

In the early 1930's the American steam locomotive reached the peak of its glory before the inroads of the diesel engine. Here was something as magnificent in its way and as perfect of its kind as the great square (?) rivers I had longed to steer. As a professional traveling man I had a chance to watch the show and get paid for it. Sometimes I was the only spectator; many an evening in those days I rode out alone -- the only passenger in a Pullman car. Most of the passengers seemed to be riding freights.

One morning I stood waiting at the New York Central Passenger Station at Westfield, New York, when a fast freight highballed by at 65 or 70 miles an hour. The ground trembled under her pounding drive wheels, the cinders flew, and dozens of dingbats on her flatcars held on through the steam and the soot. One evening, in the streets of Altoona, I saw a long, loaded coal train come off the mountain from Horseshoe Bend on the Pennsylvania. The brakes were set on the coal gondolas and she roared through town with sparks flying, axles smoking and brakes screeching.

But this was not enough to satisfy my restlessness and my thoughts kept returning to Clyde Eddy's adventures on the Colorado. In the public libraries along my route, when I was not conducting an evening sales meeting, I read all I could find about the river -- Powell's account of his two pioneering voyages through the Grand Canyon, Dellenbaugh's recollections as a member of Powell's second party, Stone's book, the Kolb Brothers' magnificent story, and many others. Boston, Springfield, Bridgeport, Hartford, and other cities played host to my search.

Some years before the U. S. Geological Survey had published maps of the Colorado from the mouth of the Green River to the Mexican border that show every gulch in Cataract. I bought a set and pored over them in hotel rooms from Ohio to Maine. Water Supply Paper 17, Upper Colorado River and its Utilization by Robert Follansbee, answered many of my questions about the headwaters. If I was serious about the trip, there was no time to lose. Work had already begun on Boulder Dam in Black Canyon (now Hoover Dam) and, in a year or so, its lake would back up and drown some of the best rapids in the lower reaches of the Grand Canyon. After that no river trip could claim the full glory of the unspoiled canyon.

The very names on the topographic maps and in the river histories began to a spell -- names like the Never Summer Range, the Middle Park, Westwater Canyon, Tukuhtivatz, Dead Horse Point, the Dirty Devil River, the Land of Standing Rocks and Robbers' Roost -- and towns like Radium, Rifle, Antlers and Moab.

The cataracts of the Colorado, roaring in lonely canyons, had attracted the explorer, the trapper, the gold seeker, the scientist, and the sportsman, long before my time -- in fact,

since the day when Alarcon, Coronado's lieutenant, discovered the great stream over 400 years ago, although notable expeditions have navigated the gorges of the Green River and thence down the Colorado through the Grand Canyon, the voyage starting on the Upper Colorado, from the Never Summer Range and on down to the Gulf of California, have never been made.

The successful voyages through the Grand Canyon had mostly been well-financed and manned, using several boats to provide an ample safety margin. No one had ever done it single-handed. I decided to try it and go alone. This would be a good way to launch my hoped-for career as a travel and adventure writer. As an experienced outdoorsman I fully recognized the risks that a single-handed voyage entails, with no safety margin to allow for a wrecked boat or a broken leg. The truth of the matter is that I was drugged -- bewitched -- by a roaring, golden river, 2,000 miles away that I had never even seen.

In May I bought a pack sack and rain shirt from a college classmate in a Boston sporting goods store. At Abercrombie & Fitches in New York I found a "gummikleiderbeutel" on sale, a large rubber clothing sack for canoeing, imported as a sample from Germany. I had bought a battered folding rubber kayak from a German in Cincinnati the year before. My decision was made and, on May 30, 1933, I mailed in my resignation from Springfield.

Since the kayak had caught up with me at last the stage driver hauled it up from the Granby express station the next morning, although Grand Lake boasted that it was the world's highest yachting center. The only rope I could find was a lariat for junior cowboys in the souvenir shop. In Granby I bought a length of stout manila line and some twine and paint.

The chief business of the afternoon was putting the kayak together. Two carrying bags disgorged an assortment of hardwood rods, varnished frames, brass bolts and rubberized canvas. A booklet of instructions gave voluminous directions on page after page of fine German print. But each page had been translated into only three or four words of typewritten English at the top. Two years of college German, while enough to impart such essentials of the language as zweibier did not encompass canoeing terms like sperrholzbordleiste and zapfenverbindung.

The parts of the kayak, as they lay in a heap on the grass, looked like some test of mechanical ingenuity from the brain of an overworked psychologist. After half an hour of fitting parts together one moment and taking them apart the next, it was not apparent whether the thing I had bought was a boat or a collapsible bird cage. Finally a slim-

decked hull rested lightly on the grass and even the collapsible double-bladed paddles had been de-collapsed.

I spent the next two days in making a spray cover for the cockpit since the boat had a large open area forward where the second paddler ordinarily sat. I had already seen enough of the upper river to know that waves would flood over the cockpit coaming and that I needed some extra protection. I waterproofed the cloth with two coats of white paint and sewed my toy lariat around the edge so the cover could be lashed down tightly.

Between get-ready chores I cruised around Grand Lake several times to see how the boat handled. Although she was a 2-man craft, 17 ft. long, I found I could maneuver her well and attain a fair rate of speed. At last, one evening, I felt ready to start the voyage; my gear was complete and 10 days out-of-doors had improved my physical condition. I packed my outfit that night in the hope of beginning on the next morning the first complete voyage from the waters near the source of the Colorado to the Gulf of California.

Chapter XIV

The Colorado lived up to its name on Monday morning when I left Glenwood Springs -- it was deep reddish because of a heavy rain the day before. I drifted away from the waterfront embankment at 10.30. The boat sailed under the railroad bridge and shaved a huge reflex wave on the upstream side of the pier, then in a moment I passed the mouth of the Roaring Fork, which was still clear and green.

Just before leaving Glenwood Springs I had bought a Denver newspaper, little knowing that I would not have a chance to read it. In a few minutes its lurid pages melted into pulp when the "Rob Roy" pounded through heavy waves and began to ship solid water on a continuous succession of fast, hard riffles. Since there was no profile map of the river from Glenwood Springs to Grand Junction, I could not tell what the descent would be, but I soon found that it was high for the first six miles. The river flowed through a winding, V-shaped trough and, in almost every hundred yards, it entered a stretch of fast, broken water. In a series of heavy rapids 4 miles below town the kayak nosed under a breaker and slopped gallons of water over the coaming. Heeding this warning I landed and stretched the spray-cover over the cockpit. In the next riffle, above a highway bridge, the "Rob Roy" leaned half way over on a large diagonal swell, but just in time she surmounted the wave and rolled back to an even keel.

Soon after lunch I hit the last of the heavy water, or rather the water hit me. Her bow dipped into a high-crested wave below a fall, nosed hundreds of pounds of water onto the forward deck, and slowly emerged with the canvas deck sagging. Ashore for an inspection, I found that the forward frame, already cracked in Gore Canyon, had broken off in three places. Another longitudinal had snapped off, too. It took me more than two hours to dismantle the boat, repair her with oak splints and twine, and put her together again stronger than ever.

On re-embarking I entered a quieter stretch and one that was more subtle than most of the Upper River. Near New Castle I cut through a gap between a ridge called the Grand Hogback to the North and a similar one, called Coal Ridge, on the South, the latter showing beds of coal on its flanks. Gradually the valley widened and I was troubled again with a flat river that split into many braided channels. Near the bridge at Silt I counted 11 separate branches. Only one went through all the way; the rest divided and subdivided until they were merely trickles that seeped into gravel bars and finally percolated back to the main stream. Although I always tried to choose the larger branch, I was soon cruising down a runnel no bigger than a gutter. Finally I found myself stranded on a damp gravel bar far above the main channel. The only solution was to drag the boat down a bank of small boulders into the reassembled river.

I landed near Antlers in the early evening to get a drink of water and find a campsite. Nearby I met a young rancher irrigating a beet sugar patch who introduced himself as Chuck Everett. I knew we would get along from the keen interest he showed in the "Rob Roy" and my liking increased when he told me his favorite sport was swimming down the Colorado riffles at high water. Chuck offered me supper and a dry place to sleep -- especially welcome hospitality because the weather was threatening. After a hearty supper at his father's comfortable ranch house, we sat around the table for several hours visiting with neighboring ranchers. Then I slept in an empty potato cellar near the river, well-protected from a heavy rain.

Chuck called me at 6 the next morning for a fine breakfast of pancakes and home-made jelly. Mr. Everett and Chuck talked for an hour afterwards about prospecting along the river. They advised me to carry a gold pan on my travels, saying there was placer gold in the sandbars below Moab. Finally I said goodbye and shoved away at 8.15.

After the rainstorm the weather was overcast and cool -- ideal for exertion. As I pushed downstream the clouds broke away to reveal a wide view over Cactus Valley, the broad irrigated land on which the Everett Ranch was located, between the Grand Hogback and the eastern face of the Book Plateau, a bold escarpment which loomed ahead.

The muddy current and floating driftwood already showed the effects of the rainstorm. All day the "Rob Roy" sped down the swift river below the abutment of the Book Cliffs, which rise in a mighty thrust 3,500 feet above the shore. Gradually streamers of storm clouds cleared to show the carved, eroded walls rising to impressive summits. The ranchers had told me the cliffs were named because the successive capes along the river looked like a row of huge books on a gigantic shelf. Major Powell, on the other hand, said the formation got its name from the minute horizontal rock stratifications, since the thin layers of rock looked like the pages of a book. The formation extends for a hundred miles along the north shore of river in Colorado and Utah and provides millions of tons of rich oil shale against the day when our oil pools are drained.

Somewhere below the settlement of Rifle the river cut across the mile-high contour line and I realized that I had already dropped more than 3,000 ft. in elevation from Grand Lake. Near the mouth of Parachute Creek, which flows in from the north through a breach in the Book Plateau, I drew the boat onto a gravel bank and took 2 hours for lunch under some willows. The town of Grand Valley, located a short distance up Parachute Creek, is a reminder that the Upper Colorado, above the mouth of the Green River, was originally known as the Grand River. Many other names offer similar evidence: Grand Lake, the Grand Hogback, Grand Mesa, and Grand Junction. The Colorado itself was considered to begin at the Junction of the Green and the Grand in Southeastern Utah. After considerable agitation the name of the Grand was changed to the Colorado by action of the Colorado Legislature at the U. S. Congress. In this unanswerable way the state replied to the scoffers who claimed that the Green River was the principal tributary of the great stream that had carved out the Grand Canyon.

In continuing downstream after lunch I passed the scarred sides and deep alcoves of Mt. Callahan, 8,607 ft. in elevation, a ragged butte marking the continuation of the Book Cliffs, and Mt. Logan, the next summit to westward. A strong downstream wind helped push the "Rob Roy" along. Numerous easy riffles over gravel bars increased her speed as well. During the afternoon the boat weathered four or five hard rapids with savage waves, but no rocks. The increased volume of water caused higher, heavier waves when the river flowed through constricted channels, but the boulders were well submerged. It seemed strange to see reddish foam in the rapids after the delightful green-and-white waves of the headwaters. From the downstream side the riffles looked like newly-plowed fields of red earth with red spray spurting incongruously from each hillock.

Often, below these stretches of heavy water, the river seemed to boil. Great surges, like fountains, rose under the boat, twisting her off her course till she became unmanageable. Whirlpools, eddies and powerful, sucking back-waters wrenched her

framework from stem to stern, while she squeaked and groaned under the strain. Soon I would come to another drop where the river fell below the level of my eyes. This always gave me a strange sensation -- like coming to the end of the world where the sea was supposed to drop off into space, or like sailing down to the brink of Niagara. There were many such places on the Upper Colorado, especially when seen from a low-lying kayak. Sometimes I could see the rapids ahead by standing and balancing uneasily on the keel framework. If the drop was still too deep to be seen, I found it a good idea to put ashore before being sucked into the rough water. Several times I tried poising on the very tongue of a rapid, paddling madly against the current, while trying to pick the best channel. This method of navigation can be used only with a fast boat having a backward speed greater than the speed of the current. It is not a sound idea in really dangerous water.

