ADMINISTRATIVE HISTORY

of the

BLACK CANYON OF THE GUNNISON
NATIONAL MONUMENT

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1965

"...we feel that this Monument is one
of the gems of the Service."

--Paul R. Franke, 1936
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FOREWORD

The following administrative history of Black Canyon of the Gunnison National Monument is based upon a variety of sources. Most important, perhaps, have been the documentary materials on Black Canyon at National Archives in Washington and the various monthly reports at Black Canyon itself and in the Superintendent's Office at Colorado National Monument (now Curecanti, Colorado and Black Canyon in Montrose). The monthly reports include reports by the rangers (both North and South Rim in some cases), reports by the supervisory rangers, reports by the superintendents, and special reports. Also a valuable source of information have been the regional newspapers, especially the old Montrose Enterprise and the contemporary Montrose Daily Press. A variety of pertinent magazine articles and books have been referred to, and personal communications, both written and verbal, with some of the historic figures associated with Black Canyon have afforded an enrichment of source material.

No history can be complete, and this one is no exception. However, the broad canvas has been painted for Black Canyon, with many of the major and minor details sketched in. Years ago Assistant Superintendent Paul R. Franke must have looked forward to that day when this history would be compiled....

"Remember," he wrote the two Monument rangers who in 1938 were writing the area's monthly reports, "the narrative report is also the history of the monument and years later it will be necessary to refer to it."
CHAPTER I
THE INDIAN PERIOD

Indians had never exerted much direct impact on the country which eventually was to become Black Canyon National Monument and indeed were long gone by the time the Monument was created in 1933. This, however, had been their realm for generations before the penetration of the first white men; and at least the Utes' claim to the land was to have an indirect significance which has lingered years after the last Indians disappeared.

Obviously there were aborigines in the area, if not at the canyon itself, prior to the advent of the Utes. Folsom spear points have been found in the region, and there are many ancient pictographs and petroglyphs. Certainly a Fremont culture existed regionally, while numerous (30-40) rock shelters are known whose origin is obscure but which at any rate are not Pueblo. Unfortunately for the history of the Monument, few of the above finds were made within its boundaries.

The University of Colorado's Anthropology Department has carried out an archaeological reconnaissance in the Uncompahgre Valley, as well as east of the Monument in the valley of the Gunnison River which will be inundated by reservoir water; and these findings should be available in late 1965. But regardless of new finds, no earlier Indian group will supplant the Utes in terms of regional importance.

Linguistically, the Utes, like the Paiutes, were Shoshonean and farther back were related to the Uto-Aztecan stock which also gave rise to the Aztec, Pima, Papago, Hopi, and Comanche. The
Utahs had always been a Rocky Mountain-Great Basin tribe, unlike the Great Plains Cheyennes and Arapahoes, deadly enemies of the Utes, who came southwest into Colorado from Central Canada and the northern Great Lakes states prior to 1800.

The Utes were short, stocky, muscular, becoming portly in middle age. They were reputedly good looking for Indians but were generally dirty and filthy, according to some observers, and so dark-skinned that the Cheyennes referred to them as "Black Faces" or "Black Indians." The Utes called themselves "Uun'tis," meaning "The People," and the mountain country which they occupied they named "The Shining Mountains." The word "Yutah," referring to them, eventually became corrupted to "Ute."

Historically, there were three geographic bands of Ute Indians in the Rocky Mountain-Great Basin country, the group most closely associated with the Black Canyon area being the Uncompahgre or Tabeguache (pronounced Tabowatch) band. These Indians spent their winters along the Uncompahgre (originally "Acagpad'ir," meaning "where the red light shines on the water;" the valley of the Uncompahgre was known as the "Valley of Fountains") and Gunnison (=Tonichi) Rivers between present-day Montrose and Grand Junction, especially in Shavano Valley south of Montrose, traveling into the higher mountain country in pursuit of deer and other game during summers. This was their main contact with Black Canyon, which was known as the "place of high rocks and much water." They were more or less wanderers in historic times, and hence it is difficult to assess the aboriginal population of the group. It has been estimated at from 1000 to 3000 individuals at the time of first contact with whites; in
Prior to contact with white man, the Utes are presumed to have been village-dwelling sedentary Indians, although not agriculturally inclined like the Pueblo Indians to the south. They were a mountain hunting tribe, well known for their prowess with bows and arrows, and later guns. Their bows, of juniper, pine, or other native woods, were six-footers, the arrows two to four feet long, made of shrub branches such as serviceberry tipped with flint or obsidian, later with metal. A good Uto hunter could shoot arrows about as fast as a white man could shoot bullets from a revolver, with deadly accuracy up to 200 feet.

The Utes primarily hunted for deer and rabbits, secondarily for elk, antelope, and bighorn sheep; and these forays undoubtedly took them to the vicinity of Black Canyon. They were superstitious, however, and believed that no one could follow the river through its dark chasm and come out alive. Hence, their activity presumably was restricted to the rims, where their scattered artifacts have been found, and this activity was only on a periodic basis. There was an Indian trail into Red Rock Canyon, and the main crossing of the river was done at that point, when necessary.

Presuming that the Monument area was primarily used as a casual hunting ground during summer and fall by the Utes, it is interesting to conjecture on the hunting techniques used here. Deer, the common big game, may have been killed in a drive, like that used with bison on the Great Plains. The animals were driven into deep pits within sagebrush or other brush
enclosures and then slaughtered. Remains of what may have been
deer enclosures have been found in the Serpent Point area on the
canyon's North Rim. Undoubtedly deer were also hunted individually
by stalking. Rabbits were generally hunted communally. They
were driven into nets, burned out of brushland cover (as might
have happened in the Black Canyon brushland), or chased with
dogs. Jack rabbits were occasionally hunted on horseback.

The meat of animals killed would be cooked over coals,
broiled, or jerked. Rabbit meat, to be boiled, was put into
waterproof baskets in which the water was heated by hot rocks.
The broiled entrails of the larger mammals were considered
delicacies. Some hides and smoked meat were taken to Denver the
latter half of the last century for barter.

The Utes, unlike the Pueblo Indians to the south, made
some use of fish for food, though apparently doing limited or
no fishing within the confines of the Black Canyon out of
defense to superstition and inaccessibility. In the valleys
to north and south, however, fish may have been caught in
willow weirs or shot with arrows, eaten fresh or boiled, or
boned and dried for winter use.

The Utes were not agricultural Indians and made relatively
little use of plant material as food. They did partake of fruit
in season, especially the serviceberry and chokecherry which
abound in the canyon area, probably used the Gambel's oak
acorns, yucca fruit, camas and other roots, the large seeds of
rice grass, undoubtedly other plant material as well. For
example, they used Nicotiana attenuata for tobacco. Special
baskets were made for collecting and processing plant materials.
If not eaten fresh, fruit would be dried and then stored in
baskets in underground pits. Chokecherries were often mashed with the pits and dried into balls for later use. Homimcan, a winter staple of the Indians, was made from dried serviceberries or chokecherries, fat, and venison, formed into blocks. Pinyon nuts were undoubtedly used by local Indians, being parched in hot ashes and then shelled. Any grinding of nuts and acorns was done by means of metates or mortars and millers, a Great Basin technique.

With the availability of Spanish horses by at least 1640, the Utes were able to make hunting forays into the bison country of the Great Plains, and their material, though not social and religious, culture began to assume the nature of the plains tribes. As a case in point, the lance, a seven-foot stock tipped with flint, came into use both for hunting and in war. The quest after bison brought the Utes into conflict with the Arapahoes and Cheyennes, and frequent skirmishes took place. The Utes were considered brave and excellent warriors, alert and aggressive, and warred not only with the tribes above but also with the Navaho, Kiowa, Apache, Comanche and Shoshoni. Locally, there developed occasional antagonism between Utes and encroaching whites, especially in the second half of the last century.

Originally, the Utes lived in tepees covered with elk hide or in brush-covered fraud wickiups, the latter especially during summer months. As they began to assume Great Plains traits in later years, they began using bison hides for tepees. The Utes were notoriously poor tepee builders, their nicknames among neighboring tribes being "Bad Lodges." Their tepees were
smaller than most Great Plains tepees, with fewer and shorter poles, a larger smoke hole, and a higher door. The foundation for the tepee was four poles, usually of aspen which would have been available in the Hnonmont area, with a total of eleven poles for support of the covering and two poles to regulate the smoke hole. Since the Black Canyon region was undoubtedly used for transient hunting, it seems unlikely that any extensive tepee villages were ever pitched here, but brush wickiups may have been used. Certainly in the valleys to north and south both tepees and wickiups were employed, and tepee rings have been reported not too far from the Hnonmont.

For clothing in the early days the Utos depended upon deer, elk, antelope, and mountain sheep hides and rabbit pelts. Strips of rabbit fur were sewn together to make wraps and also for blankets. Blankets and robes were also made from elk and deer hides. The big game pelts were dressed by the women and made into clothing. The flesh was removed with rough fleshers, then the hair scraped off with a deer-skin bearing tool. Next the hides were wetted, stretched, dried, rubbed with fat deer brains, and finally smoked or softened by pounding with a stone.

The men wore shirts or robes, deerskin leggings, breech-clouts and elkhide moccasins unless on war raids, when they wore only the breech-clouts and moccasins. Head gear was worn only at ceremonials. The hair, never cut, hung in two braids on their chests. The women wore belted leather gowns extending below the knees, moccasins and leggings, and
basket caps. They wore their hair unbraided. With the availability of buffalo, that hide came into common use for many items of clothing, such as moccasins made from the hide turned hair-side in.

For housekeeping, the Utes used good baskets of a variety of sizes and shapes from willow. These used for water were water-proofed with pinyon pitch, some of which might have been obtained from the Black Canyon pinyon groves. Wooden bowls were occasionally used, probably made of cottonwood. Limited quantities of poor grade pottery were also utilized. The Utes were accomplished at making a variety of buckskin pouches which were often nicely decorated. Utensils such as cups, hide scraper handles and knife handles were made of bone or horn.

Among the Utes, the women made the clothing, provided utensils for the lodge and household, cooked the meals, looked after the children, and were primarily concerned in camp-moving. Meanwhile, the men hunted, made raids into enemy territory, wrought weapons, and conducted most of the ceremonial.

In 1861 the Gummison band of Utes was given an agency at Conejos by the territorial governor of Colorado, and Lafayette Head was appointed the first agent. The Treaty of 1863, ratified the next year, set the Uncompahgre Utes on a reservation which included the present area of the Monument as well as other Colorado country west of the continental divide. This treaty, signed by ten of the Tabeguache leaders including Owyay, guaranteed that the Utes, in exchange for land given up, would receive from the federal government 150 cattle annually for five years, 1000 sheep annually for two years, then 500 sheep
a year for three more years if during this period the Indians showed an interest in ranching and agriculture. There was promise to furnish a blacksmith and to give the band $10,000 a year in goods and $10,000 in provisions for ten years. On all of these promises the government defaulted.

The Treaty of 1868 united the Ute bands, and Chief Ouray was named by the government to head the nation at $1000 a year salary. In all, the Utes entered into eight treaties with the United States Government. By 1882, shortly after the local region had been thrown open to white settlement, most of the Colorado Utes had been moved to reservations in Utah, thus curtailing direct Indian influence in the Black Canyon region.

In retrospect, it would seem likely that the main use the Utes made of the Black Canyon area was for hunting and perhaps some collection of plant materials. They did use Signal Hill, south of the Monument near the West Portal of the Gunnison Diversion Tunnel, for exchange of signal fires in years gone by; and there has been an unlikely rumor that the fire scar on the North Rim's Fruitland Mesa dates to a fire set by Utes to drive out the white men.

Strangely enough, the Utes' most significant impact on the Monument came long after the Indians' departure. The Ute Indian Treaty of June 15, 1888, guaranteed the Utes a renumeration of $1.25 an acre for any new disposition of the establishment land under the Public Land Laws. When the original Monument was being considered in the early 1930's, and when later boundary changes were contemplated, the specter of this provision was to keep the memory of the Utes' former "happy
REFERENCES

1 - Unless otherwise noted, the following account of the Ute Indians as a cultural group is based upon a synthesis of information from the references below.


Daniels, Helen Sloan. 1941. The Ute Indians of Southwestern Colorado. Durango, Durango Public Library.


State Historical Society of Colorado, Ute Indian Museum exhibits and brochure, Montrose.


2 - Personal communication from Dr. Robert Lister, Department of Anthropology, University of Colorado, April 19, 1965.

2a - Two Folsom points and "various rock inscriptions" were found on the North Rim near the Monument's west boundary in September of 1939. - Monthly Report.

3 - Later incorporated into the Middle or Cochetopa Agency.

4 - According to Escalante, "...by the Yutus called Ancepagari (which according to the interpreter, means Laguna Colorado) because near its source there is a spring of red water, hot and bad tasting." - Bolton, Herbert B., 1950. *Pageant in the Wilderness.* Utah Hist. Quar. 18: 150.

5 - National Park Service Report, November, 1937. HCR-RE, National Archives.

5a - A muck-up site was found at the west end of the North Rim in September of 1939, and tent poles were found in August of 1940 in the same general area. Also, just under the rimrock overlooking the west end of Potsvick Park a possible burial site was discovered in September, 1953. - Monthly Reports.

6 - This treaty guaranteed the Utes their land "as long as the rivers might run and grasses might grow."

7 - See Chapter V, "The Monument Establishment."
CHAPTER II
THE EARLY REGIONAL EXPLORERS
Rivera, Escalante, Gunnison and Fremont

If history could be rewritten, it would be much more exciting for Black Canyon's to have had the first white explorers of the region reach the chasm rim rather than merely skirt the uplift. But from Rivera's entry into the Uncompahgre Valley in 1765, over a century was to pass before history could truthfully record such an event.

Juan María de Rivera's expedition of 1765 was probably the first in the vicinity of Black Canyon.¹ On orders from Tomás Vélez Cachupín, Governor of New Mexico, the party had left Santa Fe searching for mineral riches, prospected the western San Juans, and eventually came down the north slope of the Uncompahgre Plateau into the river valley near today's Montrose.

Following the Uncompahgre River northwest, the expedition skirted the western end of the Black Canyon uplift to the junction of the Gunnison and Uncompahgre Rivers near the present-day town of Delta, where on the south bank an encampment was made in a meadow. Here, reportedly, Rivera cut a cross on a "second-growth" cottonwood together with his initials and the year of the trip. After sending two men across the river (mistakenly for the Colorado) to look for Yuta (=Ute) Indians, Rivera turned his group around and proceeded back the way he had come.

In late summer of 1776 Franciscans Fray Francisco Atanasio Domínguez and Fray Silvestre Vélez de Escalante and their small party, with a Yuta guide named "Atanasio" in honor of the leader Domínguez, came northeast off the Uncompahgre Plateau and struck the Uncompahgre River (=Río de San Francisco) about five miles south of present-day Montrose.² This was not entirely strange
country, inasmuch as the expedition was familiar with Rivera's journal and included one man who had already been in the area. Escalante prophetically noted that where the expedition first saw the river "...there is a meadow about three leagues long with excellent land for crops, opportunities for irrigation and everything needed for the establishment of a good settlement." 3

The next day, August 27, the party moved downstream along the west bank of the Uncompahgre River, with the Black Canyon uplift in view to the right, crossed the river several miles below today's Montrose, and camped for the night in a cottonwood-edged meadow about three miles north of Olathe. On the 28th the expedition left the river and cut cross-country around the end of the uplift, striking the Gunnison River (=Río de San Francisco Javier=Río del Tomichi) several miles west of its junction with the North Fork, near the site of Austin. The group camped that night in a bend of the river where there was some pasturage, naming the spot "Santa Monica;" then on the afternoon of August 30 crossed the Gunnison River "in which the water reached above the shoulder blades of the horses" and proceeded northeast to the North Fork of the Gunnison (=Río de Santa Rosa de Lima), at about the location of Hotchkiss. From here the expedition crossed northeast over Grand Mesa, leaving the Black Canyon area.

Thus Escalante and his men circled much of the Black Canyon from south by west to north, fording water which had emanated from the gorge; but never realized what rugged scenery they had circumscribed.

Around 1837 Fort Uncompahgre was constructed just below
the junction of the Gunnison and Uncompahgre by Antonio Robidoux, French trader from St. Louis; and for the short time before it was burned by Utes, the fort served as a congregating point. But if anyone from here penetrated to the Black Canyon Gorge, the event was unpublicized.

In 1853 John Williams Gunnison and his party, like those before, skirted the Black Canyon uplift but failed to reach the gorge. However, inasmuch as Gunnison's name is closely associated with the present Monument, it is worth delineating in greater detail this man and his expedition.

John Williams Gunnison was born on November 11, 1812, in Goshen, New Hampshire, a small village in the Sunapee Mountains. In the spring of 1833 he was appointed as a cadet at West Point, commencing his studies on July 1, 1833. When he graduated in June of 1837 as Cadet No. 892, he ranked second in his class of fifty.

Feeling that "the interests of individuals should yield to the interest of their Country," Gunnison accepted a commission as second lieutenant on July 1, 1837. He was shortly ordered, as an ordnance officer, to Florida where at the time there was trouble with the Seminole Indians. During the course of this tour of duty he explored many of the unknown lakes and rivers in this semi-tropical wilderness. The next year he was transferred to the Corps of Topographical Engineers for whom he carried out surveys both in Florida and Georgia.

On April 15, 1841, he married Martha A. Delony whom he had not in Georgia. Shortly he was sent to Green Bay, Wisconsin, to carry out a survey of the Wisconsin-Michigan boundary. He was
engaged in a survey of Lake Michigan in 1842 and continued surveys of the Great Lakes into 1848.

In April of 1849 he received surprise orders to proceed to St. Louis and there join an expedition bound for Utah Territory. His job was to commence a survey along a new and unknown route from Fort Hall on the Oregon Trail to the Mormon settlement at Great Salt Lake, obtaining all information possible about the Salt Lake Valley and making charts of the country.

This expedition was under the command of Captain Howard Stansbury. When the company left St. Louis, Gunnison was sick and had to be transported on a bed in the large spring wagon used for carrying instruments. He reached Salt Lake on August 23, 1849, and, having recovered from his illness, went up to Fort Hall and later superintended the party which explored Utah Lake and its vicinity over a three-month period.

During the winter of 1849-50, which Gunnison spent at Salt Lake City, he made a thorough study of the Mormon religion and began preparations for his book "The Mormons or Latter-Day Saints in the Valley of the Great Salt Lake." On occasion he also assisted the Mormons in their encounters against the Indians.

With the arrival of spring, Gunnison commenced a survey of the eastern shore of Great Salt Lake. By the end of August, 1850, the survey was completed and the expedition headed east for home. During the course of this return trip, Gunnison was thrown from his horse and severely bruised, after his horse had been accidentally shot. Otherwise the journey was without incident.

By January of 1851 Gunnison was back in Washington, engaged
in making maps of the expedition's travels. Subsequently, he
and Stansbury compiled the official report for the Great Salt
Lake expedition.

At the close of the 31st Congress in 1852, an appropriation
was made for a survey of a railroad route from the Mississippi
River to the Pacific Ocean. On March 3, 1853, Jefferson Davis,
then Secretary of War, ordered such an expedition to be made
through the Rockies after a plan by Senator Benton. The senator
had advocated a transcontinental railroad between the 38th and
39th parallels.

Benton tried to engineer John Charles Fremont, his son-in-
law, into command of the expedition, but Secretary of War Davis
appointed Gurnison, who now held the rank of captain. He was
ordered, by telegram from J. J. Abert of the Army Office of
Chief Engineers, to make a survey through the Rocky Mountains
by way of the Huerfano River, over Cochetopa Pass "or other
accessible passes," into the region of the present-day Gurnison
River, the Green River, west to the Sevier River, returning
north to Lake Utah, through the Wasatch Range to South Pass
and Fort Laramie, then east to Washington. 6

This expedition outfitted just below the mouth of the
Kansas River, about five miles from Westport. Gurnison's
staff consisted of Lt. E. G. Beckwith, second in command; R. H.
Kern, topographer and artist; J. A. Snyder, assistant topographer;
Sheppard Romas, astronomer; F. Creutzfeldt, botanist; Dr. James
Schiel, surgeon and geologist; and Charles Teplin, wagon-master.
In addition, there was a military escort of thirty non-commissioned
officers and men under Brevet Captain R. H. Korriss.
The party started out on the Santa Fe Trail on June 23, 1853. Gunnison hoped to prove the practicality of a wagon road across the Rockies, and to this end included in his entourage sixteen six-mule-drawn vehicles, a two-horse ambulance which eventually had to be drawn by four mules, and a four-mule carriage for carrying instruments.

The expedition proceeded up the Arkansas and Riofano Rivers, over the Sangre de Cristos, and to Fort Massachusetts. Here an experienced guide, Antoine Loroux, was procured from Taos to lead the expedition westward out of the San Luis Valley.

On August 29 Gunnison divided his company into two parties. The main group headed west over Cochetopa Pass while Gunnison went north over modern-day Poncha Pass to near the site of Salida before returning to rejoin the larger party. Incidentally, the name "Gunnison Pass" was given to Poncha Pass in 1855 by Lt. Beckwith.

From Cochetopa Pass the expedition traveled northwest towards the Gunnison River, known to contemporary explorers such as Gunnison, Fremont, and Marcy as the "Grand River." The Utes called it "Toniichi," the Spanish explorer Escalante the "Río de San Javier." The modern name "Gunnison" was given to the river in 1861 by Governor William Gilpin, Territorial Governor, who had commissioned the mapping of Colorado.

By September 6, 1853, the party was encamped on the banks of the Gunnison River near present-day Gunnison. From this spot they traveled west along about the same route as the modern highway, reaching Lake Fork (Río de la Laguna) on September 9.
Travel through this country was becoming rugged. Several steep mesas had to be ascended and descended, one descent being over 4,000 feet. At this point the wheels of the wagons had to be locked and ropes were attached to the wagons to keep them from overturning. To cross the Lake Fork a road had to be constructed, the project taking the greater part of a day.

Beyond Lake Fork more ravines and mesas had to be traversed, before reaching the first branch of Cobolla Creek (Cimarron). At this point the company encountered several Indians, to whom Gunnison gave presents.

Shortly after crossing Cobolla, the men found further travel along the river impossible because of the increasingly precipitous canyon walls. Consequently they turned southwest, reaching the broad, semi-arid Uncompahgre Valley on September 15. During this section of travel the party was under constant surveillance by the Ute Indians, who not only followed the expedition but camped nearby every night, never ceasing their noise-making. Transportation problems were vexing, too. Roads had to be constructed and crossings made for the wagons.

The Black Canyon, which had forced the company's detour, drew the following comment from Beckwith with respect to its passage by the proposed rail line:

"...But from the continuance, for so great a distance, of vertical rocky walls along the river, ranging from 60 to 1,000 feet and more in height, upon which the road must be carried, and which can be cut only by blasting, and, from the deep side-chasms to be passed (as described by Captain Gunnison on the 7th instant) only by the heaviest masonry, it is evident that a railroad, although possible, can only be constructed in the vicinity of this section of Grand river, at an enormous expense."
From the Uncompahgre Valley Gunnison, like his predecessors, proceeded along the Black Canyon uplift and then on northwestward to the Colorado River and across Wasatch Pass to the Sevier River on October 17. He concluded here that a new mail and military route from Taos via Fort Massachusetts had been achieved but that it was not a good route for a railroad.

In mid-October an exploration of the Sevier River country was begun. At an encampment about sixteen miles from Lake Sevier on October 24 the command was divided to facilitate investigation of the lake region.

The next morning a small detachment including Gunnison, Kern, Creutzfeldt, John Bellows, a group of seven enlisted personnel, and Kornon guide William Potter left camp to investigate the lake. The men went down the Sevier River in a southwesterly direction for eleven miles, finally encamping at a point where the stream flowed in an east-west direction. Since entering Sevier Valley, the party had seen numerous Indian signal fires but expected no trouble from the Indians. Despite this fact, a guard was maintained throughout the night at the field camp.

Shortly after dawn, so the story goes, a band of Parvain Indians fell upon the white men while at breakfast, surprising them with rifle fire and arrows from a nearby willow thicket. Gunnison was killed by a volley of arrows as he rushed from his tent, shouting to the Indians to hold their fire, that he was their friend. Not a member of the expedition was able to return fire in the confusion.

Four escaped, and one of these brought news of the attack
back to the main camp. A runner was dispatched to Salt Lake City to notify the territorial governor, while a party was hastily organized to return to the scene of the ambush. Twenty-four hours later the massacre site was reached. Scattered about were the bodies of Gunnison, Kern, Creutzfeldt, Potter, Bollows, and Privates Gaulfield, Liptrott and Kerhtoons, mutilated almost beyond recognition by the Indians and wolves. Because of the state of the bodies, no attempt was made to bury them at the time, although within a few days they were buried by a passing party of Mormons. This failure to bury the dead became a source of severe criticism during the investigation of the massacre.

Some contemporary mystery shrouded the attack. A number of people postulated that Gunnison's book on the Mormons may have encouraged members of that sect to incite Indians to make the surprise attack. Others claimed that the Mormons themselves, disguised as Indians, did the killing. In 1894 an Indian version of the massacre was finally obtained, and according to this version the massacre was in reprisal for the killing of an Indian leader by emigrants in 1853. The details are sufficiently different from the account given above to warrant inclusion here.

Gunnison's party was encountered on October 25 by a band of Indians including Moshoquop, whose father had been murdered in 1853. Some time after midnight the Indians surrounded Gunnison's encampment; and it was agreed that the attack would begin upon the rising of a signal gun as the first rays of the morning sun struck the camp.
A few minutes before sunrise, the cook lighted the campfire. Kern and Coutzfeldt were standing by the fire, the corporal and his men were taking care of the horses some distance away, while Gunnison was washing his hands and face at the nearby river. Alerted by the click of a gun hammer, Gunnison was not killed in the initial attack, but Kern, Coutzfeldt and the cook were. Gunnison emptied his gun at one of the Indians but failed to hit him. The corporal and a companion took to their horses and escaped, as did some of the others; and Gunnison, after ascertaining that nothing could be done for the murdered men, sought refuge in a willow thicket.

Several hours later he was discovered there by the Indians, lying full length on the grass with several arrow wounds in his body. Gunnison raised his hands, palms up, in a silent appeal for mercy. The Indians present made no move to kill the captain; but suddenly an Indian renegade named Jimmy Knight appeared on the scene and without a word shot him.

After the massacre, the surviving members of Gunnison's expedition continued on under the leadership of Lt. Beekman, who later prepared the official report of the ill-fated survey.

Eventually, orders were given for the perpetrators of the massacre to be arrested and tried. Eight Indians were brought up for trial at Nephi City; and though the judge charged the jury to find the defendants guilty or not guilty of murder, the jury acquitted five and returned a verdict of manslaughter against the remaining three, each sentence being punishable by only three years' imprisonment in the Utah penitentiary.

Gunnison's remains, nothing more than a forearm bone and
a lock of hair, were buried in an unmarked grave at Fillmore, Utah. In 1954, attended by appropriate ceremonies, a monument was erected at this grave. The site of the massacre, meanwhile, had been marked for many years by a juniper post. On Memorial Day, 1927, a new memorial of black lava was unveiled at this site by the local American Legion, Daughters of Pioneers, and Boy Scouts of America, the bronze arrowhead-shaped inscription plate set to face the setting sun.

Gunnison's name is well remembered in the western country through which he passed. In addition to the Gunnison River, his surname is associated with Gunnison County and its county seat, with Gunnison Island, the largest in the Great Salt Lake, with the Gunnison prairie dog, the Gunnison sego lily, and with many other places and things. Indeed, his name is intimately related to the Monument's: Black Canyon of the Gunnison National Monument; and of late has become part of one of the South Rim's most sublime overlooks, Gunnison Point. Yet neither from this point nor any other did John Williams Gunnison gaze into the shrouded depths of Black Canyon.

Only a few months after the Gunnison massacre, in mid-winter of 1854, John Charles Fremont led his fifth expedition of twenty-two men, including the first official photographer, Solomon N. Carvalho, ever attached to an exploring expedition, into the Uncompahgre Valley. These explorers had periodically seen signs of the earlier Gunnison party—the wagon road cut through the conifers of the high Rockies, the crosses blazed on trees, and wagon wheel tracks on occasion—and even ran into Lt. Dechavitch and other survivors of Gunnison's expedition in
Salt Lake City. But although Carvalho did scale a bald-topped mountain to photograph, standing waist-deep in the winter snow, "a panorama of the continuous ranges of mountains around us... while the Grand River [Colorado] plunging along in awful sublimity through its rocky bed, was seen for the first time;" there is no indication that this panorama included a glimpse of the Black Canyon abyss.

Thus it was that the earliest explorers of western Colorado, like, unfortunately, many modern travelers, came within a piñon jay's flight of the rims of Black Canyon but missed the spectacle of one of the narrowest, deepest clouts in the world.
REFERENCES

1 - Hill, Joseph J. 1930. Spanish and Mexican exploration and trade northwest from New Mexico into the Great Basin - 1765-1853. Utah Hist. Quar. 3(1): 3-5. There are variations with respect to the year of Rivera's expedition, but 1765 seems correct.


3 - One hundred and thirty-three years later almost to the day (September 23, 1909) the Gunnison River Diversion Project was dedicated by President Taft; and the Denver Post headlined "Taft Opens Tunnel That Will Make Desert Bloom." See Chapter IV: "Gunnison River Diversion Project."


5 - The account of Gunnison and his expedition is based upon the following, except as otherwise noted: Hunsley, Holie. 1954. John Williams Gunnison, Colorado Mag. 31(1): 32.

6 - The official orders, as reported in the Gunnison-Beckwith report, p. 10: "Under the 10th and 11th sections of the military appropriation act of March 3, 1853, directing such explorations and surveys as to ascertain the most practicable and economical route for a railroad from the Mississippi river to the Pacific ocean, the War Department directs a survey of the pass through the Rocky mountains, in the vicinity of the headwaters of the Rio del Norte, by way of the Buerford river and Coo-cho-to-pa, or some other eligible pass, into the region of Grand and Green rivers, and westwardly to the Vegas de Santa Clara and Micellet river of the Great Basin, and thence northward to the vicinity of Lake Utah on a return route, to explore the most available passes and canyons of the Wahsatch range and South Pass to Fort Laramie."

CHAPTER III

EXPLORATION OF THE BLACK CANYON

It took more than the mere quest for adventure to entice the first white men down the churning white waters of the Gunnison River where it rushed through Black Canyon!

In the decades before the turn of the century, so one story goes, there was a French settler, F. C. Lauzon, living in the Uncompahgre Valley. His holdings comprised forty barren acres which were watered by a dribble from the fluctuating Uncompahgre River and by erratic downpourings from short-lived storms. Lauzon knew of the Gunnison River, entrenched in its rock-walled canyon to the north, and after long cogitation he became convinced that its bountiful waters could be diverted into the arid Uncompahgre Valley by means of a judiciously placed tunnel and system of connecting canals.

Probably many of the local ranchers and farmers, including Lauzon, had come to view the waters of the near-by but inaccessible Gunnison River with proprietary anticipation in the late nineteenth century. Irrigation had come into vogue in the Uncompahgre Valley about 1875, the first crop being hay for shipment to the southwestern Colorado mines. Availability of water by irrigation ditches, starting about 1884, made possible the raising of other crops and fruit trees. However, water resources of the valley soon proved inadequate under the increased demand. Much of the agricultural land was abandoned and many a valuable house was deserted. Those settlers who remained naturally began toying with the idea of
diverting the greater flow of the Gunnison into their own valley by means of tunnels and canals.

If a tunnel were to be constructed, it was imperative that the canyon be surveyed to ascertain the best location for such a project. Up to 1882 the Black Canyon had generally been considered as impassable, and little specific information was available about it. The local Utes occasionally crossed the river within the present national monument area, especially at Red Rock Canyon, but reputedly felt that anyone going downstream would never come out alive. Gunnison had avoided the canyon in 1853, by-passing it to the south and west as had Escalante before him in 1776. In 1874 the Middle Division of the Hayden Survey skirted the north rim of the canyon throughout its length, establishing several survey stations within the present extent of the Monument. Someone with this party reportedly gazed into the gorge and declared it inaccessible. At one time an unidentified geologist who had been lowered 1000 feet into the chasm commented that "no man could go farther and live." The winter of 1882-83 saw the first successful, though partial, survey carried out within the canyon. By this time the Denver and Rio Grande Railway had completed its line from Gunnison into the Black Canyon to Cimarron, the first passenger train passing to the end of the tracks on the morning of August 13, 1882. One hundred twenty-one tickets had been sold for the opening run of the fifteen-mile stretch of canyon, good publicity having been insured by giving free tickets to members of the press. The Gunnison Boys' Band
accompanied the excursionists, making the canyon walls echo with its music. The last mile of tracks, costing more than the entire line through the Royal Gorge, had taken a year to build. The terminus, Cimarron, was nothing more than a tent city at this time, with only one log house on the townsite.

Early in December, 1882, Byron H. Bryant, in charge of construction for the Uncompahgre Extension of the Denver and Rio Grande, received a telegram from the line's chief engineer, J. A. McNurtrie, asking him to undertake an exploration of the Black Canyon from Cimarron at the end of the road downstream to Delta. Immediately Bryant organized a surveying crew with C. E. Telvirer of Aspen in charge, and including H. C. Wright, transitman, James Robinson, Levelman, Gundor, topographer, McDermott as rodman, Usher as head chainman, and a pack train outfit headed by Charles Hall.

The party left Grand Junction on December 12, and proceeded up the north rim of the Black Canyon to Crystal River, about five miles downstream from Cimarron, where it encamped high above the river. A few days later the men started their line downstream from Cimarron, spending their first night with an old frontiersman and contemporary of Kit Carson and Jim Bridger, Captain Cline, who had a home up the Cimarron and who claimed to have run the Gunnison in a canoe some years before, a most unlikely feat.

Bryant expected to make the survey through the canyon in some twenty days, and the party was provisioned for that period. As it developed, the work took from sixty-five to sixty-eight days, about
ten days of which were spent in moving from the north to the south side of the canyon when further movement along the north side became impossible because of steep walls and open water.

Every morning the workmen would leave their rim camp and clamber down into the chasm depths, returning to the rim that evening. This arduous procedure left little time for actual surveying, as one might judge from Bryant’s account of the daily routine:

One of our camps was made on precipitous side of the range, 500 feet below top, and daily task consisted of climb of 500 feet to top of range, a climb down a much more precipitous slope 2600 feet to river, a scramble up or down river to our work, when we would do such work as time would permit, and then climb up 2600 feet and down 500 back to our camp.

This type of activity was wearing on the men. When the transfer was made from the north to the south rim, all but three of the crew quit. These three, Gunder, Robinson, and Wright, with Bryant, completed the survey while Charles Hall continued to take care of the camp and pack train. The party had to go downstream from Grizzly Gulch (within the present Monument area, said by some to be a corruption of “Griswell’s Gulch”) on the North Rim to Delta, then back up the South Rim until the Grizzly Gulch portion of the canyon was again reached.

For about forty days the four ran the transit, the level, both ends of the chain, carried the leveling rod, and took the topography. The river was partially frozen, and the men would have to jump back and forth from ice fringes across swirling, frigid water. Some of the ice bridges which spanned the river would raise the water level from five to eight feet above the downstream side.
Robinson was good at working on the ice, so fearless that he often had to be restrained from taking chances. Gunner was good at the wall climbing. After a hard day in the canyon, Wright would often talk in his sleep about imaginary hazards. "Sometimes it was the safety of his transit that troubled him, and sometimes he would dream he had met with an accident and broken an arm or a leg and would give us minute instructions as to how to care for him."

The survey was finally completed early in the spring of 1883. From the results, it was evident that use of the canyon downstream from Cimarron for a railway line was impractical. However, this first survey might have suggested to some that water diversion was a feasible idea, and that the canyon could be conquered.

Preliminary irrigation investigations, except on a minor scale, were too expensive to be supported by local subscription, despite some interest. In 1894 a man named Richard Whinnerah made a survey for a tunnel along what today is the present line of the Gunnison Tunnel. The next year, Lauzon promoted an election to secure funds for a diversion tunnel from the Gunnison River, but the vote was against the proposition. During this period attempts were made to interest the Colorado legislature in supporting a diversion project, but to no avail. Independent surveyors were very naive about the cost of such a project, one estimating that $75,000 would pay for seven miles of tunnel, a mile of heavy cut, and a hundred-foot dam across the Gunnison River.
Around the turn of the century, two men made special examinations which proved of value. In August of 1900, Delta County Surveyor John A. Curtis took a survey crew up to Red Rock Canyon "to ascertain just the condition which exists with regard to getting water from the Gunnison into this valley."13 Also, a surveyor from Montrose, W. H. Fleming, had run level lines across the divide between the Gunnison and Uncompahgre Valleys at chosen points.14

In order to obtain funds to support a tunnel project, an appeal had been made to the Twelfth Session of the Colorado legislature which met in 1899. On January 28, Senator W. S. Buckley introduced Senate Bill No. 310, "for an act to construct, maintain, and operate a state tunnel in Montrose County, Colorado, and for the use of unemployed convicts in constructing the same and making appropriations therefor."15 This bill was referred to the Committee on Labor. On March 1, the bill was tabled "for the reason that there are no funds available for such purpose and that the enterprise is deemed to be impracticable."16 Buckley objected stridently to the pessimistic suggestion of the latter phrase, and it was finally struck from the record.17

Sponsors of the water diversion project were only momentarily set back by the defeat of the request for legislative support. The Montrose Enterprise urged "each citizen to put in a good work when he can."18 In late June of 1900, John Masters, an Idaho capitalist, arrived in Montrose to investigate the possibility of putting a dam and power plant near Red Rock Canyon which would furnish power for the mines of Ouray. With respect to the project, Masters told local officials that "his company must have at least a quarter of a million
dollar investment in prospect to take hold of it in earnest." This investment never proved forthcoming.

