and Rio Grande Railroad, whose lines were closed between Durango and Silverton. He was immediately authorized by the officers of the D&RG to equip a force of engineers, surveyors, and trackmen and to begin work south from Silverton towards Durango. The railroad at the same time ordered a crew to start work from the Durango end, and it was hoped that it would meet Mears' men somewhere along the route.72

On Friday, October 13, Mears began clearing the track from the Silverton terminus.73 To hasten the work he commandeered coal from the mines and merchants, and the residents gladly consented to use wood so that his engines would have enough fuel.74 A week later his work crew had grown to 235 and were at Elk Park, about ten miles south of the city. By November 10 the working party had reached Needleton, only six miles from the D&RG force that had cleared the track from Durango to Tacoma.75 The two parties met in the middle of the month, and, to the great relief of the residents of the San Juan, the nineweek blockade was lifted.76

This was Mears' last great service to the area with which he had been so long associated. In 1918 he left Colorado to reside in California⁷⁷ until his death on June 24, 1931.⁷⁸ Here he lived in semi-retirement while he controlled his Colorado railroad interests.

The Silverton Northern about the turn of the century.



The recession following World War I wreaked havoc on Mears' lines. The Interstate Commerce Commission gave him permission to close the Silverton Railroad in July 1922.79 His Silverton Northern Railroad was operated only intermittently after 1923 depending upon the mine production of the region, 80 and from 1930 to 1937 the Silverton Northern was inoperative.81 After 1937 the line never resumed operation, and in 1941 Mears' grandson Robertson Mears Pitcher began correspondence with the Fate-Root Heath Company of Plymouth, Ohio, with the object of selling the Northern's locomotives.82 In the following summer, as the negotiations with Fate-Root Heath Company had broken down, the railroad's property was sold for seventeen thousand to the Dullen Steel Products Company, and the money was used to pay the Northern's back taxes.83 The Dullen company in October 1942 removed all of the rolling stock, the engines, the rails, and other equipment from the San Juan

area, thus ending the Silverton Northern Railroad.84

This railroad although very important in the development of the San Juan region was only one of the many ventures in which Mears had an interest. The way in which he operated the Silverton Northern is an indication of how he managed his other investments and more importantly reveals a great deal about the man himself. One of the things first made apparent by an examination of the railroad's history was that his life was not "more or less of a gamble," as Arthur A. Wright characterized it.85 Mears' conduct, as his business undertakings exemplify, was not that of a gambler but of a visionary who took calculated risks when they were called for. For example, he founded the Silverton Northern Railroad Corporation only when it seemed likely that Bryan would be elected president, causing the price of silver to rise and thereby making it profitable to reopen the mines in the San Juan region. Although Bryan failed in his bid for the presidency, Mears was still able to make a profit on the

⁷¹ Searcy, "Otto Mears," p. 41.
72 Ibid., Silverton Standard, October 14, 1911, p. 2; Silverton Weekly Miner, October 13, 1911, p. 3.
73 Silverton Weekly Miner, October 13, 1911, p. 3.
74 Searcy, "Otto Mears," p. 42.
75 Silverton Weekly Miner, November 10, 1911, p. 1.
76 Searcy, "Otto Mears," p. 41.

⁷⁷ Ibid., p. 46.
78 Ibid. He lived at a home built at the Hotel Maryland in Pasadena.
79 Railway Age 72 (April 29, 1922):1045 and 73 (July 15, 1922):135.
80 Crum, Three Little Lines, p. 39.
81 Norman F. Bawden to Social Security Board, September 10, 1937, Otto Mears 82 Robertson Mears Pitcher to I. S. Hixon, September 26, 1941, Otto Mears

⁸³ Crum, Three Little Lines, p. 41

⁸⁵ Arthur A. Wright, The Civil War in the Southwest (Denver: Big Mountain

railroad for over two decades by stimulating interest of tourists and financiers in the area.

Another conspicuous characteristic of Mears was his ability to win the respect, trust, and affection of his subordinates. He was careful to select outstanding associates and by his diligence and ability gained their esteem, insuring their loyalty with high salaries and deserved bonuses. Thus, he was able to let them manage the business with only his periodical personal attention, enabling him to have more time to become involved in other ventures.

Mears also was a man who showed courage and optimism in the face of the most discouraging circumstances. When the floods of 1909 and 1911 threatened the San Juan region with disaster he encouraged the area's residents with characteristic optimism, a quality which was perhaps his most estimable and which evoked the admiration of his contemporaries as well as the respect of his biographers.

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