After stopping at DeBeque for supplies I camped on a gravel bar three miles below town. The fast current and steady work at the paddle had enabled "Rob Roy" to log 40 miles for the day despite my two hours for lunch. She had dropped 570 ft. in elevation since morning, an average descent of nearly 15 ft. to the mile.

Below Glenwood Springs good drinking water was becoming scarce. The muddy current was not appealing and the pollution load added a health hazard which had not been present on the Upper River. I was lucky to find a pool of clear water in the gravel bar near my camp.

One of the delights of cruising Western rivers is the abundance of dry driftwood and the easy of starting a campfire. There is no scurrying around for a dry log, or tedious splitting of wood, that one must often do in the Eastern woods. I piled up a great heap of driftwood, set it ablaze, and cooked a good corn chowder for supper while the half-moon sailed over the river.

Most of the next morning I paddled through still water, looking with awe at the destruction the river had caused along the shores during its last Spring rampage. Before noon I entered the walls of DeBeque Canyon, or Hogback Canyon, as it is sometimes called, a narrow, serpentine gorge with water-worn caves high on the yellow rock sides. The sluggish current meandered along sandbars from one vertical wall to the other. Back in the Midwest the canyon would be a state park with college boys guiding tourists through "the Lemon Squeezer", "The Devil's Punchbowl", and "Fat Man's Misery". In Colorado it is unnoticed.

Half way through the canyon I saw a large deer on a low grassy island. It ducked into the brush when I passed. A man who was building a log cabin of discarded railroad ties

a short distance downstream, told me that the deer had lived on the island ever since it was a fawn.

I reached the High Line Dam of the Bureau of Reclamation at Cameo shortly after noon. This was a concrete weir resting on gravel, equipped with a roller crest of metal that can be raised or lowered to vary the ponded surface as the river level fluctuates. During a flood the river would back over the railroad tracks, if the dam crest could not be lowered. When built the dam was the largest of this type ever constructed. It diverts water into the 55-mile High Line Canal, which irrigates the prosperous Grand Valley peach-growing land between Cameo and Grand Junction. At one point part of the canal's flow is siphoned under the Colorado in a tunnel 9 feet in diameter.

Johnny and Archie Carver, sons of the superintendent, told me that the best place for carrying around the dam was on the lefthand side. They crossed the river on a catwalk above the dam and helped me carry the boat. We lowered her over a steep embankment at the head of a rapid, which received a good impetus from the 14-foot spillway of the dam.

Johnny and Archie remembered Herr Peppo well -- he was almost a legendary figure on the river. They said he had taken his boat by truck to a canal spillway about half a mile downstream.

I ran the fast water without difficulty and then stopped on a sandbar for a frugal lunch of bread and cheese. Then I came to an old concrete irrigation dam about 6 feet high. I felt tempted to run over the top in the empty boat until I saw how a large log, trapped in a waterpocket at the foot of the dam, was being sucked under the fall repeatedly. An upstream wave rolled back into the base of the fall and I had no desire to try out "Rob Roy" under that descending weight of water. In an unusual display of good judgment, I carried the boat around on the left bank. With the help of some fishermen, I lifted her over a barbed-wire fence and set her afloat below the dam. They cautioned me about the rock-strewn rapid below there, but the boat came through with her decks dry, although she tried to scrape the edges off one or two boulders.

One more dam lay across my path: the original Grand Valley Weir below Palisade, a low wooden structure broken down near the center. "Rob Roy" ran the break beautifully in a fast flume and found herself in quiet water for the rest of the day.

West of Palisade the towering buttresses of the Book Cliffs gradually receded from the river leaving a broad bench used for peach orchards and truck farms. On the left bank a similar bench was under intensive cultivation. Ironically enough, in this semi-arid

region, most of the best orchard land had been ruined by too much water. Careless irrigation had allowed the soil to become "seeped", or saturated, until it was swampy. So the harassed fruit growers had to stop making irrigation ditches and build a few drainage ditches instead. For miles along the southern shore I could trace a section of seep strata, that was visible in a low cliff under Orchard Mesa, where a wet band glistened between two bands of dry rock.

On my left I had occasional glimpses of the Grand Mesa, a verdant island rising far above the brown, dry valley. Its tremendous bulk rose 5,000 ft. above the river to a summit plateau that enjoys abundant rainfall and holds innumerable lakelets among dense forests.

Throughout the late afternoon I had a pleasant loaf along the lazy river, drifting along till evening, watching the ducks and the great blue herons. Just above Clifton I camped in a cottonwood grove along the low clay shore. The only drinking water I could find was a trickle of irrigation seep with a strong alkaline taste. I cooked supper and watched the Book Cliffs become a gorgeous red at sunset. After a meal of corned beef and spaghetti I settled down under a brilliant moon to enjoy a last campfire before Grand Junction where I plan to stay for some days to build a heavier successor to the "Rob Roy."

Three or four great blue herons, flapping their ungainly wings like pterodactyls, circled over the river in the moonlight, uttering harsh squawks. It didn't take much imagination to picture the Colorado Valley as it might have looked several million years ago with a brontosaurus browsing in the swamps and a tyrannosaurus rex crashing through the underbrush, instead of the startled beef critters that lumbered past my campfire.

I didn't wake up till 8.30 the next morning, since I hadn't set my mental alarm clock for an early hour. The ranch owner rode by and talked to me while I fixed breakfast. He was rounding up his horses with the help of his wife, since ranch hands were something of a luxury. It was 11 o'clock by the time I shoved off, but there was no great hurry, since Grand Junction lay only 10 miles down the valley.

I stopped for a drink of good water at ranch house above the Clifton Bridge. The owner told me about an accident that had happened nearby a few months before. A truck loaded with nine people had stalled on a hill at the Clifton Bridge and rolled backward into the river with the result that four of the party had drowned. Almost every year from 10 to 20 people are drowned in the Colorado between Glenwood Springs and Grand Junction. This explained the terror with which the river was regarded by many of the

persons I talked to. Their fear was amply warranted during the Spring freshet when the river became a menacing barrier.

Below the bridge I found something I had been eager to see ever since my days on the Yellowstone -- the next of the great blue heron. Several were built in a cottonwood grove on the riverbank. Made of sticks in forks about 20 ft. off the ground, they looked almost like driftwood caught in the branches during high water. Six or seven herons lined along the banks solemnly watched my progress down the river and formed a critical jury to pass on my seamanship. Every paddle stroke was keenly appraised and the verdict was apparently one of pettish disapproval, for the entire jury took to flight with loud squawks of disgust.

Despite its ungainly bulk the great blue heron has mastered an intricate flying technique. First the bird goes into a low, deliberate crouch. When its belly is near the ground it gives its legs a terrific impulse and launches itself into the air as if shot from a catapult. Its wings, however, unable to soar aloft with such a burden, flop vainly once or twice, while the great body sags towards the ground. It is a breathless moment. Will the bird clear the jagged stump on the riverbank? Just in time a humping motion of its back and a flap of the wings carry the bird over the stump. Another flapping hump carries it higher into the air. The humps gradually dwindle until smooth flight is attained, while the awkward legs float to the rear until they stick out in back. Its neck, in the meantime, has gone into an S-curve. The ship is now in full flight, soaring or gliding as required, or just flapping in the wind. And then the bird spots a good landing field across the river. Swooping down to earth the heron flaps its wings furiously to decrease its speed. Meanwhile its legs have come forward till they are thrust stiffly ahead. When its feet touch the ground at last, the wings give a final flop to bring the body over the legs and the bird straightens its neck for a disdainful look around.

As the boat approached Grand Junction a man shouted at me from the top of a bluff: "Hey, whatcha doin' down there?". The only possible answer was a paraphrase of Thoreau's famous reply to Emerson:

"Whatcha doin' up there?"

Soon "Rob Roy" reached the first bridge at Grand Junction and, below there, past the mouth of the Gunnison, a broad river flowing in from the south. It was this river junction, rather than a rail one, that gave Grand Junction its name. I tied up the boat near the West Main Street Bridge and entrusted my baggage to some people in a neighboring house while I scoured the town for lodging. I found a pleasant room at a house on a

broad, tree-lined avenue and, with the help of a truck and an assistant, I saw the boat safely moored in the backyard and her cargo stored away aloft.

CHAPTER XV - SWAPPING HORSES IN MIDSTREAM

Grand Junction proved to be an oasis of shade trees and drinking fountains in an expansive, sun-baked aridity. Its main street provided views of the Grand Mesa to eastward and of the red rock of the Uncompaghre Plateau to westward. The size and bustling enterprise of the town impressed me. Its population had already passed 10,000 long before the uranium boom and its commercial importance far exceeded size, since the town ranked as the second-largest mercantile center in Colorado, serving an area of 50,000 square miles.

I had always intended to leave the "Rob Roy" at Grand Junction and build a sturdy wooden boat there for the lower canyons. It was the best outfitting center above the wilderness of the deep canyon country. On the Upper River I could always count on Glenwood Springs as a possible boat yard in case the "Rob Roy" came to grief. But in no case did I figure on using the kayak below Grand Junction since its slight framework would not withstand the heavy rapids of the lower canyons with the load of supplies I would have to take. A boat of far greater stamina and carrying capacity was required.

I had drawn my plans for a cataract boat many months before. building on the experience of the Yellowstone trip, I had used shirt cardboards the winter before in Evansville to experiment with hull designs. By gluing the laundry cardboard with strips of paper and waterproofing the model with varnish, I could try out different shapes in the bathtub at home, the only model basin available. Finally I settled on a double-ended design with a center cockpit protected by a high coaming. She was to be a heavy scow, 13 feet overall, and 3 1/2 feet wide, having deeply undercut bow and stern, and both ends decked over. The double-ended feature would, in effect, give me a spare bow in case the original one smashed into too many boulders.

On the next Saturday I started building the new boat at the Gibson Lumber Yard. When I agreed to buy my materials from them, they let me use an empty shed as my boat shop. I bought my own tools to take along in a repair kit. By nightfall I had completed the sides, building them up of matched fir flooring with white lead smeared along the tongue-and-groove joints. The sides were 20 inches high with the ends trimmed off at an angle of 45 degrees, more or less. The length of the boat on deck was to be 13 feet and the length of the bottom only 9 feet, because of the sharp undercut at bow and stern.

That night I sent to a Denver mail-order house for two pairs of oars, one of ash and the other of fir and a kapok life preserver vest. Then I walked back to my room through the Saturday night crowd. Ranch hands from Utah, peach growers from Palisade, and forest rangers from the Grand Mesa gathered at the flea market that had sprung up in vacant lots along Colorado Avenue. Old gramophones, pianos, sewing machines, and pedal driven parlor organs were being auctioned off, while farmers' wives sold doughnuts, huge pieces of pie and quarters of watermelon to the throng.

It is strange how ruthlessly a person will drive himself when engaged in an undertaking of his own choice. On Sunday, and on every day of the following week, through the next Sunday, I sweated in the little shop until the scow was completed, my only break being an occasional visit to a bakery for some hot doughnuts made of potato flour and honey. After lining up the sides of the scow I covered the bottom and the ends with more of the 4" flooring, laying the boards athwart-ships. Then I decked over each end for 4 1/2', leaving a 4' cockpit amidships. I built a 6" coaming around the cockpit to keep out the waves that would flood over the decks and fitted a reversible seat that could be used for rowing when either end was serving as the bow.

Not satisfied with a single thickness of fir on the bottom and ends, I spaced four 6" boards fore and aft along the bottom to serve as skids, and covered both ends solidly with another layer of flooring laid fore and aft. After that she looked stout enough to ram the Rock of Gibraltar. Her weight gave me some uneasiness, but, after all, I told myself, I didn't plan to tow her 2 miles along a railroad track like the "Rob Roy". As an aid in lifting the boat I had six iron fittings forged and I bolted them on as handles, two along each side and one on either end. If anything was needed to confirm her coffin-like appearance, this was it.