Western Congressmen were busy pushing the local irrigation and diversion project, especially Representatives Shafroth and Ball, and Senator E. O. Wolcott. The latter promised to introduce a bill into the United States Senate to build the tunnel and canals, at the instigation of a local farmer, John E. Pelton. There was some thought at the time that this would be construed primarily as a political move, since Wolcott was coming up for re-election.

Late in the summer of 1900, a party of five volunteers decided to tackle a survey of the Black Canyon to see if water diversion would actually be feasible. The leader, William W. Torrence, later to be called the "Father of the Gunnison Tunnel," was at the time superintendent of the Montrose Electric Light and Power Company. His companions included John E. Pelton, a Montrose farmer and local lake resort proprietor, J. A. Curtis, the Delta County Surveyor and civil engineer, M. F. Hovey, Montrose farmer and one-time miner, and E. B. Anderson, a Delta rancher. All except Torrence were married and had children. Hovey, the oldest, was fifty-five.

In September of 1900 these men were ready to tackle the river. Headed by Pelton, they took the train for the mouth of Cimarron Creek, the railroad company transporting them free. Going down-river from there, the men planned to reach Red Rock Canyon within four or five days. If they had experienced too rough a journey by this time, they would climb out there, leaving the boats to drift downstream to the North Fork; otherwise they would accompany the boats through the entire length of the canyon.
Their equipment included two boats, *City of Montrose* and *John C. Bell* (after Congressman Bell), of stout oak frames, bound with iron and covered with canvas. The boats were supplied by John Pelton from his private lake. They had tins of meat, vegetables, and hard tack sufficient for a month's trip. Cameras, surveying instruments, including an aneroid barometer, pocket compass, and surveyor's chain, and notebooks were protected in waterproof tins. On September 5, at 10 o'clock, after all was packed, they signaled by revolver shots to watchers above that the expedition was underway.

On the first day, the men had to carry boats and provisions on their shoulders past many bad stretches of the river, and by evening had journeyed only three-quarters of a mile. Next day, about two miles from the starting place, the *John C. Bell* parted its line, struck a rock and sank, carrying with it many provisions and equipment, including Torrence's field glasses. Only the blankets, which floated, were saved. That night the men found refuge in a cave above the water, where they cooked their evening meal over a driftwood fire.

Next day they continued in the one remaining boat. About eleven miles down the canyon, wet from the rain and river water, they rendezvoused with a party under Mr. Denniston who came down from the rim. After a long respite, the men returned to the canyon on September 25 to continue the trip. It was optimistically conjectured that "the rest of the trip which is not so rough will probably be made in a few days." 22

Periodically during the course of the trip, friends had been watching for the party from the canyon rim above. When they
finally spied them for the first time, the watchers shouted and fired shots to attract the attention of the five men, but the roar of the river drowned out the salutations. At last, they sent a cascade of rocks down the canyon slope which did alert the men below. Excitedly the voyagers looked up and waved, then collapsed on the shore for half-an-hour, glancing up occasionally and waving at their well-wishers.

About four weeks from the date when they first entered the canyon, the men gave up the venture. They had come only some fifteen miles, the last four in five days, had been without adequate provisions, and now the men were confronted with what appeared to be an impassable cascade blocking their passage. The canyon had narrowed to about thirty feet, the chasm walls rose perpendicularly 2,000 feet overhead, and the river was cascading over falls after falls. Anderson and Hovey tried to go downstream a ways to survey, but their boat nearly swamped and they narrowly missed being propelled over a cascade. To proceed farther, the men all agreed, would result in almost instant death. Disheartened, Torrence wrote in his notebook, "With our present equipment we can go no farther. The Black Canon is not impenetrable. If I get out of this scrape alive, I shall come back." 23

Scouting around, Torrence located a steep ravine which seemed to give access to the north rim in the vicinity of the present Narrows. The men rested, and that evening they ate up the remaining food. Next morning at eight they left the "Falls of Sorrow," as they named the rocky cascade upstream from the Narrows (now known as Torrence Falls), and started the long scramble upward. They roped together and, using the spike-shod transit tripod legs as
alpenstocks, they slowly made their precarious way, one after another, up the canyon wall. By noon they had scaled a thousand feet. In the afternoon one of the company could hardly be restrained from jumping into the chasm. Finally, at 3:30 in the afternoon the rim was reached. The men were exhausted, covered with dust, parched, hands cut, lips swollen, eyes bloodshot. Even then, they were still in wild, uninhabited country and had to hike fifteen miles before they encountered William McMillen's ranch on the Muddy, where they could procure food. From there McMillen transported them to a place where they could make connections for Montrose, which they reached on October 1.24

During these days of exploration, friends and relatives of the five men had maintained a vigil on the rim, hoping for an occasional glimpse of the intrepid river-runners. Towards the end of September, not having seen the explorers for some time, the watchers finally feared the worst and were making preparations to screen the river where it left the canyon to the northeast to recover the bodies, when the men were reported safe.

This partial exploration of the canyon by river served to bolster the interest in irrigation possibilities of the region. In 1901, Meade Hammond, State Representative from Delta, introduced a new Gunnison Tunnel bill (House Bill No. 195) into the Colorado legislature, Thirteenth Session, "a bill for an act to construct, maintain and operate State Canal No. 3, in Montrose and Delta counties; the creation of a board of control; the use of convict labor in constructing the same; the issuance of certificates of indebtedness; providing for the sale of water, and making an appropriation for
construction." The request for funds was in the amount of $50,000. The bill was referred to the Finance Committee. On April 11, the bill was approved but with the amendment that only $25,000 would be authorized to support the project. This bill had been pushed not only by Senator Hammond but by Senators W. S. Buckley, Montgomery, Rewalt, and others as well. Indeed, Buckley felt so strongly about the measure that, despite having been confined to a hospital bed in the last throes of tuberculosis, he was carried to the Senate chamber to vote in favor of the bill.

Against this background of state action and local interest, the U. S. Geological Survey authorized the expenditure of $4,000 for a preliminary examination of the canyon to determine the geological structure of the area through which a tunnel might pass, the construction difficulties to be anticipated, and the probable cost of the work. According to popular accounts, the Chief Engineer of the new Reclamation Service in Washington sent a wire to the Denver office, reading "Advise me if it is possible to divert Gunnison to Uncompahgre Valley by tunnel under Vernal Mesa?"

The wire was relayed to A. Lincoln Fellows, irrigation engineer and resident hydrographer of the U. S. Geological Survey at Montrose, who replied "Immediate preparations will be made for the exploration of the Gunnison Cañon at the earliest possible date."

In the summer of 1901, cooperating with C. H. Fitch, topographer and consulting engineer, Fellows commenced a survey which would show, by means of contours, the country dividing the Gunnison and Uncompahgre Valleys, so that the shortest and most suitable route for a tunnel could be determined.
The Geological Survey placed a party of six men in the field in June, with headquarters on Vernal Mesa. The topographic mapping, under the supervision of Jeremiah Ahern, was completed by September 30. Meanwhile, Fellows, in charge of engineering features, had run three level lines across the mesa to the water's edge, in an attempt to find a suitable wagon route. More exciting proved to be Fellows' decision to run the river from upstream, making a close-at-hand examination of the canyon from its floor.

Fellows asked for a volunteer—young, healthy, temperate, unmarried, able to swim, and familiar with the country—to accompany him on this new assault of the Black Canyon by water. It is not surprising that Torrence, of the earlier expedition, should hastily make his services available.

Planning for this trip was influenced heavily by the lessons of the last expedition. Instead of wooden boats, Torrence and Fellows decided to use a 4' x 6' rubber air mattress, subdivided into several air-tight compartments. There were attached ropes to use as lashings and to hang onto. Oil-skin covered notebooks, Kodaks, film bags, blankets and provisions were fitted into two sealable rubber pockets, these packs weighing about thirty-five pounds apiece. Two 600-foot silk life lines, life preservers, hunting knives, belts, and wading boots which sealed tight about the legs were included in the equipment.

Departure date was selected as August 6, 1901, by which time in the summer the water temperature should be about as warm as it would ever get and the water level would be down somewhat. On August 12 the two men finally left for the surveyor's camp on Vernal Mesa. The water in the river below was still higher than desirable.
The plan to proceed right over the rim to the Narrows, where the first party had given up, was changed at the last minute, and instead the men took the train up to Cimarron and on to the Gunnison River, like their predecessors. The train tarried, its passengers hoping to see the debarkation, but Fellows and Torrence were in no hurry and waited until the train moved on before they began their river trip.

They started down the river on Monday afternoon, August 12, and by Wednesday night had reached "Boat Landing" at the mouth of Nyswonger Gulch, their provisions exhausted. Here they were met by Dillon, who brought additional provisions and a new pair of shoes for Torrence, whose old ones had completely worn out.

The men had a good meal that night, then were up the next morning and on their way downstream to beaver Camp, about half a mile above the Narrows, where they camped overnight. Next day near the Narrows they came upon a cache of fruit left the previous summer: "We opened cans enough to satisfy our hunger and went on." 36

Where the first expedition had given up at the Falls of Sorrow, Torrence and Fellows jumped into the swirling waters, shouting "Goodbye" to each other, and went over the falls, both coming out alive but exhausted on a projecting rock in the calmer waters below. They lay there for hours, recovering their strength and senses.

Next came the run through the Narrows, described by Torrence in the Montrose Enterprise: 37

At the "Narrows" the fun began. The Cañon is full of great boulders, which form bridges across the stream. Over these we must scramble, one getting on top and pulling the other up. These rocks were slick as grease, and hard
to climb. We spent a day in going a quarter of a mile. The walls are almost perpendicular in many places and some 2,000 feet or more to the top.

They finally reached Red Rock Canyon, on Monday evening, August 19, where they rested and received more food supplies. On Tuesday, over a week after they had gone into the canyon, they left Red Rock for the last leg of their journey, with nothing but a lunch in waterproof wrappings. The canyon walls were not as high here, but the river completely filled the bottom of the gorge, and the men had to swim most of the way. This delayed their trip, and they weren't able to get more food until nine o'clock the next day. At that time they came upon the camp of some hay makers who gave them a feast of cold oatmeal and pie. They were able to hire someone there to take them to Delta, and thence they went back to Montrose.

The foregoing account of the men's departure from the canyon is based upon a story by Will Torrence which appeared in the Montrose Enterprise for August 29, 1901. The following account, with variations, appeared in several popular periodicals of the day, was probably edited to increase the excitement and may have confused the first and second expeditions. According to this version, several days after getting below the Narrows, the men found an inviting side canyon, opposite the mouth of Smith's Fork, northwest of the present western boundary of the Monument, and decided to forsake the river. They had gone thirty miles along its bed, swimming it 72 times. They scrambled 2000 feet up the Devil's Slide to the rim, where Fellows encouraged, "Come along Bill! There's beefsteak, and bacey, and a bed at the end of the road."
Off they hiked, fourteen miles to the ranch house of the McMillens (or MacMillan) back of the rim, guided by a light in a window. The McMillens gave them a hearty meal, bundled them into a wagon, and that night drove them to Hotchkiss and on to Delta. There they boarded the train to Montrose, where a crowd of 300 people had gathered at the station to greet them.

It is difficult for one, looking down from the rim, to visualize the immensity of the hazards these surveyors encountered. They had many portages over slippery rocks, bumbled down many a rough rapid. Through this forbidding gorge they had gone, by luck without any mishaps, half-swimming, half-wading, hanging onto their raft, sometimes even lashed to it, pushing and pulling it as the occasion demanded, traveling as little as 20 yards in five hours. At night they would seek out a dry ledge above the water, sometimes so narrow they had to take turns sleeping on it, using their mattress to cushion their repose.

At one point they encountered a rockslide tunnel into which the river disappeared. Solemnly they shook hands, then jumped into the maelstrom, Fellows first, followed ten minutes later by Torrence and the raft. When Torrence came into view below the slide, Fellows pulled him out by the collar onto a rock. The men hysterically locked arms, laughing, and Fellows cried "Who says the Black Canon is impassable!"40

On another occasion, below the Narrows, the two ran out of food, like members of the 1870 expedition. They went for sixteen hours without a mouthful, then divided the last spoonful of baked beans
and prayed for the best. Luck was with them. They came upon a pair
of bighorn sheep, the first living things they had encountered in
the canyon. One bighorn darted between two rocks and was cornered
by Torrence who sprang to the opening. The sheep rushed out, right
into Torrence's arms. The two wrestled together until Torrence was
able to get his hunting knife into the animal, killing it. Upon
this meat the men lived until they were able to procure more provision.

Despite the hazards, they kept notes on the conditions of the
canyon, made survey sightings, and Torrence made many photographs.
The trip, which covered about 33 miles, took nine days. It was a
rugged journey, and Torrence lost 13 pounds in weight during the days
out. Most of the equipment had been lost or abandoned in the river
chasm, but among things saved was Fellow's black, cloth-bound
engineering record book containing valuable records which would
facilitate the future construction of a water diversion tunnel. The
men had been able to survey for a side hill ditch, had seen the
shape of the canyon walls, and had been able to determine the amount
of fall within the gorge, all observations of great future value.

It should be re-emphasized here that the popular published
accounts of the 1900 and 1901 trips through the Black Canyon were
highly exaggerated, edited, and embellished.

Even today, however, the Black Canyon remains a dangerous
adversary. In 1916 the Kolb brothers of Grand Canyon fame attempted
to run the river during the summer, were wrecked, and only saved
their lives by scaling 1700-foot cliffs. Low water in 1934
permitted several intrepid adventurers, including some eastern
college students using inner tubes, to make a successful river
descent. In July of 1934, Mark Warner accompanied a U. S.
Geological Survey team through the canyon (see Chapter VI: "Thru
The Black Canyon"). In late summer of 1940, Farton Heck of
Crawford led a party through the canyon which included the
first two women to make the conquest. Today (1965), Ed Nelson,
secretary of the Montrose Chamber of Commerce, holds the title
to being the river's most active runner. But the Gunnison
continues to be conquered by relatively few. No visitor to
the Black Canyon can escape the feeling of great wilderness
solitude, unbroken by human traffic, which emanates from the
canyon's narrow depths.
References

1. An original draft of this chapter by Richard G. Roedloman was published in Colorado Magazine 36(3): 187-201, 1959, under the title "The Gunnison River Diversion Project - Exploration of the Black Canyon." This represents a revision of the original draft.


4. Forbes-Lindsay, op. cit., 9377.


7. The account of this trip given here is based upon the following sources: Byron H. Bryant, MSS XI-26, Library, State Historical Society of Colorado, Denver. This is a typed copy of a letter written to Bryant's brother, Dr. Emory A. Bryant; Byron H. Bryant, "Exploration of the Black Canyon," The Trail, Vol. 12, No. 3 (1919), 5-10. This is a published copy of the letter cited above; J. Fred Hunter, "Precambrian Rocks of Gunnison River, Colorado," U. S. Geol. Surv. Bull., No. 777 (1922), 3-4. Bryant's trip is sometimes incorrectly dated as having taken place in 1881-1882 or even 1891-1893.

8. George A. Root, "Gunnison in the Early 'Eighties," The Colorado Magazine, Vol. IX, No. 6 (Nov., 1932), 208. So difficult had railroad workers found access to the upper Black Canyon that they had to use ladders from boats or hand suspended in rope cradles from the cliffs above to put in their black powder charges for blasting out the railroad bed. Brigham, op. cit., p. 133.

9. Souvenir Booklet, Montrose County, Colorado (Montrose, 1905). Copy in the Montrose Public library. Another account, in part inaccurate, stated that "Whinnerah" and another civil engineer, Walter Fleming (see Footnote No. 14), started out on August 27, 1904 (obviously the wrong year) to run level lines from the Uncompahgre Valley to the Gunnison River to see if a ditch could be taken out from the canyon and how much of the valley could be covered by the water so obtained. Later the men decided that a tunnel was the only answer for diversion and surveyed for one. Barton W. Marsh, The Uncompahgre Valley and the Gunnison Tunnel (Montrose, 1905), pp. 77-78. In the Montrose Enterprise for October 20, 1900, Fleming suggested that the data on the Gunnison tunnel site "made some six or seven years ago" be republicized. His comment appears to verify the activity of Fleming and Whinnerah in 1894.

10. Souvenir Booklet, Montrose County, Ibid.

12Ibid.

13Montrose Enterprise, August 16, 1900.

14U. S. Reclamation Service, First Annual Report, op. cit., p. 135. Fleming probably made his survey in conjunction with Whinnerah's survey, presumably in 1894 (see footnote no. 5). No date is given in the Reclamation Service recapitulation and an obviously incorrect date (1894) is given in Marsh, op. cit., pp. 77-78.


16Ibid., p. 597.

17"Upon request of Senator Buckley the words 'and that the enterprise is deemed to be impracticable' were stricken out of the report and as amended it was adopted." Ibid., p. 609.

18"It looks now as though every effort of our people should be turned toward government or state aid in building the tunnel. ..." Montrose Enterprise, August 4, 1900.

19Ibid., July 7, 1900.

20Ibid., September 22, 1900. "They [Bell and Shafroth] have been at work in season and out of season to push the work in the various committees, and can be depended on to keep it going. The democratic party has declared for help for the irrigation enterprises of the West, and this of itself shows the growth of sentiment. Our congressmen are doing all any men can." Montrose Enterprise, August 18, 1900.

21There have been a number of published accounts of this 1900 trip, in magazines, newspapers, and books. Unfortunately, the various accounts differ in details. The résumé presented here is primarily based upon the following sources, with particular dependence upon the newspaper reports: Souvenir Booklet, Montrose County, op. cit.; Fanny L. Coe, Heroes of Everyday Life (Boston, 1911), pp. 40-61; Fellows, op. cit., 530-537; Hunter, loc. cit.; Marsh, op. cit., pp. 89-96; Montrose Enterprise, September-October, 1900; Bolker and Milley, op. cit., 503-514; John Henry Shaw, "Exploring the Black Canon of the Gunnison River," World To-Day, Vol. 17, No. 5 (1903), 1129-1148; and Wilson Rockwell, Sunset Stone (Denver, 1906), pp. 279-284. In their survey the men were interested in the possibility of running a ditch downstream in the canyon to Red Rock and into a tunnel from there to the Uncompahgre Valley. Montrose Enterprise, September 8, 1903.

22Montrose Enterprise, September 15, 1900. It was during this prolonged delay of the trip that Pelton went to Denver and successfully encouraged L. O. Welcott to introduce a bill into the U. S. Senate for appropriation of money to construct the proposed diversion tunnel and ditch.
23 Rolker and Willey, op. cit., 513.

24 Montrose Enterprise, October 6, 1900. They probably made their ascent from the canyon on September 30. The only specific terminal date given in accounts is for their arrival back in Montrose, October 1. Several of the popular accounts (Marsh, op. cit., 513; and others) report that the men didn't reach the rim until 9:30 p.m. The seemingly more accurate story in the Montrose Enterprise for October 6 gave the 3:30 time.


27 Ibid. Also, Session Laws, op. cit., p. 374.


29 Forbes-Lindsey, op. cit., 9376.

30 Ibid., 9377.


32 Ibid., p. 137.

33 Ibid.; Montrose Enterprise, September 25, 1901. On September 23, fellows and others had visited the canyon to inspect the proposed site for the tunnel portal, "some two miles below Jones cabin and below the narrows in the river."

34 U. S. Reclamation Service, First Annual Report, op. cit., p. 137. There have been a number of published accounts of this 1901 trip, in magazines, newspapers, and books. Unfortunately, as with the 1909 trip, the various accounts differ in details. The resume presented here is primarily based upon the following sources, with, again, particular dependence upon the newspaper reports: Coe, loc. cit.; Forbes-Lindsey, op. cit., 9376-9378; Marsh, op. cit., pp. 96-108; Montrose Enterprise, August-September, 1901; Rolker and Willey, op. cit., 514-516; and Shaw, op. cit., 1146-1148.


36 Montrose Enterprise, August 29, 1901.

37 Ibid.

Forbes-Lindsey, op. cit., 9378.

Kolker and Willey, op. cit., 516.

Marsh, op. cit., pp. 100-105; Shaw, op. cit., 1147. Apparently Terrence was unarmed when rushed by the sheep. Fellows slipped him a knife with which he eventually killed the bighorn.

The men apparently did not feel too optimistic about their own survival and consequently had strapped to their bodies the message "The Gunnison tunnel is feasible. We know it, and they shall know it!" Forbes-Lindsey, op. cit., 9377. Above the narrows they found the relic of the abandoned "John C. Bell" from the first expedition. Montrose Enterprise, August 29, 1901.


Personal interview with Ed Nelson in Montrose, September, 1958.

Ibid.

Montrose Daily Press, Aug. 23, 1940. The women in the party were Elizabeth Benson and Hope Peareall of Boston, Mass.

CHAPTER IV

GUNNISON RIVER DIVERSION PROJECT

By September of 1901, the preliminary survey work of the U. S. Geological Survey in the Black Canyon area of West Central Colorado had progressed far enough to verify that a diversion tunnel was feasible and to indicate a general location for such a tunnel, from the Gunnison River gorge into the Uncompahgre Valley.

The prosecution of the project now fell to the board of control set up by the Colorado "State Canal No. 3" bill (House Bill No. 195), passed the previous April. This board was to be composed of three residents of Delta or Montrose Counties, appointed by the governor for a two-year term. The men appointed were John J. Tobin of Montrose County and Senator C. M. Hammond and George E. Dodge of Delta County. Later the governor and state engineer were made ex-officio members of this board.

The board employed John A. Curtis of Delta, Deputy State Engineer, to make the final location of the main tunnel. This would extend on a northeast diagonal from the Hancos shale badlands about four miles northeast of Table Mountain and Montrose to the canyon near present Serpent Point. Then a spur tunnel would extend upstream to the Narrows, where a dam was planned, so that water could be picked up there and delivered into and through the main tunnel by gravity flow.

Resident Hydrographer Fellows, who with Will Torrence had successfully run the river for the first time, was further pursuing his in-canyon surveys, which continued to be adventurous. When working
upstream from Red Rock Canyon with an assistant, he put the transit, a new gun and other equipment on a raft to float across the river. The raft sank and everything was lost. The transit had belonged to Curtis, and Fellows had to pay him $200 for its loss. On September 23, he and a few companions drove to the canyon rim, inspected the proposed tunnel site, and examined several near-by ravines down which a wagon route to the river might be constructed. Meanwhile, Whitman Cross of the U. S. Geological Survey, on October 17 and 18, made an examination of the geology of the region to determine the rock formations through which the proposed tunnel would pass in its course from the Gunnison River to the Uncompahgre Valley "by the shortest possible line." 

Thomas R. Hannihan was selected as state superintendent for the tunnel construction, and the initial excavation was started from the Uncompahgre Valley side in late fall of 1901. The rock formation here was shale; consequently, it was necessary to timber the tunnel as work progressed to prevent cave-ins, with the anticipation that eventually the wooden shoring would be replaced by a lining of concrete or brick. By one estimate the cost of the tunnel would run about $20 per foot, with a total of $880,000 for the completed, lined bore. In addition, there would be the expenditure of $200,000 for a dam, "controlling works, engineering and contingencies." The total cost, including the distribution system, would run to about $1,500,000. The tunnel, as originally proposed, would be about three miles long, emptying water into a twelve-mile ditch which in turn would
carry the water to the mouth of the Montrose Canal. More than 100,000 acres of land would be reclaimed, enough for 1,200 families, with an increase in value of 5 million dollars.9

It was hoped that convict labor, provided by the state, could be used in construction work. With respect to this, the Montrose Enterprise had commented, "The question of convict labor to aid in the work is one of vast importance, as it not only makes toward the building of the tunnel, but it solves another problem that of what to do with the idle convicts. Keep pushing this matter."10 About sixteen convicts would be involved, and this would necessitate the building of a special security stockade.11

During the week of November 21, 1901, work commenced on the road from Montrose to the proposed west portal of the tunnel.12 This road is still passable in 1959, extending northeast from Montrose and east of Table Mountain, eventually reaching the southwest end of Bostwick Park after winding through the badlands. By December 16, a frame dining room, bunk house, and blacksmith shop had been built at the site, and the face of the shale hill had been shaved off. On that date the first dirt was taken out of the tunnel.13

By the end of December, ten men (apparently not convicts, who for some legal reason could not be used) were at work, putting eight hours in the tunnel, nine on outdoor work. The timbering was being done with a 12x12 framework and an arched roof. At this time it was estimated that it would be possible to drive from five to six feet a day in the shale.14
Colorado, it must be remembered, had only allotted $25,000 for the "State Canal No. 3" project. The board was empowered by the legislature to solicit "subscriptions and advancements of money and equipment from interested persons who receive in return water rights receipts." In order to excite capital in the venture, the men had maps of the Uncompahgre Valley prepared and collected information on the area and nature of land there which could be watered by the system. Insufficient funds were forthcoming, however, and within a year the state's work on the tunnel had to be abandoned, with, as someone commented, only a "small hole in the ground and some weather-stained machinery to show for it."

Actually, more work had been accomplished on the State's tunnel than this statement would suggest. A progress report issued by the Colorado State Engineer in 1902 indicated that the tunnel had been driven 835 feet from the west end, with 350 feet timbered. Two air shafts had been sunk, one 65 feet and one 90 feet, and five miles of wagon road had been constructed.

Fortunately, by this time the federal Reclamation Act had been passed, on June 17, 1902, establishing the Reclamation Service. Congressman John C. Bell's bill for construction of a tunnel, introduced into congress in 1901, was incorporated into this act. The state and local citizens hastened to petition this new agency to continue the diversion project, and the "Uncompahgre Valley Project," "Gunnison River Diversion," or "Gunnison Tunnel Project," as it was variously called, became one of the first five projects to be taken up by this Service, scheduled for immediate development.
This project ranked fifth in importance among twenty-seven irrigation works begun by the government under this act, in terms of acres to be reclaimed, and ranked third in cost, the Reclamation Service estimating that expenditures would approximate four million dollars to complete the tunnel, diversion canals, and associated accoutrements. The extent of local support is emphasized by the fact that most of the existing ditches in the Uncompahgre Valley were pledged to help carry the diversion water.

During 1902, surveys were continued by U. S. Geological Survey personnel to ascertain the best location for the tunnel, its dimensions, and the grade which the tunnel should have in its course from the Gunnison River down to the Uncompahgre Valley. A longer tunnel could have reduced diameter but would have an increased grade, with associated increase in speed of water which might erode away the tunnel's lining. A short tunnel could have a slight grade but would have to have a large bore. Consideration was also given to the best location for the upper end of the tunnel. A dam could be built across the river to facilitate diversion, or the same result could be achieved by increasing the length of the tunnel. According to the U. S. Geological Survey, "All of these matters involve careful study and the preparation of elaborate estimates of cost."

Although skilled topographers were in short supply, mapping of the irrigable land in the Uncompahgre Valley proceeded, and it was planned eventually to use power from the tunnel project to pump water to lands not accessible by gravity irrigation. Settlers in the valley, meanwhile, were organizing themselves in a manner similar
to the residents of the Salt River Valley in Arizona, as the "Uncompahgre Valley Water Users' Association," and every attempt was being made to simplify and facilitate the operations of the engineers.²³

Extremely cold and stormy December weather curtailed topographic mapping in the Black Canyon area, and field parties were disbanded in January, 1903. The next few months were devoted to a compilation of data already gathered and the preparation of initial estimates. A preliminary report was completed on March 6.²⁴ The next day the Director of the U. S. Geological Survey sent the Secretary of the Interior a letter outlining the general plans for development of the Gunnison River Project.²⁵ It was recommended that the overall project as outlined be approved, that the surveying of irrigable lands be continued, and that investigations be expedited leading to the preparation of specifications and letting of contracts.²⁶ On March 14, the Secretary of the Interior gave his approval to the project, later (June 7) setting aside $2,500,000 from the reclamation fund for construction purposes.²⁷ Meanwhile, on March 16, the Colorado legislature authorized the transfer to the United States of all property and rights acquired for State Canal No. 3. The actual conveyance, however, was not to be made by the state board of control until August 14, 1906.²⁸

On June 17, 1903, Ira W. McConnell, an engineering graduate from Cornell University, was placed in charge of the topographic work as resident engineer. He was to remain in charge of the Uncompahgre diversion project throughout much of its prosecution, being made supervising engineer in November of 1907.²⁹
The summer of 1903 proved to be a busy one in the field, though no further construction on the tunnel was attempted. Most of the work involved mapping, with six surveying parties in the field, both in the Uncompahgre Valley and in the Black Canyon. The most daring piece of work was a survey within the canyon at the point tentatively selected as head of the proposed tunnel, near the Narrows. The 1,500-foot length of canyon had to be surveyed from both rims, this difficult job finally being completed in August.30

Because of the swift water, narrow gorges, and huge boulders in the canyon, the river could not be used as a survey route. Instead, the men had to descend into the chasm over the sheer cliffs and down narrow fissures in four different places. First, a fissure and talus slope on the south side were mapped, as a possible route for a cableway into the canyon for carrying supplies. Then the survey party detoured 150 miles around to the north rim, scrambled down a similar fissure, and surveyed a similar talus slope. From this point McConnell and his assistants, W. P. Edwards (engineer), J. A. Sargent (topographer), and L. E. Foster (assistant topographer), went along the rim about 1,200 feet upstream and dared a perilous descent to another short talus slope, using ropes to get down the steep rock walls.31

Returning from the north rim, this party made one more invasion of the canyon to a rocky slope extending into the river. Here they encountered one small tract which could not be reached by instruments, so a man had to be sent down by means of ropes in order to set signals there for triangulation. The completed map of this rough
portion of the canyon, together with some photographs of the area, were eventually published in the Second Annual Report of the Reclamation Service.  

Earlier in the season Engineer W. P. Edwards had made a survey for a road from the west end of the proposed tunnel heading up onto Vernal Mesa to the head of the dam-site trail and to the rim above the proposed east (river) tunnel heading, a total distance of nine and one-half miles. Also, Edwards directed the construction of four trails from Vernal Mesa down into the canyon as far as possible without having to resort to blasting. Brush was cut away for a temporary wagon road along the top of the mesa for a distance of two miles. In addition, a number of special excursions were made into the canyon depths, especially at the dam site, where in October soundings were made. As might well be guessed, many of the investigations carried out during the 1903 season were of the most hazardous nature. Fortunately, there were no casualties.

During the winter of 1903-04, there was a reconsideration of the location for the tunnel; and it was decided, and so reported on February 6, 1904, by McConnell, that a new location about five miles east of the original site would be shorter and more practicable. This new site, the one occupied by the tunnel today, became designated as the "upper location" or "boat landing location." This was about the site surveyed back in 1884 by Richard Whinnerah. Interestingly enough, in the fall of 1900 W. H. Fleming had recommended consideration of the 1894 survey site, pointing out
that such a site would avoid the construction of a dam and expensive flumes. At that time, of course, the Narrows site had won out.

On May 9, the two proposed tunnel locations were visited by a consulting board made up of Arthur P. David, George Y. Wisner, and W. H. Sanders, accompanied by Morris Bien, an engineer, Colorado's State Engineer, L. G. Carpenter, and the district and resident engineers of Montrose. The upper location was officially approved by this group for the following reasons: (1) less difficulty in access to the canyon portal; (2) simplicity of engineering problems; (3) shorter length; (4) increase in irrigable land; (5) relief from the necessity of building several miles of very costly canal.

On June 7, 1904, as previously mentioned, the Secretary of the Interior set aside $2,500,000 from reclamation funds for construction of the Uncompahgre Valley Project, and authorized the taking of such action as might be necessary to carry out the project in all its details.

After this decision, it was necessary to make more careful surveys of the new line, including accurate determinations of the elevation at the river portal and the west or Cedar Creek end of the tunnel. According to specifications, the tunnel would be about 30,000 feet in length, 10 1/2 by 11 1/2 feet in cross section, with a fall of two feet in a thousand and a carrying capacity of 1,300 second-feet. The tunnel would have to be lined throughout, the type of lining depending upon the nature of the rock passed through.
Bids for the construction of the tunnel were opened at Montrose on October 5, with ten bids being considered from companies as far away as California and Illinois. Low bidder proved to be the Taylor-Moore Construction Company of Hillsboro, Texas, and the Secretary of the Interior signed the contract early in January, 1905. The bids had been based upon linear cost of various units of the project. The contract called for excavation and lining of 30,582 feet of tunnel and of a cut at the west portal 1,950 feet long and a maximum of 49 feet in depth. It was estimated that the tunnel would cost $1,000,000 and would be completed by April 15, 1908. Bids were also let for construction of the north, east, and west canals which, associated with other open-air features, would cost about $1,250,000.

As soon as the new tunnel line had been decided upon, surveys were run for a wagon road to connect the Cedar Creek Portal with the River Portal. Out of several possibilities a route was chosen, and to avoid further delay the government itself decided to carry out the construction, which started in July. It was essentially completed by October 1, 1904, except for a few additional turnouts and widening at a number of places, by force account. The grade where the road switchbacked down into the gorge was as much as 23%, the steepness permissible because no loads would have to come up out of the canyon. The job involved the excavation of 30,000 cubic yards of material, the clearing of 38 acres of roadway, the construction of nineteen wooden box culverts and 300 linear feet of cribwork along cliffs.
The wagon road into the canyon became the only one to reach the river for seventy miles. The grade was so steep that, as one author commented, "4-horse wagons going over it present the appearance of being almost all brakes." The construction down to the river cost $20,000 and hauling over this road was to cost $4.50 a ton. This road is still in use today as an access road to the river portal and is reminiscent of many of the old mountain mining roads throughout western Colorado. After completion of the road, a 24.32-mile telephone line from Montrose to the Cedar Creek Portal and on over Vernal Mesa to River Portal was put in, this contract being completed in December.

Government headquarters for the project were set up in Montrose, and at West Portal and River Portal shelters were erected for the use of the workmen. Excavation of the tunnel from both ends commenced on January 11, 1905. By the middle of May, when 15% of the contract time had elapsed, only 4.5% of the work had been accomplished. The contractors were experiencing financial difficulties. They had had neither the adequate mechanical plant nor the organization necessary for such a venture. A 65-ton Bucyrus steam shovel used on the excavation at West Portal had been idle for repairs sixteen out of thirty-six days. The moist adobe and gravel encountered had entailed heavy timbering, and frequent cave-ins delayed the work.

The contract was finally suspended, and on May 27, 1905, the Reclamation Service assumed the job of completing the tunnel project. At this time 436 feet of 8x8 undercut drift on the tunnel grade
at east portal had been driven, 135 feet of this had been enlarged
to full size (about 10x10), and a power plant had been installed
here to operate two air drills, an air hoist, and a pump. At
West Portal, 574 feet of full-sized tunnel and 108 feet of
6x8-foot drift had been excavated.\textsuperscript{54}

The excavation of the tunnel under the supervision of the
Reclamation Service was to continue for the next four years, with
the actual work carried out by Service engineers when no satisfactory
bids could be obtained from private concerns.\textsuperscript{55} Eventually, the
work progressed on four headings: east from the Cedar Creek Portal,
west from River Portal, and east and west from a shaft sunk into
the mesa about a mile from River Portal.\textsuperscript{56}

The hazards accompanying the construction were closely related
to the character of the rock material encountered during excavation.
Starting from West Portal there was the following geologic sequence:
(1) 2,000 feet of heavy, water-bearing alluvial clay, gravel, and
sand beds; (2) 1,200 feet through a zone of hard shale below and
gravel above, with much seepage; (3) 10,000 feet of black shale,
with fossil deposits and pockets of combustible gas; (4) 2,000 feet
through a badly shattered fault zone characterized by high temperature
hot and cold water, coal, marble, hard and soft sandstone, limestone,
and concentrations of carbonic-acid gas; and (5) 15,455 feet of
metamorphosed granite with many water-bearing seams.\textsuperscript{57}

Some of the adventures of the subterranean diggers equaled
those experienced by the earlier runners of the river and scalers
of its chasm walls. On one occasion excavators from the west end tapped a cavern charged with carbonic-acid gas. Rushing and hissing, the gas drove workers helter-skelter; and the ventilating machinery had to be turned off until the confusion subsided.\(^5\) In December of 1905 such a large underground stream was intercepted that jets shot forty feet into the tunnel through drill holes, knocking the drillers from their machines. The flow was estimated at 25,000,000 gallons in twenty-four hours. Accompanying the water was a heavy flow of "choke damp" (carbon dioxide). Because of the gas, water, and high temperatures, work had to be halted in this heading for about six months until a 680-foot ventilating shaft could be sunk.\(^58\)

Occasionally, flows of water heated by slacking of shale would be encountered, raising the temperature in the tunnel to an uncomfortable level averaging 85 degrees.\(^6\) The heat became so unbearable at one point (over 90 degrees) that further work had to be delayed three months while a 400-foot ventilating shaft was constructed.\(^51\) Five hundred feet of excavation went through a deposit of fossil clam shells, and special timbering methods had to be devised to prevent cave-ins here.\(^62\) In another spot where the granite roof of the tunnel began to cave in, the hole was filled with thousands of bales of hay.\(^53\)

When the project was about half completed, a section of tunnel already shored gave way, cutting off a number of men in one of the headings.\(^64\) Fortunately, an air pipe was buried with the workers, and for 72 hours air was pumped in to the men while rescuers...
labored in three-minute shifts on a temporary opening. Constantly the entombed men implored their rescuers to hurry. Those first reached took their turns at the shovels to extricate their companions. Six men perished in their particular cave-in, caught and killed by falling rocks.\(^65\) Later a coroner's jury exonerated all persons from blame and attributed the accident to "unforeseen and unavoidable conditions."\(^66\) In 1909, just a few days before the tunnel was officially opened, Walter Honey, a driller, was crushed by a ton of rock crashing down from the tunnel roof.\(^67\)

At the River Portal, high water periodically invaded the tunnel entrance, which was about seven feet below the water line, and kept pumps constantly at work, sometimes discharging as much as 750,000 gallons in twenty-four hours.\(^68\) Water in the tunnel not only raised the humidity to uncomfortable heights for the workers (and increased the air temperature through slacking of the shales) but had other adverse effects as well.\(^69\) The tunnel floor could not be used at all. The electric tram tracks had to be elevated. Shoring timbers would float away or become water-soaked. Special attention had to be paid to such commodities as tool boxes, powder, nails, repair parts for drills, and even lunch boxes to insure that they wouldn't become buried in muck or swept away. Water flows from surrounding bedrock were so numerous through the tunnel sections excavated during the year from July, 1907, that pumps removed the water at the monthly rate of about 19,000,000 gallons.\(^70\) In one section of fissured, water-bearing rock the water pressure often
reached such extremes that it would force powder out of holes before the charges could be fired. In the fault zone, frequent inrushing water would often carry literally tons of sand which would bury tram tracks and tools for a distance of two hundred yards down the tunnel. Indeed, so much trouble was encountered in the fault zone, it took a year to pass through. In April of 1908, a water vein was encountered which stopped all progress for months and necessitated the use of additional pumps. Earlier, another underground water course was hit which discharged from the West Portal at the rate of 7 1/2-second feet. This forced the raising of the tram tracks upon timbers for three and one-fourth miles, delayed drilling, increased the labor of mucking and increased the cost of track work.

Forces from the outside world proved just as bothersome. On July 30, 1908, a cloudburst raised the level of Cedar Creek until it rushed into the portal cut, filling the cut with debris and washing out more than fifty feet of timbering at the end of the tunnel. The previous August a similar rise in Cedar Creek broke into the rescue shaft sunk in May of 1905, and work was delayed for a week. Spring and summer rains would frequently make the steep River Portal road impassable for the contracted freight wagons, and government teams often had to be used to haul in coal to keep tunnel pumps in operation.

Despite the complications and frustrations, the work of the excavation proceeded. At the East and West Portals steam
power plants, air compressors, electric generators, and cycloidal ventilating blowers were installed. Tramming within the tunnels was carried on with six-ton electric locomotives, operating on a 24-inch gauge track and pulling side-dump (west) or non-dumping (east) cars. Drilling was done with drills best adapted for the particular substrate, with up to fifteen power drills operating from the west end. Electric lines were run into the tunnel headings as work progressed, and all lighting was by means of electricity.

Arthur Page in his "Running a River Through a Mountain," has given a good glimpse of the tunnel excavation work: "...Two miles and a half in the mountains from the Uncompahgre side are about 15 men with three drills working in the rock. Two steel pipes, about a foot in diameter, lead from a shaft to the head of the tunnel, one pumping in fresh air and the other sucking out foul air. An electric train hauls out the rock as it is excavated, down the long wet tunnel lighted here and there by electric lights...".

Originally, the work camp at West Portal was a mere collection of tents, and the center was poorly supplied with water and sanitary facilities. During the winter of 1904-05, this camp was moved about a mile to a more convenient location. Gradually, dining halls, bunk houses, storerooms, offices, a power house, machine shop, stables, and cottages for families were erected. Signs of civilization became evident at this community bearing
the post office name of Lujane. Sewage and water systems were
installed. There were policemen and sanitary inspectors. Good
stores, boarding houses, a post office, school, two churches, and
a hospital were started. By August 1, 1905, about 350 men were
employed at the West Portal, and the town of Lujane grew to about
800 inhabitants.80

The work camp at River Portal was also initially composed of
tent houses. In time these were replaced by frame structures
covered with tarpaper. Because of the narrow shoreline, the
River Portal community had to be built in part on rock debris
from the tunnel excavation and in part up the steep slope of
the canyon. Here each building had its own embankment foundation
in order to give it land on which to stand. A large stock of
supplies and spare parts for equipment was laid up here against
those frequent times when the River Portal would be inaccessible
by road. At this location about 140 men were employed.81 At
the rim was located the milk ranch, with stock and cows to
supply the village below.82

The manifold difficulties encountered by this early reclamation
project are emphasized by this statement from the Fifth Annual
Report of the Reclamation Service:

Before a proper appreciation of the difficulty of
this work can be realized it must be recognized that in
many respects it is an unprecedented undertaking. At
the present time an expenditure of nearly 100 horsepower
is required for tunnel ventilation alone. Every car of
material taken from the tunnel must be hauled an average
distance of 2 miles before it reaches the dump. Water flowing into the tunnel must be pumped long distances before it is finally discharged. The material through which the tunnel has been excavated has been extremely difficult to handle in many places. The country in which the work is located is not self-supporting. This has required the shipment from outside points of practically every pound of supplies used. Freight rates are high, labor is scarce, and correspondingly indifferent; supplies of all classes are commanding the highest prices ever realized. All of these factors increase the difficulty and the expense. 93

Lack of good, and in some cases, any, workmen did indeed present a serious problem, unimproved by good wages. Laborers on concrete work were paid at the rate of $2.36 per eight-hour day. Excavation laborers were paid from $2.25 to $2.50 per day, while foremen received $3.00 a day. Superintendents received $122.50 per month. Men received free lodgings and hot showers but had to pay for their meals, 75¢ a day. The two camps, however, were somewhat isolated, the work hazardous, and the average stay for a worker was only two weeks. 84

On June 30, 1906, about a year after the Reclamation Service took over work on the tunnel, 11,992 feet had been excavated from the four headings, 85 and in July headings three and four on the west end were connected. 86 One of the work gangs during this period averaged 25.6 feet per day, considered to be "greater progress than was ever made on similar work." 87 At other times it would take from twelve to twenty hours just to drill the blasting holes. 88

Over the entire construction period, except for unavoidable delays, men worked in three shifts, night and day, averaging
255 feet a month (350 a month from west side, 150 a month from east river portal side). It was considered satisfactory progress to proceed 300 feet per month in granitic formation free from unusual difficulties, 240 feet per month in heavy ground, and 600 to 750 feet per month in shale offering no unusual obstacles. An American record in tunnel driving through hard rock was made here in January of 1908, when 449 feet of heading advance was driven in one month. The enlargement of the undercut drift to full tunnel section was accomplished by two gangs at an average rate of 1,665 feet per month. During the course of excavation, more than five million two-horse wagon-loads of debris were removed.

Soon after construction of the tunnel had begun, it became evident that the timbering would not long hold up under the influence of the heat and moisture. Consequently, it became necessary immediately to line the tunnel sections with concrete. Fortunately, a suitable source of sand and gravel was found on a steep hill overlooking the main shaft. The cement was mixed, dumped into special cars, and transported to the point within the tunnel where it could be shoveled into prepared forms. By June 30, 1910, all timbered sections and some untimbered sections of the Gunnison Tunnel had been lined.

In late June of 1909, the excavation of the tunnel was almost complete, and the two gangs of men working in headings one and two began to hear each others' drilling. Within two weeks, at
6:45 on the afternoon of July 6, at a point 10,812 feet from River Portal, the two crews came together, and the rough bore of one of the longest tunnels in the United States was completed.\textsuperscript{94}

As the tunnel completion became imminent, a Montrose citizens' group called the "Gunnison Tunnel Opening Committee" laid plans for a grandiose celebration. The Gunnison Republican for August 26, 1909, announced the "Gunnison Tunnel Opening Day" in misprint as September 23, 1609, and in several issues included the exciting program:

9 a.m.—Band concert Elk's Park, Montrose.
9:30—Visit to orchards near Montrose.
10:00—Meeting of special trains from Ouray, Telluride, Gunnison, Lake City, Grand Junction, Delta, Hotchkiss and Paonia. Escorted by bands and Company E, Colorado National Guard.
11:00—Grand exhibition of the products of the land under the Gunnison Tunnel project at the Western Slope Fair. Admission 50¢. Those entering the grounds at this hour will be given a return ticket good for the afternoon by applying for same on leaving the grounds.
12:00—Dinner.
1:30—Music by visiting bands at Elk's Park.
2:30—Arrival special train with President Wm. H. Taft and other national officials. Signal: 1st bomb, train within city limits; 2nd bomb, on depot platform; 3rd bomb, parade starts.
3:00—President escorted to speakers' stand Elk's Park. Introduce remarks by Hon. F. D. Catlin, chairman Gunnison Tunnel Opening Committee.
3:05—Key of the city turned over to our guests by Mayor J. Q. All.
3:10—Address of welcome by Hon. John C. Bell.
3:20—Response by President Taft.
3:35—Remarks by Senator Charles J. Hughes.
4:00—Trains leave Montrose for West Portal Gunnison Tunnel. Fare for round trip 50¢ (Racing at Fair Grounds will begin at 4 p.
4:30—Salute by battery from Denver, at West Portal. Cannons will be those captured by the First Colorado Regiment from the Spanish at Manilla. Music by band. Invocation Rev. John J. Shingler.
4:30—Opening of the headgate to Gunnison Tunnel by Pres. Wm. H. Taft at West Portal.
4:50—Remarks by I. McConnell consulting engineer U.S.R.S.

5:00—Trains return to Montrose.

5:30—President Taft will be escorted to the Western Slope Fair and shown the products of the land under the Gunnison Tunnel project and mineral exhibits from the mining camps of the Western Slope.

6:00—Balloon ascension and parachute leap at the Fair Grounds.

6:30—Supper.

7:30—Reception to President Taft and others.

8:00—Music by band at Elk's Park.

8:15—Remarks by Hon. A. King, of Delta, at Elk's Park.

8:20—Remarks by Arthur P. Davis, chief engineer reclamation service, Washington, D. C.

8:30—Remarks by Senator John A. Tobin, Secretary of the Water Users' Association.

8:35—Remarks by Judge S. M. Bailey.

8:45—Remarks by A. L. Fellows, engineer, Denver.

8:55—Remarks by Congressman Taylor.

9:00—Grand illuminated parade.

9:30—Grand pyrotechnical display.

And on September 23, the gala celebration came off as scheduled, marking the official opening of the tunnel. Among dignitaries in attendance were President Taft, Richard A. Ballinger, Secretary of the Interior, Senator Charles Hughes, Jr., Representative Edward Taylor, Governor John F. Shafrath, officials of the Reclamation Service, Fellows, Torrence, McConnell and Lauzon. In addition, thousands of sightseers came from all over the Western Slope. A special train from Delta brought 1,500, and 300 came on a special train from Gunnison. Thirty-six automobiles drove over from Delta, the occupants carrying red and white umbrellas. Ouray brought a pack train, in charge of E. A. Phinney, showing the means of transportation in the rich mines.

President Taft came in from the east in a special five-coach presidential train, in the first car of which were U. S. Regulars
as guards. As a special presidential guard were all the sheriffs of western Colorado, decked out in western uniform with ten gallon hats, bandanas, blue flannel shirts and corduroy pants, each with a Colt .45 in holster. Preceding Taft's train was another special carrying Rio Grande officials.

The event was heralded as the "biggest event that ever happened in Montrose." Bands from Ouray, Ridgway, Olathe, Lake City, Montrose and Delta were on hand, including girls' bands with natty uniforms. The Grand Army of the Republic "made a fine showing in the parade," as did the Booster's Association and the Colorado National Guard. Montrose contributed its prettiest girls, riding on horseback, to the parade. On the main thoroughfare of town there was a welcome arch consisting of products of the rich agricultural country, and telling how much had been raised during the past year and what the completion of the tunnel would mean for 1910. The official Bureau of Information was established at the Belvidere Hotel in Montrose.

Ten thousand people congregated at the fair grounds to greet the President. The guard of honor was made up of members of the Grand Army of the Republic, and when the President arrived, everyone gave a great hurrah. After giving a welcome address, Hon. John Bell presented Taft with a beautiful gold badge in behalf of the community. It was a "most beautiful and glorious Colorado day weatherwise," leading Taft to comment, speaking of dry towns, that he "did not wonder the people here were 'dry'
as they did not have need of a stimulant as the air was like champagne." During the ceremony, Captain Gunnison's cousin from New York was introduced, Mayor Allen gave the key of the city to the President, and there was a girls' relay race on bucking broncos. Following this, the President was conducted through the fair grounds by the president of the Fair Association.

In late afternoon the President's train, decorated by the 3rd Division, proceeded to the West Portal of the tunnel, where there was a special stand erected 75 feet above the tunnel entrance. As the crowds held their breath, President Taft touched a gold bell on a floating silver plate, the electrical connection sounded gongs throughout the Uncompahgre Valley, swung open the tunnel headgates; and the waters of the Gunnison River were at last released from their rocky prison into the sunny "Valley of Fountains." This bell, of pure gold, was furnished by the Colorado Telephone Company and inscribed on one side "Opening of the Gunnison tunnel by His Excellency William Howard Taft, President of the United States of America, Montrose, Colorado, September 13, 1909." The bell was taken back to Washington by Taft after the ceremony. As the water rushed through the tunnel, reclamation officials fired salutes honoring the President, and back in Montrose at the fair grounds the ascension balloon was released. During the ceremony the President called the surrounding Uncompahgre Valley the "Incomparable Valley with the unpronounceable name!"
In the evening the President had a special dinner at the Catlin house, waited on by ten of the prettiest young ladies of Montrose. At the completion of the feast, the people of Lake City presented the President with a 7 and 1/2-pound trout to dine on the next day. The day ended as the President was escorted back to his private car by the western sheriffs, to the accompaniment of booming cannons and cheering people. The Denver Post greeted the memorable occasion with banner headlines: "Taft Opens Tunnel That Will Make Desert Bloom," "Western Slope Makes Event Grand Holiday," "As President Pushes Button Lifting Headgates Gongs Sounded in Valley," "Bore 30,582 Feet Long Will Carry Water Through Base of Mountains." 96

Actually, much remained to be done on the Gunnison River Diversion Project. The intricate canal system in the valley had to be completed, finishing touches had to be put on the tunnel itself, and so on. Indeed, the over-all project wasn't considered complete until mid-1923, at which time expenditures had reached $6,715,974.41, almost half of which had gone for the tunnel. 97

The tunnel portion of the project was declared completed for present use in June of 1919, with the first water for irrigation being turned into the tunnel on July 6. 98 The Gunnison River Diversion Dam at River Portal was finished in January, 1912. 99 Two decades later the project was transferred to the Uncompahgre Valley Water Users' Association which was to repay construction costs in forty annual installments. 100 It was estimated that the settlers who were to benefit from the project would pay about $35 per acre for water rights. 101
The total length of the tunnel was 30,582 feet, with dimensions in cross section of about ten feet by twelve feet. The fall of the tunnel was 2.02 feet per 1,000 feet, and water capacity was 1,300 cubic feet per second. Intake on the Gunnison River was about seven feet below low-water line. The area of the irrigation project included 146,000 acres. There were 170 miles of associated canals, 400 miles of laterals, and 205 miles of drains. The main canal was 30 feet wide at the bottom, 33 feet wide at the top, with the average depth of water being ten feet. During the course of the construction, irrigation experts from all over the world visited the site and were amazed at the engineering difficulties which were being overcome. By 1946 the cost of the entire project had risen to $2,976,484.

At one time the Uncompahgre Valley stirred with talk of a magnificent electric tramway which would trundle the length of the valley on power from the Gunnison River Diversion Project. This was a dream never to be realized, but the other far-reaching benefits and accomplishments of the project have firmly established it as one of the great, early ventures of the Reclamation Service in the West.
REFERENCES

1 - An original draft of this chapter by Richard G. Beidleman was published in Colorado Magazine 36(4): 266-265, 1959, under the title "Gunnison River Diversion Project - Part II." This represents a revision of the original publication.

1a - Colorado State Engineer, 11th Biennial Report of the State Engineer to the Governor of Colorado for the years 1901 and 1902 (1902), 45.

2 - U. S. Geological Survey, First Annual Report of the Reclamation Service from June 17 to December 1, 1902 (1903), 137.

3 - Montrose Enterprise, October 3, 1901.

4 - Ibid., September 26, 1901.


6 - Colorado State Engineer, loc. cit.


8 - Ibid., 147.

9 - Ibid. The Delta Laborer observed that "While the enterprise is gigantic, and will cost an immense sum yet the aggregate cost will not be over $3 per acre for the land to be watered--advancing it from worthless class to the value of at least $20 per acre, and under improvement to from $50 to $100. It also means additional room for at least 10,000 people in the next ten years."--The Gunnison People's Champion, December 6, 1900.

10 - Montrose Enterprise, August 4, 1900. The "State Canal No. 3" bill authorized the use of able-bodied convicts in the construction work.--Session Laws of Colorado, 13th Session (1901), 370-371. A Denver reporter commented on the employment of penitentiary inmates: "I believe it best for us to make provisions for the employment of the convicts, and that the funds be drawn from the penitentiary fund, as that is a preferred fund, and further because any bill drawn from the general fund would be an empty affair. Also your people should consider what disposition the state should make of the water when the tunnel shall be completed. I think it best for the state to seal the water at reasonable rates to preferred purchasers, and that the bill provide for an issue of script payable in water, which would assist the state materially, and enough of this script could be placed to feed and clothe the convicts. I would advise that the cantonment be made a part of the penitentiary and the operations be under the penitentiary board..."--The Gunnison People's Champion, December 6, 1900.

11 - Montrose Enterprise, October 17, 1901.

12 - Montrose Enterprise, November 21, 1901.
17. Colorado State Engineer, loc. cit.
22. Ibid., 225.
23. U. S. Geological Survey, 2nd Annual Report of the Reclamation Service, 1902-1903 (1904), 200. The Association was formed at Olathe on May 5, 1903, at a convention of delegates of the water users of the Uncompahgre Valley. It was incorporated in Delta on May 11. There were 513 signers for stock subscriptions, subscribing for 53,000 acres, each share representing one acre of land.
24. Ibid., 133.
26. Ibid.
27. Ibid.
28. Ibid.
29. Reclamation Record (October, 1909), 101. Working with McConnell in 1907 were Edward E. Sands, acting project engineer; Andrew F. Ross and Herbert L. Daniels, engineer; Edward F. Furstenfeld, chief clerk; and Harry E. Esley, fiscal agent.—U. S. Reclamation Service, Monthly Bulletin, Vol. 1 (January, 1908), 6. In the fall of 1909, McConnell resigned to go into private engineering work.

The map the men made is Plate 23 in the 2nd Annual Report. There is further description of this daring survey in U. S. Geological Survey, Water-Supply and Irrigation Paper No. 93 (1904), 164-165.


Ibid., 183-187 and Plate 23.

Ibid., 186.

Ibid., 187.


Souvenir Booklet, Montrose County, op. cit.

Montrose Enterprise, October 20, 1900. "It seems to be the sentiment of many that a tunnel near Red Rock will be long, as the park is quite wide there, and a survey must be made to settle that point. If the tunnel is to be of great length, it would be better to use the Cedar Creek site, and thus avoid long, dangerous fluming in the roughest country on earth."


Ibid., 203.

Ibid., 205.

Ibid.


Ibid., 205-206.

Ibid., 206.

Ibid., 209.


52 Ibid., 95.


55 U. S. Geological Survey, 4th Annual Report, op. cit., 119. On September 26, 1905, three bidders submitted proposals for completion of the tunnel, all of which were rejected.


58 Page, op. cit., 9325. It seems probable that slightly different descriptions of similar events in popular periodical articles may actually have been variations of a single event. Newspapers and the annual reports of the Reclamation Service represent the most valid sources of information.


62 Ibid., Chapman, op. cit., 178.

63 Lillian R. Brigham, Colorado Travelers (Denver, 1938), 138.

64 This accident is described in a number of reports and newspaper articles, with details varying, as usual. Among the best accounts are those in Page, op. cit., 9327; U. S. Geological Survey, 8th Annual Report, op. cit., 119; U. S. Geological Survey, 6th Annual Report of the U. S. Geological Survey (1905), 261-262. According to an account in the Colorado Springs Gazette for May 31, 1905, 25 workers were entombed after a cave-in due to seepage towards the Cedar Creek end of the tunnel. "My God, we are gone," one man reportedly shouted as he was struck by the blast of air from the collapse of the tunnel roof.
On June 1, the Colorado Springs Gazette listed five men as dead: Edward Schuler, Floyd Woodruff, A. F. Steele, Charles Hornhart and James Cassidy. A sixth casualty, Herman Becker, was reported on the following day. The rescuers worked in three-minute relays for twenty-four hours, finally reaching the buried men and hauling them up a sixty-foot rescue tunnel by ropes. The June 1 issue of the Gazette carried a good human interest story dealing with the men's experiences.


Delta County Tribune, September 24, 1909.


Ibid., 76.


Ibid., 38.


The most detailed account of the construction activity is to be found in the 8th Annual Report of the Reclamation Service, 95-100.


Page, op. cit., 9322.


Interview with Ed Nelson in Montrose, September, 1958.


97° Page, op. cit., 5227; Reclamation Record (November, 1929), 107.


"Drilling was carried on with drills considered best adapted to the character of ground encountered at any given time. In the hard granite the Sullivan 3-inch piston drill was used. In the less refractory ground the Sullivan 2 1/2-inch drill gave best service. For certain classes of work the Heyner drills, especially the newer models, gave satisfactory results. In the chalcedons which have about the hardness of semi-brittle coal, the Jeffrey coal auger, air driven, was used with highly satisfactory results. In the clays, some of which were sufficiently compact to shoot to advantage, a soft auger gave best results. For holes, holes for trolley hangers, for pipe hangers, for feed-wire brackets, and similar uses, were drilled with stepping drills, of which several types were used."


103° U. S. Reclamation Service, 7th Annual Report, op. cit., 76.

104° Roller and Willey, op. cit., 516.


106° The Atlantic Monthly, August 26, 1909. The time is given as 5:45 in one, 5:3, op. cit., 1193, and Fanny E. Coe, Heroes of Everyday Life (Boston, 1911), 60. The longest tunnel at this time, incidentally, was reported to be the Hoosac railroad tunnel near Charlestown, Massachusetts, completed in 1875 after twenty-four years of work, the expenditure of $20,000,000 and the loss of 12 lives. In actuality, the Hoosac Tunnel apparently was about a mile shorter than the completed Cunnison Tunnel—Massachusetts (Boston, 1937), 557; Charles W. Corstock, "The Great Tunnels of the World," Proc. Col. Sci. Soc., Vol. 3 (1937), 371-373.
95 - There are many good accounts of this celebration: Delta County Tribune, September 24, 1909; The Denver Post, September 23, 1909; The Gunnison Republican, August 26, 1909, September 30, 1909; Colorado Springs Gazette, September 24, 1909; Arthur W. Monroe, "Montrose County, Interviews Collected during 1933-34 for the State Historical Society of Colorado," C.W.A. Pamphlet No. 357, Library, State Historical Society of Colorado; and others.


95b - Taft personally congratulated Miss Bertha Hull for winning the Cowgirl's Relay Race. - Ibid.

96 - The Denver Post, September 23, 1909.

97 - U. S. Bureau of Reclamation, 22nd Annual Report, 1922-23 (1923), 54.


100 - Reclamation Project Data (Washington, 1948), 443, 445.

101 - Gunnison Republican, August 26, 1909. At the time of the opening of the tunnel in 1909, the Reclamation Service had hastened to quash the rumor that "50,000 acres of land would be disposed of by drawing in tracts of 40 acres, with a guaranteed government water right."

102 - Reclamation Record (October, 1909), 96.

103 - Reclamation Project Data, op. cit., Appendix No. 1.

104 - Chapman, op. cit., 182.


THERE ARE OTHER CANYONS IN THE WORLD WITH GREATER OVER-ALL DIMENSIONS, AND SOME WHOSE FAME EXCEEDS THAT OF THE BLACK CANYON. REGARDLESS OF THESE COMPETITORS, HOWEVER, COLORADO'S BLACK CANYON OF THE GUNNISON IS REMEMBERABLE FOR ITS NARROWNESS, DEPTH, AND IMPRESSION OF SOLMOR SOLITUDE. IT IS SMALL WONDER, THEN, THAT THERE DEVELOPED IN THE PAST EFFORTS TO HAVE THE MOST SPECTACULAR SECTION OF THIS GORGE SET ASIDE AS ONE OF OUR COUNTRY'S NATIONAL
As far back as Byron Bryant's memorable surveying trip through the Black Canyon in 1882-83, the scenic values of the Black Canyon were being publicized. Bryant's transitman H. C. Wright wrote a delightful letter entitled "A Winter in the Black Canyon of the Gunnison" which portrayed some of the spectacular scenery: "Here to was unfolded view after view of the most wonderfull, the most thrilling of rock exposures, one vanishing from view only to be replaced by another still more imposing. A view which could easily be made into a Scottish Feudal Castle would be followed by another suggesting the wildest parts of imposing height and majestic proportions..."

Another enthusiast, P. H. Hewell, Chief Hydrographer for the U. S. Geological Survey, told the editor of the Montrose Enterprise in 1901 that the Black Canyon of the Gunnison "is the grandest scenery on the continent, and that something should be done to invite tourists and sightseers to look on its wonders." Hewell thought that the canyon was "unrivalled, even by the Grand Canyon of the Colorado."

In the late 1920's local citizens in and around Montrose began agitating to have the Black Canyon designated as a national monument, with a bridge eventually to be built to span the chasm. This proposed bridge, mentioned as the "highest bridge that will ever be built in the world," would be 1,250 feet in length and extend 1,950 feet above the Gunnison River.

One of the very vocal protagonists of Black Canyon at this time was Douglas Lytle, a rancher who lived between Portwick Park and the canyon's South Rim. During the summer of 1928, he told the county agent, Harry A. Treadwell, about the existence...
of the spectacular gorge so close to Montrose and suggested that perhaps the Montrose Lions Club, of which Ireland was a member, could be interested in constructing a "passable road" to the rim. Ireland brought the matter to the attention of the club, which was interested and which set up an investigative committee composed of Ireland, L. J. Foster, superintendent of the Uncompahgre Reclamation Project, and Reverend Mark T. Warner, minister of the local United Presbyterian Church.

Soon after its appointment, this committee made a reconnaissance trip with Lytle to the canyon, getting a panoramic view of the countryside from Signal Hill and then proceeding to the rim near what later was to become known as Lions Spring. The men were enthusiastic about the possibilities of the area and heartily recommended the road-building project to the club. Two engineers, after a preliminary surveying trip, agreed that the road was feasible.

On March 8, 1929, the Lions Club voted to sponsor construction of a "scenic drive" to and along the canyon rim: "It is believed that the Club has inaugurated a great movement. The ultimate results cannot now be foreseen..." The committee ran a rough survey for the proposed road, marking the route out with red strings hung on the brush. The committee felt that "a day should be proclaimed to work on this road..." It is believed that in the immediate future a general proclamation will be made for every one possible to take a day off and go up and do some work and have a picnic dinner at the spring near the canon rim. Lytle offered to make available his tractor and "sage brush grabber that will grub a path seven feet wide, if the People of Montrose
will donate an equal amount of time."7

July 19 was set aside "as a day of work for the Lions at the canyon. They will leave here at 7 o’clock equipped with axes, grubbing hoes and other tools necessary to cut oak brush. There is a short distance of the road now in use that needs the overhanging brush removed so as not to scratch cars. This will be done first. Then Douglas Lytle will start his tractor and sagebrush grubber to work on the upper end of the road and the Lions will get busy removing the brush from this stretch."8

In November, 1929, Reverend Warner took John Howell, Montrose County Commissioner, and H. T. Reno, resident state highway engineer, to the canyon and sold them on the idea of building a good county road. Later the board of county commissioners endorsed the project, as did the Montrose city commissioners, the rotary club, Montrose Chamber of Commerce, Delta County chambers of commerce, and other organizations and individuals, including the Montrose Daily Press and especially its news editor, Warren F. Wilcox.9

The Lions Club chose the construction of the road to the Canyon as its major project for 1930.10 Work was begun on the approach road in May, 1930, the road right-of-way being donated by Lytle.11 This road was to proceed from Bostwick Park to the canyon rim, a distance of about seven miles. It would then parallel the canyon rim for a distance of some one-and-a-half miles, and in this area three short branch roads were to be constructed leading out to the edge of some of the more interesting points projecting from the canyon rim. Protection at these points was to be by an iron railing set in the rock.12
Among the county road crew at work on the Blakl Canyon road were Dan Johnson, foreman, Rollen Hotchkiss, Ed Sigafus, Pat Shaffer, and Don and Clarence Terrill. On one occasion, so the story goes, Ed Sigafus was backing one of the trucks and it got away from him and hurdled down into the canyon depths. However, these workers in a sense made up the for loss by clambering down to the river and bringing up the remaining boat, the City of Montrose, from the 1900 river expedition by Torrence and his companions.

The completed road was dedicated on September 1, 1930, a mellow late-summer Labor Day, with a gala celebration. Picnickers from Montrose, Delta and the towns of the North Fork Valley gathered in a clearing near the "bridge site" for a festive feast, topped off with ice cream and cake served by the Lions and delicious coffee brewed by J. H. Bantley. A canvas was erected as protection against the sun, with seats set up under it, and water was provided from a large tank chilled with several hundred pounds of ice. The many cars were directed to safe parking spaces by uniformed men of Company D, Colorado National Guard, under the direction of Sheriff McNally.

Prior to lunch, visitors, even Robert Curtis on his crutches, took the opportunity of viewing the canyon from several vantage points protected by hastily erected railings; and from their stage at the canyon rim Professor Loyde Hillyer and his fifteen band members rendered a number of selections to regale the audience. Mr. and Mrs. D. B. Walker were busy taking photographs of the scenery and festivities, and T. Stambaugh of the A.A.A. was gathering material for an article on scenic features of
the Black Canyon in the A.A.A. magazine. Shortly after one o'clock, only forty-five minutes after it came off the press, copies of the Montrose newspaper telling of the dedication, the ink barely dry, were distributed to the gathering.

At 2:00 p.m. the dedicatory ceremony began, presided over by Harry Ireland. Accompanied by Gene McGregor on the cornet, everyone sang America; and Reverend Warner pronounced the Invocation. Ireland portrayed some of the early history of the area and called upon Sam Hartman, the oldest inhabitant present, to relate some of his pioneer experiences associated with the canyon. Then County Commissioner Howell spoke about his impressions of the canyon, commenting "Fortunate indeed are the people of the Uncompahgre Valley both now and in the future in having at their very door this beautiful scenery. Every effort should be made to make it more accessible to the general public."

Howell went on to suggest that an approach road also be built to the north rim and that the Lions Club should seriously begin to make plans for the bridge, "... nothing very big or impossible about it, if we all work together." He facetiously continued:

If this is not soon done the men who pushed the work and built this road this summer, with myself will come up here some dark night and build it for you.

The Long Long Trail on the upper end can be improved so that most of you could walk down to the bottom of the canyon. And then just above us down the Lone Tree Trail it would be possible to build a power cog railway so that any of you could easily to down and stand close to the perpendicular walls and be near the many cataracts and falls.
It was then Reverend Warner's turn to address the crowd. He reviewed the history of the road development and expressed the hope that the scenic area might eventually be set aside as a national park or national monument. Gus Foster offered a resolution on behalf of the gathering, thanking all who had made possible the creation of the road. And finally with a bottle of Lions Spring water colored with Uncompahgre grape juice which she hurled into the depths of the canyon, Bernice Warren formally christened the road: "In the name of the people of the State of Colorado, I break this bottle of wine and christen this highway the Black Canyon Scenic Drive."

Reverend Warner's suggestion that this newly opened area be established as a national monument was not an original idea. In June of 1929 the Montrose Daily Press ran an article about the proposed bridge across the canyon. This article was seen by W. E. Daughenbaugh of Paonia, who excitedly wrote the newspaper a letter, suggesting that efforts should be made "to have the canon made a national monument in its narrowest and deepest part. Then it would be placed on the map." Daughenbaugh went on to say that "for scenery it has the Royal Gorge beaten... At Grizzly Gulch there is a way into the canyon that a good climber can get down or up in an hour and a half. It is harder going down and the poison ivy will have to be eliminated to make a popular tourist trail.... I knew a man who lived within 10 miles of it for four years, and never knew it existed.... Very few down the line know it is so easy to get to.... An invalid can get to the rim at Grizzly Gulch...."
Responding to Daughenbaugh’s letter, the Daily Press editor wrote: “Here is an idea presented by a Daily Press reader and correspondent. Let’s get busy. Get Ed Taylor and Senator Phipps and Waterman busy and get something done. Get a national monument established and some publicity and the government to build a road and then a bridge and so on. Here is the letter, one of the most interesting, important and timely we have received in a long time.”

Pursuing the matter further, News Editor Warren Wilcox sent Congressman Ed Taylor a letter and clippings on July 17, 1929, telling him about the idea of having Black Canyon established as a national monument, asking him how one went about accomplishing such a thing, and if national monument status would interfere with the construction of a toll bridge? Taylor forwarded the letter with clippings on to Director Albright, wondering “just how this matter should be handled in order to get the canyon inspected and report for an Executive Order to create the Monument.”

Acting Director Demaray suggested to Taylor that those behind the move submit a map “showing with reasonable accuracy the area they think should be included in order that we might be able to investigate the status of lands therein.” This was because of a Park Service policy not to establish additional monuments containing privately owned land. Also, Demaray noted that there could be no move to create the monument until the Park Service could make an official inspection; and since it had no funds available for such an inspection, a special request would have to be made of Congress.
Unfortunately, during this period Wilcox's health failed and the Best for California; and the information from Washington became misplaced. Thus, in early January of 1930, Attorney John L. Bell, on behalf of the Lions Club, wrote Taylor asking again for material on monument establishment, pointing out that "we have nothing in Montrose County of outstanding scenic value other than the project which the Lions Club has undertaken, and heretofore have had to advertise Ouray and Grand Mesa in order to get tourists to Montrose. For that reason, we are particularly anxious to develop the project. We do not believe that any section of the country can duplicate the scenic grandeur which we have here in our Black Canon, and feel that if the Government can be persuaded to make a national monument at this place, that it will undoubtedly become one of the greatest scenic attractions in Colorado."19

Taylor dutifully passed Bell's letter on to Director Albright, observing among other things that "...it seems this canyon is public domain, the people of Montrose do not want to go to that expense of construction of roads and improving the canyon, only when completed to have private individuals go in there and file on the land, and possibly commercialize the results of the city and county's work and expenditures of money donated and appropriated for its improvement for that reason, they are anxious to have the section set aside as a national monument, or in some way to insure the canyon being set aside for public use as a scenic and recreational ground."20

In early February, Attorney Bell requested that the Park
Service gave formal consideration to having Black Canyon set aside as a national monument, though no specific acreage was originally recommended. Acting Director Cammerer wrote the General Land Office on February 21 to ascertain the status of lands in the area "with a view to creation of a national monument."²¹ And on March 6, Albright reported back to Bell that "of the total area of approximately 72,000 acres all but approximately 22,000 acres are in private ownership, or otherwise appropriated or reserved for specific purposes. Furthermore, it is found that the lands in question are former Ute Indian lands which have been open to entry under certain acts of Congress, with provision for payment to the Indians of the proceeds of the lands when disposed of at a price of not less than $1.25 per acre...."²² Albright concluded by stating that the Service would not be favorable to the establishment of a national monument in the area, because of the large extent of appropriated land, the purchase of which Congress "has consistently refrained from making appropriations for...."

In May of 1931, the Montrose Lions Club again tried to interest the Park Service in Black Canyon. This time Lions Club President L. C. Kinikin proposed a smaller parcel for inclusion, most of which was public land. Cammerer replied that a Park Service man might be in the region the coming fall or winter, "and if so he may find time to go over this area with you."²³ "However," Cammerer continued, "I wonder if you have considered the possibility of establishing a State or municipal park of the area that you suggest?...." When the Lions Club still pressed for monument consideration, Cammerer mentioned that the Park Service would send a man
to look over the canyon. Eventually, this visit would materialize.