I had originally planned to build water-tight compartments in each end with hatchways through the decks. By the time I had finished sheathing the bottom and ends, the boat weighed so much that I decided to forego the two bulkheads necessary to make the water-tight compartments. I half-excused this change in plans by noting that I could best sleep aboard on rainy nights as well as carry spare oars inboard.

As I got around to applying the finishing touches, I could hardly do the day's work from getting off to one side and admiring the great, powerful lines of her. She was my idea of a rough-water boat and I fell more in love with her buxom lines the more I saw of her. Her design was the essence of simplicity -- as modernistic as tomorrow's skyscraper -- without a curve in sight.

During my stay in Grand Junction I asked about hazards on the Lower River and was told by several people to see Doc Drew, the local horse doctor, chief authority on the subject. One morning I stopped in at his ill-scented establishment and found him fondling a bloody object that he identified as a horse's skull. I guess I wouldn't have minded the exhibit so much, if the horse's eyes had not still been in place. Telling the kindly old veterinarian that I was no judge of horse flesh, I changed the subject to the Colorado as quickly as possible. He stopped probing into the interior of the horse's head, wiped his hands, and eagerly took me to see his Colorado River fleet, made up of two rowboats and a canoe. It was easy to see that he was a genuine river rat, one of the few that I met on the river. He related an exciting tale of narrow escapes in the riffles below Grand Junction and warned me, especially, of the rapids in Ruby Canyon. He had been all the way down to Westwater, Utah, but had never attempted the dangerous canyon below there.

One afternoon, as I puttered around the shop doing some final scraping and flaming, a fellow-navigator paid me a visit. He had heard rumors that a boat was being built in the neighborhood and had tracked me down to see whether I would rent the craft. He was planning a trip down the river into Ruby Canyon to search for dinosaur bones. I told him the yarns I had heard about Ruby Canyon, but my visitor, a middle aged man of professorial appearance, did not seem disturbed by its evil reputation. Adding that the scow was not for rent, I referred him to Doc Drew for assistance.

By the end of the week the oars and the life preserver arrived. I was surprised to learn that all the other necessary marine supplies could be bought in Grand Junction; they were probably stocked for the summer tourists at the lakelets on the Grand Mesa. Profile maps of the river below the mouth of the Green came from the U. S. Geological Survey in ample time. Another addition to my outfit was a 7-shot Smith and Wesson .22 revolver with a broken handle that I bought for \$2.50 in a second-hand store.

Finally I began the last odd jobs before launching. I gave the scow a good soaking with a mixture of white lead and turpentine, but decided to delay painting her until reaching Moab, since she would probably require repairs by that time. I also painted the packsack and duffle bag to make them water-repellant and made floor gratings from left-over boards. The last job was to fit a new spray cover of heavy canvas, which could be lashed down to some screw eyes along the decks. The completed scow resembled an empty packing case or a coffin more than a conventional boat. But she was the child of my imagination and of my own hands and I was proud of her. The question of a name for her was puzzling until one came to mind that was appropriate enough for her peculiarities. Starvation Creek, Muddy Creek, and Stinking Spring Creek flowed together in Southern Utah to form the Dirty Devil River, a writhing torrent that meanders

through tortuous canyons in the badlands of the "Robbers' Roost" Country, to debouch into the Colorado at the foot of Narrow Canyon. It was after this unsavory stream that I chose, in a perverse moment, to name the product of my handiwork.

The morning of Monday, August 14, found me chasing around Grand Junction on last-minute errands in hope of getting away some time that day. It was no easy task to dismantle the "Rob Roy", since nearly every joint was bound with twine, and some of the watersoaked ribs had stuck in the brass ferrules. I was surprised how the staunch little vessel collapsed neatly into small bundles, like a pup tent. With the dismembered kayak on my back I made a last portage down Colorado Avenue to a storage warehouse where my faithful water bronco found a resting place.

At 3 o'clock the company truck was available. Before leaving we placed the "Dirty Devil" on the lumberyard scales and found that she weighed 405 lbs. with oars and fittings. I could still lift one end with one hand -- not without some grunting -- but I knew that her weight would increase when she began soaking up water. The die was cast -- I had made the irrevocable choice between ruggedness of construction and lightness of weight.

My bill at the lumberyard was \$35, exactly what I had estimated more than a year before. I rode in the back of the truck with the boat and two skeptical yardhands who were curious to see the boat in the water. It took the four of us to slide the boat down a gravel bank on the far side of the West Main Street Bridge. The "Dirty Devil" began leaking fast, but, in a few minutes, the wood swelled and the joints started to close.

In trying her out I was startled to find the oar blades would barely reach the water. The rowlocks were about 2' above the water and my 7' oars were not quite long enough to bite into the water effectively. But soon the rowlocks wore into the shafts of the oars a little, allowing the blades to dip in more. Compared to the speedy "Rob Roy" the slow gait of the "Dirty Devil" was disappointing. But she was much easier to steer accurately. I bailed her out, loaded my camping outfit, food, and a box of tools and repair supplies, waved to my helpers, and sailed from Grand Junction at 4.30.

The evening's run of 10 miles did not give the "Dirty Devil" a real test, since she encountered nothing more exciting than mild riffles over gravel bars. The scenery was beautiful at sunset. In the east I had a last glimpse of the Grand Mesa hovering like a cloud on the skyline and 10 miles to the north the headlands of the Little Book Cliffs marched in serried rank. To the south fantastic pinnacles of the Uncompaghre Plateau rose 4,000' above the river, their red sides gleaming in the sunset.

I camped on a sandy bank at 7.30 across from some arid, undercut cliffs. Supper consisted of a pan full of steak, rice and onions, a perfect combination. My small cooking kit did not permit any elaborate cuisine, but it proved satisfactory for my purpose. My camping outfit was down to the minimum and did not even include a tent. In the arid region I was entering there was little use for one and, anyway, I carry a green tarpaulin to spread over my blankets when the night was threatening.

As a solution to the problem of drinking water I had bought a galvanized bucket and a gallon insulated jug in Grand Junction. Just before rolling in for the night I filled the bucket with muddy river water. By morning most of the sediment had settled to the bottom and the rapid evaporation had cooled it off considerably. I carefully drained off the clear water on top into the jug and kept it in the shade below decks. This provided clear fairly cool water during the heat of midday, although its purity was not improved in the slightest.

The next morning, when the boat had drifted into a secluded stretch, I stripped off my clothes and swam alongside for a while. The solid platforms of the decks allowed me to sunbathe or dive, pleasures that had not been possible on the flimsy decks of the "Rob Roy". Late in the morning I passed the last ranch house before the entrance to Horsethief Canyon. The railroad and the highway curved far away to the north; here the river left the irrigated hay and orchard lands and entered the wildest regions that it had so far traversed below its source.

Horsethief Canyon is a twisting gorge formed by the Colorado in slicing into a section of the Uncompaghre Plateau. The vertical walls, several hundred feet high in places, are of reddish sandstone, curiously water-worn by ancient floods. It is typical of the "Rimrock" Country, the land of high, barren plateaus broken up by deep, vertical canyons, the upper layers of resistant rock forming a clean-cut rim along the tops of the canyons. Horsethief Canyon is notable chiefly for the small glens along its walls. Tributary streams have carved out bowl-shaped amphitheatres, some of them extending a hundred yards into the solid rock. The floors of these delightful glens are usually carpeted with grasses and shrubs and the overhanging rock walls are moistened by the dripping waters of the tributaries.

There was not even a riffle in the canyon; I had to bend at the oars to make much progress. Finally the current picked up speed and I took the opportunity to eat lunch on board. There was room enough to stretch out and enjoy the meal and the boat drifted a mile or so while I rested. In the early afternoon I came to a hairpin bend where the river ended its northwesterly course from Grand Junction and began a southwesterly trend,

which it follows most of the way across Southern Utah. At the apex of the bend the railroad tracks entered the canyon through a tunnel after having made a wide detour.

Late in the afternoon the boat entered a gorge that is locally known as Ruby Canyon. Below a station called Shale I saw the first person I have met since the afternoon before -- an Italian section hand who was fishing along shore. He expressed great astonishment at my appearance and began shouting in broken English and waving his arms downstream. I finally gathered that another boat had passed him only a short while before. If this was the case, I could understand his amazement at seeing two boats on the lonely stream in one afternoon.

I kept at the oars and soon reached the next bend, a right angle curve to the south in a narrow canyon. The river fell away into a stretch of broken water crossed by a dike of black polished rock along the canyon floor. Close in shore was the other boat, a heavily-laden open skiff that I recognized as the flagship of Doc Drew's navy. She was the only boat besides my own that I actually saw afloat anywhere on the river.

On the rocky shore stood my dinosaur-hunting acquaintance, holding the skiff by a line, while his companion, waist-deep in the swift current, guided the vessel around some jagged rocks. The river broke into a rapid among rocky islets and sandbars, curving around the sharp bed in two channels. Although the "Dirty Devil" was entering the first real rapid that she had ever tried, and though several inches of bilge water sloshed around from the day's leakage, I let her whoop down into the outer channel without landing to look it over. Standing upright in the cockpit I had a clear view of the water ahead, while I rowed slowly against the current in order to steer and check her speed. The waves were not alarming, but the rocks and winding channel required careful steering. Using the same technique that had proved successful on the Yellowstone, I had perfect control all the way through, even though the oars were a little short. Below the rough water I tied up and walked back to the place where the bone seekers were still toiling with their craft.

As I approached they guided their boat safely through the lower end of the rapid and moored along shore. Considering her heavy load and open hull it was remarkable that they had been able to line her through at all. They could not report anything startling in the way of dinosaur bones, but said there were signs of gold in the area. Actually the golden crowns of sunset above us were all the reward they or I were likely to get out of the voyage.

An account of their hardships appeared in the Grand Junction Sentinel article about failed Colorado river trip" of August 20th: "Two well-known local men, a geologist and an

artist, returned to this city Thursday night after a thrilling and hazardous voyage of 50 miles on the Colorado River... This perilous trip was made in a small 14' boat made of celotex and metal ... Many and varied were the experiences reported by the two men while traveling through Horsethief and Ruby Canyons. They reported that many of the most dangerous places in the river were shallow channels that looked very safe from the bank. Here the speed of the water was greater, they said, and, as a result of low water, more boulders were exposed, which constantly threatened the safety of the voyagers and their craft... An inexperienced river man would certainly meet disaster on this river. Waves, sometimes 4' high, whirlpools, and side currents, all contribute to the hazards of the voyage... In many places, the men reported, they were forced to let the boat down the canyon on lines. Their feet were wet from morning to night."

What was a voyage to remember in their flimsy, overloaded skiff had proved easy going for my decked cataract boat.

The geologist suggested that I meet them at a cabin a short distance below Ruby Canyon. While I continued down the river they examined the rock dike across the river bed. This formation extended downstream almost half a mile and had been cut by water action into intricate passageways. I enjoyed riding the swift current through narrow channels which wound between huge blocks of gleaming rock worn into strange grooves, ridges, and potholes.

I never did see the cabin and kept on down the river until long after sunset. Intent on spending the night in Utah I rowed steadily to the deserted railroad station of Utaline. Just after crossing the state line the boat grounded on a sandbar in the twilight. Freeing her again was a far different matter from pushing off a kayak; I had to strain and puff to ease her over the bar. This welcome to the state of Utah did not seem at all propitious. It was completely dark when I finally landed at a good camp site on the right bank under some cottonwoods. The day's run of 30 miles of hard rowing through still water left me no energy for mooning around the campfire. I cooked up a dish of pork and beans and rolled into the blankets early to the howling of a band of coyotes in the hills half a mile back from the river. Coyotes do not attack an able-bodied person, but it is reassuring, nevertheless, to have the old 7-shooter under my pillow.

Just before going to sleep I glanced at a dark mountain mass silhouetted against the starry northern sky. Suddenly a pale gleam shimmered against the blank rock wall. The tremulous glimmer faded for a moment; then it reappeared more brightly. Every moment it seemed to increase in intensity. Not until 5 or 6 minutes later did I hear an approaching freight locomotive miles down the track, the headlight of which caused the gleam.