The monument idea gained regional impetus in January, 1932, when the Grand Junction Lions voted to assist the Montrose group. During the same month national interest was centered on the Black Canyon by an article on the proposed monument and bridge which appeared in the national Lions magazine. Meanwhile, a "guest" register had been set up at the end of the new automobile road. During 1930, 1,130 people from 23 states and two foreign countries ventured to the canyon; in 1931, the number increased to 1,757 from 33 states, three foreign countries, and the District of Columbia. By October 20 of 1932, more than 800 visitors from thirty-one states had signed the loose-leaf register.

Among the fall visitors was at long last a representative of the National Park Service, Roger W. Toll, who stopped in at the Daily Press office on October 14 and asked if Warren Wilcox would take him up to the canyon. Toll was very impressed by the scenery he encountered and while in the Montrose area described to the local people the steps they should take in having the canyon made a national monument.

On November 1, 1932, Toll submitted a favorable report to the National Park Service, recommending the creation of the national monument and suggesting that the proposed monument include a small area on either side of the canyon, as well as the canyon itself, from the Gunnison Tunnel river portal to Red Rock Canyon. This land had already been withdrawn from public use, in large measure, by the Reclamation Service which, at the moment having no further use for it, might be favorable to
transferring it to the National Park Service. In his official report Toll commented:

The Black Canyon of the Gunnison is one of the most spectacular gorges of the United States. The land is available. Public sentiment seems to favor the establishment of a national reservation. The area is accessible by road. Scenically it seems to qualify for a national monument and is free from some of the complications that are found in a number of other proposed areas.

Unfortunately, early in the fall the Montrose Lions Club had disbanded, as a consequence of the depression. Wilcox, undaunted by this loss of organized support, told Reverend Warner of Toll's visit and challenged Warner to "push" the drive for creation of the monument as he had pushed the road building project.

This challenge Warner gladly accepted. He went directly to Leslie Pinkstaff, president of the Montrose Chamber of Commerce, told him of Toll's favorable impression, and suggested that "the time was ripe for pushing the national monument project." Pinkstaff heartily agreed and named Warner a one-man committee to proceed with the project, since Warner was the only member of the old Lions Club committee still in the community.

Warner, now representing the Montrose Chamber of Commerce, corresponded with Toll about the proposed monument, and Toll, in return, outlined the proper steps which should be taken in presenting the project to the Park Service. Warner decided to prepare "packets of propaganda material" on the Black Canyon to be sent to influential and concerned persons, including Toll, Horace Albright, Director of the National Park Service, Colorado's United States Senators Edward P. Costigan and Karl C. Schuyler, and western Colorado's United States Representative Edward T.
Taylor of Glenwood Springs.

The county surveyor, J. E. McDaniel, helped Warner outline the boundaries of the proposed monument and make up a number of blueprint maps for the packets, based upon old Bureau of Reclamation maps. Dexter Walker of the Walker Art Studio in Montrose provided several sets of representative hand-colored photographs of the canyon, and Warner wrote a descriptive brochure covering all aspects of the history, natural history, and scenic features of the Black Canyon. He painted a rosy picture of potential developments.

A scenic road along south rim, with in some instances a short branch road leading out to a narrow point would be desirable and in other instances short foot, or horse back trails along the edge of the rim would be the most practical way of reaching certain interesting points. Suitable foot trail extending down into the canyon in the central area would be possible and quite desirable. Observatories built on Signal Hill near the eastern area of the proposed Monument, and on one of the high hills within the western area would be very desirable since from these vantage points it is possible to obtain a magnificent view... The spring... could be developed... A circle automobile route is possible by reaching the canyon rim over the present Scenic Drive, thence around Signal Hill and return to the main U. S. Highway No. 50 by way of the Old Government Tunnel road. Present auto road which terminates at canyon rim should be continued for a distance of two miles down the canyon reaching to the high ridge of hills in the western area of the proposed National Monument. No plans have been made as yet for the development of the north rim... though development is contemplated as a future project. A large and attractive ornamental gateway built of rocks from the Black Canyon rim and with an appropriate description of the canyon will be built on the main U. S. Highway at the point where the Scenic Drive leading to the canyon rim begins.

Finally, into each packet went an appropriate letter of transmittal; and the packets were put into the mail by Christmas of 1932. Also, on behalf of the Montrose Chamber of Commerce the
Colorado congressmen were asked to take up the monument creation with the National Park Service. 30

Meanwhile, things had moved faster in Washington than Warner had anticipated. On November 30, 1932, after reviewing the status of the Black Canyon area, Conrad Wirth issued the following recommendation: 31

It is recommended that this area be tentatively approved as a national monument project and that the Reclamation Service be approached to ascertain their attitude on the possibility of this area being used as a power project.

At the same time Garmerer expressed a very different opinion to Director Albright: 32

I can see no reason for establishing a national monument in this area. It is so constituted and located that nothing can hurt it, even if in private hands, and has no "historical or scientific" values sufficient to merit such status. I am afraid that if we start a precedent for the establishment of such a monument merely for scenic reasons, we will be up against tremendous pressure in the future from other sources for similar recognition. I am against it.

Albright, however, on December 5, approved the recommendation by the N.P.S. Branch of Planning, acting on Rogor Toll's report, that the Black Canyon "be tentatively approved as a national monument project and that the Reclamation Service be approached to ascertain their attitude on the possibility of this area being used as a power project." 33 Garmerer contacted them on December 7, 34 and the Bureau of Reclamation replied that it would have no objection to the establishment of the monument if this action "would not close for all time any further power and reclamation development." 35
The Park Service had received written or telephoned requests for action from many sources in addition to the Montrose Chamber of Commerce, including the Montrose Mayor and City Council, C. E. Adams, editor of the Montrose Daily Press, Uncompahgre Valley Water Users' Association, the Montrose Rotary Club, State Senator Lee Knous and Senator Schuyler, Senator Costigan and Representative Taylor. On January 20 the Western State College Outing Club at Gunnison endorsed the undertaking. And the Montrose County Commissioners, after endorsing the monument, designated the road to the south rim as a public highway.

One state organization especially active in the monument movement was The Colorado Association of Denver which seconded the recommendation of the Montrose Chamber of Commerce on February 2, 1933: "It [Black Canyon] is a sight well worth traveling far to see, and if given the dignity and prominence of being named a national monument many people more than now will visit it."

Acting on behalf of the many individuals and organizations supporting the creation of the monument, Director Albright approved on January 13, a recommendation by Conrad Wirth that "a proposed proclamation be submitted recommending the establishment of the Black Canyon National Monument," accompanying the recommendation with a map showing the Black Canyon land status, reclamation withdrawals, power site location, suggested boundary line, and the boundary line recommended by the Montrose Chamber of Commerce through Mark Warner.
At this time the proposed boundary line was submitted to the United States Land Office so that a proper description for inclusion in the proclamation could be obtained. On checking the land status, the Land Office discovered that the proposed monument lay within the area subject to the Ute Indian Treaty of June 15, 1879. This might mean that any new disposition of the land under the Public Land Laws would entitle the Indians to a renumeration of $1.25 an acre, a provision of the Treaty. And if it did become necessary to reimburse the Indians for the land, Albright felt, then the establishment of the monument would require congressional action and an appropriation, rather than just a presidential proclamation.

There had been an instance in which a forest preserve had been created on Indian land, and subsequently the Indians had to be reimbursed under treaty provisions. However, Taylor rationalized that forest reserves were a source of commercial return to the government, whereas a monument involved "no return to the Government, and it is set aside for the benefit of the citizens of the United States, including the Indians." Thus, in Taylor's interpretation "the Indians would have no claim against the Government for this area," under the circumstances.

With respect to the possible impasse, Conrad Wirth of the National Park Service commented "personally, it looks to me as if the legal interpretation of the Treaty as it affects the establishment of the proposed national monument should be decided by the Solicitor,"
while Moskey, also of the Park Service, noted pessimistically "... I see no way out. I believe the forest decision equally applicable to the inclusions of these lands in a monument." Taylor remained firm in his opinion that the proclamation should be prepared: "... It is not our business nor the Secretary's business to anticipate the court's decision. If the area were established and it was contested by the Indians, it would be up to the Court of Appeals to render a decision. If the decision went against the Government, it would then be up to [Taylor's] committee to set up a policy to pay for the land." 

Wirth and Moskey took the Indian treaty matter up with Albright on February 6, and he felt the only thing to do was proceed with the proclamation, transmitting it through the Indian Service as well as the United States Land Office. Brooks of the Park Service was detailed to prepare the proclamation, together with a letter or transmittal to President Hoover, while Conrad Wirth wrote a letter to the Indian Service explaining "our contract"s and the effect this move might have with respect to the Ute Indian Treaty. Wirth also made a special study of the Indian lands problem and on February 10 provided Albright with a three and one-half page report which pointed out all the inherent difficulties.

Before the proclamation could be presented to the President, it had to have the approval of the Secretary of the Interior Ray Lyman Wilbur. Hence, on February 17, Albright discussed the
matter with the Secretary, expressing his own opinion and informing him that Representative Taylor recommended the monument's establishment by proclamation "regardless of the possibility of imposing an obligation on the Government by so doing." Albright noted that whether or not the government would be obligated for $1.25 an acre was really a matter for Congress and the Federal courts to decide.

The Secretary, after careful review and strongly influenced by the Indian lands situation, finally concluded, however, that he "did not see how he could recommend it to the President for establishment by proclamation." Reluctantly, Arno Cammerer (N.P.S.) on February 20, wrote Taylor that "it is apparent that the Secretary wishes to adhere to this decision, and there is nothing we can do to further this proposed monument at this time."

Representative Taylor, fortunately, remained undaunted. When BIRTH visited him the following day, Taylor suggested that the Park Service go ahead and set aside the proposed monument area, despite the Secretary's disapproval, while he would introduce legislation into Congress, authorizing the monument's establishment and payment of $1.25 per acre to the Indians for the 17,019-acre tract, keeping the bill before Congress until it was passed. Taylor also discussed the matter with Commissioner Rhoads and Assistant Commissioner Scattergood of the Indian Service, and they agreed not to oppose the proclamation.
Then suddenly the Secretary of the Interior changed his mind and offered to transmit the proposal for the establishment of Black Canyon National Monument, and one extending the boundaries of Colorado National Monument, to the President as soon as the proposals were drawn up. 24 This new development caught Taylor by surprise. He had at long last decided to give up the immediate fight, planning instead to reintroduce the matter into the next session of Congress and before a new Secretary of the Interior.

The Park Service immediately completed the two proclamations and took them to the Indian Service for approval. That agency, however, did not feel its endorsement necessary, inasmuch as the lands concerned were actually under the jurisdiction of Congress. The Land Office reacted in the same manner, declining to initial the proclamations but not opposing them. This latter agency stated to the National Park Service that "the President had the right to sign such a proclamation although by so doing he would obligate the Government to the payment of $1.25 per acre." 25

The Black Canyon National Monument proclamation and letter of transmittal were then delivered by Mr. Burlew to Secretary of the Interior Wilbur, who signed the letter on February 28, and sent the two documents on to the President. 26

On March 2, President Hoover endorsed the following proclamation setting aside the most spectacular portion of the Black Canyon as a new Colorado national monument: "the last executive order
he will issue affecting that state."55

Whereas it appears that the public interests would be promoted by including the lands hereinafter described within a national monument for the preservation of the spectacular gorges and additional features of scenic, scientific and educational interest;

Now, therefore, I, Herbert Hoover, President of the United States of America, by virtue of power in me vested by Sec. 2 of the act of Congress entitled "An Act for the preservation of American antiquities" approved June 8, 1906 [34 Stat. 225], do proclaim and establish the Black Canyon of the Gunnison National Monument and that subject to all valid existing rights, the following described lands in Colorado, and same are hereby included within the said national monument:

[follows here a detailed description of the included lands, totaling 17,636 acres]

Warning is hereby expressly given to all unauthorized persons not to appropriate, injure, destroy, or remove any feature of this monument and not to locate or settle upon any of the land thereof.

The Director of the National Park Service, under the direction of the Secretary of the Interior, shall have the supervision, management, and control of this monument as provided in the act of Congress entitled "An Act to establish a National Park Service, and for other purposes", approved August 25, 1916 [39 Stat. 535], and acts additional thereto or amendatory thereof.

In witness whereof, I have hereunto set my hand and caused the seal of the United States to be affixed.

Done at the City of Washington this 2nd day of March, in the year of our Lord nineteen hundred and thirty-three, and of the Independence of the United States of America the one hundred and fifty-seventh.

Hoover's signature pen was sent to Representative Taylor who, in turn, presented it to the Montrose Chamber of Commerce through Mark Warner.56
As soon as Taylor heard the good news, he hastened to telegraph Charles Adams in Montrose;37

After three days' conferences with secretary of the interior, director of national park service, commissioner of Indian affairs, and commissioner of general land office, President Hoover today signed the proclamation creating Black Canyon National Monument and also an executive order making the addition I requested to the Colorado National Monument. Kindly advise Rev. Warner.

After reading the telegram, Adams immediately phoned Warner, asking him to come to the Daily Press office.58 Warner, of course, was delighted by the news. The two men stepped out of the office into the street, where they shared the good fortune with a growing crowd of businessmen who were congregating to see what all the excitement was about. During the exchange, Reverend Warner pointed out a dome-shaped hill in the distance, rising above the canyon's south rim, and noted that it was his favorite vantage point in the newly created monument. When Warner "had finished lauding the merits of that particular bump on the canyon rim, Mr. Adams with a big grin clapped his hands together and said, 'By jolly, we'll call that hill Warner Point.'"

Within a month the Montrose Chamber of Commerce, indebted to Warner for his active role in promoting the establishment of the monument, recommended to Director Albright that if a custodian were to be appointed for the new monument it be Mark Warner.57 The Park Service replied that at the monument no custodial services, either part-time or full-time, were anticipated.
Warner and his colleagues, however, were not to be forgotten by the local citizens. On Friday evening, January 26, 1934, the Montrose Chamber of Commerce held its annual meeting and banquet. Towards the end of the evening's program, President Hausor casually called upon Attorney Paul Littler to say a few words about the creation of Black Canyon National Monument as "one of the big things of the community the past year." Littler sketched the history of the establishment, including the diligent endeavors of Lytle, Wilcox, and Warner. Then he asked these three men, much to their surprise, to come forward, and presented each with "one of those Walker Art Studio's beautifully enlarged photographs of the Black Canyon, hand colored and beautifully framed, 22 x 27 inches." On the back was a list of the 72 business firms and individuals who had cooperated in financing the purchase of the pictures.

Warner, "being the more accustomed to speech-making before the large audiences conveyed to the meeting the sincere thanks and appreciation of the three, saying that it had been a pleasure to have performed any service on behalf of the monument that had been done. The other two endeavored to stammer their appreciation but were well nigh speechless from the surprise." So it was that a little over three decades ago Colorado's Black Canyon of the Gunnison National Monument came into being. Since then the many physical improvements, especially the new paved South Rim road, and the spreading fame of the Monument have encouraged increasing numbers of tourists and local sightseers to visit this recreational area. In accordance with National Park Service policy, no bridge has ever been built to span the gorge;
nor has any superhighway or maintained trail penetrated to its depths. As a consequence, Black Canyon remains today as one of the great wilderness chasms of the world.
REFERENCES

1 - An original draft of this chapter by Richard G. Bouldman was published in Colorado Magazine 40(3): 161-178, 1965, under the title "Black Canyon of the Gunnison National Monument." This represents a greatly revised version of the original article.


2a) - About 1895 pioneers Sam Hartman and C. P. Foster explored the canyon rim and were impressed by the Narrows. Hartman observed that "in this region the walls were between two and three thousand feet high. He felt this was a feasible place for a bridge as the canon is narrowest here." - Montrose Daily Press, July 12, 1929.

Although the Rim approach had been proposed for the Narrows, with the North Rim approach road coming down Grizzly Gulch, Mrs. Kay I. Wood, postmistress at Crawford, wrote the Daily Press in July of 1929 urging that consideration be given to bringing the road in through the "Poison Springs cattle country," where Mrs. Wood owned a ranch. She noted that the name "Poison Springs" was a misnomer. Originally the water was thought to have been killing cattle, but it was later discovered that the cattle were eating larkspur. - Montrose Daily Press, July 12, 1929.

3 - Lytle commented that "there was a canyon up there that was worth seeing and a road should be built so people could get to it." - Montrose Daily Press, ca January 25, 1934. Nat. Arch. File 2051 (No 79), Black Canyon.

4 - A great deal of the following information on relative to the establishment of the Monument was made available to me by Reverend Mark Warner in a letter of December 31, 1962, or came from a lengthy article, "Black Canyon Drive is Dedicated," in the September 2, 1930, issue of the Montrose Daily Press. Also, there was considerable pertinent documentary material at National Archives.

5 - Montrose Daily Press, July 12, 1929.

6 - Montrose Daily Press, ca July 4, 1929.

7 - Ibi d.


9 - Wilcox, among other activities, contracted the man who had built the bridge over the Royal Gorge, wrote Albright, took influential authors to the proposed bridge site, and generally boosted the proposed monument "in and out of season."
10 - Letter, Bell to Taylor, January 9, 1930. Black Canyon file, National Archives.

11 - Lytle also permitted Lions Spring to be used by visitors and eventually deeded to the Government some of the land he owned within the Monument area. Rather obviously, Lions Spring was named in honor of the Montrose Lions Club and not, as many present-day visitors anticipate, after mountain lions which might frequent the spring.

12 - Warner, Mark. Descriptive data on Black Canyon. Black Canyon file, National Archives.

13 - The information in this paragraph was related to he by Ben Terrill on May 28, 1965.

14 - This celebration was described in detail in "Black Canyon Drive Is Dedicated," Montrose Daily Press, September 2, 1930. The following account is based in large measure upon that article.

15 - The following episode is based upon information in the Montrose Daily Press, July 1, 1929.

16 - Letter, Wilcox to Taylor, July 17, 1929. Black Canyon file, National Archives.

17 - Letter, Taylor to Albright, July 20, 1929. Black Canyon file, National Archives.


19 - Letter, Bell to Taylor, January 9, 1930. Black Canyon file, National Archives.


22 - Letter, Albright to Bell, March 6, 1930. Black Canyon file, National Archives.


24 - Letter, Cammerer to Kinkin, June 10, 1931. Black Canyon file, National Archives.


26 - Toll recommended national monument, but not national park, status.
27 - Roger W. Toll, Report to Horace M. Albright, Director, M.P.S.,
November 1, 1932. Nat. Arch. File 2052 (RG 79), Black Canyon.

28 - Warner had already written Toll a long letter on December 1,
"going into detail about the canyon and proposed improvements
like those described to Albright... Sent along some Kodak
shots, as well." - Black Canyon file, National Archives. See
Footnote #29 for a delineation of the suggested improvements.

28a - Albright was especially appreciative for Warner's contribution:
"I wish to thank you in particular for the manuscript which
you compiled, giving us in considerable detail, descriptive
data on this area." - Letter, Albright to Warner, January
7, 1933. Nat. Arch. File 2051 (RG 79), Black Canyon.

29 - Warner, Mark. Descriptive data on Black Canyon. Black
Canyon file, National Archives.

30 - Senator Schuyler had received a petition from the Montrose
Chamber of Commerce. He commented to Albright: "It appears
from the literature submitted to me that this establishment
of the monument can be accomplished at a very low cost and
that it will add materially to the National Park System.
Doubtless you have received photographs and descriptive
matter of this proposed site and I would appreciate hearing
from you and an expression of your views as to whether or
not this is feasible at this time." - Letter, Schuyler to
Albright, January 10, 1933. Nat. Arch. File 2051 (RG 79),
Black Canyon. State Senator Lee Knous of Montrose wrote
Albright: "...Under these circumstances I am confident
that the designation of this area as a National monument
will meet the approval of all who are interested in the
preservation of our natural scenery..." - Black Canyon
file, National Archives.

31 - Recommendation by Conrad Wirth, November 30, 1932. Black
Canyon file, National Archives.

32 - Memorandum, Carmerer to Albright, December 1, 1932. Black
Canyon file, National Archives. Koskey agreed with Carmerer.

33 - Letter, Wirth to Albright, January 6, 1933. Nat. Arch. File
2051 (RG 79), Black Canyon. This was the same statement
which Wirth had prepared for Albright on November 30.

34 - Letter, Carmerer to Commissioner, Bureau of Reclamation,
December 7, 1932. Black Canyon file, National Archives.
"...we would appreciate hearing from you as to the status
of this canyon from the reclamation standpoint. Any
information as to your future plans or proposed disposition
of the area under withdrawal, will be greatly appreciated."

35 - Letter, Wirth to Albright, January 6, 1933. Nat. Arch. File
2051 (RG 79), Black Canyon.
36. "...We have received a good array of petitions and letters from official and unofficial organizations in Colorado, all urging the establishment of this monument." - Letter, Albright to C. E. Adams, Editor, Montrose Daily Press, January 7, 1933. Nat. Arch. File 2051 (RG 79), Black Canyon.

37. Letter, Wirth to Albright, January 6, 1933. Black Canyon File, National Archives.


42. Letter, Wirth to Albright, February 2, 1933. Nat. Arch. File 2051 (RG 79), Black Canyon.


44. Ibid.


48. Ibid.

49. Letter, Cameron to Taylor, February 20, 1933. Nat. Arch. File 2051 (RG 79), Black Canyon.

50. Albright memorandum, op. cit. Ibid.

51. Albright memorandum, op. cit.

52. Ibid.

53. Ibid.
54 - Ibid.; also, Letter, Laurence Rickey to William, March 2, 1933, Nat. Arch. File 2051 (RG 79), Black Canyon.

55 - Denver Post, March 3, 1933.

56 - The letter of transmittal, signed by Laurence Rickey, Secretary to the President, and dated March 2, read as follows: "I have the pleasure in sending you herewith the pen used by the President today in signing the proclamation establishing the Black Canyon of the Gunnison National Monument in Colorado." Taylor kept the original letter of transmittal and sent Warner a copy. — Letter, Warner to Deideman, December 31, 1962.

Reverend Warner called to my attention an interesting sidelight on Taylor, who worked so tirelessly for the establishment of the Monument. As a hobby Taylor collected gavels, especially ones made of native materials from projects he had supported in the West. When he called this hobby to Warner's attention, Warner took the matter up with Leslie Savage, a banker of Crawford who, representing the communities of the North Fork Valley, had worked with Warner in promoting the Black Canyon; and they decided to present Taylor with a gavel made from materials collected within the Monument.

On December 30, 1938, Savage sent out three men, Wes Erickson, Clarence Drexal, and John Lynch, with a team and sled to search the North Rim for a wood sample suitable for the head. They spent all day in the search, finally returning late evening with two specimens of juniper and one of pinon. Meanwhile, on January 5, Reverend Warner and D. B. Walker went up to the South Rim, covering the last few miles by ski, to collect samples of mountain mahogany, serviceberry, and Gambel's oak and some pieces of granite. Wes Erickson of Peonia actually made the gavel, using a juniper head, a handle of mountain mahogany, and some polished stones and chunks of pink and gray granite ornamenting the head and end of the handle. The George J. DeVimy jewelry store of Montrose added inscribed silver bands, not made of Black Canyon material but nevertheless representative of Colorado.

When finally completed, this ornate gavel was sent to Senator Ed Johnson who presented it to Taylor on behalf of the Montrose Chamber of Commerce and the Consolidated Chamber of Commerce of the North Fork Valley at a meeting of the Colorado State Society of Washington on March 17, 1939, at the Wardman Park Hotel.

57 - This telegram was cited in the Montrose Daily Press of March 2, 1933.

58 - Letter, Warner to Deideman, December 31, 1962. The following account was related by Warner. By the way, Warner had been very anxious that the private land including Lions Spring
be included within the new monument; and he offered an interesting insight into the status of this springs land:
"...The thing that has actually occurred relative to this spring and land adjacent has caused us to push this matter at the present time. Some years ago this land on which the spring was located was a part of the Reclamation Withdrawal but at the request of a homesteader who evidently wanted the spring this portion was released and made available for entry perhaps without the knowledge of the spring on the part of the Water Users Board which released it. This particular entryman did not acquire title to the land and it seems to have lain vacant for some time. But after we began our activities along the canyon rim in the spring of 1929 we find that Homestead 041760 was filed on in June of that year and Homestead 042397 was filed on in November of the same year. We learned a few days ago that patent had just been issued on Homestead 042397 containing the spring. We also learned that before patent was issued this homestead had been transferred by warranty deed to a man who owns Homestead 016366, and also land in Sections 11 and 12 through which our Scenic Drive passes. In talking this matter over with Congressman Edward T. Taylor a few weeks ago he was of the opinion that this spring could not be legitimately filed on being the only available water supply and our attorney states the same thing and states further that the land could be contested after a patent has been issued under certain conditions...." - Letter, Warner to Albright, December 21, 1932. Black Canyon file, National Archives.

59 - Letter, N. M. Fleming, Secretary, Montrose Chamber of Commerce, to Albright, April 5, 1933. Nat. Arch. File 2051 (RG 79), Black Canyon.

60 - The account of this annual meeting and banquet was published in the Montrose Daily Press about January 25, 1931. A copy of the article in in National Archives File 2051 (RG 79), Black Canyon.

61 - Ibid.

62 - Incidentally, after the monument had been created, Warner, together with J. E. McDaniel and Russell E. Hanser, were designated by the Montrose Chamber of Commerce as the "Black Canyon Committee of the Chamber of Commerce;" and this committee "worked together directing and promoting every interest pertaining to the latter development of the monument up to 1940, when Warner left for military service. After the war he resumed his position on this committee until moving to Denver about 1957."
CHAPTER VI

THRU THE BLACK CANYON

by Mark T. Warner

Ed. Note: This account of the 1934 U. S. Geological Survey trip through Black Canyon of the Gunnison, written by Reverend Mark T. Warner, who accompanied the group, was published in the Montrose Daily Press on October 1, 1934. Since it is the only detailed account of a river trip through Black Canyon since the Monument was created, it seems worthy of historical inclusion in this administrative history.

The occasion for making the trip thru the Black Canyon which will be described in this article, was for the purpose of an official survey of that portion of the canyon lying within the bounds of the newly created Black Canyon of the Cunnison National Monument, established by proclamation of former President Herbert Hoover on March 2, 1933. Mr. Robert O. Davis, topographer of the U. S. Geological survey had been sent to Montrose for the purpose of making a detailed survey and topographic map of the national monument area for the National Park service. Other crews of the Geological survey had been at work in the monument earlier in the summer, running levels and establishing triangulation points preliminary to the actual mapping of the monument by Mr. Davis.

The Black Canyon of the Gunnison has always held a strange fascination for those who had the privilege of peering into its awful depths and with the eye following the course of the roaring Gunnison river as it tumbles and foams and dashes its way over and among great boulders to be found all along the narrow river bed at the base of the precipitous canyon walls. But his fascination and the thrill of the Black canyon is greatly intensified for those who are privileged to traverse the rough
river bed, and view the rugged canyon walls from below. There are hundreds of pinnacles, towers and other peculiar rock formations which may be seen projecting into the sky as one follows along the bottom of the canyon but which cannot be distinguished at all from either canyon rim as they blend into the colored granite walls. One will never have seen the Black Canyon in its more majestic and thrilling aspects until he sees it from the bottom, and the work of developing the monument for the benefit of the park visitors will never be complete until a satisfactory trail or other means of access to the bottom of the canyon has been constructed. This we anticipate will be done in due time.

It was necessary for Mr. Davis and party of the Geological survey to make this trip thru the Black canyon in order to obtain the necessary data for making an accurate topographic map. Up to the time of making this official survey, very little accurate information was available concerning the canyon as regards depth, width and other pertinent facts necessary for the proper appreciation of this stupendous gorge. The survey authorized by the Denver and Rio Grande railroad and made by Bryon H. Bryant and party during the winter of 1882-83 furnished much interesting information relative to the Black canyon as did the exploring parties of Prof. A. L. Fellows and Mr. W. W. Torrence in the summer of 1901 who traversed the river bed of the canyon in the interest of the Gunnison tunnel that was being proposed at that time. This information while very interesting and valuable because it represents the difficult, pioneering work along this line, will now be supplemented by a large volume of accurate data
obtained by Mr. Davis in his recent survey. This data will prove invaluable to the visitor to the national monument, since it will now be possible to know for a certainty the actual depth and width of the canyon at all the more interesting points along its course.

The purpose of the survey thru the canyon was to locate or map the river bed in both vertical and horizontal position, showing the plan of the river and illustrating its gradient by means of a level line giving the elevation above sea level of the river bed along its entire course. With facts relative to the elevation of the canyon rim having been obtained thru an accurate survey, by comparing the rim data with that obtained by survey of the river bed, it is possible to determine the depth, width and slope of the canyon walls at any point. This interesting formation may all be obtained from the excellent topographic map which Mr. Davis is now making of the national monument. Since our trip thru the Black canyon a few weeks ago, Mr. Davis has done sufficient work on the canyon rim to be able to compile certain interesting data relative to the physical features of the canyon and these facts and figures have been gladly furnished me for use in this story. In giving this information to the public, however, before the publication of the map, it should be kept in mind that all elevations and other figures and data are to be regarded as "preliminary" and therefore subject to adjustment.

Soon after the arrival of Mr. Davis in Montrose, about July 1, 1934, he came to visit me telling of his mission and work he had come to do in connection with mapping the Black canyon of the Gunnison National monument. He with Mrs. Davis had come here from the Carlsbad Caverns National park, where he had been engaged in similar work. Of course I am always glad to furnish information to anyone interested in our national monument, especially if interested in the development of the park, and so after a reconnaissance trip to the monument looking over roads, triangulation points and other matters of interest, Mr.
Davis began his work.

In a few days we met together again to make plans for the proposed exploration and survey of the canyon. Mr. D. B. Walker, photographer of Walker Art Studio, and I had talked at various times of making a trip thru the canyon but no definite plans had been made, so when invited by Mr. Davis to accompany the Geological survey party on its expedition this seemed a very satisfactory arrangement as the larger group would in many ways prove an advantage. We decided to take a general service man along with the party and Glen Fleming was chosen for this position. It was also deemed advisable to employ two other young men whom we called "top men" whose duty it would be to help transport our equipment and provisions into and out of the canyon, to bring extra provisions down to us and to follow our progress from the rim day by day. The two Kane brothers, Harry and Charles, were selected for this work. In addition to those already named, the party consisted of the two rodmen, Palmer Bowen and Robert Eykyn.

In making our plans for the trip we consulted all available information in an effort to ascertain just what we might be expected to encounter by way of danger and hardship, and what equipment and provisions would best serve our needs. Many fascinating stories have been told and written concerning the experiences of men, who in other years had ventured to match their courage and endurance with the treacherous waters of the Gunnison, but we were not alarmed at these stories. We knew that when their explorations were carried on, all the water of the river was flowing entirely thru the narrow Black canyon as there was no Gunnison tunnel at that time, while in our case we did not expect to contend with a great deal of water as most of the water was at the time of our trip being diverted thru the tunnel for irrigation purposes in the valley. Still it was a problem to decide just what to take to be sure that we had all that we actually needed and yet not be encumbered with unnecessary luggage.
So we made our selection largely thru the process of elimination.

We agreed among ourselves that no one would take a shaving outfit, feeling that whiskers could be more easily carried on our faces than shaving equipment in our packs. Any way we were not much concerned about personal appearance, as we did not anticipate meeting anyone in the canyon to check up on us, and we did not meet with a single human being during the five days that we were in the canyon except our top men and two fishermen whom we encountered the second day. Each of us carried an army pack containing provisions, face towel, tooth brush, extra socks, mess kit with knife, fork and spoon, a shelter tent half, army blanket, jumper jacket and a few other small articles. The pack as made up would average perhaps thirty to thirty-five pounds in weight. In addition to our packs we each carried miscellaneous articles such as cooking utensils, fishing tackle (which had been better left at home), first aid kits, hand axes, wire and nails for making rafts, white and red cloth for making flags to be put up in the bottom of the canyon in connection with the survey, kodaks flash lights and a few other necessary articles. Davis carried his surveying instruments, consisting of alidade and planetable, Bowen and Eykyn their rods for taking elevation readings, Walker his heavy kodak, and three of us carried a 50 foot coil of rope each, to be used for life lines if necessary and to aid in climbing over gigantic boulders frequently encountered in our river crossings.

Our food while not consisting of a very large variety, proved to be quite substantial in more ways than one. For instance we had our bread for the entire trip baked after a recipe which seemed to have originated in the mind of Bowen. I think it contained rye, whole wheat and white flour, did not contain yeast and each loaf weighed about two pounds. Bowen had told us that this bread would be very firm, that you could not crush it or damage it in any way and he was exactly right. Strapping it in any army pack did not injure it, neither did the gigantic boulders of the Black canyon. It tasted mighty good,
however, and proved quite serviceable, enduring throughout the entire trip. We took along with us much staple camp foods as bacon, ham, dried fruit and condensed milk. In addition to these necessities we were supplied with grape-nuts, lunch meats, chocolate bars and oranges. Most of us preferred tea to coffee so we drank tea with our morning and evening meals and gallons of Gunnison river water the rest of the time. Among the lunch meats was one called salami, a favorite delicacy with Davis. However, if you are at all familiar with it you might not be inclined to call it a delicacy. It is a highly flavored cased meat, does not respond well to the action of one's teeth and has remarkable powers of holding up well under most adverse conditions. Somehow it never did prove popular with our party except with Davis and myself, I being the only genuine convert to the use.

All plans having been completed for our trip thru the canyon, we left Montrose on Monday morning, July 16, 1934, driving over the old government road to what was known in the tunnel construction days as the "milk ranch." Here we put on our packs and other equipment, posed for our first official picture, then started our descent into the canyon and after a brisk, thirty-minute walk arrived at the East Portal of the Gunnison tunnel at 8:40 a.m. Here we rested a few minutes and visited the genial Mr. Tupper who looks after the river portal of the tunnel. Davis began his survey of the river bed at this point, tying in with the elevation established by a previous geological survey party. It is interesting to note that at East Portal of the Gunnison tunnel the river bed is some 715 feet higher in elevation than the city of Montrose, and below Red Rock Canyon at the western boundary of the national monument, the elevation of the Gunnison river bed is approximately 435 feet lower than the city, indicating a drop of 1100 feet in the 12 miles of the river within the monument boundaries.

Leaving our top men, Charles and Harry Kane, at the East portal, the
remaining six members of the party began the five day journey down thru the
black canyon, anticipating some hardships and plenty of thrills, and we were not
at all disappointed in either regard. After launching out on a venture such as
this, it is quite easy to understand why men are captivated by the challenge of
the unknown. One goes on and on, not knowing just what may be encountered even
in the next few yards, only reasonably certain that it will be different and
interesting.

The river bed in this section is comparatively flat and smooth and when I
use the word "smooth" I mean that it is covered with small boulders rather than
large ones such as we encountered a little farther down the canyon. The stream
bed in this area averages 150 to 200 feet in width with extreme width in places
averaging 250 feet. This average continues generally to the point on the south
rim known as "pulpit Rock." The width of the canyon from rim to rim thru this
area averages 3000 feet, and the depth ranges from 1300 feet at East Portal to
1920 feet at a rock some two miles below East Portal. The canyon walls thru
this section are rather sloping but quite rugged with rock ridges and pinnacles
showing prominently. The gentler slopes are covered with shrubs and brush of
various kinds with tall evergreen trees well scattered thruout the area. The
box elder is the common tree of the canyon bottom, growing on the small benches
and sandy places along the river bed. A species of cottonwood is also quite
common.

Following the left side of the river from East Portal the going was com-
paratively easy for the first half mile or until we encountered a smooth rock
wall some 50 feet high with a great pool of deep water at the base of it. Here
we made the decision that wherever possible it would save time and be more
satisfactory in every way to cross the river above such pools than to transport
our clothes and luggage across the pools. So we waded the river at this point
not stopping to remove clothing or shoes and found the water about knee deep.

Following along the right side of the river for another half mile we encountered a smooth perpendicular wall about 100 feet high with a large, deep pool at its base. It is impossible to climb over these projecting walls, and one must either swim the pool or cross the river to the left by wading, the water being a little more than knee deep. The canyon walls begin to close in at this point (station 1 mile below East Portal) they are smoother and largely bare of trees and shrubs.

We found the bed of the river at this point quite narrow and covered with huge black boulders worn smooth by the action of the water, and these boulders are as black as coal. They extend for many miles thru the canyon and vary in size from a foot or two in diameter to the size of a small house. We found the traveling very difficult for a couple of hundred yards and the heat intense. I kept a drinking cup hanging on my waist belt all the time and from this cup we drank gallons of water as we worked our weary way thru the canyon. Because of the great heat experienced during the daytime one requires great quantities of water and if the river water were not available all along, the hardships of the trip would be greatly increased. While stopping to rest for a few minutes under a box elder tree, Davis in looking up at the south rim of the canyon discovered a large bird flying among the crags. We all watched this bird as it soared among the pinnacles and finally alighted on a rock point. The bird proved to be a mature golden eagle which probably had a nest in that locality. A little farther down the river we discovered a small spring coming from the base of the canyon wall, the water from which was very clear and cold. At noon we stopped for lunch beside a large, deep pool of water just off a great sandbar. Before eating our lunch we enjoyed a wonderful swim for about thirty minutes or more. A couple of us paid dearly for this first day's swim for we acquitad badly sunburned shoulders which made our heavy packs for the next couple of days quite painful to carry. The swim, however, proved so delightful and refreshing
that on each succeeding day our stopping place for noon lunch was always determined by a good swimming hole.

Starting down the river after lunch we soon encountered on the left side a rugged wall about 100 feet high with a deep pool at the base. In this case we could take our choice of either scaling the wall or wading the river. Three of us climbed over the wall while the others crossed the river, only to find about 800 yards lower down that they had to again cross the river to our side. Walker took some very fine pictures in this section of the canyon. At station 2.8 we noted two small springs at the base of the canyon wall on the south side, both of which flowed excellent cold drinking water. (The station figures given in this article represent mileage distances from our starting point at East Portal.) In this section of the canyon we found the channel filled with massive boulders and the river almost disappearing among them. At station 3 miles, we crossed the river to the right with Walker and myself wading across the swift current considerable above our knees, while the others crossed by jumping from one smooth rock to another. This type of rock crossing was always treacherous as with heavy packs and hands occupied with luggage, one could easily lose balance, or slip off a rock, or worse still under estimating the distance between rocks land in the midst of a deep hole or swift rapids usually found between the rocks. But fortunately no accident of this kind ever occurred. At station 3.2 we came upon a good sandbar and stopped, presumably for the night. But while we sat resting watching Eykyn and Fleming swim, Davis and I reached the conclusion that if we should go down the river to the next turn we could see pulpit rock on the south rim. So we decided to move on down, somehow feeling that we could sleep better that first night if we were in sight of some point which we could recognize. We were not disappointed in our expectations for we could easily see Pulpit rock and Spruce Tree point farther down the canyon. In order
to ascertain our location in the canyon relative to the rim, and to check our progress from day to day, we had previously placed four flags at points along the rim from which they could be seen from the bottom, the first having been placed at Pulpit rock. Coming upon a good sandbar at 5:45 p.m. we stopped for the night, having made three and a half miles the first day.

We learned during the experience of that first day that there were three things essential for our personal comfort and were guided accordingly by these during the remainder of the trip. We found that we must have plenty of drinking water throughout the day, which was always obtainable from the river. We must have a good swimming hole at noon to refreshen us after a hard morning of rock climbing, and at night the chief requisite was a sandbar large enough for sleeping quarters for all of us. These were rather scarce thru a large portion of the canyon, especially that section from Pulpit rock to high point, about a mile below the Bridge site.

It was not long after we had stopped for the night until camp fire was burning on the sand and the air filled with the delightful odor of bacon and fried potatoes and onions. Davis and Walker were the chief cooks and they were quite proficient in camp culinary art. Ordinarily I would do a great deal of this sort of work in a camp, but on this trip I was charged with the responsibility of providing trout each day for the camp menu. However, I would have accomplished more as a cook, for as a trout fisherman I proved a total failure, catching just one trout throughout the canyon trip. The others who fished net with the same results. We had nothing by way of bait or lure in which they were interested. After the evening meal we sat around our camp fire until the embers died out, then retiring to our downy beds on our sand mattresses to await sleep which was never long in coming after a day of hard work climbing over granite boulders of all sizes. Really, a sandbar mattress can be made.
most comfortable. It can be adjusted to conform perfectly to the particular size and shape of any individual. If you want a pillow of any certain proportions, all that is necessary is to heap up the sand under the head of your blanket to the desired dimensions. If you awaken in the night with a cramp in any part of the body, one only needs to reach under the blanket and either pile up the sand or take it away until the affected spot on the body is made comfortable. For bedding we took nothing with us but a thin shelter tent half to spread on the sand, over which we placed our single army blanket half of which was under us and the other half over us. This proved sufficient however as the nights were just delightfully warm until morning. We were surprised to find this true and it can be explained possibly on the grounds that the sand and rocks and canyon walls absorb a great deal of heat during the intensive heat period of the day and all during the night this heat is thrown off. Even the night breezes were delightfully warm and added greatly to our comfort. Davis and I discovered a few days ago while viewing the canyon from the north rim that the first night's camp was located directly under the point occupied by the construction camp on that side of the canyon, and can also be seen at the farthest bend in the river looking upstream from Pulpit Rock. I have slept out in the open beneath the stars upon many occasions and in many places, but never in a more elaborately ornamented bedroom than this with the spires, pinnacles and towers of the canyon rim almost completely surrounding us and it was a rare privilege we enjoyed of lying on our sandbar bed and watching the morning sun illuminate these various points as it slowly flooded the canyon with its descending rays. And this was an experience that we enjoyed every morning - an experience that one cannot have except in the depth of a rugged canyon like the Black Canyon.

During the travels of the first day, Bowen, Fleming and I had worn some very painful blisters on our feet and these had to be taped with adhesive each
coming upon rising. Very fine sand would get into our shoes during the day and this, together with water-soaked shoes much of the time greatly irritated our blistered feet. The sand would even work under the adhesive and when it did the adhesive acted then about like very fine sandpaper. Our greatest suffering was caused by sunburned shoulders and blistered feet. Bowen and Fleming each developed some sort of stomach trouble the second day which made travel very difficult and slow for them that day. However they stayed with it nobly and experienced no trouble after that.

We had previously arranged with the top men to appear on Pulpit Rock at or about 11 a.m. of the second day. In case we should pass before that time we were to put up a flag at the base of a group of pine trees previously designated. This we did and moved down the canyon. About the appointed time Davis discovered the Kane boys standing against the railing at Pulpit Rock. The next thing was to attract their attention in some way. We made a white and red flag and waved that, but they did not seem to see it. Then we hit upon the plan of a signal fire as used for centuries by the American Indian. I hastily built a large fire of driftwood and upon this the others piled green branches and leaves from box elder trees. A huge column of white smoke immediately ascended upward and in a few moments, Davis watching the boys thru his instrument saw them wave their arms in answer to our signal. They understood then, that they were to immediately descend into Black Canyon with an extra supply of provisions sufficient to last throughout the remainder of our trip. They descended thru Echo canyon on the south rim, just above Rock Point, about half way between Pulpit rock and park headquarters at Lion spring.

We had, before discovering the top men, crossed the river on rocks to the left side. When directly under Pulpit rock, Davis computed the depth of the canyon at this point and found it to be 1770 feet. From Pulpit rock on for the next four miles, our traveling was exceedingly slow, difficult and somewhat
dangerous in some places. The river bed is quite narrow thru this section averaging approximately 100 feet, the canyon walls rather smooth and straight and the bottom of the canyon filled with immense boulders. We encountered a large pool of deep water just below Pulpit rock but we were able to get around this without crossing the river by the aid of a rope stretched along the wall. After the last man was over the rope was given a flip and the looped end detached from a pointed rock and drawn across the pool. It was soon necessary to cross the river to the right which we did by climbing over large, smooth boulders with the aid of the ropes. At times we found it to be very dangerous to attempt to scale these smooth rocks with deep water rushing between them while carrying out heavy packs, so in such cases we would get one man somehow across the rapids and on top of a large rock, then by tying each article of luggage with a rope transport them across in that way. When necessary for safety we would use the rope for crossing such places, sometimes employing it to climb up a large smooth boulder and again using the rope to descend to a smaller rock lower in the river bed.

We did not stop for lunch the second day until about 2:00 p.m. Meanwhile the boys had reached the bottom of the canyon with our supplies. Hearing us talking they decided to go up the canyon to meet us. Upon reaching the lower side of "the Narrows" they found it necessary to leave their clothes and swim thru. We were enjoying our daily swim when they came upon us and after sharing with them our swim and our lunch and making further plans for the remainder of the trip, the boys decided to go back to Echo canyon and begin their long hard climb to the rim. They informed us before leaving that at this narrow portion of the Black Canyon we would have to swim thru and build a raft to transport our luggage.

Proceeding down the canyon after lunch, or about 3:15 we soon passed a
good spring of water coming from the south canyon wall. A few yards farther down we found it necessary to cross the river to the right which we accomplished by the boulder route. Here another spring was discovered coming from near the base of the north canyon wall. Growing on a little grassy bench in the vicinity of this spring, we found some of the most beautiful ferns and Oregon grapes that I had ever seen, the latter taking the form of a shrub with branches three feet long. We found the same thing true of great patches of poison ivy which we encountered all thru this section of the canyon growing on the little benches and brushy slopes just above the canyon bed at the base of the walls. The ivy we found was in the form of a shrub three to four feet high rather than a vine, and we frequently found it necessary to walk and crawl thru these shrubs, but fortunately none of us were affected by the ivy. Late in the afternoon we found it necessary to cross the river again on boulders to the left side which would be the south side of the canyon a short distance above "the Narrows." At this crossing we found some very interesting water-worn boulders. Cylindrical holes have been worn into the very heart of these massive granite rocks by the action of the water and sand over a long period of time. In one instance the hole was found to be about six feet in diameter and seven feet deep with an opening worn thru the rock at the bottom. Davis and Bowen climbed into this hole and Walker took a picture with the head of Bowen protruding from the lower opening and the head and arm of Davis showing at the top opening. This particular rock may be seen from the bridge site locking down stream.

We reached "the Narrows" about 5:00 p.m. having made only one and one half miles this day because of the difficulty of travel which was intensified as a result of our sore feet and shoulders. Walker took some very excellent pictures in this section of the canyon, especially of "the Narrows". We soon sized up the situation and found that the only possible way to get thru was to swim and
made a raft on which to transport our luggage. Driftwood was rather scarce in this area, but we were able to find enough to build a satisfactory raft. We tied our three 50-foot lengths of rope together and attached one end to the raft while a couple of us held the other end. The raft was loaded and the other men swam alongside and back of it pushing it thru the water close to the south wall, as the quiet water was along this side of the canyon. With the raft safely on the other side we found that we had used 140 feet of our rope. This hole was much longer and the current very swift along the north wall. With the rope the raft was pulled back up stream for a second and third load of luggage. We finished transporting our luggage about 6:30 p.m. and finding a double terraced sandbar in a cove along the south wall we decided to make camp for the night.

Davis and Eykyn went down to the mouth of Echo canyon to look after the provisions that the Kane boys had left and returned bringing with them a cake and copy of the Denver Post and the Daily Press of the day before which Mrs. Davis and Mrs. Warner had sent down with our provisions. We greatly enjoyed our cake that evening and the next day. It was rather an interesting experience to sit around the camp fire that second evening in the depths of the Black canyon and read under flaming headlines of the Daily Press, the story of our going into the canyon the morning before, and also the interesting account of the earlier exploration parties of Bryant in the winter of 1882-83 and Torrence and Fellows during the summer of 1901. We very much enjoyed our night at this place. We felt that we were almost completely boxed in by the massive black walls and only a small portion of starlit sky visible above us. Davis was the last man to select his sand mattress for the night and found nothing left except a low spot on the edge of the lower terrace. He smoothed over the sand in this depression and a large rock on the lower side kept him and his bed in place during the night. This bedroom can be plainly seen from a point on the north canyon rim.
We were up early Wednesday morning and soon making preparations for a hard day. After morning camp duties were all finished one of the inmen went thru "the Narrows" for a level reading. We had previously decided to measure the canyon at this point so Davis and Fleming, each holding the end of a string swam to the narrow portion of the gorge, Davis taking the north way with the current. When each reached their respective sides of the canyon, they tightened their string and holding their marks swam back to shore. Upon measuring the marked string we found the canyon at "the Narrows" to be just 40 feet wide. It is the narrowest place in the entire Black canyon and thru this narrow gorge the mighty Gunnison pours its turbulent waters. The canyon at this point is 1725 feet deep.

Every member of our party decided that this portion of the Black canyon for about one and one-half miles each way from the "the Narrows" is by far the most fascinating and thrilling of any part, and from the bottom is much more magnificent and impressive than from the top. A little development work such as a trail down thru Echo canyon the mouth of which is approximately 200 yards below "the Narrows" and a hanging foot-bridge constructed along the south canyon wall for about 150 feet would give anyone a tremendous "thrill." At the same time it would give easy access to the upper portion of the canyon without the necessity of swimming "the Narrows." Those of us who are quite familiar with the canyon have reached the conclusion that this is the logical place for the construction of a bridge if the geological structure of the island off the south rim would prove satisfactory. It is a magnificent set-up for such a structure with a short 150 foot span of bridge connecting the south rim with the island, a road across the island, then the longer span of bridge across the canyon to the north rim. From the center of such bridge, one would be able to get a canyon view perhaps unexcelled by anything like it in this country. In addition to affording a marvelous scenic attraction, this bridge would serve
a very great utilitarian purpose in connecting the Black Mesa highway on the north rim of the canyon with U.S. Highway 50 on the south side thus saving some 75 miles or more of travel now necessary to get around the Black Canyon.

Leaving "the Narrows" at 8:00 a.m. Wednesday morning we proceeded down the canyon on the left side making our way slowly over huge, smooth, black boulders which glinted in the light and looked like massive lumps of coal. Upon reaching Echo canyon we picked up our supplies left by our top men. These added a great deal of extra weight to our packs, and the shoulders of none still being sore from sunburn and our feet getting more painful each day and being in the most rugged portion of the canyon, you can imagine perhaps something of our discomfort experienced in that day's travel. At Echo canyon we had to cross the river to the right side which we accomplished on large boulders. Along here we found many fresh rock fragments that had evidently been blasted from the road being constructed on the north rim. We were somewhat afraid of this blasting on account of rocks being thrown into the canyon, but fortunately none came over at any point while we were passing along underneath. About 200 yards below our first river crossing of the morning, we found it necessary to cross again this time to the left, or south side. This crossing presented a problem. The narrowest channel between boulders was too wide to get a man across. We found a small log among the rocks and this was floated down and so maneuvered as to lodge against the rocks at either side of channel. One man ventured across on the log and reached the other side safely. A rope was stretched across and by the aid of this rope to steady us, we all crossed without any slipping into the rapids. About 100 yards below we again encountered a perpendicular wall with a deep pool at the base and it was necessary to cross the river over boulders to the north rim. This crossing made a little while before noon, was the last one made during that third day. From this point we could see our No. 2 flag
which had been placed on a rocky point of the south rim just above the lower, cone-shaped island which is a short distance above Lion Spring canyon. We found a large flat rock in this area approximately 65 feet square and a great many but little smaller. From this point, station 5.8 below East Portal we could see our flag No. 3 which had been placed at the Bridge site.

We stopped for lunch about 1:00 p.m. on a sandbar beside a deep swimming hole. Here Walker and I decided to do a little clothes washing before our swim, so he cast his underwear into the pool near the edge and turned to do something else with other articles of clothing. In a few moments he discovered his underwear had totally disappeared, never to be recovered. We ate our lunch under the shade of a huge black rock 42 feet high. Starting out after lunch we kept above the river boulders as much as possible preferring to go thru the ivy, Oregon grape, current bushes and other shrubs in preference to working our way over the large rocks. At times we would drop back to the river bed for level readings and drinking water. On one of the little beaches we found the handle part of an old boat we washed up there and left during a time of high water. I picked it up and examined it and discovered that it was wrapped with a heavy leather band about eight inches wide and securely nailed to the oar. Cut deep in the leather was the name in large letters, "Kolb." This oar was probably used by E. L. Kolb a representative of the National Geographic Society, who went thru the canyon I understand in a boat or canoe several years ago, tho I have nothing authentic on this as yet. I stood the oar on end and piled rocks around it to attract the attention of other explorers who might be passing.

The river thru this section makes a tremendous drop of 260 feet in a mile. There are several deep rapids in this mile just above the Bridge site and one waterfall of 43 feet. As we looked down the canyon from a point above the falls and saw the water rushing and plunging among the huge boulders and could
see only the tops of the spruce trees below, I can assure you that the outlook did not appear very hopeful especially in view of the fact that it was time to stop for the evening and no sandbars were in sight. However, we made it thru after some strenuous rock climbing and directly under the Bridge site we found a large flat rock 50 feet long by 30 feet wide and with a small sandbar below it alongside a large deep pool of water. We found many rock fragments scattered over the sandbar where we would sleep, and the flat rock upon which we would cook and eat and we knew that these were broken from larger rocks which visitors to the Bridge site had at times hurled over the canyon rim in order to hear them crash. I decided to fish awhile before supper and standing at the edge of our bedroom, about the third cast with a small spinner I hooked and with the aid of Fleming landed a nice trout weighing from one and a half to two pounds. I was very optimistic with this success and thought perhaps I had discovered the proper lure, but not so as this was the only trout caught by any of the party on the entire trip. Catching this trout however, was an inspiration to the boys to get supper and it was not long until it was sizzling in bacon grease over our camp fire. It was quite a task to get from our dining room on top of the large rock to our bedroom below. We used a rope to get down off the rock, then had to work our way for several feet between the underside of a flat rock and some driftwood which was a rather tight squeeze. Our luggage and water for cooking was raised and lowered over the large rock by means of a rope. This camp site can be seen from the rocks on the rim just a few feet north of the Bridge site railing, and can be very easily seen from the opposite side of the canyon.

We were rather slow in getting started on Thursday, the fourth morning as we were tired and worn from the hard day before altho we traveled only 1.3 miles. Leaving on the right or north side of the river we only went 200 yards until we
had to cross to the south side. This crossing was effected by means of using ropes over large boulders forming a natural bridge. The water runs under and among the large rocks at this point practically disappearing from view. Some very interesting potholes were discovered in some of the rocks of this natural bridge and these, together with the natural bridge can be seen from the Bridge site on both canyon rims looking down the river. This crossing was rather dangerous and difficult as in one instance there was a sheer drop of some ten feet to a small round boulder below with a deep and swiftly moving current of water running by. A few yards below we had to cross the river to the north side, this crossing being accomplished with the aid of our ropes. This was our last difficult crossing as the river widens at this point, and the boulders are not so large, or at least the large ones are not so numerous. Near the last rock crossing we came upon a small waterfall of several feet drop and under a large rock was a cave-like hole filled with mist from the falls and stepping into this was like stepping into a real refrigerator.

Passing by the mouth of Grizzly gulch, we came upon a large cave that gave evidence of having been used a great deal by fishing parties coming down into the canyon from the north side. Various cans and cooking utensils were found on a shelf. Some notes written on various kinds of paper were also found. One of the most interesting notes read as follows: "Hello boys. Just passed thru out of chuck. Found yours, hadn't eaten in 2 days. Thanks a lot boys. Do the same for you sometime." Signed, "The Old Prospectors." We left a note, giving our names and stating our mission in going thru the canyon, then placed all the notes in a glass can and left it in the cave.

We stopped at station 7.0 for lunch about 12:15. Here we found a beautiful little box elder grove alongside a wonderful swimming pool. It was a most delightful place to stop for the noon rest period, especially as we could see
the canyon opening up before us, the rocks getting smaller and the bed of the river smoother and knowing that the difficult and dangerous part of our trip was over.

Leaving the little grove at 1:30 we started down the canyon on the right and were able to remain on this side the remainder of the afternoon. We crossed over a large rock slide directly under Serpent point, being the highest point along the north rim. At this place Davis compared the south rim elevation with the water elevation and learned to the very great satisfaction of all of us that the Black Canyon here was 2300 feet deep. As we journeyed down the canyon we came to a long pool of still water perhaps a fourth of a mile long and swimming among the rocks were great numbers of the finest looking fish I have ever seen. This proved a temptation which none of us could resist so we stopped to try our hand at catching them. In vain we fished, and in vain we fished some more but no success. There being a sandbar at the end of this pool and good camping place we decided to spend the night there. So we kept on fishing. Now, every trout fisherman knows that the most aggravating thing in a fisherman's experience is to be able to see a lot of fine large trout in the clear water, to dangle all sorts of bait and lures in front of their very mouths and then have them turn contemptuously away. This was our experience for two hours. However, there was one recompense, for which sitting on the rocks fishing, Davis happened to look up at our No. 4 flag on the highest point of the south rim about a half mile back of us and discovered a group of people standing there. He hastily got his instrument and looking thru it found the parties to be Mrs. Davis, her brother, the Kane boys and one other person whom we did not recognize for a certainty. We exchanged "yells" for a time and then proceeded to prepare the evening meal. Our "special, Black Canyon bread" was getting rather hard and dry by this time so Walker having flour along said that he would bake us some
fresh "twist." He peeled the bark off some green box elder limbs and wrapped his dough around these and baked it over the coals. This was broken off the limb and eaten. Now I am not certain what "twist" should taste like under ordinary circumstances, but I'll never know why Walker did not feed us the bark he cut off the limbs, as it certainly could have been no more highly flavored of green box elder than was the twist, and he would have been spared his trouble. Anyway we finished our trip next day on our "special" bread and had about a half loaf left to feed the fish.

We were up early Friday morning and everyone seemed to go about the morning tasks with a new zeal. Breakfast over, we made up our packs for the last time. They were much lighter now as all of our provisions had been eaten except what we have saved for our last noon lunch. As we started out from camp all were in fine spirits, happy, and two or three of the party even attempted to sing. Altho we knew we had about four miles to make, we felt certain that we could easily finish the survey and climb out Red Rock canyon and be back to civilization by evening. We crossed a small branch of the river to an island, over the island and across the river again to the north side. The river bed is rather wide in this area, averaging from 200 to 300 feet, and travel was rather easy. Of course we encountered a great many large rocks, but in many instances these could be avoided and we could walk over sand or small round river stones. In many places in the moist sand we saw deer and mountain sheep tracks along the water. We found it necessary to cross the river again to the south side on account of a smooth wall and deep water, and this we did by wading for about 100 feet in water knee deep and with the aid of poles carried in one hand. At station 9.2 we crossed the river by wading and continued down along the north side for about a mile. About 2 miles above Red Rock canyon the top men
met us and assisted in carrying out luggage. We crossed the river for the last time to the south side by stepping from rock to rock with the aid of hand poles. This crossing was about a half mile above Red Rock canyon which we reached about noon. We made our best time thru this section of the canyon averaging about one mile per hour. After a good swim, lunch and a long rest we made ready to climb out of the canyon. The Kane boys had brought Bowen and Kysel a pair of boots and shoes respectively as we had requested when we last saw them on Tuesday afternoon. These were a great comfort to us as we made the long climb out thru Red Rock canyon. We reached the top about 4 o'clock Friday afternoon and found Mrs. Davis and brother there with one automobile, and the Kane boys having left the government truck we were soon loaded and by evening were back in Montrose. It was a great trip, accomplished without accident, and even tho a hard trip, still we enjoyed it and felt that what we saw and the authentic information obtained about our famed Black Canyon was well worth the effort.

It might prove of interest to note the drop of the river along its course thru the national monument. Beginning at the East Portal of the tunnel, for the first two miles the river drops 40 feet per mile. In the third mile the drop is 75 feet; fourth, 55; fifth, 110; sixth, 230; seventh, 260; eighth, 140; with a 70-foot drop in 700 feet; ninth, 50; tenth, 40; eleventh, 40; twelfth, 50.

The following depths are also given covering some of the better known points of interest. Depth of canyon at East Portal, 1280 feet. East Portal triangulation station, 1850 feet. About 1.7 miles below this station the depth is 1920 feet. Rock point as seen upstream from Pulpit rock, 1820. Pulpit rock 1770 feet. The Narrows, 1725 on south rim and 1718 on north rim.
At the Bridge site the canyon is 1530 feet deep from the south rim. At High Point, about one mile below the Bridge site the canyon is 2300 feet in depth, and at the hill on the rim overlooking Main street, Montrose, the canyon is 2730 feet deep. As a result of the splendid and careful work of Mr. Davis along with that of other parties and members of the U. S. Geological survey, we are now in a position to give authentic information regarding depth, width and other interesting features of the Black canyon within the boundaries of the national monument.
CHAPTER VII

GENERAL ADMINISTRATION OF THE MONUMENT: 1933-1965

Administratively, Black Canyon of the Gunnison National Monument, like many similar small monuments, has always been someone's step-child. It has been torn between two Park Service regional offices, administered by a national park, another national monument, and now shared by a national recreation area, has never had its own superintendent, chief ranger, or park naturalist, and until 1962 never had a year-round supervisory ranger of its own. The following administrative account is generally correct with respect to the personnel and positions involved, but terms of duty may be specifically suspect.¹

The Monument, of course, had been established ("proclaimed") on March 2, 1933. On April 5, H. M. Fleming, the secretary of the Montrose Chamber of Commerce, wrote Director Albright urging that if a custodian were to be appointed for the new monument, it be Mark Warner, who had been so instrumental in having the area set aside as a national monument.² The Park Service replied that for the time being no custodial services were anticipated, either on a part-time or full-time basis. However, on February 16, 1934, the area was placed under the supervision of Clifford L. Anderson, who was custodian of Colorado National Monument.³

He served in this capacity at least through August of 1935.

In the administrative plan for Black Canyon, there was originally a custodian position set up and designated in 1935 as Position No. 1, Grade 8. However, Acting Associate Director Killory Tolson recommended that on October 23, 1935, that this position be abolished, as there seemed no need for it, and that
in lieu of a custodian position there be established two temporary park ranger positions, for six months' service each year, one for the South Rim and one for the North Rim.

In January of 1936 a memo was prepared for the Secretary of the Interior requesting the establishment of these two seasonal positions of park ranger for the period from May 15 to September 30, one for each rim. At the moment there seemed no need for rangers during the winter months inasmuch as "...the area is snowed in during the winter, receiving little travel..." These positions, numbered '2' and '3' ('1' being reserved for the position of custodian), were set at Grade 7, $1600 per annum.

It was proposed that each ranger assume the following responsibilities:

1. Educational: conducting visitors to places of interest in the Monument, giving informative talks. 20% of time.
2. Protective: patrolling for possible trespassing and fires, safety of visitors, enforcement of park rules and regulations. 20% of time.
3. Registration of visitors, imparting information to them, control of traffic. 20% of time.
4. Maintenance work about camp, policing camp grounds, sanitation work. Care of fire pits, garbage cans and rest rooms. Hauling water, firewood, etc. 20% of time.
5. Research work in the flora, fauna, geology, and other natural sciences of the Monument. 15% of time.
6. Assisting in the compilation of travel data, reports, and other data. 5% of time.

The two ranger positions were first filled in 1936, on the South Rim (Position No. 3) by Platt Cline who came on duty from Mesa Verde on June 7, and on the North Rim (Position No. 2) by John C. Fullerton. Both men served through September 20, 1936, at a Grade 7 salary.
Black Canyon may have been under the administrative supervision of Mesa Verde National Park from the very first, but it certainly was by the end of 1935, when Paul R. Franke was serving as Acting Superintendent of Mesa Verde. Franke was referred to in some correspondence as "acting custodian" for both Colorado National Monument and Black Canyon, but this was probably a confusion with "acting superintendent."

There certainly was confusion in the minds of both Washington personnel and local Park Service officials about the Monument's regional relationships at this time. When Black Canyon was established, it apparently had been assigned to Region 3; but by mid-1936 it was supposedly included in Region 2. Landscape Architects Rickley of Region 3 and Baker of Region 2 had been advised of this situation on August 27, 1936; but Superintendent Hausbaum had received no direct confirmation until September 21, 1936, when he had verification that Black Canyon and Colorado National Monuments reported to Region 2 and Mesa Verde to Region 3.

The Monument was under the coordination of the Mesa Verde National Park superintendent until 1953, when supervision was transferred to the Colorado National Monument superintendent. In the spring of 1965 a new administrative unit was set up, with headquarters in Montrose, which would include Curecanti National Recreation Area, as well as Black Canyon and Colorado National Monument.

At the end of this chapter is a roster of the administrative personnel associated with Black Canyon National Monument since its establishment in 1933. In its early years, Black Canyon
had no "career" administrative staff attached to the Monument; but during the "summer season," usually from May into October, there were "temporary" or "seasonal" rangers, usually one on each rim. This was the situation from 1936 through 1951.

One shortcoming associated with this arrangement was that there was little uniform long-range relationship between these temporary rangers at Black Canyon and headquarters personnel at either Mesa Verde or later Colorado National Monument. The lack of "administrative orientation" showed up in such Black Canyon ranger activities as the preparation of the monthly reports, which generally lacked the sophistication and standardization of a more closely supervised operation. On one occasion Superintendent Frankafelt compelled to note that "inasmuch as we send these reports directly to the Director, it is imperative that more care be taken in their preparation. In the case of the June report it has been necessary to re-type the report before submittal to Washington because of misspelled words, strike-overs, improper spacing and incompleteness. It also appears that the type is not clean; this can be remedied by an occasional brushing with an old toothbrush, or a type brush can be requisitioned through this office."

In 1952 a "permanent" park ranger from Colorado National Monument was assigned during the summer season to Black Canyon for the first time as a designated "supervisory park ranger." The supervisory park ranger maintained Monument headquarters and maintenance staff for both rims. The first seasonal ranger employed at naturalist was (the South Rim) in 1955. On August
8, 1961, the N.P.S. regional classification officer "audited" the supervisory ranger position at Black Canyon, studying the possibility of establishing a management assistant type of position in lieu thereof; but nothing came of this possibility.\footnote{14}

In 1962, for the first time in the history of the Monument, a supervisory park ranger was assigned at the Monument on a year-round basis.\footnote{15} When the South Rim headquarters area is completed, the Monument will presumably have its own chief ranger and park naturalist, meanwhile depending upon those of its supervising unit.
Administrative Staff for Black Canyon 1933-1965
(with approximate tours of duty)

Custodian: (Colorado National Monument)
Clifford L. Anderson (1934-1935)

Superintendent: (Mesa Verde)
Leavitt (1935; Acting?)
Paul R. Franko (Nov. 1935-June (?), 1936; Acting)
Jesse L. Husbaun (June, 1936-July, 1939)
Paul R. Franko (Aug. 1939-July, 1940)
John S. McLaughlin (Aug. 1940-Sept. 1941)
Jesse L. Husbaun (June, 1942-Oct. 1945)
Robert H. Rose (June, 1946-1953)

Superintendent: (Colorado National Monument)
Russell Mahan (1953-July, 1955)
Homer Robinson (July, 1955-Oct. 1957)
Fred G. Bussey (Nov. 1957-Sept. 1964)

Superintendent: (Curecanti/Colorado National Monument)
Harry During (1965- )

Park Naturalist: (Colorado National Monument)
Dwight Hamilton (June, 1956-June, 1958)
Pat Miller (July, 1958-June, 1963)
Derek O. Handley (June, 1963- )

Black Canyon Temporary and Seasonal Rangers (1936-1951)
Platt Cline (South Rim, 1936)
John C. Fullerton (North Rim, 1936)
Wilbur M. Coleman (South Rim, 1937)
David A. Loach (North Rim, 1938-1941)
Herodith M. Guillot (South Rim, 1938(?)-1942)
Rodney R. Woodburn (North Rim, 1942)
George E. Stafford (North Rim, 1943-1951)
Raymond G. Dobbins (South Rim, 1943-1944)
Raymond H. Scoevers (South Rim, 1945)
Rodney R. Woodburn (South Rim, 1946-1947)
Lawrence W. Quist (South Rim, 1948-1951)

Black Canyon Supervisory Park Ranger: (half year, 1952-1962)
Raymond G. Dobbins (1952-1958)
Raymond L. Ives (1958-1960)
Vincent M. Nefji (1960-1962)

Black Canyon Supervisory Park Ranger: (full year, 1962-1965)
W. Lovell White (1962-1964)
Thomas J. (Jack) Foullass (1964-5)

The Black Canyon's first seasonal ranger naturalist was W. D. Wetlaufer, who entered on duty on the South Rim June 10, 1955.
REFERENCES

1 - Tours of duty are based upon dates in the Monthly Reports, which are often not specific.


3 - Black Canyon National Monument summary, Nat. Arch. File 2052 (RG 79), Part 3, Black Canyon.

4 - Letter, Tolson to Acting Superintendent, Mesa Verde, October 23, 1935. Black Canyon file, National Archives.

5 - Memo for Secretary of the Interior, January 4, 1936. Black Canyon file, National Archives.

6 - Ibid.


8 - Letter, Tolson to Habsbaum, June 18, 1936. Black Canyon file, National Archives.


10 - The year "1953" is used in a very general sense, the specific date of transfer of coordination from Mesa Verde to Colorado National Monument being unavailable. The 1953 monthly reports for all but the last two months are missing, unfortunately. The Monument was still under Mesa Verde in October of 1952 and under Colorado National Monument by November of 1953.

11 - As mentioned earlier, this roster is based in large measure upon the Black Canyon Monthly Reports.

12 - Amazingly enough, in Franke's original letter, there was an embarrassing (in the light of the contents of the letter) typographical error, and "it" was spelled "is".

13 - Letter, Franke to Leach, July 10, 1940; with Monthly Report, June, 1940.


15 - This supervisory ranger, Lowell White, maintained headquarters on the South Rim during the summer, moving the headquarters trailer to his home in Rostick Park for use in the winter.
CHAPTER VIII

THE MONUMENT BOUNDARIES: 1933-1955

From its very inception, one of the most persistent problems confronting Black Canyon of the Gunnison National Monument involved its boundaries—poorly defined, encompassing in some spots too little land for adequate monument development and protection, in other spots including too many in-holdings.1

Little more than a year after the creation of Black Canyon, Custodian Clifford L. Anderson, noting that the present "lands withdrawn and set aside for the Monument are inadequate for game protection, road construction, lack of water supply and for proper development of this spectacular monument," suggested to the Director that steps be taken to enlarge the boundaries.2 At this time Commissioner replied that "We do not believe it would be desirable to extend the boundary to any appreciable extent...."3

Anderson was not content, however, to drop the matter. As the rim roads were being developed in late spring of 1934, he again wrote the Director, pointing out that "...the rugged canyon walls crowd the boundary lines so closely that in some places it is going to be necessary to gain right-of-way thru private property for several hundred feet....the owners will probably grant us the right-of-way....it may be possible to get them to donate this land to the Monument."4 He also emphasized that the present boundary did not include any source of water supply but that on the North Rim there were five springs in the vicinity of the present boundary, some of which could perhaps be included within a boundary extension.5

By mid-August, 1934, the matter of private land and the
and North South Rim road right-of-way was becoming critical, since construction was approaching two 40-acre parcels of private holdings. Ward P. Webber, Acting Chief Engineer of the San Francisco N.P.S. Office, joined Anderson in urging the acquisition of the two tracts, while Engineer Secrest expressed confidence that the land would be donated. Meanwhile, the N.B.S. French of Plans and Design was looking farther ahead and urging major land acquisition. Considering the matter in early September, the Director's staff concluded that "only minor park extensions would be considered to include such portions of the rim road that now go outside of the monument area," and decided against the Branch of Plans and Design recommendation.

New pressure for the enlargement of the Monument was coming at this time from local interests who "wished more work for relief" in the form of road construction, which enlarging the Monument might conceivably afford. It was suggested that additional land should be available at from $5.00 to $7.50 an acre.

On October 4, Conrad Wirth wrote the custodian, authorizing him to obtain deeds to the two tracts in question by donation, and on December 12, Engineer Kittridge sent a memo to the Director requesting inclusion of the land in question, and further purchases of land to approximate 35,000 acres under the land program of the Federal Emergency Relief Administration.

The small land tracts on the South Rim needed for immediate road construction belonged to Douglas Lytle, and through donation deeds for this property dated December 3, 1934, were in the hands of the National Park Service early in 1935, to be accepted by
the First Assistant Secretary of the Interior on September 30, 1935, and placed in the N.P.S. permanent land record files. With the deeds, the Montrose Chamber of Commerce had obtained an option from Lytle to purchase other pertinent lands belonging to him.

After acquisition of the land immediately needed for completion of the South Rim drive, there was now, in 1935, general consideration of the Monument land problem, pressed not only by some within the National Park Service but also by the Montrose Chamber of Commerce, which was willing to assist with purchases of land. There was even thought that the Monument might be extended eastward to above the junction of the Gunnison and Cimarron Rivers.

In mid-May of 1935, Mark Warner discussed the matter of boundary extensions with Park Service officials in Washington; and it was decided that for the time being extension "would be limited to adding certain private properties to be donated on both the north and south rims in order that present road construction could be continued." It was agreed that further extensions "would have to follow the procedure to be established under the Grazing Division regulations..." and that "...the extension would be up the Canyon and limited to an area for the protection of the Mountain sheep and deer."

Regarding acquisition of the Gates property which was blocking construction of the North Rim drive, the Montrose Chamber of Commerce's Black Canyon Committee had agreed in late spring of 1935 to contact Gates and in addition see if it would be possible in the boundary extension to include "all of Mrs. Mae
woods's property so that the springs located on the property would become the property of the government. On June 25, 1935, E. W. Gates deeded 80 acres of his land to the Monument, the deed being transmitted to Washington by Congressman Taylor on July 8. In this deed, incidentally, was a clause demanding reversion of the land involved to the owner if the land "ever ceases to be required by the Monument or the Government." The Park Service was not enthusiastic about the clause, and this land had still not been accepted by the Government in late August of 1936.

Park Engineer Secrest, on September 26, 1935, forwarded to the Director a list of land owners and lands within the Monument, the total acreage of privately owned land being 804.71 acres, while the government holdings totaled 10,353.05 acres. And the same month Landscape Architect Howard Baker urged that a final decision should be made on the ultimate boundary, instead of talking about piecemeal extensions, so that the President could eventually be requested to proclaim the final boundaries of the Monument.