The other boat passed down the river early the next morning and had gone out of sight around the bend by the time I pushed off. The morning passed rapidly while I rowed steadily down the quiet stream. Much of the time I stayed in the shade of magnificent cottonwoods along the southern shore, grateful for relief from the intense sunshine and the hot wind that blew off the barren hills. Shortly before noon I saw the water tank of the railroad at Westwater and pulled into a landing on a sandy beach beside the other boat, which had just arrived.

CHAPTER XVI - WESTWATER CANYON

"Where you figurin' on going in that boat, son?", a grizzled rancher asked me as I pulled along shore at Westwater.

"Down the river as far as she'll go".

"Do you know what's ahead of you around the next bend?"

"Well, I can get a faint idea from the river profile maps. They show a drop of 28' to the mile in Westwater Canyon.

"Maybe so, but they don't tell you that only one boat has ever gone through whole and that she was manned by a couple of the toughest river rats that ever tackled the Colorado."

"You mean Kolb and Loper?"

The rancher nodded. "If you've got a minute, I can show you some things up at the house you'll be interested in."

The rancher, E. C. Malin, dried off the windshield of his car, although why anyone would use Colorado River water to wash anything was a mystery. We drove half a mile into town, a small collection of frame buildings near the Denver & Rio Grande water tank. Malin told me that his stepfather, deputy sheriff at the time, had helped Elsworth Kolb and Bert Loper on their memorable voyage through the canyon a number of years before. They had spent two days in the canyon, taking movies, and having many thrilling escapes in the rapids. At his house Malin showed me a treasured copy of Kolb's book "Through the Grand Canyon From Wyoming to Mexico". In an appendix was a full description of Elsworth Kolb's trip through Westwater Canyon with Bert Loper. A yellowed clipping from the Grand Junction Sentinel quoted Kolb as stating that he

considered the rapids of Westwater Canyon more dangerous than any on the Lower River, either in Cataract Canyon or in the Grand Canyon itself. I reflected that Elsworth Kolb, of all men, should know.

Malin warned me about a bad whirlpool half way through the canyon and wished me luck at the river bank. I felt grateful for his kindness since I had not been fully aware that Westwater Canyon is one of the most formidable along the Colorado River System.

The profile maps had given me the impression that it was similar in gradient to Black Tail Canyon or Red Gorge with, of course, heavier rapids because of the greater flow of water. I began to understand, however, that the "Dirty Devil" was about to receive a rigorous test. Except for the shortness of the oars that I could do nothing about at the time, the boat was ready for anything. Therefore I decided to try to get through the canyon by nightfall.

Embarking at noon I ate a light lunch while floating downstream toward the wide canyon entrance. An awed feeling swept me as a freight train headed upriver, her hobos waving and yelling at the little boat. That was the last bit of steel rail to approach the Colorado all the way down to Needles, California. The intervening region before me was largely an untraveled wilderness of high plateaus dissected by erosion into a jumble of buttes, mesas, and pinnacles. I was cutting another tie with my fellow men.

I passed the mouth of the Little Dolores River flowing in from the south just before the boat swung into the bend at the canyon's head. On the right bank of the Colorado a sheer sandstone cliff many hundreds of feet high rose from a jumble of rock along the river. At the very entrance of Westwater Canyon the boat passed through a short rapid caused, like the one in Ruby Canyon, by an outcrop of dark polished rock. Although the scow hit one or two small rocks hidden under the yellow foam, she responded to the slightest movement of the oars and picked her way safely among the ledges.

Inside Westwater Canyon the Colorado burrows deeply into the hard underlying rock structure. Slowly the steep, V-shaped inner trough deepens until the gleaming black walls, nearly vertical on both sides, rise more than a hundred feet above the river. Above the black rock formation there is a wide bench on each side of the inner gorge, extending to the base of sandstone walls that rise in sheer cliffs for hundreds of feet to the rim of the plateau. At two places the upper walls are broken down so that trails can reach the river -- at a widening of the river called the Little Hole shortly before the entrance, and at a larger opening called the Big Hole, in the lower end of the canyon.

Geologically Westwater Canyon is a vest-pocket edition of the Grand Canyon, the inner trough corresponding to the Granite Gorge. In both canyons the river has bitten through upper layers of sedimentary rock deposited on the ocean floor millions of years ago and has then cut into denser rock of much greater age. This resistant formation causes very abrupt rapids, since it does not wear away readily into a smooth, even gradient, as does a weaker rock structure.

The canyon walls narrowed until they were not more than 15 or 20 feet apart in some places, rising from the water without leaving a shore where a man could stand. Between the steep rock walls the river churned and swirled, blowing furiously through two strong rapids. The "Dirty Devil" sailed through both of them without the spray cover attached, since I could tell from the map that the worst water would come below the Little Hole. She splashed along on an even keel, thumping into the waves with her blunt bow and easily surmounting them. Then the gradient slackened and she entered smooth water at the Little Hole. I landed on a sandy beach to overhaul my gear and look around. Many deer tracks came down to the smooth pool from a ravine that lead up into a break of the wall.

After bailing out and fitting the spray cover tightly over the cockpit, I pushed off downstream at 2 o'clock. At first the river was disappointing. The map showed a decided drop just below the Little Hole -- in fact the river profile began a toboggan descent that looked like a stock market chart for the last months of 1929. For the first half mile below the Little Hole, however, there was only a moderate current until I wondered what had happened to the mighty Colorado.

It did not take long to find out. Around the next bend roared a rapid worse than any I had ever tried, far surpassing anything in Byers Canyon or in the stretch below the Shoshone Power Plant. Knowing how a foldboat would nose under the overlapping breakers that rose ahead I approached the place with caution. There was no time to land and examine the channel -- the current drew the boat over the tongue of the rapid between steep walls and down into one large wave after another. The scow sailed through superbly. Bucking and swaying she rode buoyantly to the foot of the drop, the bluff bow rising easily over the steepest of the breakers.

Below the rapid I landed to catch my breath and see how the boat had weathered it. She had taken a little water aboard, probably through the upper seams along her sides, which were not fully water tight. Otherwise everything was shipshape.

With increasing confidence I continued down the canyon feeling that the boat had met her first difficult test successfully. But the fury of the river still lay ahead. One after

another the cataracts came. Once started into the first drop below the Little Hole there was no possible way to turn back or climb out -- there was nothing to do but plunge ahead.

The events of the afternoon happened so swiftly that I could not have given a categorical account of the rapids the next day. Time after time the "Dirty Devil" approached bottlenecks in the bottom of the chasm where the river disappeared in a smother of foam. Sometimes I could tie up the boat safely and make my way along polished slanting walls to take a look ahead. Sometimes the swift current made this impossible or the walls came down sheer on either side so I could not land. Usually it made no difference whether or not I could land. The gorge was so narrow that there was little choice but to take to the center, glide down on the tongue of the cataract, and try to keep her bow pointed into the waves.

The "Dirty Devil" justified all my hopes for her as a rough-water boat; she rode the waves like nothing that I had ever seen before. After the first bad descents I had full confidence in her and watched her toss and pitch in admiration. She would heave high over the first wave below the tongue and then dive into the mad turmoil of roaring surges and boiling foam, ducking her bow under at one moment and lifting it high in the air the next. In nearly every cataract there was a real fall where the river plunged over boulder or ledge for five or six feet into a quieter pool. And every time she rose beautifully to shake the water from her decks, fore and aft, and ride the lower crests.

Between the rapids lay quieter stretches of water a hundred or two hundred yards long. Whenever possible I steered close to shore and tied the stern rope around a rocky projection, if I could find one, in order to rest for a moment and bail her out, if necessary. She was taking some water through the spray cover opening around my waist, but even more, apparently, through open seams on her decks and along her topsides. I had to remove the spray cover to bail her out; then the water bucket with one side flattened disposed of the surplus water in a hurry. Before pushing off again I always made sure to scoop up some river water to wet my gummy lips and quench my extraordinary thirst.

Perhaps there were a dozen first class rapids altogether. Two of them especially stand out in my mind. At one spot I tied up with difficulty just above a fall that looked six or eight feet high. The whole river confined into one narrow flume, dropped away between a large boulder on the left and the black vertical wall on the right. I scrambled ahead on the left hand wall, clinging to irregularities on the hard, glazed surface. I looked over the fall doubtfully, cursing myself for having tied up so close to the edge, for I would have to veer far over to the right-hand cliff to avoid a rock below the fall.

Back in the boat, I cast off and pulled furiously against the current to draw her over to the right hand side. Then, realizing I could not make it, I straightened her out and let her slide over the edge. My heart sank when I got a glimpse of the witch's cauldron below. But the "Dirty Devil" must have felt in her element for, despite a poor entrance, she rode easily over the fall, bounced out of the hole at the foot, and, in an instant, splashed through into smoother water.

I held onto a knob with my right hand while the boat curtsied in the ripples and rubbed her side against the wall. Suddenly I became aware of the strong river smell again -- the heavy, silty odor churned up in the rapids of swift streams. To me it has always meant a sense of excitement -- of unknown hazards ahead, of a lonely campfire in a lonesome canyon. Perhaps it went back to memories of the tawny Ohio in flood time, the Potomac, Youghiogheny, and the Greenbriar, generate the same smell at high water, and I once noticed it miles at sea off the Mississippi Delta when a spring freshet washed whole trees into the Gulf of Mexico.

The worst place in the canyon came well in the middle course, perhaps half way between the Little Hole and the Big Hole. I reached the head of a rapid where it was impossible to land for an inspection. From the cockpit I could see that the descent was terrifying. As she sank over the top, I saw an inclined plane of angry water dropping below me with rows of combers extending from wall to wall. My feeling in gliding over this smooth drop and sinking into the surges was like the moment of tension when a ski jumper leaves the takeoff and soars over the landing hill.

The boat started down the declivity bravely enough, riding everything with her usual buoyancy. A few yards down the cataract the river made a sharp turn to the left around a headland and there, around the corner, the entire river spewed itself onto the forward side of huge slab that was abruptly inclined upstream. The current rushed high onto the sloping surface until the force of gravity overcame the water's impetus. Half of the flow then curled back to the left and rushed down through the remaining waves of the cataract; the other half curled back to the right, swirling in a narrow pool beneath the vertical wall. It was the whirlpool of which Malin had warned me. What would happen to a voyager imprisoned in that perpetual merry-go-round I should not care to imagine.

There was only an instant to pull the boat over to the left before reaching the place where the waters parted. Since the apex of the current ran full tilt onto the sloping rock, it was impossible to avoid running the bow of the "Dirty Devil" high onto the ledge. She struck hard, began to drop backwards, and then swung completely around -- luckily to the left -- plunging through the rest of the cataract stern-first with her helmsman craning his neck to have a look at the waves ahead. How glad I was then that I had built her as

a double-ender! She weathered the lower breakers magnificently and came to rest in a pool of quiet water.

From the depths of the canyon the sky seemed the most brilliant blue, except where fleecy patches of clouds blew over the rim. The canyon sides for some distance above the water were scoured and polished, worn by water action into curiously-shaped knobs and hollows. In many places there was not a scrap of vegetation for 50 or 60 feet up the walls, showing how high the water must rise during Spring freshets. At such times the cataracts in the middle course of Westwater Canyon must be an awful sight indeed. When I had recovered my composure I pushed off again and resumed the ride down the descending escalator of the Colorado. Soon a heavy rapid, with foam-crested rollers raging in mid stream, sent showers of spray over my head and surges of solid water crashing on to the decks. It was the last of the dangerous cataracts. The boat rode through several more stretches of broken water; then danced on a boiling current into the glen at the Big Hole, three hours from the Little Hole, five miles upstream. I had never spent such an exhilarating afternoon before.

There was nothing but slow water in the lower end of the canyon. I had a long hard pull for the rest of the evening against a stiff upstream wind. Sometimes the "Dirty Devil" barely held her own against wind and wave. My hands were heavily callused after weeks of paddling and rowing, but they began to wear raw from the oar handles. Determined to reach the railroad pumping station near Cisco I kept on till dark, rowing past weirdly-contorted rock formations and mysterious alcoves dim in the twilight. Finally the lower gateway of the canyon was marked by a huge monolith of sandstone on the right bank, detached from the high plateau.