On March 11, 1936, the campaign to purchase Douglas Lytle's option land on the South Rim was launched by an editorial on the front page of the Montrose Daily Press. The Editor noted that 100 acres of land had to be purchased before the Park Service could complete the South Rim scenic drive, and that Lytle was willing to sell this land at the generous price of $7.50 an acre. "How are we going to raise this $750? The Daily Press will buy the first acre for this enterprise. That leaves just 99 acres yet to purchase.... What club will be the first
to buy an acre?" 26 The Editor assured that "the name of those citizens or clubs who give an acre of land will be preserved in the archives of the national monument as a permanent memorial to them." 27

Shortly after the newspaper appeared, Mrs. Nell M. Fleming, Secretary of the Montrose Chamber of Commerce, who had originally suggested the campaign, called to say she would buy the second acre. Then the Montrose Fire Department jumped on the band wagon; and by the March 19th paper there was quite a list of purchasers in a special front-page box entitled "Is Your Name Here," including a congregation of post office employees who purchased three acres. Twenty-four hours later, a total of 86 acres had been bought, with $25.25 in cash donations. The March 23rd newspaper reported that the campaign was a success, "over the top," with 103½ acres purchased and $38.75 subscribed towards purchase of additional acres, if needed.

As the drive to obtain land proceeded, it became evident that a survey was needed of the lands concerned, and Park Engineer Secrest planned to carry out such a survey as soon as "snow on the Black Canyon rim passes away...." 28 By the end of May, 1936, Secrest had dispatched to the Director the results of his survey to determine the "minimum boundary extension to provide right of way for the present contemplated road program." 29

1. $\frac{1}{2}$ of NW $\frac{1}{4}$ Sec. 19, T 50 N, Range 7 W. 60 acres (more or less. This is the Gates Tract, North Rim)
2. NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 25, T 50 N, R 8 W. This South Rim tract donated by Douglass Lytle
3. In order to connect South Canyon Rim road with proposed county road, it will be necessary to include tracts 3 & 4 as follows: NW $\frac{1}{2}$ SE $\frac{1}{2}$ Sec. 31, T 50 N. 60 acres (more or less). This land is owned by Douglas and Ollie B. Lytle.
4. Lat. 4 and West 1/4 NW 
also NW 
Sec. 5 T 49 N, 
R 7 W, 140 acres (more or less) This tract may be described as lots 4, 5, 6 & 7 of said Sec. 5. This land is owned by Ollie B. Lytle and Clif A. Semburg. Land Purchases Contemplated by Montrose Chamber of Commerce.

a. with a thought of extending the road down the canyon, the following tract is designated: NE 
NE 
SE 
Sec. 26, T 50 N, R 8 W (20 acres, more or less, owned by Douglas Lytle)

b. NE 
NE 
NE 
NE 
all in Sec. 31, 
T 50 N, R 7 W (90 acres more or less owned by Douglas Lytle). Acquisition of this tract will permit road construction up canyon to end of approved road plans.

Total land to be acquired at this time by Chamber of Commerce...110 acres at $7.50 per acre or a total cost of $825.00. Chamber of Commerce has option expiring in 1938 to purchase any part, except the spring in NE NE Sec. 25 of Douglas Lytle's 1200 acres at a price of $7.50 per acre.

The map which accompanied Secrest's report was "slightly erroneous." This was not surprising, inasmuch as most maps of the area left something to be desired and in part were responsible for the perennial confusion over specific boundary locations and status of private versus public land. The need for an up-to-date survey of the Monument was underscored by Franko's observation (in early 1937) that when the Monument road system map was projected onto the new U.S.G.S. topography map, "it places the North Rim Scenic Drive almost over the center of the canyon, and the drive of the South Rim somewhat outside of the established boundaries." 30

Following Secrest's report, the National Park Service in June of 1936 formulated a statement on the proposed extension to the Black Canyon National Monument for the Secretary of the Interior. 31
A major meeting on the boundary situation was scheduled for September 10-12, 1936, at Montrose. In attendance were Assistant Superintendent Franke, Secrest (Engineer in Charge, Colorado and Black Canyon), J. K. Somerville (Resident Landscape Architect, Colorado National Monument), District Landscape Architect Howard Baker, Acting District Engineer Geo. Gordon, Assistant Wildlife Technician Russell Grater, Neil Butterfield (Senior Research Assistant from Washington), and Mark Warner. September 11 was spent on the South Rim, the next day on the North Rim with Lester J. Savage and a committee of eight representing communities on that side of the canyon. 32

At this meeting Warner pushed for extension of the Monument east to the Cimarron River and to include land in the Red Canyon area at the northwest end of Bostwick Park. He also urged that the rim road (South) be extended to Warner Point (= "Panoramic Point" or "Highest Point"). Kittredge's boundary plan No. 956-4956 also called for a considerable increase in the boundary extent; but Park Service officials now favored acreage much less than that recommended either by Warner or Kittredge. 33

After this meeting, Mosley on November 16 asked Sirth "How soon can you expect the boundary question to be settled so that a proclamation can be prepared?" 34 The overly optimistic reply came back from Ben Thompson: "It is hoped a decision as to the boundaries can be reached soon." 35

In reality, this matter of boundary extensions was to be diligently pursued for the next year-and-a-half before any concrete solutions were realized. In general, there were two aspects to the problem: obtaining land, generally private, within or continuous to the Monument to facilitate the
development of roads and other facilities, and obtaining large acreages of surrounding land, generally public, measurably to increase the size of the Monument.

While the private holdings involved purchase problems, there were different problems associated with the public lands surrounding the Monument which were desired for accession. As towards the end of 1937 plans moved ahead to enlarge the Monument, the Park Service found it had to confer with the Division of Grazing, which held much of the land desired, the Bureau of Reclamation for those lands under reclamation withdrawal, the Office of Indian Affairs for land which had been withdrawn on September 19, 1934, pending determination if it should be restored to tribal ownership as recommended by the Act of June 18, 1934 (48 Stat. 984), and with the U. S. Forest Service for land held by Gunnison National Forest. The concurrence of these various agencies had to be obtained before the respective land could be added to the Monument.

The Division of Grazing had no objection to certain lands in Colorado Grazing District No. 3 being added to the Monument, but the Indian Affairs Office felt that it could consent to inclusion of its holdings "only with the approval of the Indians and after adequate provisions have been made to reimburse the Indians."

On December 28, 1937, Wirth had written the Acting Director suggesting boundary extensions which he felt were desirable for several reasons:

1. To provide a suitable headquarters site in the SE1/4 Sec. 31, T 50 N, R 7 W; Sec. 5, Lots 4, 5, and 12; and Sec. 6, Lots 1, 2, 7, 8, 9 and 10; T 49 N, R 7 W. This land is privately owned and the Montrose, Colorado, people have indicated they would be willing to acquire the necessary lands for the headquarters site.
2. The NE\textsuperscript{2}, NW\textsuperscript{3}, NW\textsuperscript{3}, NE\textsuperscript{4} of Sec. 35, T. 50 N., R 8 W., which is public land, is needed for a picnic ground adjacent to the south rim drive.

3. To properly project and in order to complete the work on the north rim drive in Sec. 19, the SE\textsuperscript{1}, NE\textsuperscript{3}, SE\textsuperscript{4}, NW\textsuperscript{5}, and lot 2 are needed. The Gates estate has submitted a deed to the land necessary for the road work.

4. The remaining land in Sections 8, 9, 14, 15, 16, 17, T 50 N., R 8 W., and in Secs. 2 and 3, T 49 N., R 7 W., is necessary for better protection of the canyon area. This land is publically owned.

The proposed extension which Wirth asked for included 582.83 acres of private land and 2,028.41 acres of public domain, or a total of 2,611.24 acres. As it turned out, much of the land mentioned in paragraph #4 was Indian land, which immediately presented a complication. Land cited in paragraph #3 was, of course, part of the Gates holdings. Land in paragraph #2 was apparently held by the Grazing Service, which presented no problem, while land cited in #1 was largely (if not entirely) owned by Lytle. Indeed, Lytle had turned over a deed dated February 26, 1937, to the Government for the land in Section 31.\textsuperscript{43}

Earlier, of course, Lytle himself had donated 80 to 80 acres to the government, in Section 25 of the South Rim, and the Montrose Black Canyon Committee with public funds had purchased 40 acres in Section 26 and 90 in Section 31 for donation to the Government.\textsuperscript{44} Eight acres had been donated by Gates.

Although Park Service officials in the spring of 1938 were anxious to have a proclamation prepared which made general boundary extensions for the Monument, this did not seem immediately feasible because of the Indian lands problem,\textsuperscript{45} so instead Director Cameron by letter of April 14, 1938, recommended to the Secretary that "at least the two parcels of private land [Gates and Lytle]
being donated to the government outside of the boundary be recognized in the proclamation." It was decided, with respect to the Ute claims, to "continue our negotiations to work out some arrangements for the extension of the monument, although no solution is apparent at this time.\textsuperscript{46} The main drawback was that the Park Service had no funds available with which to reimburse the Indians for any land purchased.\textsuperscript{47}

Secretary of the Interior Harold Ickes sent the proclamation, which added the donated O Gatos and Lytle land to the Monument, to President Roosevelt on May 2,\textsuperscript{48} and the proclamation was signed by the President on May 16, 1938, as Proclamation No. 2286.\textsuperscript{49}

The incorporation of these two small parcels of land into the Monument was only a token gesture towards solving the overall monument boundary problem. The National Park Service continued, after this proclamation, to pursue the possibility of a more significant extension. Plans were made to extend the boundary eastward to the Little Cimarron River, while "the north and south boundaries would be determined by the skyline of the canyon."\textsuperscript{50}

There was outside encouragement for the boundary to go to the mouth of the main Cimarron, where a hydroelectric plant and reservoir were being planned. Wrote R. C. Egnew of Delta to Superintendent:\textsuperscript{51} "...we have in mind the creation of a lake lighted with cheap power; a monument all lighted and water pumped to the rim on both sides to beautify small areas... It is hoped that your department will extend the monument up to the mouth of the Cimarron and join us in attempting to develop this wonderful attraction with a hydro plant." Rusbaum's reaction was an emphatic
The Montrose Chamber of Commerce's option on Lytle's South Rim lands expired in mid-December of 1938; and mindful of this, the National Park Service made an interesting move to obtain Lions Spring, despite the fact that Lytle had not originally been interested in selling it and indeed at the moment was thinking of putting his own tourist facilities in the vicinity.  

On November 5, Superintendent Husbam wrote his friend William T. Grant (of W. T. Grant and Company in New York), who apparently had purchased other land for the Park Service in the past, suggesting that perhaps Grant might be willing to buy a 64.9 acre plot including the spring. Speed was of the essence, since presumably after the option expired Lytle would raise the $7.50 an acre price he had quoted to the Chamber of Commerce.

Grant dropped Carmerer a note on November 10, commenting "If you say I should do this, I will do it." And in a few days Carmerer replied: "...it is a key parcel of ground in a key location that might cause us a lot of trouble in the future. The price might as well be $50,000 as far as his [Husbam's] authorization to acquire is concerned because he just hasn't got this Federal money to put it across. If you can help him and the Service out on this matter, it will be something you will reflect upon very pleasantly in the years to come..." But nothing came of this venture.

However, on October 28, 1939, after considerable negotiating, some 2,760 acres of land were added to the Monument by President Roosevelt's Proclamation No. 2372, the last major addition by
presidential proclamation.  

Boundary considerations for the next two decades were to be minor. After the addition in 1939, the General Land Office sent a party of engineers to the Monument in May of 1940 to locate corners and determine the Monument boundaries. Work on the south boundary was completed in June and surveying was continuing on the west and north boundaries, proceeding to the east boundary in July. By the end of September, the boundary survey had been completed, and all section corners were established. Also, the sections directly concerned with the Monument were subdivided in order that boundaries could more easily be determined. In August, 1944, the North Rim ranger began putting up new boundary markers, the old ones being very difficult to find.

During the early 1950's interest again centered on some of the private lands associated with the Monument, especially those belonging to Sanburg on the South Rim. This consideration was to continue into the MISSION 66 period, as will be seen later.
REFERENCES

1. Most of the following information on the Monument boundaries is based upon documentary material at National Archives, with some culled from the Montrose Daily Press and some from various monthly reports. In a few cases it has been difficult to be specific relative to certain situations, inasmuch as the source material was not specific.

2. Letter, Clifford L. Anderson to Cammerer, April 21, 1934. Black Canyon file, National Archives.


10. Op. cit., October 4, 1934, letter, Wirth to Anderson. The land concerned included 2/3 of the NW¼ Sec. 19, T 50 N, R 7 W, and SE¼ NW¼ Sec. 25, T 50 N, R 8 W. The first parcel was on the North Rim on Gates land, the second on the South Rim on Lytle land.


15. Op. cit., March 13, 1935, letter, Domaray to Warner. Domaray reminded Warner that in an earlier letter Warner had warned against extending the boundary to above the Cimarron River because of conflict with the D&RG railroad. However, Domaray had heard the railroad might soon be abandoned and thus would not present any problem.


17. Ibid.

19 - Letter, G. A. Hoskey to Leslie Savage, September 13, 1935. This represented the other parcel of land which Wirth had written Anderson about in October of 1934 and which was holding up road construction on the North Rim.


21 - Ibid.

22 - Monthly Report, August, 1936. In commenting on the clause, Brooks had said, "I think that we should try and discourage such practices." - Summary Report, July 8, 1935. In 1936, Wirth felt that the reason this title wasn't accepted initially was "because the Director indicated his desire that the whole boundary extension problem be handled at one time." - Letter, Wirth to Hoskey, April 6, 1936. Black Canyon file, National Archives.

23 - Summary Report, September 26, 1935, memo, Secretary to Director.


25 - The campaign was instituted in an interesting way. The editor was sitting at his desk one morning, looking out of the window wondering what he would put in his "The Editor Speaks" column, when he walked Mrs. Hell B. Fleming, secretary of the Montrose Chamber of Commerce, who suggested the idea: "...just what he wanted—end away it went—we were simply the messenger that sounded the clarion call to the people." - Montrose Daily Press, March 23, 1936.


30 - Letter, Franke to Director, February 17, 1937; letter, Franke to Director, May 4, 1937.


32 - Letter, Husbaun to Director, September 25, 1936. Black Canyon file, National Archives.

33 - Ibid.; letter, Husbaun to Director, November 12, 1936.

34 - Summary Report, November 16, 1936, memo, Hoskey to Wirth.

36 - "A portion of the area involved in T 49 N, R 7 W, is under first form reclamation withdrawal in connection with the Uncompahgre Valley Project and part of the area in T 49 N, Rs. 6 & 7 W is included in Power Site Withdrawal No. 495 made by executive order of July 19, 1915 as defined by an order of interpretation of April 22, 1922." - Letter, Fred W. Johnson, Commissioner, General Land Office, to Director NPS, October 13, 1937. Black Canyon file, National Archives.

37 - "Of the lands indicated on the map furnished as desirable for addition to the Monument, Sec. 8, W 1/2 Sec. 9, E 1/4 Sec. 17, NW 1/4 Sec. 16, W 1/2 SW 1/4, SW 1/4 SW 1/4 Sec. 15, NW 1/4 Sec. 23, T. 50 N, R 8 W, SW 1/4 Sec. 2, and the lands in Sec. 3, T. 49N., R 7 W., are open lands of the Ute Indians." - Letter, Ass't. Commissioner of Indian Affairs to Carmerer, February 28, 1938.

38 - "The land within the proposed extension in Sec. 29, T 49 N, R 6 W, is within the Gurnison National Forest...." - Letter, Fred W. Johnson to Director, October 13, 1937.

39 - Ibid.

40 - Letter, T. R. Carpenter, Director, Grazing Division, to NPS Director, March 31, 1938. National Archives.


42 - Memo, Wirth to Acting Director, December 28, 1937. Black Canyon file, National Archives.

43 - Black Canyon file, National Archives.

44 - Letter, F. M. Brown, President, Montrose Chamber of Commerce, to Carmerer, May 20, 1938. Black Canyon file, National Archives. Brown was complaining that after the Montrose people purchased the land, "there has been no construction work carried on it at all, and our people are keenly disappointed in that face... Unemployed men are now asking when work will begin, as they are depending upon the Black Canyon work for family support." By the way, it is difficult to determine the exact acreage which Lytle donated, as well as to pin down the specific acreage donated by Montrose people, despite what Brown reported. Some of the Montrose purchases may have been in Section 25.

45 - Letter, Wirth to Mosbey, April 8, 1938. Black Canyon file, National Archives.

46 - Letter, Carmerer to Secretary of the Interior, April 14, 1938. Black Canyon file, National Archives.
47 - Memo, Sager to Thompson, August 6, 1938. Black Canyon file, National Archives.

48 - Black Canyon file, National Archives.

49 - Black Canyon file, National Archives.


52 - See CHAPTER XI for details: Letter, Nov. 5, 1938, Husbaum to Grant. Black Canyon file, National Archives.

53 - Letter, Husbaum to Grant, November 5, 1938. Black Canyon file, National Archives.

54 - Letter, Grant to Carverer, November 10, 1938. Black Canyon file, National Archives.

55 - Letter, Carverer to Grant, November 14, 1938. Black Canyon file, National Archives.

56 - Black Canyon file, National Archives.

57 - Monthly Report, September, 1951. Mr. Kell of the Regional Office discussed the Sanburg land question with Monument officials on September 20.
CHAPTER IX

MONUMENT CONSTRUCTION AND MAINTENANCE: 1933-1955

Physical developments at Black Canyon National Monument, as well as the need for extensive maintenance, have been for the most part minimal until the advent of the MISSION 66 era.1 Certainly the South Rim and North Rim drives stand out as the major achievements, with the development of trails, headquarters, overlooks, picnic sites and campgrounds, utility systems, interpretive devices, the concession stand, etc., secondary. The primary maintenance has been associated with the roads and campgrounds. The routine nature of much of the Monument's construction and maintenance activity is such that it scarcely justifies scrutiny here.

As soon as Black Canyon National Monument was set aside, it became imperative that drives be constructed along the rims and to connect with entrance roads; and the $125,000 obtained for the operation of the Monument in its first year primarily was spent to begin such construction.2

By the next spring it was becoming evident that road construction would be hampered by the limited extent of the Monument boundaries, a situation which was to become much worse before it got better.3 On September 18, 1934, Director Commerer met with his staff in Washington to consider a road development policy, "mainly whether there should be two short roads involving about 2 miles in the south rim and 3½ to 4 miles on the north rim, or to build a loop road much longer."4 It was decided, because of boundary problems, to try the idea of a loop road on each rim.

One aspect of road construction at this time involved
providing work for men on relief, and this task was strongly pursued. In October of 1934, Kittridge had a map prepared for the Director which showed roads under construction, proposed roads, and approach roads.\(^5\) He emphasized that "Black Canyon... is so great a spectacle that the Park Service cannot long avoid providing easy access," adding "that the immediate needs of the community will be covered and cared for by the allotment of $40,000." Just a month before, Kittridge had written Congressman Taylor that "local interests wished more work for relief and the park area should be enlarged so that road work can be accomplished."\(^6\)

By August of 1935, a crew of 125 men were "engaged in drilling, blasting difficult rock work and all operations connected with grading to completion of a National Park Service standard road.\(^7\)" General foreman for South Rim road construction at this time was John E. McDaniel.\(^8\)

On August 9-10, 1935, Resident Landscape Architect Howard Baker visited the road construction on both rims, noting that there was very little more rough construction to be accomplished because of boundary restrictions.\(^9\) Baker was back again on October 23 and found that most of the work involved finishing, since right-of-way problems were holding up further grading.\(^10\) There were plans for parking areas at the ends of the two roads, and a campground for the North Rim. On his earlier visit Baker and Park Engineer Secrest had located some trails out to points of interest on the South Rim, and these had been constructed "with very satisfactory results" by fall. Baker anticipated preparing a design for overlook railings during the ensuing
winter.

Assistant Landscape Architect J. K. Somerville reported on road development on November 30, 1935, at which time grading of the North Rim road had been practically completed and work there was to be discontinued for the winter about December 1. The western terminus of this road had not been graded because of boundary problems. On the South Rim the road construction had proceeded practically to the western terminus.

For the 1936 construction season, the South Rim road camp opened on June 23 with a force of 40 men, six hired dump trucks, one hired tractor, and two hired horses by the end of the month. There was a mess hall for the South Rim construction camp operated by Mrs. J. P. Dykes, and there would also be a mess hall for the North Rim camp. In addition to the road work this June, work was also begun on the South Rim registration tent and a tent-house for the ranger.

By the end of July, 1936, a full-strength crew of 50 men were engaged on the South Rim road project, with 2.27 miles of construction completed as of June 23, the line pioneered for another 3.25 miles and line approved for a remaining 4 miles. The down-canyon end of the road was held up pending approval of a turn-around and parking area, while the up-canyon end could not be continued until "the piece of property which the line crosses is formally accepted by the government." It was estimated at this time in July that there were about two months of work ahead, completing the construction work already begun.

North Rim road construction had begun on July 20 with a crew of 25 men under Foreman Robert Atchison. On this date
2.6 miles of road had been completed, the line pioneered for 3.4 miles, and line approved for 4 miles. The North Rim construction was held up at the Gates property, which had been deeded to the Government but not as yet accepted. At the west end, work was also held up pending approval of a loop which would serve as turn-about and parking area, with trail development to the rim.

In August, with an average work force of 45 men on the South Rim, road work consisted of finishing, sloping banks, general landscaping and surfacing road with decomposed granite; on the North Rim, with an average force of forty men, work consisted of bank sloping and general landscaping. During this month the registration tents ("checking tents" obtained from the Federal Prison Industries of Atlanta, Georgia) went up, on the South Rim with a 20-foot white flagpole tipped with a green spearpoint, near Pulpit Rock, and the ranger there built a trail out to Pulpit Rock. The County Commissioners asked "that the use of the old county road in the Monument, from the point where the county road turns off to enter the rim drive, (a distance of 350 ft.), to the work camp, cease. Signs to that effect have been erected, and all travel has been turned onto the rim drive."20

During this summer Mark Warner had been pushing to have the South Rim road extended to High Point as "a magnificent and thrilling climax to the drive down the canyon."21 He felt, also, that the "big timber in this area will permit of the development of a satisfactory park headquarters if desired, or the establishment of a camp and picnic ground, and any other development where trees and shade are desirable considerations," and recommended the development of trails down into the canyon as well as to
Warner Point and Red Rock Canyon.

Around July 7, 1936, Hubert W. Atchison, as mentioned earlier, was shifted from Mesa Verde to the Black Canyon North Rim, to serve as general foreman there. His duties, and this could be said for McDaniel on the South Rim as well, consisted of: "general supervision of road construction work (75%); supervision of landscaping work incidental to road construction - sloping of banks and shoulders, obliteration of old road scars - replanting - top dressing of present North Rim drive (15%); administration - keeping of records, submitting necessary reports - other minor administrative matters connected with the job, and occasioned by distance of work from administrative headquarters (5%); and general camp supervision - charge of all operations of camp for worker."

By the end of August, 1936, the road grade for the North Rim drive had been completed from the approach at the east side of Grizzly Gulch to the loop about four miles farther east. Some work remained on the three cuts, while the surface of the road was in the best condition possible. Road work ceased on September 23, due to exhaustion of funds. At this time on the North Rim some 3.25 miles of road had been completed, while 3.5 had been completed on the South Rim. Also on the North Rim several trails had been developed to scenic points.

During October one mile of preliminary survey line was run from the end of construction on the South Rim down canyon towards Warner Point, and in November topography was taken on three miles of preliminary road survey lines extending towards Warner Point and up canyon to the proposed connection with the county road.
This fall the Park Service approved the tracing of Plan No. BCC-4958, the "Proposed Scenic North Rim Road," as well as the tracing of Plan No. BCC-2001, "Parking Area and Turn Around." Also, a Master Plan had been developed during this year which delineated the construction needs. On December 5, Tolson reported to Frank Kittridge that funds for the scenic rim highway grading had been reduced from $112,500 to $112,241.91.

During 1937 finishing touches were put on the existing roads, and they were brought to an "excellent" state of maintenance. Surveys on the South Rim were extended west to the proposed picnic ground. A new maintenance problem this summer involved the lack of ready communications between South and North Rim personnel, eventually to be solved by radio contact. Incidentally, Mountain States Telephone had had a line in to headquarters on the South Rim for several years.

On July 27, 1938, the South Rim ranger received notice that a crew of twenty CCC enrollees and one foreman were to be assigned to the Monument, "to be used on general improvement on the South Rim." This was encouraging news, since in June only three employees had been available for "light maintenance." In August, road construction began again on the North Rim (August 29), to complete the west end of the rim drive, while CCC workers had started on the South Rim on the 15th, on trail and general improvement. A new "building" was being erected to house the North Rim "museum."

By the end of the 1938 season, an average of thirty-eight
men were being employed at the Monument. Campgrounds were in use on both rims, and on the South Rim a new parking area and trail for Pulpit Rock had been developed. During the summer the scarred roadside areas had been seeded and replanted, and by 1939 "this noted improvement had been commented upon highly by visitors." Of long-range significance in 1938 was the development of a new Master Plan.

No road work had been carried out on the South Rim for some time, but in mid-1939 plans to continue the road there were being discussed, and it was hoped that work could begin shortly. By the end of August, the South Rim road extension survey line had been completed, and the proposed road was ready for final work.

Due to lack of personnel in early 1940, general monument maintenance beyond that done by the rangers had to be delayed until July 1, but the rim roads were reported as being in good condition. The road construction, under the supervision of Foreman Atchison, was proceeding according to plans, and represented the first actual road construction work for two years. On the 10th of July the preliminary survey for the east end of the South Rim road had been completed, while the west end construction was nearing completion.

August, 1940, was reported as "the most active one ever witnessed at Black Canyon with the completion of the road project on the south rim and the landscaping of the new area well under way." This new road, supervised both by Atchison and Associate Engineer Miller, was touted as "now the finest stretch of road in the Monument."
During the next fifteen years there was to be little more than routine construction and maintenance at Black Canyon, and only the more important activities have been highlighted here. At the beginning of the 1941 season, the South Rim ranger supervised the development of an overnight campground away from the rim, with restroom facilities and three grills. A severe August storm necessitated considerable repair to both rim roads, a truck and driver actually having to be brought in on the North Rim to help out.

During 1942, the old road construction buildings, except those which could be salvaged, were razed, erasing a long-time eye sore from the South Rim. It was possible this summer, despite the War, to hire two laborers to help out with maintenance. In August, the first "accurate measurement of temperatures and rainfall at the monument" commenced. During this summer, road maintenance was being done with drags pulled by the patrol pickups. Rangers Stafford and Dobbins, who came to duty in 1943, were in following years to pride themselves on keeping the two rim roads in a "smooth" state of maintenance.

In 1943, attention began to be devoted to improving some of the overlooks, replacing the inadequate guard rails with rock walls. Indeed, Ranger Dobbins had completed the rock-wall parapet at the South Rim's Chasm View by the end of August. During the 1944 summer, the monument buildings received new roofing, as well as general refurbishing, and a new cattle guard was put in at the North Rim entrance.

Although the rim roads were periodically dragged, by 1946 there had been no blade work on the North Rim drive for a "number
of years," so Atchison and three men came over from Colorado National Monument on June 5 and bladed it—"great improvement was noted." The South and North Rim rangers were now keeping in contact with two-way radios.

There had been periodic complaints about inadequate facilities in the campgrounds and picnic areas towards the end of the 1940's, and in August of 1949 new fireplaces were being constructed. Another needed visitor facility was the South Rim concession stand, opened in June of 1950. The following June considerable improvements were made in campgrounds on both rims, and on the South Rim "...the registration booth was repainted and repaired, tenthouse reconditioned, weather station moved from adjacent to the headquarters to the headquarters area; tool room was rearranged and new lumber rack built." In July of 1951, water had to be hauled to the South Rim for the first time in ten years to meet the needs of personnel and visitors, and new roofs were put over the rangers' quarters, tent house, and cistern on the North Rim. During October, 1952, a crew of men came over to the South Rim from Mesa Verde to resurface the road, and this month a complete rehabilitation of the South Rim warehouse was accomplished.

In the mid-1950's trails to the various outlooks were being constructed and improved, a new campground developed on the North Rim, a new addition was made to the South Rim concession stand, Park Service maintenance personnel increased in numbers; and in general a great renaissance in maintenance and minor construction activity ushered in the MISSION 66 decade.
REFERENCES

1 - Much of the information in this account has been extracted from the various monthly reports, unless otherwise indicated. Further information on monument construction and maintenance is included in other chapters, especially Chapter XI: The Monument and Visitors and Chapter X.


4 - Op. cit., September 18, 1934, Memo, Cammerer to staff.


7 - Black Canyon file, National Archives.

8 - McDaniel had received his training at Ohio State University.


13 - Ibid.

14 - The North Rim ranger attending afforded an amusing commentary on the North Rim mess hall operation: "The persons furnishing meals for Park Service workmen (Mr. and Mrs. E. H. Miller of Hotchiss) gave excellent service during the season. Their greatest fault has nothing to do with the quality or quantity of food served. They show unwarranted interest in the affairs of other persons, both official and private. One of the two persons is entirely too authoritative and officious. The account kept of real cost of those eating at the messhall might well be more accurate.


17 - Ibid.
20 - Ibid.
22 - Black Canyon file, National Archives.
28 - Letter, Tolson to Kittridge, December 5, 1936. Black Canyon file, National Archives.
29 - Letter, Rusbaun to Director, November 12, 1936. Black Canyon file, National Archives.
CHAPTER X

THE MONUMENT AND FEDERAL WORKS PROJECTS - 1933-38

Although the establishment of Black Canyon National Monument coincided with the development of the depression years federal works projects, the new monument did not benefit as greatly from such programs as did many other N.P.S. units. The monument area was small and irregular, and beyond the development of rim roads there was at the moment limited opportunity at the monument for public works improvements.

During the Monument's first year, Representative E. T. Taylor was able to obtain an emergency relief appropriation of $125,000 for the operation of the Monument. His efforts were apparently known only to Horace Albright and Secretary of the Interior Wilbur; and indeed it was these three who were "solely responsible" for obtaining such an appropriation.1

Early in 1934, the County Commissioners of Delta County and regional chambers of commerce wired Taylor, asking for the establishment of a C.C.C. camp and a Public Works appropriation of $156,000 for the Monument, primarily to "insure completion of the roads."2 By early fall, enlargement of the Monument was being urged by local interests so that there would be more need for road work which in turn would create a greater demand for relief workers and relief projects.3 Kittridge, in analysing the operation of the new Monument for the Director, noted that funds to continue the road project might be obtained from SERA or FERA (Federal Emergency Relief Administration).4 In December, Kittridge urged the purchase of 35,000 acres under the land program of FERA to extend the Monument boundaries.5
During 1935 and 1936, as an Emergency Conservation Work (ECW) project, construction was continued on the rim roads. The Park Service during the summer of 1935 was preparing plans for a campground and road terminus on the North Rim, "in order that a portion of the work may be done with the P.W. funds that are allocated;" while money allocated to the South Rim was to be used to finish road sections already roughed out, as well as to improve some of the trails to scenic points. In November of 1935 some 120 men were engaged in road construction, work being concluded that year about December 1.

The next summer the South Rim work camp opened on June 23 with a force of 40 to 50 men. This particular work project, No. 436.1, was known as the "Scenic Rim Rock Drive." At least one of the men at the camp was associated with "CCC Camp NM-3 Colorado National Monument," but any further association between the Black Canyon work camp and a CCC camp is obscure. The South Rim work camp mess hall at this time was being operated by a Mrs. J. P. Kynes. Meanwhile, a crew of 25 men began work on North Rim road construction on July 20. All road construction terminated on September 23, due to exhaustion of funds.

The spring of 1937 saw an appropriation of $6000 for a W.P.A. project to develop a new approach road from U.S. 50 to the Monument's southern boundary. Planning for this project had been carried out by the Denver office of the Works Project Administration and included the construction of "an ornamental stone gateway at the junction with highway 50, and also ornamental signs to be placed on either side of the entrance." Initially, it was anticipated that work would begin in
late May or June as soon as men were available, but there was some question whether the project would continue past July 1.15

Meanwhile, the Park Service was reviewing possible work which might be accomplished by a W.P.A. crew, if one were established, and conferred with W.P.A. representative Lamb at Montrose about the construction of the entrance portal and approach road at the junction with Highway 50.16 In late May of 1937 it was hoped that a W.P.A. crew could be at work on the entrance by July 1.

In the summer of 1939, Black Canyon received some specific assistance for its program. The Bureau of Reclamation C.C.C. Camp No. 22 released a party of men to be used on general improvements of the South Rim, under the supervision of the superintendent of Mesa Verde National Park.17 The South Rim Ranger was notified on July 27; and on August 15 twenty CCC enrollees and three supervisors began working on trails and other Monument improvements.18 In September, an average of 30 men (not necessarily all CCC) were employed at the Monument on both rims in construction work, the first such activity in two years.19 On the North Rim an additional section of road was being completed to a west-end turn-around and campground, while on the South Rim a fine parking area was being developed in conjunction with the new scenic trail to Pulpit Rock.20

In retrospect, it is evident that Black Canyon National Monument gained some benefit from public works programs during the 1930's. However, it would not be until the advent of Mission 66, two decades later, that any significant federal improvements
were to be realised.
REFERENCES


2. Black Canyon file, National Archives.


4. Letter, Kittridge to Director, October 3, 1934. Black Canyon file, National Archives.

5. Memo, Kittridge to Director, December 12, 1934. Black Canyon file, National Archives.


11. Black Canyon file, National Archives. Mrs. Fynes was awarded a contract on July 1, 1936, "to furnish meals and commissary supplies, etc., to Government employees and others...." The foreman of the work camp was Hubert W. Atchison, who was shifted from Mesa Verde about July 7. - Black Canyon file, National Archives.


14. Letter, Werner to Corser, May 11, 1937. Black Canyon file, National Archives. The ornamental signs were to be one mile either side of the entrance road, calling attention to the Monument entrance.

15. Ibid.


17. Black Canyon file, National Archives.
18. - Monthly Reports, July and August, 1936.
20. - Ibid.
CHAPTER XI

VISITORS AND VISITOR FACILITIES 1933-1955

During the earliest years of the Monument, as was true before the Black Canyon became a national monument, there were few visitors, and even fewer facilities for those intrepid souls who did venture to the gorge.\(^1\) The initial entrance roads from north and south were poor, the rim roads limited in extent and certainly in quality; there were no developed trails, picnic areas, campgrounds, museums, roadside exhibits, checking stations, overlooks, concession stands, no Park Service personnel—protective, maintenance or interpretive—and no type of informational program.

However, a county road did extend from U.S. 50 to the South Rim at approximately the point where the 1300-foot-long bridge across the canyon had been proposed; and by mid-1935 the construction of trails to some of the overlooks, as well as rim drives, had commenced.\(^2\) In the fall, some thought began to be given to the development of picnic grounds and campgrounds in the Monument. There was a plan (drawing No. ECG-3001) ready in 1935 for a campground and parking area on the North Rim, but it was such a crude design that Acting Superintendent Franke anticipated tourists would not encounter the things they expected in a campground area, such as restrooms, a caretaker’s house, road spurs for campsites, and especially water. Franke even questioned the development of a campground "in this area," observing that perhaps a picnic ground might be more realistic.\(^3\) However,\[^{1}\] favored the idea of a campground.
but felt it should first be developed on the South Rim, and then
later one for the North Rim. 4

The year 1936 represented Black Canyon's first period of
real attention to tourists, even though, as one ranger noted,
"the local public is very slow in comprehending Park Service
ideals and purposes..." For the first time, there were rangers
on duty during this summer, one on each rim. Among their assigned
duties were "conducting visitors to places of interest in the
Monument," giving informative talks, registering and imparting
information to visitors, and doing research work on the Monument's
natural history. 5

Along the road in the vicinity of Pulpit Rock a registration
tent was set up, where the South Rim ranger contacted many
visitors; and a trail was built out to Pulpit Rock (= "Scenic
Point No 1") in August. Despite the North Rim ranger's comment
that "Perhaps it will be a matter of years before the number of
visitors who want explanations of natural phenomena or who want
to ramble over the rocky slopes and climb in and out of the
canyons, will be such as to necessitate naturalist and guide
service," both rangers took visitors to view the canyon sights,
and the North Rim ranger even conducted a party of six down to
the river.

Many signs were put up along the South Rim, including 18
numbered and placed at scenic points. Towards the end of the
year District Forester Jack Barrows recommended that "signs
which indicate the species of various trees and plants along
the trails and also tell of interesting features might help
people realize a deeper appreciation of the area." 6 Barrows
also suggested the possibility of developing a trail into the canyon, since people were already showing interest in such a facility.

Harry Warner was hopeful at this time that the South Rim road could be extended to High Point, where the view would be "a magnificent and thrilling climax to the drive down the canyon...." He visualized the development at High Point of a campground and picnic grounds among the pinyons, as well as a park headquarters and "any other development where trees and shade are desirable considerations."