I reached the deserted pump house at 8 and found the best campsite to be right in the front yard, since the neighboring shore did not look attractive. I built a fire near the river bank and started cooking a belated supper. In a few moments someone began shouting at me from the other shore, inquiring what I was doing. Evidently my questioner thought I was a hobo making free with railroad property. He was not far wrong at that - I was, in fact, a hobo catching a free ride on the Colorado.

In half an hour two visitors appeared; the pumping station engineer and his brother, who had been summoned on the telephone by my questioner. They proved to be pleasant when they heard my story, though somewhat skeptical till they went down to the water's edge and saw the scow for themselves. They sat around for half an hour talking and told me to make myself at home.

The elation that I felt that night is shown in some degree by my entry in my diary on August 16th:

"I am naturally highly pleased with the "Dirty Devil" and her performance this afternoon. If, as Elsworth Kolb says, Westwater Canyon is the worst place on the river, the old tub aughtn't to have so much trouble lower down, although I am not minimizing in my own mind the difficulties to be encountered between here and salt water...."

The optimism of 4 and 20!

CHAPTER XVII - ULYSSES

I was up at six the next morning and had breakfast under way when the engineer, Roscoe Hallett, arrived for the day's work. His pump house pumped water from the river several miles overland to service the steam locomotives of the Denver & Rio Grande at Cisco. While he warmed up the big diesel engine with a blowtorch and slowly set it in motion, I listened to his yarns about the Colorado.

Hallett had known Westwater Canyon ever since his boyhood. He told me that Kolb and Loper had capsized three times -- probably for the benefit of movie cameras on the cliffs. Their boat, a decked-over cedar double-ender, had life lines along the sides, water-tight compartments, and a bucket roped to each end for bailing. The boat got trapped in the whirlpool and could not escape until help arrived. Several years later, two men and a woman tried the canyon in a larger boat and came to grief at the same place, where the woman was drowned in the whirlpool. I began to realize how lucky I had been in swinging to the left and not the right in coming off the tilted ledge.

In showing Hallett the river profiles I learned that he had helped survey the canyon a number of years before. He questioned the profile which showed a drop of only 28' to the mile. He claimed the last bad mile actually dropped 50'. After recalling how the "Dirty Devil" had charged down those last sloping rapids I could not dispute his contention. The surveyors probably figured the river elevations at the Little Hole and the Big Hole and then averaged the descent over the 5-mile distance. Actually there are many flat sections punctuated by terrific drops.

An inspection of the boat and equipment showed that the only damage from the severe testing of Westwater Canyon was some rust on the set of tools. Hallett gave me some engine grease which I smeared over the saw and plane and then I wrapped them in burlap. As a parting gift he let me have several pounds of sugar since my supply was low. I pulled away at 10 and found the river flat, hot, and dull, a thorough anti-climax to

the excitement of the previous day. The channel curved among sandbars and mudbanks and occasionally beat against undercut clay shores. Everywhere I saw evidence of the river's destructive power. Often huge logs, washed down by forgotten floods and battered to pulp in the mill of Westwater Canyon, lay stranded in the shallows while the water sucked around frayed stumps of branches and tangled roots. Sometimes the swift current swept into the branches of trees that had been undermined. Then it took careful navigation to steer through narrow openings among the branches. Except for a fringe of willows and cottonwoods along the river there was scarcely a growing thing to be seen; rugged, broken walls rose in barren terraces to an arid plateau.

I kept steadily at the oars all day until below Dewey Bridge, where the only bridge between Grand Junction and Moab crossed the river. I came to a place where the river seemed to vanish into the blank wall of the Dome Plateau. On drifting nearer I found that the river turned south and cut directly into the mountain mass. I rowed down the resulting canyon against a stiff upstream breeze. Finally at sunset, after threading the gorge for several hours, I emerged into a wide bowl called Professor Valley, surrounded by pinnacles and buttes gleaming in the sun's glow. The effect was breathtaking after my long imprisonment between the dark walls of the canyon. It was an enchanted land of delicately molded spires, soaring temples, and turreted castles, all carved of glowing red stone. I camped on a high sandy bank across from towering eroded cliffs whose upper crags, 2,500' above the river, looked as if they were forever toppling into the Colorado.

After breakfast the next morning, as I sat shooting at an empty milk can, a young beaver swam upstream undisturbed by the volleys from my 7-shooter. It crawled ashore not three feet from me, sniffed the air in bewilderment, and scuttled back into the river. Its ancestors of 100 years before had lured the "mountain men" into the canyons of the Colorado Basin. These early trappers, like Jim Bridger and Kit Carson, had led a carefree life for several decades before the region was settled, roaming the valleys in search of beaver pelts in Spring and Fall, gathering for a wild rendezvous with friendly Indians in Summer, and wintering with their squaws in crude encampments in the mountains. Their detailed knowledge of the country proved invaluable to the official exploring parties that headed West under such leaders as John C. Fremont, "The Pathfinder".

At the mouth of Rock Creek I came to the first rapid below Westwater Canyon. The river entered a stretch of broken water over a bed of boulders washed in by the creek. The current was forced against the wall of the Dome Plateau on my right and made a wide loop beneath an under-cut cliff. I let the "Dirty Devil" go slap-banging through

without a look ahead. This carelessness got the boat in trouble before she was half way through. I entered too close on the right side and was drawn closer and closer to the rocky wall till I could scarcely ply the starboard oar.

Ahead a rocky cape jutted out several feet from the cliff's face. Luckily I gave one good heave on the oars in a widening of the channel and the boat shot by the cape by a hair's breadth.

The last rapid on the Upper Colorado growled in the lower end of Professor Valley at the mouth of Castle Creek. The small tributary had washed down a delta of large boulders forming a dam across the main river. Over this barrier the Colorado rushed down a lively spillway. The "Dirty Devil" dipped over the edge, passed swiftly down the clear channel, and splashed into a series of wave crests, rolling and pitching violently. This rapid and the one at Rock Creek were forerunners of the type that becomes common in Cataract Canyon and the lower canyons.

Immediately below the quick water another deep canyon closed in on the river. A man on horseback riding along the rough road on the narrow shore took a couple of pot shots at me with a rifle, the bullets passing at some distance overhead. I was about to reach for my 7-shooter when the current carried me around the next bend. All afternoon I pulled away for Moab, past several side canyons and around the entrenched meanders of the Big Bend. Tremendous bald domes, pyramids, many hundreds of feet high, and grotesque, bulbous figures, rose along the red sandstone walls. Finally I rounded the last bend to the highway bridge in Moab Valley, or Spanish Valley as it is called on early maps.

I tied up beside an upright slab covered by Indian picture writing, crossed the bridge, and stopped at the first ranch house, the Peterson place. The owner was not home, but several children assured me that I was welcome to camp in a cottonwood grove near a wide sandbar. Two boys and a girl climbed aboard with me and piloted me to a good landing place which I intended to use as a drydock. The boat needed a coat of paint and I wanted to lay over in Moab anyway to make some longer oars. A fierce whirlwind swept down on us as we dragged the boat up onto the sandbar, like a miniature sandstorm. We retreated into the ranch house when Mr. Peterson asked me in for supper. Afterwards it started raining furiously and I was generously offered a bed for the night.

The next morning I walked three miles up Spanish Valley to the Mormon settlement of Moab, then an obscure hamlet. Hemmed in by bare sandstone walls the broad, flat valley was a striking example of the Mormons' ability to make the desert bloom. The

valley floor was covered with a variegated carpet of rich green vegetation, neat white ranch houses appeared across verdant meadows between rows of Lombardy poplars, and clear irrigation streams carried the waters of Mill Creek through the streets of town and out along the highways.

After a badly-needed haircut and a visit of the headquarters of the La Sal National Forest, I arranged at a small lumberyard to work on a new pair of oars. For \$1 I bought 2 x 6 board of straight green fir, 16' long, which I cut into two 8' lengths. Then, borrowing a ripsaw, I began the arduous task of cutting out the shafts of the oars -- altogether 24' of ripping through the 2" boards. I plied the saw most of afternoon while a group of cowhands, who had never seen a pair of oars before, stood around giving advise.

As I was working a fiercely-mustached, sun-browned, old cow puncher named Skewes joined the group. I was not surprised to learn that he was the local sheriff, for he looked like a typical story book character off the cover of a Wild West pulp magazine. He was not a large man, but had a certain intensity and power that would command respect in any company. Here was no Hollywood cowboy; Skewes and ridden the country between the San Juan and Gunnison Rivers many times, through one of the wildest sections of the Old West. He had once punched cattle on Pinyon Mesa along the southeast rim of Westwater Canyon and vividly described the river's fury in high water when huge logs were tossed through the rapids like twigs. He used to winter near Shale in Ruby Canyon. One Spring, he and two others were driving 35 head of cattle cross some mush ice just above the rapid. Suddenly the ice cracked open and every steer went into the water among the jagged outcroppings. One of the men, riding a 1200 lb. horse, pulled out the critters one by one; the other two tended a fire and wrapped the rescued cattle in steaming saddle blankets. Some were in the water 5 hours, but they didn't lose a steer.

When the shop closed, Alfred Jorgenson, a carpenter working at the next bench, offered to let me use his shop during the next day, a Sunday. I went home with him and began shaping the oar blades with his draw-knives and planes, which he sharpened for me. Back at the ranch for supper I made a comfortable camp in the grove of cottonwoods and held open house for 8 of the 9 Peterson children. The next day I finished whittling the oars and gave the entire scow a coat of thick white-lead paint. On Monday I put on the final coat of battleship gray; very handsome she looked with her gleaming decks and topsides.

One morning the older boys at the ranch, LeGrand and Wilston, took me to visit the "mummy caves" in a sandstone wilderness to the north. Crossing the bridge we walked

half a mile up a dry, winding canyon called Courthouse Wash, and scrambled up a steep wall to the east. One 25' chimney proved to be worse than anything I had met on Long's Peak. I made it after some panting and hauled up the boys with my rope. At the top we were 300' above the valley on a barren rock bench which led to a series of higher cliffs.

At the base of the upper wall, two shallow caves, beautifully arched, penetrated the solid red sandstone. Two flat rocks near them preserved Indian pictographs of men, mountain sheep, snakes, and bats, all clearly delineated. In one cave we found a few fragments of bone, apparently human, strewn on a sandy floor among shreds of cedar bark in which the bodies may have been buried. Unfortunately, it seemed that curiosity-seekers had beaten trained archaeologists to the site.

I became fond of the Petersons in brief stay in Moab. Every evening the children would find an old tire and burn it on a low hill near the river. Then they would gather around and sing to the feeble music of my mouth organ -- songs like "The Utah Trail", "Moonlight on the River Colorado", and "Valley of the Moon". Back east tunes like these had seemed rather vapid to my ears, but with the Colorado itself glimmering in the twilight, they seemed altogether appropriate.

Then the time came to make up a grub list and buy provisions for the canyon country below Moab. For \$12 I bought a month's supply of food and half a dozen square quart mason jar. The white flour, cornmeal, sugar, whole wheat flour, prunes, and rice I stowed in separate jars to keep them absolutely dry. The other food -- butter, cheese, ham, bacon, and canned corned beef -- could survive a soaking and needed no special packing. On the last afternoon I called for my mail at Moab and felt that I was getting somewhere at last when I left a forwarding address of Marble Canyon Post Office, Arizona.

The next morning I made a quick trip into town to replace a 2 lb. slab of bacon that some hungry dogs had raided the evening before. On the return trip I got a ride with a local rancher, Mr. Parriott, who gave me four plump cantaloupes to take on my journey. One of the delights of Moab was the abundance of fresh fruits and vegetables. People often gave me watermelons, cantaloupes, tomatoes, squash, and roasting ears, all unsurpassed in size and quality. The irrigated valley was a giant hot house; protected by the surrounding walls and open to the full strength of the desert sun, it had a season of 160 days between frosts.

Most of the children were on hand to help me get under way. One by one they came down to the camp, some carrying armfuls of sweet corn, one a box of tomatoes, and

another a watermelon. When everything was packed away we started across the sandbar in a caravan, each bearing a box or bag, and even tow-headed little Kike, the youngest, staggered along under two pairs of oars.

After the cargo had been stowed away and the vessel brought into proper trim, I pushed off into the stream at 10.30 on Thursday, August 24th. The children waved goodbye until the "Dirty Devil" disappeared around a bend. An hour of rowing in the sluggish current brought her past the mouth of Mill Creek to the canyon entrance where the river flowed southwestward out of Spanish Valley into the heart of a sandstone plateau. I left the beautiful little valley with grateful memories of its inhabitants.

Below Moab the Colorado entered what was then one of the wildest regions left in a nation of garish billboards and hot dog stands. Entrenched in places more than 2,500' below the desert plateau the river flowed for 60 miles through a winding canyon to the Green River and then the combined waters burrowed into a rugged chasm called Cataract Canyon, a 40 mile succession of boulder strewn rapids. The next settlement on the river, Lee's Ferry, Arizona, lay about 280 miles downstream from Moab.

Once within the canyon walls I plunged overboard for a swim, finding the water only 3' deep over the sandy bottom. It was fun to push the boat ahead with all my strength while holding on to the iron handle on the stern. Her weight and resulting momentum were so great that I would be swept off my feet and dragged in her wake till she slowed down.

A mile below the canyon entrance an old stern-wheeler lay aground on the right bank. She had once been used to carry supplies to an oil well 15 miles down the canyon. I thought I saw signs of life aboard, but there was no reply to my hail except a double echo from the towering walls. Several miles below two men were washing down a gravel bank with a gasoline pump in search of placer gold. They were the last people that I saw below Moab; the popping of their engine gradually faded into the wilderness. The rest of the day I rowed in still canyons, marveling at sheer walls rising 300' from the river, water-worn caverns set into the face of the sandstone cliffs, natural bridges of salmon-pink rock, flying buttresses, and steep gables, thin pinnacles, and symmetrical domes.

In mid-afternoon I passed the deserted oil well perched on a bench along the right bank. The drillers had struck oil, all right, but the well caught fire and burned for weeks before it was controlled by pumping in liquid mud. When the well stopped burning the flow of oil stopped, too.

Late in the day the "Dirty Devil" emerged into a short broken valley filled with the eroded remains of red cliffs and buttes. On either shore the uplands rose to barren heights like crumbling terraces and stark headlands piled onto one another in the wildest confusion. I camped on a sandbar 21 miles below Moab. For firewood I dragged a dead tree to my campsite at the water's edge and, after a meal of roasting ears, I settled down to the pleasures of an idyllic camp while the neighboring cliffs glowed in the sunset and the crescent moon sank into the west.

An hour before sunrise the next morning, as I lay on my side half asleep, a large grey owl landed with a thump on my shoulder, apparently mistaking my angular form for a driftwood log. I could feel the grip of its powerful talons through the woolen blanket. When my shoulder jerked under the impact, it flew to the sand nearby and I had a good view of it before it soared across the river.

After breakfast I learned a lesson in the result of carelessness. When I had finished bailing the boat I left the bucket half awash on shore and packed up my camping outfit. In loading the boat later I found that the bucket had disappeared and spent 15 minutes in vainly diving along the sandy bottom looking for it. Luckily I found it drifting in an eddy 2 miles below when I resumed the voyage.

The river coursed on for miles through low sandstone canyons. Farther back from shore higher cliffs and mesas hemmed in the valley. I enjoyed the changing panorama as I swam in the sunlit current alongside the bobbing scow. Around noon I was sunning myself on the afterdeck, letting her drift broadside with the oars dangling overboard, when the Colorado gave an unexpected demonstration of its power. The downstream oar caught on the shallow bottom and the heavy iron rowlock snapped off clean. I had some extras along, but did not enjoy this loss of vital equipment on the second day out of Moab. It was another lesson in how a minor lapse might endanger the success of a single-handed endeavor.

Throughout the afternoon the "Dirty Devil" swept around one wide curve another beneath vertical walls of stratified rock. On the inner shore of the bend there was usually a small "bottom" or overgrown sandbar and, on the outer curve, the river cut directly into the sheer red walls. Peterson had told me how two prospectors had lost their boat in the ice a short distance above the Green River. Unfamiliar with the trails up on the plateau, they tried to follow the bottoms upstream to Moab by swimming across from one bottom to another. Luckily a hunting party from Moab directed them to a trail across the upland.

Threatening clouds gathered over the still canyon late in the afternoon accentuating the gloom of the rocky depths. The dark river seemed to brood on its self-inflicted captivity. Three snow white herons, or egrets, rose from the shore without a sound and flew slowly down the canyon, their pallid bodies in contrast to the somber walls. It was easy to understand why their wraith-like presence was often considered an evil omen.

The sunset formed a magnificent spectacle when I pulled into shore to make my camp after rowing 23 miles for the day. A great square butte rose above a confusion of rock several miles north of the campsite. As I landed the sun broke out beneath the storm cloud, which had been increasing in density. The flaming rays colored the belly of the nimbus mass and tinted the crest of the butte. Thomas Moran, painter of Western canyons and mountain ranges, would have delighted in the majesty of the view.

Complete darkness swiftly followed the bloody sunset under the storm cloud and narrowed my range of vision to the circle of sandy beach in the firelight. Lightning flashes showed the "Dirty Devil" tugging uneasily at her moorings in the rising wind. I walked down to the water's edge to check the ropes while the lightning disclosed uncanny shadows on the canyon wall across the ruffled river and claps of thunder echoed for miles up and down the gorge.

My thoughts on the next day's run, which would bring me into Cataract Canyon: I have returned to camp to arrange my bedding under the tarpaulin. While spreading the blankets I glanced at the dying campfire and gasped in astonishment. The glowing coals formed, in a perfect image, the face of a hideous, grinning devil. "Good thing I'm not superstitious", I thought, unable to turn my face from the spectacle. Shaken more than I cared to admit I kicked sand over the embers to destroy the apparition. The storm broke loose shortly after I crawled in for the night.

Saturday was gloomy and stormy. During the morning I rowed a serpentine course down the sullen river, passing out of the broken valley into a deeper, more precipitous, canyon which extended all the way to the Green River. For the first hour the great isolated butte was visible on the northern shore as it tapered to the sky in majestic inaccessibility. Scenes of the wildest beauty followed one another around every bend of the canyon. Incredible rock remnants soared into the ragged clouds and sheer cliffs showed on their faces the record of millenniums of ocean deposition. If I had wanted to get away from my fellow men, I was surely succeeding.

At noon I reached the beginning of "The Loop", a bowknot bend where the river makes nearly a perfect Figure 8 design, entrenched more than a thousand feet below the rim. Here the river flows 8 miles to cover an air line distance of 2 1/2. At one spot the

distance between two of the meanders is only 600' across an isthmus where the vertical walls are breached until only a low heap of rubble separates the two channels.

Just before I entered "The Loop", several violent whirlwinds, forerunners of a thunder squall, swept up the canyon like small tornados, carrying twigs and tumbleweeds 300' into the air. The main storm, roaring out of the hot rocky wilderness to the southwest, a desert breeding ground of thunderstorms, caught the "Dirty Devil" in midstream on the first loop. The wind and the waves were so furious that the boat was actually borne upstream, pitching and tossing despite my best efforts on the oars. Then a respite allowed me to round the bend, while the wind, lost in the labyrinth, went moaning around the corners of broken walls in capricious gusts. On the other side of the first loop the full force of the storm gathered astern and the pitching boat spoomed before it beneath high undercut cliffs. The continuous reversal of direction had me dizzy by the time the boat emerged from the maze in mid-afternoon.

Now the river took a more direct course to the southwest and the canyon walls became ever higher and more spectacular. On the right bank I passed The Slide, a huge landslide where the whole side of the canyon had come down in a heap of rocks the size of small houses, obstructing the river half way across its bed. There was scarcely a ripple in the constricted channel. But, in high water, the current must flow like a millrace.

Another thunderstorm scoured the canyon as the boat wound around some bends below The Slide. In the early evening I was surprised to reach the mouth of the Green River flowing in from the north out of the deep gorge of Stillwater Canyon. One moment I looked ahead and saw nothing but a blank rock wall; the next I saw that I was rounding a formidable headland at the lonely confluence of the two rivers. Whether the Green River or the old Grand was the true source, I was now sailing indisputably on the main Colorado.

Shortly before my trip a Colorado River navigator wrote that fewer than 100 men had seen the spectacle at the junction of the Green and the Colorado. True enough, a few tourists yodeled beneath the pinnacles of the Land of Standing Rocks, but it is certain that many trappers, hunters, explorers, prospectors, geologists, engineers, archaeologists, and ranchers have preceded me on their varied missions. An open skiff at Moab and 10 days' provisions, with enough muscular reserve for the upstream pull on the way back are the only requisites for the journey.

Without exception the major Colorado River expeditions had come down the Green River rather than the Upper Colorado. No doubt this tradition, beginning with Major

John Wesley Powell, came about because of better railroad facilities up the Green River. Powell started from the Union Pacific crossing in Wyoming. Many later parties started from the D&RG crossing at Green River, Utah, 125 miles upstream from the Confluence.

The still waters of the Green and the Colorado, between Moab and the town of Green River, aroused great hopes at one time for navigation of the canyons. Several attempts were made to establish steamboat service between the two places, but the hazards of sandbars and riffles were too great. A 55' stern-wheeler, the "Undine", plied the canyons for a few trips, but was lost in a riffle. The "Major Powell" made a couple of trips, but was found to have too deep a draft. One vessel, called "City of Moab", optimistically enough, was dismantled after an unsuccessful trial and shipped away piecemeal to the Great Salt Lake.

Some years ago the citizens of Moab persuaded the War Department to survey the canyons in order to remove navigational hazards. The results show that 12 riffles of the Green River would have to be dredged and The Slide cleared to make a channel for moderately large vessels. The latter job alone carried an estimated expense of \$100,000 at the low prices of 1909 and nothing came of the proposals.

It was easy to see why the Ute Indians called this region the Land of Standing Rock. The canyon walls tower on each side of the Colorado to a height of 1500', rising through various layers of stratified rock to this series of pinnacles and minarets that give the region its name. The country is typical of the high plateau land that extends through Southern Utah and Northern Arizona. The arid upland, dissected by the erosion of countless intermittent streams and washes, has been eaten away into stark buttes, vast mesas, and solitary monoliths. The main rivers run in trenches far below the surface of the land and the tributaries, even those that flow only during thunder showers, have caused deep channels vertically into the solid rock as they seek the level of the rivers.

Powell's fanciful description of the prospect near the mouth of the Green River gives a hint of the overpowering impression that the canyon walls make upon a voyager:

"Away to the west are lines of cliffs and ledges of rock -- not such cliffs as you may have seen where the quarryman splits his blocks, but ledges from which the gods might quarry mountains, that, rolled out on the plain below, would stand a lofty range; and not such cliffs as you may have seen where the swallow builds its nest, but cliffs where the soaring eagle is lost to view ere he reaches the summit."

Strange stuff indeed to find embalmed under the prosaic imprint of the Government Printing Office!

I continued downstream at sunset and approached the very line of cliffs that Powell had eulogized. This rampart seemed to block the river's course to the west. But when the current reached the base of the wall it made a sharp curve to the south and, within a mile, plunged into the first rapid of Cataract Canyon. A large whirlpool swirled in the outer corner of the bend and tightly packed debris ranged along the bank. A crude plank bridge, washed down many miles from the region of civilization, balanced intact on the top of a large boulder.

Half a mile below the bend, opposite a wall capped by soaring pinnacles, I camped on the left shore just above the first rapid, the low muttering of which was a welcome relief from the dead silence of the upper canyon. I had rowed 25 miles through still water since morning. I could find no secure mooring for the boat, so I tied the painter to one corner of the ground cloth under my blankets. I hoped this arrangement would wake me up in case the boat broke away during the night for I had no desire to start walking or swimming the 70 miles back to Moab or the 130 to Green River.