Warner was also an exponent of trails, and indeed it was in large measure due to his urging in 1935 that the short trails from the road to overlooks had been started; they would "make it easy for women and children to more easily see the canyon." He further visualized the development of a longer trail from High Point to Warner Point and along the rim beyond to Red Rock Canyon, an easy trail down into the canyon, and a more difficult canyon trail which would proceed down Echo Canyon and terminate just below the Narrows.... "Marvelous as the Black Canyon is, no one can truly appreciate its grandeur until he has seen it from the bottom."

A sign had been made for the registration tent which said "Stop - Please Register," and it must have had some influence in 1936. On the South Rim in June, 608 people were registered, 1038 in July, and 3336 in August; in July on the North Rim there were 217 visitors recorded and 504 during August. With no picnic grounds, campgrounds, or concession stands available in 1936, those few tourists who lingered overnight were,
interestingly enough, furnished tents and meals by the road
construction mess hall operator.

When the counting was completed for the Monument's "first
year [1936] of custodial protection and regulated registration,"
there had been 4,833 people and 1536 cars. By the end of 1937
the number of annual visitors increased to 10,000.

An appealing innovation from the standpoint of tourists was
the beginning of small-scale museum displays in 1937. A
registration tent was set up on the North Rim this year (in addition
to the one on the South Rim), and the North Rim ranger in July
started displaying items of visitor interest there, beginning with
rocks and Indian relics and then making a model of the Black
Canyon in three stages of erosion. The South Rim ranger soon
followed suit with exhibits at his registration tent. Although
the visitors complained at the lack of campground and picnicking
facilities, they did seem to relish the museum displays, which most
of them stopped to see. And despite appropriate facilities, they
did increasingly picnic, 102 being reported as eating their
picnic lunches on the North Rim in July.

Thanks to the individual efforts of the Monument rangers, the
museum displays increased in scope in succeeding summers. In
1938 the "museums" were manned every day, either by the rangers
or by their wives, and visitors started contributing items for
exhibition. On the North Rim the ranger was making a "new
building" to house the museum displays.

In addition to manning their registration tents and museum
exhibits, the rangers began giving talks outside of the Monument
in 1937 and continued to conduct parties through the Monument.
The North Rim ranger took six parties down to the river in July of 1937, as a case in point. During September of 1938, as well as can be ascertained, the first campfire programs were presented in the Monument, on the South Rim, and because of their "great success," plans were made to continue these programs the next year "because of the wonderful support given them this year." Rough picnic grounds had been developed for both rmsg and were proving very popular. But there were, of course, still no eating or living accommodations available, and tourists were increasingly inquiring about such facilities. It was to be more than ten years until this shortcoming was remedied.

1939 started out with a bang, the month of May showing the largest travel ever recorded for that month during the Monument's history. And on June 23, the Monument hosted its largest group in history, when the State Stock Growers Association held a program on the South Rim, attended by nearly 500 people in 101 cars. It required the services of the two rangers, eight boy scouts, and two highway patrolmen to take care of the needs of this crowd.

In June the North Rim museum, nearly complete, was open to the public, with building repairs delaying the opening of the museum on the South Rim until July. Many visitors stopped to view the displays, which on the North Rim the ranger described as "...one of the best of its kind in this section of the country, not without a little prejudice. Word of these "make-it-yourself" museums traveled far and wide, including to the Chief of the N.P.S Museum Division, who, after learning that the North Rim was making
plans to enlarge its museum, expressed some interrogative consternation: "We would like to be informed as to what has already been accomplished in museum exhibition, type of building, and what plans are now under way for expansion."9

The rangers had instituted short talks at their museums for visitors this year, as well as continuing to contact people along the rim roads and conduct rimrods caravans. Indeed, in August of 1939 there was a fairly good public information program in operation. Seven hiking trips were conducted, with 45 people; eight museum talks were given for a total of 96 visitors; there were three campfire talks (with an attendance of 35), five lectures given outside of the Monument (to nearly 300), and a total of 1929 visitors at the two museums (out of the 2601 people who registered in the Monument this month). The cut-of-Komment talks might be considered a waste of manpower, but one the North Rim ranger delivered to the Lions Club of Hotehkiin influenced this organization to push for funds to construct a new approach road to the North Rim.

On February 7, 1940, the Department of the Interior established an annual fee of 50¢ for each automobile and motorcycle entering Black Canyon National Monument the following season, with no charge for house trailers. However, Guarder requested that the inauguration of the entrance fee be deferred "until further advice."10

To no one's surprise, 1940 was the Monument's best travel year to date. By season's end, 13,289 people had visited the area, an increase of 11.6% over 1939; and the figure of 6,613 for August represented the greatest travel month in the Monument's history.
The North Rim approach road was improved this summer. The South Rim drive had been completed by August, and "already visitors are complimenting on this new road extension and its outstanding scenic points." The rangers were busy leading auto caravans (eight in June alone), giving campfire talks (115 people attended in June), taking parties into the canyon (seven in June), running the museums and providing many "informal talks in connection with the historical, archaeological, and ecological phases of the park...." The North Rim ranger even conducted parties to the Indian camp sites at the northwest end of the Monument, while the South Rim ranger had begun a herbarium of Monument vegetation.

During the latter part of the 1930's, a campground of sorts had finally been developed on the South Rim, but in May of 1941 a new campground was constructed, with restrooms, grills, tables and benches, away from the rim at Lions Spring. The old campground was then changed to a picnic area only. Campfire lectures were frequently presented on both rims this summer, in addition to many other ranger services; and it was concluded that visitor contacts in August of 1941 were the greatest for any month in the Monument's existence.

At the South Rim museum, glass display cases had been constructed, in which some of the exhibits had been placed; and by summer's end a plaster relief model showing how erosion had formed the canyon and explaining the different geological formations had been completed. There were also on display flowers of the Monument. It was reported that a high percentage of the Monument visitors were stopping at the "museums."
August, it was estimated that 4000 of the 5000 contacts made on the South Rim had been accomplished at the museum. The rangers had many personal contacts with tourists, and each contact reputedly included a brief history of the canyon giving its major geological attractions and answering various questions concerning the flora and fauna of the area." A conducted ranger hike to Warner Point was reported this summer, though there may have been such ranger hikes to Warner Point in past years as well.

Most of the 1941 visitors (70%) were from out of state. This was in large measure to be the last time this would be true until after World War II.

Not only travel patterns changed during the War, but also Monument personnel, and interest in providing visitor services. Although a new exhibit on tree rings was prepared for the South Rim museum in 1942, the North Rim museum was dismantled and its display moved to the South Rim. However, the North Rim ranger did maintain temporary trailside exhibits of rocks, flowers, and shrubs. The South Rim museum remained unmanned most of the 1942 summer, since it was assumed that the exhibits were self-explanatory; and it too was dismantled when the season came to an end in October, the permanent exhibits being catalogued and stored. This in reality represented the end of museum exhibition at Black Canyon until the eve of Mission 66. To be sure, those ranger "museums" had never been on a grandiose and sophisticated scale, but they did play a significant part in providing an educational facility for tourists during the Monument's first decade.

Washington officials this first summer of the War had been urging the public to cut down on pleasure trips, and the positive
reaction was reflected in Monument visitation, down 49.4% in June, 63.1% in August. Those who did come to the South Rim usually visited Pulpit Rock and then left. However, in July the South Rim ranger concluded that he had personally contacted about 3/4 of the visitors who did enter the Monument and had conducted parties to the various overlooks when attendance warranted.

In 1943, travel was down 65.3% over the previous year, and only the barest services, including maintenance, were being provided. The North Rim entrance road had become so bad by the beginning of the 1944 season that one ranger commented it "was like going to Heaven. It was hard to get there but fine after you got there." The 1944 travel figure, by the way, fell 16.3% below 1943.

Then in 1945 visitation began to pick up. The War came to an end, a new brochure on the Monument was put out, and travel increased 90% in August over the year before, 111.5% in September, though most visitors were still coming only to the South Rim. In the spring of 1946 the Montrose Chamber of Commerce put up a highway sign picturing the Black Canyon, and this apparently encouraged visitation. By 1947, there were many visitors again—August travel exceeded all previous August figures with 7323 people at the South Rim—and uniformed personnel were again contacting the tourists, providing suggestions "as to the best views, best places to take photographs, and information concerning ecology." Many visitors were "guided to parts of the Monument which visitors do not see unless accompanied." In addition to over-all increased visitation, the number of people camping was on the increase, so that by July of 1949 there were 199
campers reported, up 40% over the same month in 1948. South Rim campground facilities were being severely criticized, and consequently new fireplaces and tables were under construction this summer. Recorded travel figures for September of 1949 were up 52.5% over the 1948 September, and at this, it was concluded that only about half of the Colorado repeat-visiters (but 75% of the out-of-state visiters) were bothering to register.

Probably one of the first important improvements in visitor facilities following the war was the opening of a concession stand (= "Rim House") at Pulpit Rock on the South Rim by the Kohls of Montrose in June of 1950. The rim house did only a fair business its first summer but did aid the Park Service by urging visiters to register while they were at the Monument. Business was better the next year; and the concession employes "were most obliging this season and aided the Park Service a great deal by acting as an information center." Someone in Region 3 questioned this function of the concessioner, but Superintendent Fusbaum pointed out that "you can't spread the 40 hr per week reg. service of a seasonal ranger to meet the public demand of the 7 da. pr week, daylight hours travel schedule of visiters, and concessioner cooperation has proven beneficial. In June, 1952, a new gas range and refrigerator were added to the Rim House kitchen equipment, "which has greatly decreased the food sanitation problem."

Campground facilities continued to be improved, and in August of 1951 over-night campers had shown a three-fold increase over 1950; there were 500 at Lions Spring campground during July of 1952, 851 in July of 1954.
Meanwhile, attention was again being given to public contact and interpretive aspects of the Monument's operation. Rangers were conducting parties down to the bottom of the canyon once more, though in smaller numbers than before the war; in June of 1951, the South Rim registration booth was repainted and repaired. On September 4-5, 1952, Park Naturalist Don Watson from Mosa Verde visited both rims to look into possible exhibits for interpretive use; Regional Naturalist Matt Dodge was in the Monument on September 23 to inspect proposed sites for wayside exhibits and self-guiding nature trails; and in October Superintendent Rose visited the area to study wayside exhibit possibilities on both rims.

On the eve of MISSION 66, in 1954, there were many accomplishments of direct interest to visitors. Construction began on a fine new North Rim campground in the pinyons near Chasm View. On the South Rim, work commenced on the new paved entrance road from U.S. 50 to Bostwick Park, the contract held by the Schmidt Construction Company; and this road was ready for tourists, though not as yet paved, in September. The North Rim entrance road was also being improved (though not paved) at this time, and a wayside exhibit was put up there in August.

North Rim trails to Cedar Point and Painted Wall were completed in July; the Sunset Point trail in August. The following June the Circle trail to the North Rim's Chasm View Point was well under way.

At the beginning of the 1955 season the picnic grounds on the South Rim were cleared of tables and fireplaces, and the picnic grounds equipment brought to the campground at Lions Spring.
An addition was made to the South Rim concession stand in June, and the Monument's first ranger naturalist had prepared an exhibit of rocks, wood, and flowers for the registration booth. The North Rim's Chasm View circle trail was completed and the Narrows Overlook trail started in July; and the oiling of the entrance road up to Bostwick Park accomplished.

Travel for 1955 was up 11.3% over 1954, with 4.6 states and 18 countries represented by 57,205 visitors, a considerable increase over the first year of record two decades before, when there had been 4,833 tourists. But in July of 1955, fifteen cars got stuck on a muddy stretch of road near the South Rim entrance during heavy rains, indicating that despite the many improvements in visitor facilities and services during the Monument's history to 1956, there was still much remaining to be accomplished!
REFERENCES

1 - Much of the following account has been based upon the various monthly reports for Black Canyon, unless otherwise indicated.


3 - Letter, Franke to Director, October 10, 1935, accompanying Drawing No. EGC-3001. Black Canyon file, National Archives.

4 - Letter, Vint to Demaray, October 19, 1935. Black Canyon file, National Archives.

5 - Memo for the Secretary of the Interior, January 4, 1936. Black Canyon file, National Archives.

6 - Report, Jack S. Barrows to Superintendent, no date but probably December, 1936. Black Canyon file, National Archives.


8 - The first two campfire programs were presented in September. - Monthly Report, September, 1936.


10 - Memo, Black Canyon file, National Archives.

11 - To make business matters worse, the concession stand was robbed just three days before closing for the season.

CHAPTER XII

MAJOR AND MINOR OPERATIONAL PROBLEMS: Grazing, Hunting, and Water Procurement; Accidents, Wildlife, Fire Protection, Prospecting, Vandalism, and Other Violations

In a small National Park Service unit, operational problems in general are limited; and this fortunately has been the situation at Black Canyon through the years. Perhaps the most bothersome problems here have involved grazing, hunting, and the procurement of water, and lesser items such as accidents, fire protection, prospecting, vandalism and other law violations.

Grazing: Before the establishment of the Monument in 1933, of course, there had been grazing of cattle and sheep, and even some horses, in the brushland on either rim. Since the new Monument boundaries were not initially fenced, it was inevitable that such grazing would continue, despite the fact that on the North Rim, at any rate, a "no stock grazing" sign was placed along the entrance road just outside the boundary in 1936.¹

It is hard to alter old understandings, as evidenced by the fact that in 1936 the man who ran sheep on the Gates Estate lands bordering the North Rim boundary considered that his range boundary extended right to the rim itself, and the ranger was keeping him out of this rightful range.² The ranger was understandably exasperated when in September the sheep herder asked him how soon the Park Service work camp on the North Rim would close and if the ranger would stay around after that date. At this time there were some 700 sheep a mile beyond the boundary along upper Grizzly Gulch.

Complicating the grazing situation was the fact that within the Monument itself there was private grazing land, though the
exact amount was somewhat in question. For example, on June 30, 1938, it was estimated that there were 755.09 acres of grazing land within the Monument (= "alien land"), whereas this land was reported as comprising only 457.40 acres on November 8 of the same year, despite the fact that during this interval no private land had been added to the Monument holdings.  

The grazing pressure varied from year to year. In May of 1937 the sheepmen were told to keep their stock off the Monument, and perhaps as a consequence of this admonition the winter of 1937-38 saw no grazing on the South Rim; and the vegetation was in excellent condition the following spring. The South Rim ranger's strict policy was not appreciated by everyone. To wit, the Black Canyon Committee of the Montrose Chamber of Commerce met with him on June 29, 1938, to discuss the grazing situation, asking that he be less strict in enforcing grazing rules, "due to the fact that the Monument is not complete and because Mr. Douglas Lytle, who owns adjoining property, had been so cooperative."  

The following year grazing activity had increased to the extent that the rangers felt rim patrols were essential.  

During the war years protective vigilance was reduced, and grazing encroachment increased. In June of 1943, as a case in point, 600 sheep were found grazing on the South Rim, finally being removed after a discussion with the owner and the arrival of the Superintendent from Mesa Verde. Throughout the next summer, with many boundary signs down, the Monument area was overrun by cattle. In 1945, some horses were running loose on the South Rim, and in early fall the ranger spent much of his time
chasing off cattle. Over the winter of 1945-46 sheep grazed within the Monument, and throughout 1946 cattle, sheep, and horses were found trespassing. It was estimated that about 25 horses and 25 cattle were loose on the South Rim at this time, with sheep on the North Rim. Signs were knocked over and rubbed against by the cows, and on one occasion the headquarters building was invaded and the roof damaged. The band of horses had to be chased out of the area two or three times daily.

Tourist visitation began to increase in 1947, which in turn increased problems associated with livestock trespass. In June sheep were let into the Lions Spring enclosure (on orders of owner Sandburg), despite a "keep out" sign to protect the South Rim's "water supply." The sheep were also wandering about in the campground, much to the dismay of campers who made "a number of verbal complaints." Twice the sheep herder had to be warned to remove his animals from the public area (though in reality this "public area" was in private ownership). The South Rim ranger estimated that in July of 1947 the South Rim campground was in its "worst condition ever due to sheep activity." Cattle were also a nuisance this year, continuing to damage signs and cause a road hazard. On the North Rim, stockmen had fenced off pasture land at both ends of the Monument, which helped alleviate the trespass problem somewhat.

However, the possibility that the Gates land which surrounded much of the North Rim might be sold to sheep men aroused considerable consternation on the part of the Park Service.

In 1948, thanks to the cooperation of sheep owners, there was minimal sheep trespass; but cattle grazing increased,
especially into the 1950's.

This pattern of stock trespass, in varying degrees, was to continue until the Monument boundaries were forced in the early 1960's. The main offenders became cattle, which with increasing tourist travel represented a growing hazard on the rim roads. There was invariably a small herd in the Lions Spring campground area, inconveniencing campers and generally wreaking havoc with the site; but again it must be remembered that the campground was actually on private land. Cattle also wandered through the North Rim headquarters area but not in that Rim's campground, to any extent.

Hunting: Hunting is always a potential problem in any National Park Service area but especially one like Black Canyon where for years the boundaries were poorly marked, portions of the Monument were not readily accessible by patrol, and protective personnel were few in numbers if even available. Also, the Monument was so small that game animals which might be protected within its boundaries readily wandered outside and were liable to be killed. Indeed, during the Monument's first year the custodian, Clifford L. Anderson, complained to the N.P.S. Director that the limited extent of the Monument made it difficult to take care of game protection. 9 Assistant Director Conrad Wirth echoed the same sentiment in 1937 when he was insisting on an increase in the size of the Monument. 10

The most flagrant detected hunting violations take place in the fall, when hunters are out in the surrounding country during the regular state hunting season. For many years the Monument has had someone on duty during this period to patrol the area for
violations, and periodically "No Hunting" signs have been posted. For example, in September of 1936 such signs were placed on poles and trees for two miles westward from Grizzly Gulch on the North Rim, as well as one on the North Rim entrance road.\textsuperscript{11} The main game animal, of course, is the mule deer; but in the mid-Thirties there was some regional hunting of sage hens.\textsuperscript{12}

During the summer of 1939 the game population was up in the Monument, attracting poachers; and it was necessary not only to drive the rim roads late at night but also visit outlying parts of the Monument to discourage poaching.\textsuperscript{13} The North Rim ranger in August had to warn several hunters who were close to the boundary and turned over to the game warden three men who had no licenses.\textsuperscript{14} In September both the North and South Rim rangers maintained a constant watch along the boundaries "due to the increased amount of hunting adjacent to the area."\textsuperscript{15}

Not surprisingly, during the World War II period when meat was rationed and personnel was limited, poaching increased. To counteract this, the South Rim ranger was made a state deputy game warden in June of 1942.\textsuperscript{16} A government trapper was working around the North Rim boundary this summer but, after a warning by the ranger, assured him that he wouldn't trap within the Monument.\textsuperscript{17}

There were many signs of hunting on the North Rim during the autumn of 1943;\textsuperscript{18} deer hunters were bothersome on the South Rim the following fall,\textsuperscript{19} and the ranger there was made a state deputy game warden;\textsuperscript{20} and in early October of 1945 the South Rim ranger spent most of his time keeping off deer hunters, then moved to the North Rim to patrol that side.\textsuperscript{21} During October the next
year the North Rim ranger used a little strategy by coming to
the Monument for patrolling on an erratic schedule "...so the
hunters would not know for sure just when the ranger would show
up." However, he noted, "most of the people that I have seen in
the country hunting do not want to hunt on the monument, not
that they were afraid of me but that they want to see that there
will always be deer in that region." 22

— With the fencing of the Monument, and the inauguration of
year-round personnel at least in the vicinity of the South Rim,
hunting has perhaps become less of a problem in the traveled
portion of the Monument. However, sportsmen still undoubtedly
enter the Monument at its more inaccessible boundaries, knowing
or not knowing that hunting is prohibited. Several years ago I
approached a bow-and-arrow deer hunter in the vicinity of Red
Rock Canyon who had just tramped down, empty-handed, from the
pinyon-juniper woodland along the boundary but who insisted he
had not hunted within the Monument. And a local rancher commented
that he couldn't see anything wrong with shooting a deer or two
in the Monument adjacent to his land and regretted that the
National Park Service didn't feel the same way.

Water Procurement: For a monument set aside to protect a
river canyon, it seems ridiculous that one of the major operational
problems has involved procuring water for domestic use. But the
Gunnison River water, of course, is a long ways away; and the
Monument's two major springs, Lions Spring on the South Rim and
Poison Springs on the North Rim, produce only limited, and not
very palatable, water, and in addition both were initially on
private land.
In 1936 when boundary extensions were being looked into, one of the considerations involved "the need of a water supply." That summer Mark Warner, on behalf of the Montrose Chamber of Commerce's Black Canyon Committee, reported to the National Park Service that this committee had an option on the use of Lion's Spring and even purchase rights for "a limited time" and was waiting for "an adjudication of water rights relative to the springs on the 'north' rim from which we have been obtaining water for that side of the monument..." The year previous there had been no indication that the owner of the Poison Springs land had any interest in selling it; Superintendent Huesbaum of Mesa Verde, as at any rate, was not optimistic about depending upon either spring, noting that Lion's Spring periodically dried up and that only by purchasing all of the North Rim sheep land could these springs be obtained. He felt a better solution would be to depend upon catchment. By the way, Huesbaum's observation about the springs drying up proved prophetic.

The visitors were not happy about the water situation in 1937, and many who really wished to camp for the night did not do so because of lack of this particular facility. However, things looked up momentarily in July of 1937 for both rims. The North Rim ranger found a spring on Ted Allyn's land which would reputedly furnish all water necessary both for headquarters and a campground, at no cost. The ranger reported he was working on a plan for piping the water and was finalizing an agreement with Allyn. Meanwhile, on the South Rim the ranger had found a likely source of water in the draw below the old work camp, the water level estimated at only eight feet below the surface; and
Assistant Superintendent Franks had authorized test drilling. From neither venture did any solution to the water problem materialize.

As the 1938 tourist season began, the South Rim spring was running well, and it was anticipated that it would supply the summer's demands without any additional water hauling. Later in the year, Douglas Lytle began thinking in terms of creating a tourist development on his land around the spring and visualized doing away with "the unsightly pond at the spring" and pumping stock water into watering troughs out of sight of the tourists." Nothing, of course, came of this scheme. A new twist to solve the water problem for the Monument was ventured by the Park Service in 1938. It felt that perhaps water could be obtained from Poison Springs for both rims (2000 gallons a day). By this time the manager of the Gates Estate, upon whose land Poison Springs was located, was no longer interested in giving the government water rights but might sell them. Meanwhile, Representative Taylor, in going through the Montrose County records, found "perpetual easements for the construction and maintenance of a pipe line from the Poison Springs area across the intervening lands to the Monument." Masbaum hoped that he could interest William T. Grant of W. T. Grant and Company, New York, in purchasing the land on the South Rim which included Lions Spring. It was just as well that the purchase failed to go through, since by the next summer Lions Spring had become useless for drinking purposes, due to the prolonged dry weather.

By early 1940, the Gates Estate wanted $50,000 for
approximately 25,000 gallons per day, which the National Park Service considered "beyond reason." F. S. Hotchkiss, Water Commissioner of Montrose County, suggested condemnation of water for domestic purposes. 35

There had also been discussion about obtaining domestic water from the Gunnison River at River Portal. 36 The Montrose Water Users Association was willing to cooperate in pumping water from the dam, if the Park Service would make arrangements with the Commissioner of Reclamation to obtain the amount of water needed. Also, for several years actual consideration had been given to obtaining water from the Gunnison River within the Monument. 37

In a letter of April 2, 1940, the National Park Service Senior Engineer gave consideration to the various possibilities. 38 Essentially, he felt that it was impossible at the moment to

...approach the subject intelligently because of the complete lack of essential information. In the first place, the locations at which water must be delivered have not been determined, nor is sufficient information available to estimate what the probable volume required will be at the various points of use. It is possible that there will be a headquarters in the vicinity of Jones Summit, with a station possibly in the vicinity of the loop near the location of the North Rim Road Camp. It is also possible that a supply of water will be necessary for concessions in the vicinity of the location of the South Rim Road Camp.

With respect to Poison Springs water, the Senior Engineer noted that it was sufficiently high in elevation so that a pipeline could be carried from the North Rim down into the canyon and to the Jones Summit proposed headquarters area "with adequate pressure at this point." 39 On the other hand, if water were obtained from the river within the Monument, it would be necessary to have a pump in the canyon and a generator
at headquarters to provide electric power for the pump. He recognized that a "certain amount of water is probably available" from Lions Spring, but this might not be sufficient for the needs of the South Rim Road Camp and might have to be supplemented with water piped from the proposed headquarters area. Procuring water from the dam at East Portal would require a "very difficult and long pipeline" to the South Rim headquarters area and then across canyon to the North Rim, or a pipeline within the canyon. In summary:

.....It is apparent that the delivery of water to the proper points will be both difficult and expensive, regardless of the source of supply. In order to evaluate the various systems, and to determine which one is the most economical in the long run, it is necessary to make an engineering study of the various problems. It does not appear advisable to approach the Bureau of Reclamation before studies have proved that the supply from the East Portal is really the most satisfactory.

In May of 1940 the water system on the South Rim was finally reported as "in good condition," and with the cistern and "one hundred gallon tanks which we now have the water problem is about settled."[40] And in a sense the water problem was temporarily "about settled," for during the next decade the Monument springs proved sufficient for the water needs.

During the summer of 1951 tourist travel was on the increase, and it again became necessary to haul in water for the South Rim from Montrose, at a cost of 1½/gallon which included truck operation, cost of the water, and personal services.[41] Water was hauled during this summer, but until late the next summer it was possible to use Lions Spring water. Then the South Rim cistern was filled up with water from Montrose, hauled in a 500-gallon tank loaned by Colorado National
monument.\textsuperscript{42} Despite grandiose schemes to the contrary, from this time to the present the monument's water supply for both rims has depended upon hauled water, stored in large tanks. For example, during the tourist season of 1955 about eighteen tanks of water were brought in to the South Rim,\textsuperscript{43} with chlorax or chlorine put in for purification.

Solutions to the water problem continued to be explored. In 1954 the two monument rangers and Blake of Delta made a water condition survey of the North Rim,\textsuperscript{44} and in August of the same year a spring was located in Red Canyon with flow strong enough to fill a six-inch pipe.\textsuperscript{45} Inevitably, the extent to which permanent developments can be realized at Black Canyon National Monument hinges, in large measure, on the adequacy of the water supply, however obtained.

**Accidents and Rescues:** It is amazing that in a canyon area of great potential danger, accidents through the years have been of only minor consequence, as has been true of rescue operations.

Early in the development of the Black Canyon area the Montrose County Commissioners put in some one-inch iron-pipe guard rails at some of the South Rim overlooks.\textsuperscript{46} In addition to these guard rails, several "unsafe" signs had been posted. Then in 1943 a rock wall was built at the South Rim's Chasm View,\textsuperscript{47} followed by more walls in subsequent years. But in the main the various overlooks were inadequately protected until very recently. The awesome depths apparently encouraged a certain caution on the part of sightseers, resulting in a commendable and indeed amazing safety record. Apparently no one has ever been killed in a fall here.
Accidents at the Monument, thus, have been of a minor nature. In June of 1941 a North Rim visitor received deep cuts from a rock dislodged while he was climbing. On June 15, 1946, the ranger had to go into the canyon to assist out a man and his wife who had gone in with too much stuff and not enough stamina. In the fall of 1952 a gravel truck backed into a tourist's car on the South Rim road, slightly damaging it. During June of 1954 a woman slipped on gravel on the Painted Wall Overlook trail, bruising her left knee and hurting her back. The same summer two Houston, Texas, Girl Scouts received minor hiking injuries—a sprained wrist and abrasions on the hand. The next August a New York girl drove to High Point in a rented car, got lost while hiking from there, ended up in Bostwick Park where she called the South Rim ranger, who gallantly brought her back to her automobile.

This gives the flavor of the type of accidents and rescues encountered at Black Canyon. As visitors and traffic increase, these occurrences will also undoubtedly increase...and perhaps be of a more exciting nature. As a case in point, one recent rescue made a headline in the Grand Junction Daily Sentinel, when rangers rescued by rope two Indiana men stranded on a ledge 500 feet below Dragon Point Overlook.

Wildlife Management and Insect Control: These activities in a small monument such as Black Canyon are generally limited. Here, perhaps, the only major and recurrent problem has involved porcupine damage to the piñon pines towards the west end of the rim drives, especially on the South Rim at High Point among the patriarch pines.
In 1936 the porcupines were causing much damage both to
trees and brush in the Monument, and a killing program was
instituted. Three porcupines were shot in July and three (but
only one of them within the Monument) in September. Considerable
damage was reported again in 1937; and the following year Ranger
Leach noted increased porcupine damage and recommended that
"control measures should be investigated." The Region 3 N.P.S.
office requested that "immediate authorization be given to
Superintendent Musbaum to institute the necessary porcupine
control in this Monument, by shooting." Later this year Dr.
McDougall, regional wildlife technician for Region 3, spent one
day on the South Rim and two on the North, "inspecting wildlife
conditions" with particular attention to porcupine depredations.
And in September, 1939, the Regional Office made its recommendation
to control the porcupines; the eradication program resulting in
the killing of 103 this month. The amount of new damage in 1940
was so great—the complete destruction of hundreds of trees at
the west end of the North Rim was reported—that the ranger
felt control by shooting would be of little consequence. However,
in 1940 at least 39 were shot.

In ensuing years the amount of damage fluctuated; while
the eradication program apparently was dropped until 1944, when
there again was a great increase in the population. The rodents
were even chewing buildings and signs on the North Rim. The
ranger there, with a homespun sense of humor, reported killing
a "porky" in July of 1944 which had a taste for outhouses:
"Funeral services were held for him July 19th. He started to eat
the house the night of July 18th." Among the eight shot on the
North Rim in August of 1944 was one "sitting on the seat in the out-door toilet."

By 1950, amazingly enough, there was no fresh porcupine activity reported, but five years later damage was increasing among the pines at High Point. In all, perhaps several hundred porcupines were eliminated during the Monument's first two decades, with questionable results.

Some of the lesser wildlife problems were bizarre ones. For example, in September of 1936 packrats were causing trouble at the North Rim work camp. In August, 1944, the North Rim ranger was shooting prairie dogs at the upper end of Grizzly Gulch because the poison which the ranchers had been putting out for the rodents was killing the sage hens, and shooting seemed a more selective way in which to eliminate the prairie dogs.

Fish Management problems were certainly of little consequence in this Monument; but sometimes the level of the Gunnison River in late summer would fall so low that the fish population was endangered. On such occasions the rangers would call the caretaker at East Portal and ask that more water be released over the dam.

Insect damage within the Monument has never been serious enough to cause any particular concern. The piñons on the North Rim were inspected for insect attack by Donald De Leon, an entomologist from the Berkeley office of the National Park Service, on December 3, 1935, but there seemed no problem at that time. In the 1939 summer there was a minor beetle infestation, and in August of 1941 the pine beetle infestation was reported as "not bad."
Fire Protection: Although the Monument is located in semi-arid country where in summer the fire danger may be high, there have been no serious fires within the Monument since its establishment.

When two seasonal park ranger positions were set up for the summer of 1936, it was noted that among each ranger's duties would be "patrolling for possible...fires...". In the fall of this same year, District Forester Jack S. Burrows visited the Monument and recommended afterwards that a cooperative fire fighting agreement with the U. S. Forest Service be set up.

Thereafter, a number of cooperative arrangements were made through the years between Black Canyon and other regional organizations and individuals for the suppression of fire. For the summer of 1938, for example, a complete fire organization for the Monument was established by the two seasonal rangers, including phone numbers and locations of cooperatives, standing orders for food supplies for from ten to fifty men, maps showing fire trails and cover types, location of fire fighting equipment, and a doctor who could be called in case of emergency. In May of 1940 arrangements were made for fire assistance from the Colorado National Monument CCC camp; mutual assistance agreements were concluded with Uncompahgre National Forest and the Division of Grazing in 1942. Early in the summer of 1946 an agreement was made with men in Dostwick Park to come up if the Monument in the event of a fire, and if the fire were large the sheriff would send men upon request. In 1954 the Monument received a fire plan from the Bureau of Land Management, giving names, addresses and phone numbers of all who could be called upon for assistance;
and the next year the fire plan was furnished by Mountain States Telephone.

In addition to dependance upon assistance from cooperatives, the Monument saw to its own fire prevention measures. In the summer of 1937 Forest Service-type fire caches were ordered for each rim (though not received immediately), water barrels were kept filled "for immediate use, and tools are placed where they are instantly available." During July of 1939 additional fire fighting equipment was received and put in tool houses on each rim. The North Rim ranger at this time constructed a tool box containing complete equipment for ten men which could be carried in the patrol car. The next year new fire tool boxes were received, and a fire house was built to hold them. "It has been so arranged that one man can easily load them into a pickup in short order." For building protection six new fire extinguishers were obtained this same summer.

By 1943 each rim had a fire cache which anyone could use, and this year a temporary shelter for a fire danger station was set up and partially equipped. To cut down on fire hazards, roadside weeds were periodically removed by the rangers, and the few fire trails were periodically "brushed." When fire danger became extreme, the rangers would occasionally put up warning signs in the picnic areas, such as the 1955 ones for Dragon Point and High Point which read "Please, no fires in this area."

The Monument's commendable fire plans, cooperative agreements, and fire fighting equipment have fortunately never been put to a severe test; and indeed it is difficult to make a very exciting
account of the fires which have occurred in the vicinity of the Monument. In July of 1942 a burned area was found below Warner Point where there had apparently been a late spring fire, and in August of the same year the South Rim ranger extinguished a small roadside fire probably started by a cigarette. Ten years later there was a fire about a mile from the South Entrance road outside of the Monument which Ranger Dobbins and three others fought for three hours until the Bureau of Land Management arrived with a crew of 15. The fire burned about 40 acres and if not discovered and suppressed early might have spread into the Monument. On occasion fishermen would inadvertently start fires along the river, which luckily always burned themselves out before too much damage occurred. In October of 1954 a potentially electrifying fire might have occurred—but didn’t—when the telephone box on the outside of the South Rim warehouse was hit by lightning.

**Prospecting:** Prospecting has never been a problem in the Black Canyon area, inasmuch as the region is not "economically" mineralized. However, during the summer of 1941, when minerals were in demand, the supervisory rangers had to "advise a good many prospectors against activity within the Monument."67

**VANDALISM and other Violations:** Inevitably, with increased accessibility of the Monument during the summer, and even into the winter, there has been an associated increase in vandalism, especially by so-called "locals." This generally has taken the mostly malicious form of minor damage to Monument signs and other man-made items, and damage to natural features, generally not with malicious intent. Related would be the carefree throwing of rocks into the canyon.
Many of these kinds of violations have rather naturally not been documented. But enough have been to give a picture of the problem. Rock throwing apparently is a natural reaction by man to a yawning garge; and on one occasion even a state highway patrolman rolled rocks into the canyon, on July 24, 1936. Through the years the rangers probably reprimanded visitors for this type of activity more than any other; and, nicely enough, the offenders were generally pleasant in their reaction. One tourist who was not apprehended had a conscience which forced a confession four years after his mostardly deed.

....A friend of mine and I visited Black Canyon, and while we were there we yielded to a desire to push some rocks over the edge of the precipice, having great pleasure in hearing the immense noise created by the rocks falling against the rocks below. I well realize that we should not have done this, and I send my sincere apology. I am a Christian, and I felt it necessary to get in touch with you concerning the matter.

Flower picking was another activity engaged in by tourists, usually without their realizing that it was unlawful. The South Rim ranger made particular note of this happening during July of 1947, when the favorite victim was the mariposa lily.

Signs were occasionally defaced or even removed. During the winter of 1946-47 vandals riddled a sign on the North Rim, and several boundary signs were removed on that rim during the 1944-45 winter. On July 9, 1936, a Montrose boy scratched his name and date on the tin roof of the South Rim registration box. Following up on the inerminating evidence, the ranger had the boy's father bring him back to the Monument, and paint out the scratching.

During the 1936-37 winter someone shot the pulley off the South Rim registration tent flagpole, fireplace grills were
damaged in the spring of 1955; ten years later a toilet was thrown into the canyon and a hole shot in the gas pump glass. Some gun toters were apprehended when the Monument was first established, including the rock-throwing highway patrolman who shot off his pistol several times before being reprimanded. A few visitors were cautioned about scattering trash and leaving messy campsites, signs on occasion had to be put up warning about cutting or hauling firewood, and speeders were apprehended. In 1936 "U. S. Property. Penalty for Trespassing" signs were placed on the Monument buildings, to discourage vandals.

During its first two decades, in reality, the Monument experienced little "serious mischief." During the winter of 1943-44, someone broke into the South Rim cabin and apparently slept there, but only stole a claw hammer. The same winter someone for the first time in the Monument's history "molested" equipment, taking a truck-load of fire equipment and gas drums from the North Rim headquarters area. Finally, on September 7, 1950, the South Rim concession stand was entered by some young men "from a neighboring town," who stole approximately $50 in merchandise. Since this was the boys' first offense, they were only fined and reprimanded.
REFERENCES


2 - Ibid.