As the firelight flickered into embers I realized that my dreams of many months were coming true. I was on the big river at last. Tomorrow the main show started. This was all right with me; like Tennyson's Ulysses I told myself that

..... my purpose holds
to sail beyond the sunset, and the backs
of the Western stars, until I die.

CHAPTER XVIII

.... Cataract Canyon, why this section of the Colorado has apparently claimed more lives than any other. It is a gigantic trap for the unwary adventurer or prospector who glides down the smooth waters from Moab or Green River in an open boat. Not knowing of the rapids ahead he might risk his outfit in the first easy drops, hoping for quieter water below. As he continued downstream he would be able to run many more rapids or carry or line his boats around the bad ones. But, finally, especially at high water, he would come to a rapid too turbulent to run safely and with too narrow a shore for lining. Faced with the choice of retracing his way and carrying his outfit around all the rapids he had already run, he might decide to risk the rough water. No doubt some of these decisions led to disaster when the voyager was drowned in the rapids or lost in the arid upland, if he scaled the 1500' canyon walls.

But at least one unsuspecting river rat was able to run and line his boat all the way to still water. When the Kolb Brothers made their notable photographic trip in 1911 they met an old man laboriously working his way in an open skiff unaware of the dangers ahead. He later wrote them that he succeeded in getting all the way through.

Some wild statements have been made about the number of lives lost in the canyon -- for example that fewer men had successfully passed through than had been killed in the attempt. In 1914 the Kolb Brothers wrote in the National Geographic Magazine that, in the 45 bad rapids of Cataract Canyon, there must have been at least that many men who attempted the passage and were never heard from again. The exact number of casualties will never be known, since there is no way of counting those who entered and those who emerged alive at the lower end. Evidence based on wreckage, human remains, and records does indicate a substantial total.

.... but not without potential disaster; several times the boat bumped heavily against submerged rocks and it was soon apparent that she was leaking more than usual. In one rapid the "Dirty Devil" nosed under a huge breaker and buried herself from stem to stern while the yellow foam tossed over my head. Water flooded through the space between the spray cover and my body, filling the cockpit to a depth of half a foot. After bailing her out I continued the roller coaster ride, unmindful of the warning.

My pride in my oarsmanship, excessive ever since Westwater Canyon, was finally shattered just after noon in a more difficult section of the river with a drop of 25' to the mile. Seeing this steep pitch ahead where the river humped up in midstream between two boulders and disappeared, I decided to run it without landing to look it over.

As I rode over the bulge of water, rowing against the current to slacken speed and maintain steerage way, I saw that she was going over a fall caused by a ledge that extended all the way across the river. In higher water the ledge would have formed a heavy rapid, but at the low stage of late Summer, it caused a vertical fall that seemed all of 4 or 5 feet high. The water plunged into a deep pool before rampaging downstream into the outrun waves.

The "Dirty Devil" dropped into the pool with a lurch that nearly threw me out. Then I noticed in amazement that she was actually travelling upstream and in a moment the stern sank violently. A backward rolling wave had carried her under the fall where the descending flood of water buried her stern. She was sucked further back into the fall until her afterdeck was pushed under by the torrent's force and her bow reared into the empty air. Since I was obviously doing no good with the oars I jumped onto the forward deck to get the boat back onto an even keel and to keep out of the fall myself. But an

upward thrust of the deck threw me overboard. I came up as I floated past the bow. Luckily at that moment the boat settled for an instant and I grabbed the iron fitting on the bow before the stern plunged under again and lifted the bow once more.

For several minutes the boat hung below the fall while I clung to the handle wondering what to do. Then as I struggled to climb back aboard the boat somehow freed herself from the pocket of foam between the wave and the fall and began careening down the rapid. I had an uncomfortable moment hanging on to the bow of the 400 lb. runaway with my legs drawn underneath her, in view of the rocks in the river bed. When I somehow scrambled aboard she was tossing in the haystacks out of control. Frantically groping inside the cockpit for an extra oar, I located one at last and brought the boat safely ashore at the foot of the rapids where the missing oar drifted in a whirlpool.

Looking back at the place I could see my folly in running the fall without an inspection. Had I known of the wave rolling back into the fall, I would have rowed with enough forward speed to sail through the trap with ease.

After bailing out the scow I had to reload her cargo which had drifted sternward under the fall. I glanced at my water-logged watch and saw that it had stopped at 12.30 sharp. The stained and water-soaked \$20 bill threatened to disintegrate in my wallet so I put it in the duffel bag. The thought of food had a momentary appeal, but I decided to forego lunch in the hope of running the worst rapids by nightfall.

A glance at the profile maps showed that a series of almost continuous cataracts lay ahead, the river dropping 155' in 7 miles, and, in the worst mile, 35'. The various sections of the topographic map had letters at each end to match up with the letters of the next section. The stretch ahead of me, from 204 miles above Lee's Ferry to 197 1/2 miles above Lee's Ferry, showed :

P -----P at one end, and Q -----Q at the other.

I had decided the first time I had ever seen the map that it would be a good idea to mind my P's and Q's. This central section of the gorge, above the mouth of Gypsum Canyon, troubled the early expeditions by the severity of its cataracts. Often the party would spend a whole day in painfully lining or carrying their outfit a mile or two along shore.

The rapids came in an ever-deepening crescendo. Cowboys say that, when the wind is right, the roar issuing from the depths of Cataract Canyon can be heard several miles away on the plateau, 1600' above the river. James Russell Lowell once wrote that: "The only way to get any poetry out of a cataract was Milton and that was a cataract in his eye." I agreed on hearing the roar down the river that any attempt to imprison the fury of the waters in verse would be lamentable.

Filled with the proper spirit of humility I now made it a rule to land at the beginning of a rapid and examine the water ahead. The worst cataracts were formed by great irregular blocks of sandstone and limestone that had toppled off the canyon's sides, obstructing the current and making it gush through the openings in boiling flumes. Humps of water rose over submerged rocks and settled on their downstream sides into actual holes in the river, deep depressions not quite filled by the eddying backwash. From the shore I would try to map out the safest route, watching the set of the current among the rocks, and picking out landmarks -- or rather watermarks -- to guide me. Sometimes a light riffle on the tongue of a rapid would be a useful guide; sometimes I could steer for a boulder at the head of a drop and then veer sharply to get in the best position. In long rapids I made myself memorize a formula of sailing directions such as "steer for the right slope of the entrance wave, watch the left-hand hole half way through, and then pull hard to the left to miss the big rock."

In mid afternoon the "Dirty Devil" came to a cataract where rock fragments as big as small houses blocked the river's course. 15 minutes of watching the current convinced me that I could make it, provided I could steer the with hairline accuracy. A dam of boulders choked the left-hand side and, where the dam came to an end, to the right of the river's center, the largest rock rose out of the surging current. At the right of this a narrow flume penetrated the barricade only to spill itself with great force onto the upstream face of smaller rock a few yards below. A boiling reflex wave surged back from the obstruction; then the water dropped over a fall around the left side of the rock and flowed into a heavy riffle.

Steering carefully down the flume I avoided the large rock on the left and a sharp pinnacle on my right. I rowed with all my strength against a current to cushion a shock that I knew would come when the scow hit the rock at the bottom of the flume. She surged through the reflex wave and hit the rock face a glancing blow, quivering from stem to stern. Several good heaves on the oars brought her into a chute on the left as she bounced back from the rock; then she was sucked around a narrow opening and drawn over the fall, plunging downstream into a heaving mass of water where dozens of torrents that had percolated through the barricade finally converged. Rearing and tossing she rode the lower crests like a triumphant charger prancing through the broken ranks of the enemy. About 4 o'clock I reached the head of the worst pitch, 203 miles above Lee's Ferry, where the river dropped 35' in the following mile. At each drop I would walk ahead to set a course and return to bail out the boat and lash down the spray cover. Several times I saw recent footprints in the sand indicating that the party that had camped at the head of the canyon had also come down by boat.

The boulder-strewn channel made me wonder whether the rapids would be easier or harder to navigate at high water. During the flood stage the waves are higher, the holes more dangerous, the current far swifter, and the whirlpools more powerful. At a low stage, on the other hand, many more rocks are exposed or just under the surface and some of the ledges cause waterfalls instead of rapids. A large party planning to carry its outfit around the bad places would no doubt prefer a low stage. With my 400 lb. battleship, this was no advantage at all. I might have well have tried to pack a grand piano up Mt. Moosilauke on my back as to carry the "Dirty Devil" along shore.

Several times I wished I had three or four stevedores along so we could hoist the loaded scow on our shoulders and carry her around the worst places. But since there was nothing to do but push ahead and nothing to be gained by moping around on shore I would look over the rapids, climb aboard again, not without reluctance, and let the boat drift ahead to test her seaworthiness in the cataracts. One after another they dropped away down the river. The river's surface looked like a series of terraces, the water flowing quietly for a few hundred yards and then falling furiously through rocky barriers to the next lower level.

Late in the afternoon I reached the worst drop in the worst mile, a wide cataract of churning waves. All across the stream, except for one narrow chute on the left, the river boiled among half-hidden boulders and sharp fragments of limestone. The chute itself, containing a fourth of the river's flow, offered a dubious passage between rocky obstructions, half awash, and large boulders sprinkled down the channel. At least the steepest descent would decide the issue quickly. Fortunately a light streak of foam played along the entrance tongue, for the drop was so sharp that I could not see over the edge from the boat. Steering for the foam-flecked wave I maneuvered into position and let her slide over the edge, hoping to miss a bad hole on the right and a sunken rock on the left. Her speed suddenly seemed terrifying. I glimpsed the gulping hole under the starboard oar, saw a black rock fly past on the other side, and then realized that the boat was below the drop, splashing and rolling through high, lumpy waves.

It was the climax of the cataracts. Swift water still tumbled down rock-filled river slopes. But it was increasingly easy to pick out clear passages. Beyond the next mile the canyon jogged to the west and then resumed its southerly course down an impressive, rocky aisle some three miles long. Elated at the ease with which the scow had overcome the worst that Cataract Canyon had to offer in the 13 difficult miles since morning I began to watch the narrow shores beneath the soaring cliffs for a place wide enough to hold my camp.

The sun had disappeared over the western wall of the majestic aisle ahead, though its light still threw into bold relief every pinnacle on the opposite cliff. The brink of another cataract, 199 miles above Lee's Ferry, dropped from sight. Below there somewhere, I told myself, I would make my camp. The maps indicated that this was one of the sharpest drops in the canyon, but I determined to end the day with a flourish and ran the cataract as it came.

10 yards above the lip, while I rowed against the current for steerageway, straining to catch a glimpse of the rapids, the bow crunched onto a submerged obstruction with a shot that nearly threw me off my feet. Annoyed at this interference with my piloting I took off the spray cover and quickly reached below decks for a stout pole to shove her off. Then I noticed that her stern had already begun to swing around to the right and I knew from experience that she would free herself when she swung around below the rock. But just as the scow reached the point where she was broadside to the current her stern grounded on a second submerged obstruction and there she hung, neatly suspended between them. The strong flow of water, running smoothly at perhaps six or seven miles an hour, pinned her against the two sunken rocks like a giant hand from the depths.

Realizing at last the seriousness of the boat's position, I jumped onto the right hand rock with the pole and stood ankle-deep in the rushing water. I found a good purchase and began prying against her stern, but the effect was indiscernible. Then I crossed the forward deck to the left-hand rock and pried with all my strength. I might as well have tried to move the Washington Monument from its base. The black and glassy surface of the water did not show a ripple, but the current's force against the flat, upstream side of the "Dirty Devil" must have been tremendous.

Running across the boat to the right-hand rock again I picked up one of the Moab oars and tried again to pry the stern over the obstruction. First I used the pole until it snapped off in my hands. Then, hoping the longer oar would give me greater leverage, I leaned on it with my entire weight and broke it off clean. Equally futile were my frantic efforts to lift the boat by the forged handle near the stern. A team of horses on shore and several lengths of logging chain might have done some good. But, even then, the boat would probably have pulled to pieces before escaping the river's grip.