3 - Black Canyon file, National Archives.


5 - Monthly Report, June, 1938. The ranger had to confer with Superintendent Husbain or Assistant Superintendent Franke before making a decision on this request. The final decision was presumably negative.


7 - Unless otherwise noted, the following resumé of grazing problems is based upon various Monthly Reports.

8 - Ibid.

9 - Letter, Anderson to Director, April 21, 1934. Black Canyon file, National Archives.

10 - Letter, Wirth to Acting Director, December 28, 1937. Black Canyon file, National Archives.

11 - Monthly Report, September, 1936. Those along the boundary were placed within a few feet of the actual boundary line.


13 - Monthly Report, July, 1939. By the way, in addition to checking on deer pouchers in out-of-the-way spots, the North Rim ranger also came across four men on the Gunnison River who were fishing without a license and turned them over to a state game warden.


25 - Letter, Franke to Director, October 10, 1935. Black Canyon file, National Archives.

26 - Letter, Husbaum to Director, November 12, 1936. Black Canyon file, National Archives.


31 - Black Canyon file, National Archives.

32 - Book 272, Montrose County, Miscellaneous Real Estate, pp. 296-298.

33 - Letter, Husbaum to Grant, November 5, 1938. Black Canyon file, National Archives. Grant wrote to Carreroc, "If you say I should do this, I will do it." - Letter of November 10, 1938. Black Canyon file, National Archives.


35 - Letter, Franke to Director, February 27, 1940. Black Canyon file, National Archives.

36 - Ibid.

37 - Memo, N.P.S. Senior Engineer to Burney, Vint and Barton, April 2, 1940. Black Canyon file, National Archives. Burney had reported this to the Senior Engineer.

38 - Ibid.

39 - Ibid.

40 - Monthly Report, May, 1940.


54 - Grand Junction Daily Sentinel, July 13, 1964. The men were rescued on July 11, after being stranded overnight.

55 - The following account of porcupine damage and control is based upon material in the Monthly Reports, except as otherwise noted.

56 - Letter, M. J. McColm to Director, no date but probably late 1938. Black Canyon file, National Archives.

57 - Ibid.

57a - Harold Ratcliff, Regional Forester, made a field inspection on July 27, 1944, noting that porcupine damage was evident even among the oaks on the South Rim. - Memo, Ratcliff to Regional Director, Region 3, Black Canyon file, National Archives.


60 - Monthly Report, September, 1944.


63 - Monthly Report, August, 1941. As an amusing sidelight on other insect control, in May of 1942 the South Rim ranger tried to prune off tent caterpillar tents on bushes around headquarters, but to no avail. - Monthly Report, May, 1942.
64 - The following compilation on fire protection is based upon Monthly Reports, except as otherwise noted.

65 - One ranger in July of 1945 reported that a mixture of salt and fuel oil could be put on roadside grass to kill it, if applied in early spring. - Monthly Report, July, 1945.


68 - The following compilation on vandalism and other violations is based upon Monthly Reports, except as otherwise noted.

CHAPTER XIII

THE MISSION 66 DECADE: 1956-1966

The year 1956, of course, was a "rod letter" one for the National Park Service, since during this year MISSION 66 was instituted, a program of staffing and development which would enable the national parks and monuments to serve some 60 million visitors annually by 1966. Whereas Black Canyon National Monument may have been slighted by the federal works projects of the 1930's, it was certainly to reap the benefits of this new decade of improvement.

The developments at Black Canyon which stand out, as MISSION 66 comes to a close, include especially the new paved South Rim highway and the associated paved entrance road from U.S. 50, the relocation and development of the large campground and amphitheater on the South Rim, the improvement of trails and overlooks on both rims, including the installation of adequate guard rails, the development of self-guiding nature trails on both rims, as well as roadside exhibits, the consolidation and fencing of the boundaries, improvement of the North Rim campground and road, increase in summer staff and inauguration of a regular daytime and evening interpretive program, the assignment of a year-round supervisory ranger to the Monument, and improvement of the South Rim concession stand. As less evident but perhaps longer range advances: the preparation of a detailed master plan for the Monument, an interpretive master plan, and a comprehensive museum prospectus, with construction of a new South Rim visitor center/headquarters and new though less pretentious buildings for the North Rim imminent. At the same time during this period there remained unsolved some of the long-plaguing problems such
as water and porcupines.

Progress, to be sure, was slow at Black Canyon for the first few years of Mission 66. Indeed, during the first year most of the developments were outside of the Monument. Surveying commenced in July of 1956 on the new state entrance road from U.S. 50. At the start of the North Rim entrance road in August a local Lions Club erected a 3'x6' sign reading "Black Canyon," while the Montrose Chamber of Commerce was preparing four large (12'x24') signs with a picture of the canyon, the caption "Follow Hi-way 50......to the Black Canyon of the Gunnison National Monument," the canyon depth, and the notation that the Monument was free. These signs were to be placed strategically throughout the state, including one at Fruita and one at Canon City.

Within the Monument, the South Rim concessioner opened on June 10, 1956, with a newly constructed (by the N.P.S.) sewer and hot and cold water system which greatly improved service. And in late summer Project Engineer Niel Grunigen and Park Naturalist Dwight Hamilton visited all of the overlook points on both rims to determine the number of posts for planned guard rails.

The most important initial improvement involved the completion of the new paved approach road from U.S. 50. Although the existing entrance road was dutifully maintained, and certainly was an improvement over the old narrow road which was still in use in 1947, it discouraged many visitors, especially in bad weather. Indeed, the stretch from Dostwick Park to the
entrance, the last section to be improved, was literally impassible in wet weather, a dangerous and slippery morass even with chains. During rainy spells, several days would sometimes pass without any tourists even being able to navigate this section of road to the Monument.

Highway work was begun in May of 1957 by the Harrison Construction Company, and by the end of October the black-top finish coat was completed to the Monument boundary. The new road was being well used by late the next spring, with 5739 visitors coming into the Monument from Highway 50 during the month of May, 1958, a tremendous increase over previous years.

The new approach highway was dedicated at special ceremonies on May 25, 1958. At 1:15 p.m. a ribbon was cut on State Route 347, as the entrance road was designated, by the U.S. 50 Queen. A procession of cars then proceeded up the new road and into the Monument to Pulpit Rock, where addresses were delivered over a public address system arranged for by the Montrose Chamber of Commerce. Speakers included Regional Naturalist Edwin Alberts, Superintendent Biesse, and Mr. Walters, chairman of the Montrose Lions Club Betterment Committee.

This new entrance highway was greatly to encourage increased travel to the South Rim, as already suggested. By the end of July, 1958, visitation was up 45% over the previous June and 67% over July of 1957. Inevitably, however, tourists were going to be discouraged to discover, at the end of this fine entrance road, a relatively unimproved Monument rim road. And by mid-summer there were many complaints from drivers who expected to
find a paved road all the way to and along the rim.

With increased visitation, the problem of public safety at the various overlooks intensified. On June 5, 1958, Regional Director Baker, Regional Chief of Interpretation Gregg, Superintendent Bussey and Supervisory Ranger Ives made an inspection of the South Rim to, among other things, determine guard rail locations. In September of this year guard rail construction commenced at Sunset View on the South Rim (September 17) and Kneeling Camel on the North Rim (September 22). By the end of this year a curbing had been finished at Sunset View and Chasm View and forms were in at Cross Fissures Overlook, the project for the South Rim thus being 21% completed. On the North Rim, where the project was 20% completed, railings were in at Kneeling Camel and Big Island Overlook. Work was to continue on the guard rails and curbs at existing overlooks for the next two seasons, finally being completed in November of 1960.  

Increased visitation also necessitated increased visitor facilities, including interpretive developments. In August of 1957 Regional Naturalist Alberts, Park Naturalist Hamilton, and Dr. Richard Beidler of Colorado College visited both rims and began the development of an interpretive master plan for the Monument which was put into an initial draft in September, subsequently to be greatly revised and improved. In this master plan was mention of the proposed South Rim Visitor Center, to be located originally at the newly named Gunnison Point, a "Yavapai Point" type of attended observation station on the North Rim at Narrows Overlook, and a number of suggested self-guiding nature trails and roadside exhibits. Later, these three individuals
were to prepare a detailed museum prospectus for the South Rim Visitor Center, a document which also subsequently underwent considerable revision by many individuals, including Park Naturalist Pat Miller.  

As another interpretive development, an information trailer was parked at Pulpit Rock starting in July of 1959, generally to be manned by uniformed personnel. The next June the trailer was moved on to Chasm View, despite the fact that a travel study indicated that only 20% of the Monument visitors ever got that far along the rim road. On the North Rim the wayside exhibit shelter was shifted in August, 1960, to the main entrance road junction and implanted near the flagpole, a more logical place than its former location farther along the rim drive.

During the initial phase of MISSION 66 there was some development of limited interpretive displays and trails. In mid-summer of 1957 exhibits on the canyon formation were erected on both rims, and work commenced on an improved trail out to Warner Point. The next July a Warner Point Trail sign was placed at High Point, and arrow signs were placed strategically along the course of the trail. Also this summer (1958) self-guiding nature trails were developed at Cedar Point on the South Rim and Chasm View on the North Rim.

The number of Monument visitors, especially those staying overnight in the South Rim campground, was becoming such that more personalized interpretive services seemed in order. In August of 1958 Park Naturalist Pat Miller and Regional Naturalist Alberts visited the Monument to make plans for "nightly campfire
programs and daily nature walks and auto caravans. By month's end twelve campfire programs had been given to 413 people, 16 nature walks were scheduled but only seven given, with 45 participants; and auto tours were scheduled but never led because of lack of interest. Conducted walks and talks, of course, had been given previously in Black Canyon National Monument but never before as a routine part of the Monument's operation.

Improved facilities and favorable publicity made 1959 a good travel year; and on October 31 the season's 100,000 visitor entered the Monument, Floyd D. Wilson, with his wife and two young sons. They were given a guided tour of the South Rim points of interest, "where the geology of the Canyon was explained to them as well as the flora and fauna of the area."

The following summer 98,287 people had already visited the Monument by the end of August, an increase of 20% over the same date the year before. The new interchange at the junction of U.S. 50 and the Monument entrance road, completed in October of 1959, probably served as a minor added inducement to visitation.

New rim roads for both rims, but especially the South Rim, had been anticipated for some time; and from August 6-10, 1959, a team of N.P.S. personnel was at the South Rim making a preliminary layout of the new road there. This team included three men from the Western Office of Design and Construction, Vernon Anderson, landscape architect and project supervisor of the Black Canyon road, Allen Kuebner, coordinating engineer for Area 3, and Donald Bressler, supervisory highway engineer, plus
Thomas Williams, a student engineer. During this period John W. Baker, WODC project engineer, moved to Montrose, and under his supervision surveying and staking of the new road actually commenced on August 12. The new canyon approach was made to the east of the existing road; and in September a crew was working to tie in with this new approach to the old Pulpit Rock road.

Bids were not opened for the South Rim road reconstruction until August 23, 1960; and it was a disappointment then to discover that all bids were in excess of the presently appropriated funds. The problem was referred to WODC; and finally in October the contract was awarded to the Colorado Construction Company of Denver, with the J. P. Elliott Construction Company as a sub-contractor. A discussion about "specs and procedures" was held in Montrose on October 27; and on the 31st the Elliott Construction Company began moving equipment into the area.

Before the new road could be completed, there were boundary adjustments which had to be made because of private land holdings. This matter of private land and monument boundaries dated back, of course, to the establishment of the Monument. Early in the MISSION 66 period, during June of 1957, land appraisers were at the Monument attempting to appraise some of Clarence Samburg's holdings on the South Rim, including land in Red Canyon, for possible settlement. Finally, in October, 1960, successful negotiations were concluded with Mr. and Mrs. Samburg for a 200-foot right-of-way through their land towards the southeastern end of the Monument in exchange for "a grazing
permit, cattle right of way, and fee." This transaction allowed actual construction and resurfacing of the South Rim road to begin.

Meanwhile, during the previous summer boundary markers on 20-foot pipes had been erected on all presently needed section corners. And for the North Rim, Supervisory Ranger Ives, after a May, 1959, reconnaissance, was recommending the inclusion of the Green Mountain ridgetop within the Monument so that a new North Rim entrance road could enter at that point: "It was determined that the overall view of the Canyon from this point surpasses any single view obtainable from within the Monument and protection, particularly hunting, would be simplified if the boundary was extended to the top of the ridge."

Almost exactly halfway through the MISSION 66 decade, on November 1, 1960, construction began on the South Rim Road Project, whose completion would indeed represent a milestone in the Monument's history. Inclement weather and the untimely death of sub-contractor Elliott forced a curtailment of activity on November 23; but by this date the right-of-way for the entire road, except for three parking areas, had been cleared, several culverts implanted in the new section, and grading nearly completed for about half-a-mile of the new road.

By the way, originally the new approach road was to incorporate several new canyon overlooks; but subsequent planning eliminated these views. However, after strong objections by the Montrose Chamber of Commerce, Park Service Director Wirth made a field decision in June of 1960 to "include Gunnison Point on the main Rim Road as surveyed last summer" and to have a new "Master
plan prepared showing the campground, headquarters and visitor center developments near the entrance to the Monument." The new route would also include Tomichi Point with its eastward overlook.

By the end of May, 1961, the entire road project (Contract No. 14-10-0232-450) was about one-third completed, with 75% of the heavy rock work done; and it was anticipated that the job would be finished by August 1. Base coarse gravel hauling was over in July and construction of curbing at parking areas and preparation of ditches had commenced, with oiling and paving imminent.

On September 1, the road work was considered 95% completed; and on September 15 a pre-final inspection of the road was conducted by Superintendent Bussey, Project Supervisor Baker, Project Inspector Brown, Landscape Architect Anderson, Maintenance Foreman Zabriskie, and Supervisory Ranger Hefti, with Jack Edwards representing Colorado Constructors, Inc. Minor deficiencies and corrections were noted at this time.

During the summer tourist season of 1961 travel was down, in large measure because of the torn-up road; and those drivers who did venture into the Monument (despite the posted warnings) experienced considerable difficulty in out-maneuvering the construction equipment. Indeed, it became necessary for Park personnel to have several conferences with the contractor to insure the safety and courteous treatment of visitors.

Final inspection and acceptance of the new South Rim drive was made by Baker, Bussey, Edwards and Hefti on October 4. Some
minor items still needed to be taken care of at this time, namely traffic control signs, completion and placing of route directional signs, diagonal striping of parking areas, and the surfacing of the trails to Gunnison Point overlooks.

The new road made possible travel into the Monument through late fall of 1961, for the first time in the history of the area. 1722 people were recorded in November and 675 in December, to bring the year's total to 115,026 (as compared, however, with 122,519 in 1960). The next spring the Monument was open for its first April in history when travel was recorded, and 24,61 tourists came in, many more than anticipated. Good weather, good publicity, and a good new road were contributing factors.

The Montrose Chamber of Commerce was pushing for a dedication ceremony in May of 1962, to advertise the new paved highway; and the Regional Director was invited to participate. May 27 was designated for the ceremony, and Supervisory Ranger White plugged the celebration on a special TV program on May 11. When Sunday, May 27, rolled around, on hand as special participants were Edwin Alberts, representing the Regional Office, Park Naturalist Pat Hiller, Superintendent Bissey who gave the dedication address, Albert Bellgardt, president of the Montrose Chamber of Commerce, who represented the local community, Supervisory Ranger Lowell White, and Rupert Peterson, Chairman of the Montrose Chamber of Commerce Tourist-Publicity Committee.

The ribbon cutting took place at Tomichi Point at noon, with the Montrose rodeo queen Joyce Moore doing the honors. Unfortunately, the weather was miserable, taking "much of the
luster from the celebration;" and consequently a very small crowd attended the proceedings. However, the event certainly represented an important culmination of one of the most important Mission 66 projects for the Monument and would make possible, in greater measure, the operation of Black Canyon as a nearly year-round Park Service unit.

While work had been proceeding on the South Rim drive, planning was underway for other South Rim developments. In September of 1961 the Headquarters Master Plan drawing was being reviewed, and the campground portion was recommended at this time. Project Engineer John Baker completed the topographic survey for the campfire circle in November; and on April 27 (1962) the campground drawing (No. RM-BGC-3117) was approved. Invitations went out in mid-June for bids for construction of the campground roads, parking areas, pit toilets, campsites and campground facilities for a 100-unit campground, with the campfire circle development being delayed for the time being. On July 17 the contract (No. 14-10-0232-702) was awarded to the Corn Construction Company of Grant Junction in the amount of $72,173. Survey work for the campground project was finished by early August and ground breaking started about August 6. It was decided that the installation of tables, fireplaces and garbage cans would be left to the Park Service.

Although work proceeded on the campground area in late summer and early fall of 1962, funds were lacking to push the completion, and it became necessary in October to move the facilities of the Lions Spring campground into Loop A of the new campground. On October 23 of this year final inspection
and acceptance of the Corn Construction Company's work was made. The campfire circle working drawings were approved in February, and bids went out in March of 1963 for campground tables, fireplaces and charcoal burners, the bid awarded in early April. On June 18, the Corn Construction Company received the contract (No. 14-10-0232-788) for the campfire circle, as well as wayside exhibits, entrance sign and campground barrier construction. Final inspection of the new campground facilities was made on October 23, 1963, by Supervisory Ranger White, Superintendent Buss, Contractor's Engineer Chester Erickson, and Project Supervisor Daniel Babbitt.

This fine new campground, like the paved entrance road and paved rim road before it, was to have an important impact on the Monument's popularity. In June, 1963, campground usage on the South Rim had already doubled over the previous year.

During this particular period some innovations were being made with respect to the Monument boundaries, too. In August of 1962 work started in earnest on boundary location and marking on both rims, especially the North Rim where designating and fencing the boundary was felt imperative to reduce grazing trespass. On the South Rim the boundary was being carefully surveyed preparatory to putting in a drift-fence. The South Rim fence bids were originally scheduled to be opened in July, 1962, but this was put off at least to August 23, "pending revisions of the specifications and completion of survey work."

There was still interest on the North Rim in including the ridgetop within the boundary, but the idea of having the visitor
center not atop the ridge had been given up as impractical, in May of 1961. Regarding the North Rim boundary, land owners Allyn and Gates had discussed with the Park Service possible land exchanges "to effect better boundary alignment and provide land for headquarters development." These men, however, were not interested (August of 1962) in trading for Bureau of Land Management land but wondered instead if some of the existing Monument land could be exchanged with theirs...an exchange which, as the Park Service pointed out, would require congressional action.

The survey of the South Rim drift-fence line was completed by the Bureau of Land Management and WCDC in time for a "show-me" inspection by prospective bidders on August 16; and on August 24, 1962, the contract was granted to the Anderson Independent Company of Grand Junction (Contract No. 14-10-0232-712). The company planned to begin construction on August 29. By the end of October, 1962, all of the steel posts had been set plus many of the interspersed wooden posts, and the fencing project was considered approximately 60% completed. Another month and it was 90% finished. ¹⁰

Settling the North Rim boundary problem was not to be as easily achieved. The Park Service had proposed certain boundary extensions, and it came as a shock to discover in November of 1964 that the Bureau of Land Management was preparing to offer some of this land for public sale. The N.P.S. Midwest Regional Office was immediately notified, and it proved possible to have the land in question temporarily withdrawn. As the situation stood in early 1965, information was being gathered concerning
possible land exchanges on the North Rim with inholders; and if a boundary study team felt that the north boundary should be extended, Bill land exchanges might be affected with property owners bordering the Monument.

Two perpetual problems whose solution depended in part on the final delineation and fencing of the boundary were livestock trespass and hunting. To be sure, these were not the problems they had been in the earlier days of the Monument, but they still had to be contended with, particularly on the North Rim.

On October 26, 1960, and periodically thereafter, about 1,400 sheep belonging to John R. Collins of Hotchkiss wandered into the Monument from Hed Allyn’s inholdings on the North Rim (east end). In October of 1961, Allyn had sheep trespassing on the North Rim and had to be reminded of Park regulations. He claimed that he had an “agreement” with the Monument which permitted him to graze Monument lands; but no one concerned in the Park Service could remember such an agreement. The following May and June a total of 272 cows and 53 horses were found trespassing on the North Rim over a 30-day period; and “although Mr. Allyn expresses concern over livestock being within the Monument boundaries, he has done very little about it.”

Hunting infractions were never as serious as they could have been, and the increasing presence of uniformed personnel on both rims during the hunting season provoked considerable restraint. For several years the Park Naturalist from Colorado National Monument had been patrolling the North Rim during hunting season; but in October of 1963, when this was
not done, hunting pressure there was reported as "extreme."
For the first time ever hunting camps were set up along the
North Rim approach road just outside the Monument, 25 cars being
observed parked along this stretch one day. The installation of
a locked gate and short section of drift-fence at the North Rim
entrance somewhat alleviated this problem.

This decade saw a commendable increase in natural history
investigations within the Monument, as well as the use of the
Monument by organized groups for educational purposes. Much of
the research and collecting was done by professional scientists
rather than Park Service employees. This roster included such
individuals as Dr. William A. Weber of the University of Colorado
Museum and Dr. A. Sidney Hyde of Western State's Biology
Department who accumulated herbarium specimens, Dr. James K.
Rosingren from Western State who investigated the grasses of
the Monument, Wallace Hanson and Robert A. Spoerl of the U.S.
Geological Survey who were doing extensive work on the Black
Canyon geology complex, C. J. McCoy of the University of
Colorado Museum and Park Naturalist Pat Miller who worked on
small mammals and reptiles and amphibians, Dr. Richard C.
Boilder of Colorado College who worked on the Monument birds,
Dr. Edward Reed of Colorado State University's Zoology Department
who carried out an ecological reconnaissance of the Gunnison
River to determine what impact the Currie water storage
project might have on natural life within the Monument, Ranger
Jack Miller who surveyed the region for archaeological sites,
and others. Park Naturalist Pat Miller was compiling a Black
Canyon National Monument Handbook during his association with the Monument.

Along these lines of scientific endeavor in the Monument, in September of 1960 Regional Chief of Ranger Activities Frank Childs selected the northwest portion of the Monument as a "natural area," designated as a "pinyon pino-juniper association." Boundaries for the natural area were established in October, 1961; and tree ring studies were commenced, in cooperation with the Colorado State University Forestry School.

Organized collegiate and professional groups and bus crowds often came from great distances to visit the Monument, and the Park Service ordinarily made available a ranger or naturalist to orient such groups. Individual visitors, too, were receiving more attention at Black Canyon as MISSION 66 progressed. In June of 1962 an information trailer was permanently located at Gunnison Point as a contact station, named seven days a week from 9 to 4 (ordinarily). Also, nature walks were scheduled at Gunnison Point at 10 and 2. Attendance at first only averaged five persons, but it was optimistically felt that this number would increase. It had by 1963, and in August of 1964 there were 1892 people attending nature walks.

In July, 1961, attendance at the campfire programs in Lions Spring campground averaged 63, with a high of 90; the following July the total number of people attending campfire programs for the month reached 2407, an increase of 500 over the last July. By the end of August in 1963, 5711 people had come to campfire programs in the new campground during that year. Indeed, numerous comments were made by visitors on the campfire programs
in 1963: "Many feel they are the best they have attended anywhere and much preferred to the more formal presentations in large amphitheaters. Much credit for the success of our programs is the expert group singing leadership given by Season Laborer Bob Chapman, a negro."

From time to time in this chapter reference has been made to the increasing visitation at the Monument during its decade of greatest improvement. In MISSION 66's initial year, 1956, there were 61,985 visitors to Black Canyon National Monument; in 1964, the most recent complete year of record, visitation had increased to 168,184. When the Monument celebrated its 30th anniversary on March 2, 1963, it was estimated that a total of more than one million visitors had been to the area since its establishment. Speaking of visitors, in August of 1962 Black Canyon selected as its billionth Park Service visitor representative Theodore P. Malinowski and family of Decatur, Illinois, who were met at Tomichi Point by Supervisory Ranger White and representatives of the press, presented with a special certificate, and given a personally conducted tour of the Monument. Mr. Malinowski was not, however, heralded "with wailing of sirens," as the Montrose Daily Press proclaimed.

With the construction of the new South Rim drive, visitors were apparently proceeding to more overlooks than formerly, because a survey in 1962 indicated that 94% were driving at least as far as Pulpit Rock. Related to this increased visitation to the overlooks was the MISSION 66 program for more roadside exhibit shelters on both rims.

Preliminary drawings for the South Rim shelters were
reviewed in August of 1962 and recommended for approval. During October of the same year Park Naturalist Miller initiated studies on the possible contents and locations of North Rim exhibits which were to be included in the 1964 fiscal year construction program. Early in 1963 the exhibit prospectus for wayside exhibits, the Gunnison Point information shelter, and visitor center was reviewed by interested staff members and a few minor revisions noted, and in March considerable work was accomplished on the North Rim Wayside Interpretation portion of the Master Plan.

Three South Rim wayside exhibit shelters were completed and inspected on October 23, 1963, but no exhibits had as yet been prepared, although the Western Museum Laboratory was working on them. To expedite matters it was decided in March to divert 1964 fiscal-year money originally scheduled for North Rim exhibits to the South Rim exhibits, casels, etc., "in order that all planned interpretive devices on the South Rim can be completed."

The Gunnison Point Exhibit Shelter was being planned as more than just a mere wayside. In March of 1964, the third revision of this shelter plan was received, reviewed, and approved, and preliminary drawings were approved in April, with the hope that construction could be started by June 1. However, when June arrived it became apparent that construction would be delayed indefinitely because no bid was received within allocated funds.

The last major South Rim project under MISSION 66 would involve construction of the new headquarters/visitor center.
near the new campground. Planning for this development had, of course, been going on for a number of years, although originally the visitor center site had been suggested as Gunnison Point. Two major stumbling blocks encountered in the development of the headquarters area involved sufficient land for the associated Park Service residences and the old-time problem of water availability.

Superintendent Bussey had been warned in August of 1961, when the revised Master Plan Drawing NM-BOC-2110- C was forthcoming, of the housing problem. WODC Landscape Architect Harvey Benson suggested that additional private lands be secured so that the boundary could be extended to permit the development. Someone else pointed out that even if additional land were available on the north slope of Signal Hill, there would be serious snow removal problems there in the wintertime for a permanent settlement.

The water problem for the existing facilities in 1963 had become such that it was noted in August "water hauling is becoming more and more a full time job." A big new development could certainly not be realized until there was a more realistic solution to this particular dilemma than water hauling! As far back as September of 1958, William A. Mott, regional hydrologic engineer, had visited the South Rim to make a field study concerning water source for the anticipated development. A year later WODC Project Engineer Mulligan made another water development study of the South Rim. On August 9, 1960, WODC Utilities Engineer Montgomery and Project Supervisor Baker, with Supervisory Ranger Hefti, visited River
Portal to assess the feasibility of a pipeline location from the portal to the new development and the possible location for a storage reservoir. The "Oliver drop" was also examined as an alternate possibility but tentatively rejected.

In October of 1961 the U.S.G.S. made a water analysis of a spring near the US 50-Colorado 347 junction as a possible source and for the new development; there was even the suggestion in May of 1962 that headquarters be built near the junction rather than in the Monument. 12

William Hett was in the area again in early October, 1962, investigating the potability of water from Nick Gray spring, on the chance that this spring might be tapped for the Monument development. Also, water storage facilities were being discussed for the vicinity of the planned South Rim headquarters. Such facilities were designated for what now was private land owned by the Sanburgs. George Sanburg was agreeable to working out arrangements for such a water development on his own holdings, but his brother Clarence was unwilling to sell any of his holdings for the associated residential development unless the Park Service wanted to buy "all of his property in and adjacent to the Monument at one time." Finally, on September 25, 1963, when a WODC team was reviewing future construction needs on the South Rim, consideration was given to water and sewer systems, and the proposed water line staked out by Engineer John Ballard was inspected.

Regardless of the ultimate solution to the headquarters water problem, elsewhere in the Monument water availability would continue to present a problem at least for the time being.
During this period consideration of water availability for the North Rim had been going ahead, and in May of 1960 Don Coffin of the U.S.G.S. made a water survey there. Some optimism was aroused when Ned Allyn in January of 1964 discussed with the Superintendent his plan to pipe water from Poison Springs to Grizzly Gulch along Grizzly Ridge above the ranger station and North Rim drive, with the possibility that some of the water might be made available to the Monument. However, in March Allyn had to report that the Cathedral Water Company, which intended to install the water line, could not obtain an F.H.A. loan, and Allyn felt financially unable to undertake the project himself.

There were several positive water innovations instituted during this decade. The North Rim cistern was greatly improved, the South Rim headquarters water system was winterized in October of 1961; and in June, 1962, a drinking fountain was installed in front of the South Rim concession stand. This latter installation, dependent upon hauled water, quickly afforded its own problem, as warm summer days encouraged visitors to drink deep and long...and the fountain ran dry. The Montrose Daily Press pictures this fiasco.\(^{13}\)

There were an awful lot of thirsty sightseers looking in vain for a drink of water at the fountain in front of the restaurant at Pulpit Rock at the Black Canyon on Sunday. Reports have been coming in that someone forgot to fill the well—'sorry we can't get anyone to truck in water on Sunday'—so a number of kiddies had to go without. (Why not fill it on Saturday?) One Park Service Ranger gave a drink to a group of children from his own water bag. Here we are trying to bring tourists to the area and then making them go thirsty—unless they buy cold drinks—on a hot summer day.

Needless to say, the Park Service didn't let the fountain run
dry again.

Speaking of the concession stand, in November of 1961, Superintendent Dussey had discussed details of a new five-year concession permit with operator Mrs. Kathleen Koch. At this time enlargement of the concession building and a franchise fee were also discussed. The next month the annual franchise fee was raised from $25 to $100, and the draft of the new five-year permit was reviewed. During an inspection visit by Regional Chief of Concessions Management Elbert Smith in August, 1963, he suggested that the government consider adding on a patio to the building to provide more space in the dining area and determine the feasibility of price increases on food items.

A new visitor activity during the MISSION 66 decade involved technical rock climbing. The first of these ventures occurred on July 9, 1961, when Layton Kor and Robert LaGrange tackled Big Island. By August of 1963, Kor was on his eighth "first ascent" as he and three companions initiated a four-day attack on the North Rim Chasm View wall. The next May Kor scaled Rock Point buttress. Some traffic jams resulted from spectator participation in these ascents.

Tourists continued to make their way down to the Gunnison River in small numbers during those years—at least 38 made the trip in 1961, 29 in 1960—and a few intrepid souls tried to run—and even swim—the river, some successfully, some not. The wildest river run during this period was made in July, 1963, by a mechanical model of a human baby, whose river trip in a baby cradle was filmed for the Hollywood movie "The Unsinkable Molly Brown."
Unsolved by MISSION 66 was the perennial porcupine problem. Inspection of the Monument's pinyons in June of 1960 indicated the need for porcupine control again, and it was instituted. Two years later the porcupine damage, especially on the North Rim, again elicited corseent and control measures, "under authority granted previously by the Director," and 12 porcupines were killed during this summer. Eight more were shot in the vicinity of the badly hit North Rim campground the next summer, and one on the South Rim, while control measures were being planned for the next winter also. But there seems no end in sight for this particular problem.

A new problem arose during this period when adjacent land owners began spraying the brush on their properties to eradicate it. The first spraying was on the North Rim, with little effect on the Monument vegetation. However, when Sanburg began spraying his land outside of the South Rim boundary in June of 1963, wind drifted the spray into the Monument and killed large stands of shrubbery, especially around Dragon Point. This unfortunate accident was to result in a prolonged series of surveys and talks relative to the irreparable damage.

The many achievements of the MISSION 66 decade at Black Canyon National Monument were, obviously, the result of painstaking planning and cooperative endeavor by many individuals inside and outside of the National Park Service. A recital of these many conferences would make tedious reading; but for this historical consideration it seems important to highlight some of them.
On May 6, 1957, Superintendent Homer Robinson and Park Naturalist Dwight Hamilton accompanied a Management Survey Team to the South Rim, the group consisting of Regional Chief of Interpretation H. Raymond Gregg, Regional Chief of Operations George Baggley, Assistant Regional Director Melbourne Harvey, and Regional Chief of Lands John F. Aiton. The next summer, on June 5, Regional Director Baker and Regional Chief of Interpretation Gregg joined Superintendent Bussey and Supervisory Ranger Ives to inspect the South Rim relative to the proposed new developments and land exchange matters. On July 30, 1958, WOCC Landscape Architect Larson, Engineer Montgomery and Engineer Groenig, and Superintendent Bussey made a field study on the South Rim with respect to the new Mission 66 developments, and another field study "in connection with Mission '66: Master Plans covering all phases of present and future developments" was carried out in July with Regional Chief of Lands Aiton, Regional Forester Childs, Regional Engineer McDonald, the Superintendent, and Monument personnel.

As MISSION 66 projects got underway, this pattern of conferences and inspections continued. On August 1, 1960, a meeting and tour of the South Rim relative to road construction, visitor center, campground, and parking area locations were conducted with Landscape Architects Benson and Anderson, Engineer Huebner, Project Supervisor Baker, Superintendent Bussey, Park Naturalist Miller, and Park Ranger Hefti. When the Master Plan Drawing was being revised during July of 1961, WOCC Architects Benson and Anderson, Supervisory Engineer Huebner, and Bussey made a hasty inspection of the proposed campground,
visitor center, headquarters and entrance station sites. In May, 1962, the Monument was visited by Assistant Director Clark Stratton and WODC Chief Sanford Hill, who inspected the South Rim road and reviewed other MISSION 66 projects and plans.

In September of 1962, Director Conrad Wirth was at Colorado National Monument, during his stay there discussing operations and programs for Black Canyon. "It was decided at this time that the future development for Black Canyon National Monument would proceed according to the existing development outline and master plans." The next September WODC officials inspected the various projects already completed at the Monument under MISSION 66.

When the new South Rim administrative area is finished, the Monument will, of course, become a year-round operation at least on the South Rim. The paved entrance and rim roads had already encouraged travel over a greater part of the year; and by 1963 many Montrose motel owners were pushing for a twelve-month operation. In March of 1962 it had been decided to keep the Black Canyon supervisory ranger in the area around the year, for the first time. The newly assigned supervisory ranger, Lowell White, didn't remain within the Monument during the ensuing winter but had a home in Bostwick Park; and the next two winters the administrative trailer was parked here.

As MISSION 66 progressed, summer staff increased; but at the same time that there was greater availability of money for personnel, qualified employees, especially naturalists, were becoming more difficult to obtain. In February of 1964 considerable time was devoted to the preparation of Operation Handbooks devoted to seasonal ranger, naturalist, and maintenance
activities at Black Canyon; and these handbooks would greatly facilitate the orientation of new employees as they were obtained.

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On July 11, 1963, the Denver Post ran an illustrated article on Black Canyon headlined "Gunnison Monument Facilities Improved." But the accompanying photographic caption reading "A $2.2-million program of improvements along both rims includes 12 overlooks and parking areas, 102 camping units and roadways" was really an understatement of what MISSION 66 had already meant, and would mean, for this particular unit of the National Park Service.

POSTSCRIPT: During the middle of May, 1965, a team of Park Service personnel from the Regional Office and WODC began working on a new Master Plan for Black Canyon of the Gunnison National Monument, altering some of the directions of the MISSION 66 program and introducing other innovations. The gorge and west end of the Monument were to be considered for "wilderness status" under the new Wilderness Bill, the Visitor Center/Administration complex was being reviewed, as well as some of the other plans. No Park Service area these days is static; and these new projected directions here simply indicate the accumulation of further history for Black Canyon National Monument.
FOOTNOTES AND REFERENCES

1 - The material upon which the following account has been based is drawn in large measure from the Black Canyon National Monument monthly reports and from personal experiences of the author, except as otherwise noted.

2 - Work on the North Rim had been completed in August of 1960. Not until April, 1961, would trail construction be finished at Rock Point and Cross Fissures on the South Rim.

3 - Master Plan Development Outline, Black Canyon of the Gunnison National Monument, Colorado: Interpretation. 19 pp., typed. An interpretation-map part of the Master Plan (No. M-1-DCG-3104) was prepared by WODC in October of 1957.

4 - The first draft was completed in typed form on January 27, 1958.


6 - These two trails were originally set up by Dr. Richard G. Poindexter of Colorado College, with subsequent improvements both in textual material and presentation format by many others, including Regional Naturalist Edwin Albright and Park Naturalist Pat Miller.

7 - The new amphitheater was eventually completed for use during the 1961 summer season, its delay in construction being related to the transfer of funds to Colorado National Monument for completion of interpretive facilities there.

8 - Bids had gone out in May, scheduled to be opened on June 13.

9 - According to a statement by Frank Childs, Regional Chief of Ranger Activities, at a November, 1961, conference.

10 - In May of 1962 the Monument issued Sanburg an access permit to his land from three points along the new South Rim drive; and later at least one gate was put in the drift-fence for his use.

11 - The Gunnison Point Exhibit Shelter was originally slated as a 1963 fiscal year project.

12a - At this same time much was also accomplished on Vol. III of the Black Canyon Master Plan Narrative.

12 - This consideration was put forth by WODC Chief Hill and Assistant Director Stratton and recommended for further study.