Back in the cockpit for more oars to break I found that the "Dirty Devil" was already half-full of water and settling fast. The current's force had opened a seam where the downstream side pressed against the rocks. Even as I reached below decks for spare oars, the scow began to tilt upstream and the instant her deck coaming came down to the water's level, the current rushed in with tremendous violence and accelerated the

tilting motion. I clawed my way up the canted deck and jumped onto the right-hand rock, having no desire to be caught underneath her. But there was no great need of haste. Slowly, ponderously, the "Dirty Devil" turned her beam ends until her decks were vertical and the current was gutting her out. Still caught on the upstream side of the two rocks she lay on her side half-submerged, the full force of the current roaring into her cockpit and sucking past her bow and stern.

Now she was lost beyond all hope and as much a part of the river as the driftwood trapped in crevices. My efforts turned from salvage of the vessel to the salvage of those parts of her cargo that would help me get out of the canyon. This meant food above everything else. As the boat inched into the depths I groped inside her cockpit, holding on to the upper coaming with my right hand and reaching inside with my left. The force of the current was appalling. To extend my reach I let myself down till my legs were drawn underneath the boat, between the two rocks. It required a two-handed grip on the cockpit coaming before I could draw them up again. I found the best way to reach inside the boat was to hold my breath and duck below decks.

But the river beat me in the race for food, for its swirling current, scouring the inside of the boat, had carried away everything moveable. I cut the lashings that held the duffle bag and the rubber sack below decks. But, before I could grab it, the duffle bag whirled out of the boat and sank downstream. It held a large part of my food supply as well as the \$20 bill. The mason jars of food had long-since been washed away and smashed on the canyon bottom. Even the few oranges and onions that floated on the boiling current eluded my grasp. I did not save a single scrap of food from the wreck.

I did salvage the packsack, but this contained little to help me. Perched on the side of the sinking boat I hastily pawed through it, quickly throwing away the first thing I found: a hand axe. A pair of hobnailed boots, too heavy to wear through the cataract that roared below, followed the axe into the water. I stuffed a pair of woolen socks into my pocket, knowing they would be worth their weight on the long trip ahead. The other items, such as blankets and extra clothing, were of little value and so I let the sack slide overboard and sink.

The boat now settled until only a triangular patch of her battleship gray stern showed above the water. The last thing that I saw of her was the gaping lower seam where the rock had crushed her side. Perhaps 25 minutes after striking the scow had disappeared entirely, leaving her skipper half-awash on a sunken rock at the head of a major cataract. I should have known that a 13' scow, called the "Dirty Devil", was not to be trusted.

Already soaked and half-exhausted and shivering in the evening breeze I decided to head for shore before becoming any weaker. Without a boat the prospect down the Cataract was terrifying. Ten yards below the rock to which I clung the river narrowed and dropped out of sight to reappear some distance below in a state of turbulence. Some large boulders rose near the right shore just above the drop; between them and my sunken rock half the river's flow swept downstream over the brink. I nurtured the wild hope of swimming across to the rocks before being drawn over the edge into the cataract. I tightened my life preserver straps and trapped some air in the rubber sack for additional support.

Clinging to the rubber sack with one hand I pushed away and fought to cross the current. I swam with all my strength to the point of rocks, but the current swept me down and I missed the nearest boulder by a margin of several yards.

The swift water quickly drew me into the turmoil. First came a direct fall over a sunken ledge where the river plunged downward several feet. Almost exhausted I gave up hope when I rode over the bulge and dropped into the pool. Down and down I seemed to go, forever. Then, just as I thought I couldn't hold my breath any longer, the life jacket brought me to the surface below the fall. I was able to gulp some air before being whirled into the haystacks. Somewhere I lost the rubber sack, so I could use both hands to surmount the combers. The first one broke in my face and submerged me again, but I rode over the next three or four successfully. When the current slackened I drifted into an eddy along the right bank where the rubber sack floated safely in a whirlpool. Slowly I swam toward it and drew it ashore at sunset time, perhaps a quarter of a mile below the wreck. I could hardly stagger on landing.

On opening the sack I found that not a drop of water had leaked in and that the matches were dry. I lit a driftwood fire, dried out my clothes and finally stopped shivering. A quick inventory showed that I had plenty of matches, a pocket knife, a compass, maps of the country, the 7-shot revolver, and 50 rounds of ammunition. My clothes consisted of khaki trousers, a leather belt, a woolen khaki shirt, a kapok life jacket, the two woolen socks I had found in the wreck, and one light sandal, the other having disappeared in the rapid. My old felt hat was also claimed by the river.

The rubber sack also held my diary and photographic equipment -- two cameras and some film. Knowing that the few necessities would be enough of a burden, I discarded one of the cameras, some writing paper, maps of the lower river, and all of the film except one roll taken in the canyon earlier that day.

Finally came the time to decide what to do and where to go. I was already hungry from having skipped lunch in the excitement of running the rapids. It seemed like a long time since my 7 o'clock breakfast. I knew I had better get started in the right direction without wasting time. I remembered Stone's comment on finding a wrecked boat and the footprints of two men and a boy in Cataract Canyon in 1909, the year I was born:

"To lose one's boat in such a place is practically to lose one's life. Because, even if it were possible to climb out, the country being a grassless, treeless, waterless waste, deeply scarred by side canyons that are generally impassible for a long distance back from the river, a stranger on foot and without maps or provisions, especially water, could not possibly reach either Monticello, Moab or Dandy Crossing, the only places where help might be found."

I realized that my only chance of escape was to prove that Stone was wrong. At least I had the maps and one thing more was strongly in my favor. At the age of 24, hardened by many weeks of climbing, swimming, paddling and rowing, I was undoubtedly at my lifetime peak of physical fitness.

I had four choices of routes -- upstream northeast to Moab, downstream southeast to the Dandy Crossing at the little settlement of Hite, overland northwest to Hanksville on the Dirty Devil River, or overland southeast to Monticello or Blanding. As the crow flies Moab, Monticello, Blanding and Hanksville were all 40 miles from the wreck. Since I was no crow Moab would be about 80 miles up the Colorado canyons, the only route I could be sure to follow. And, from the day's adventures, I knew there were places where the canyon walls rose vertically from the water with the swift river flowing against me.

Between Cataract Canyon and the settlements of Monticello and Blanding towered the Abajo Mountains, with I knew not what god forsaken desert on the way. Northwest of the Dirty Devil lay one of the most forbidding regions of the West, the "Robbers' Roost" country of broken mesas and vertical canyons with waterless plateaus stretching away between deep trenches. I had heard too many tales of men lost in that sterile maze to consider the overland route seriously. As the Kolb Brothers had written:

"We know one man who did climb out after losing his boat and who existed for weeks on cactus and herbs until he was finally discovered. He is an able-bodied man today, but has practically lost his reason."

The map showed that it was 36 miles downstream to Hite Post Office at the Dandy Crossing of the Colorado, a few miles below the mouth of the Dirty Devil. I was not sure that this small settlement was still inhabited; I knew it was no longer listed as a post office and Clyde Eddy, after his 1927 voyage, had reported the buildings abandoned. At least I would have plenty of Colorado River water to drink and, if Hite was deserted, I still might find a way north to Hanksville by way of Trachyte Creek or the North Wash. I decided to head downstream.

At my landing place the canyon's sides rose to a great height on either side of the river, mounting by laminated steps from narrow rocky shores which were formed from the debris of rock slides. I placed both of the woolen socks on my bare right foot and tied them to the trouser leg with rawhide to keep them from slipping off. Then, in the remaining half hour of daylight, I started walking downstream along the right shore, picking my way among sharp rocks and slimy mud banks. Soon I noticed two white objects gleaming in the twilight at the water's edge. They were onions that had floated out of the wreck. Farther down I discovered my raincoat tightly wrapped in its cover floating in an eddy near shore. These discoveries cheered me greatly. About a mile below my landing place I found a good camp site and decided to bed down for the night.

CHAPTER XIX - AFOOT AND AFLOAT

I woke up at dawn on Monday, cold, stiff and hungry.

Prompted by habit I looked down at the shore to see how the boat had weathered the night and then realized with a shock that I would have to furnish my own transportation out of the canyon. I did not lose any time in getting started. Packing the few remaining articles into the rubber sack, I tied it to the top of the kapok life vest so it swung from my shoulders like a packsack, to keep my hands free for scrambling up the canyon's sides when necessary. I started walking down the right bank and in a few moments saw the water jug wedged between two boulders. Near at hand floated the remaining oar of the pair I had whittled in Moab. A use occurred me for this mournful flotsam so I wrote a short note, placed it in the jug, built a rock cairn around it, and left the oar sticking from the cairn as a signal. I kept the aluminum cap of the jug as a utensil, the only dish of any sort that I had.

Within the next mile I found additional wreckage along the bank. The seat lay stranded on a rock and a broken grating floated with a splintered oar handle in a small bay. More important -- along the sand were two sound cantaloupes, miraculously preserved from the sharp teeth of the rapids, four small onions, four oranges and several lumps of butter mixed with mud and sand. My fortunes were rising again and my hopes rose

correspondingly. I put the butter in the aluminum cap, saved the oranges as a water reserve and decided to ration out the onions at the rate of two a day.

Then I kept up a steady pace along the broken shore, jumping along on sharp rock fragments that had fallen from the canyon walls. About a mile below my campsite I passed the mouth of Gypsum Canyon on the other shore, a winding defile that heads up towards the Abajo Mountains. I briefly considered this as a possible route out of the canyon, but since I did not know the directions to Monticello or the waterholes en route, I decided to continue following the river.

Along most of the shore a slope of broken rock lay at a steep angle from the solid rock walls down into the water. This talus slope offered poor footing at best, for the rocks were heaped up at their angle of rest and would frequently slide away under my added weight, bringing fragments higher on the slope crashing down beside me.

Below Gypsum Canyon the river swung west and then northwest in a wide curve, ending the long north-and-south reach where the "Dirty Devil" had been wrecked. The sun followed my slow progress around the bend, beating down more intensely every minute. The evaporation in the dry air was so high and my exertion so great that I stopped to drink river water two or three times an hour. To protect the top of my head from the sun I made a paper hat from a Forest Service map of the La Sal National Forest and marched down the river bank like a toy soldier.

In mid-morning I reached the first place that offered any serious trouble. The talus ended and the sheer cliff of unbroken rock rose directly from the river. By climbing up the slope, however, I found a narrow ledge 40' above the water and followed it several hundred yards to the next stretch of rocky shore. A little later I came to a similar cliff, except that its smooth face offered no chance of passage; it was apparent that my only solution was the river.

At this point the big rubber sack again proved its worth, for I took off all my clothes and stuffed them inside with the rest of the load. The sack looked like an oversized coin purse; a hinged metal clasp closed on two surfaces of sponge rubber that formed an air-tight seal. By allowing the sides to separate and quickly snapping shut the clasp, I was able to trap enough air inside to keep the sack afloat despite its heavy load.

I put on my life jacket and gingerly let myself down into the water amid sharp pinnacles of rock and slimy mud banks. The sack floated freely behind my shoulders and the life jacket provided enough buoyancy so I could paddle along and enjoy the scenery. The current carried me rapidly past the sheer-walled banks of some hundreds of yards till I

found a narrow, rocky beach where I could land. Chilled by the cold water I was glad to dry off in the wind and hot sun and put on dry clothes again.

Thereafter I often repeated this performance, sometimes swimming for only a few yards and sometimes for quite a distance. After 10 or 15 minutes my teeth would begin to chatter and my leg muscles to cramp. Finally I became so averse to swimming that I sometimes took foolish chances on the cliffs to avoid the chilling water.

But the water was welcome compared to the sucking mud banks that sometimes stretched along shore between the river and the cliffs. Their sun-cracked surfaces looked solid enough when I ventured out on them. But many times, when I was between two points of safety, I broke through the dried crust, floundering knee-deep in the slimy green muck and settling rapidly into the morass. Then I would throw myself forward onto my chest, extract my legs, and slowly wriggle ahead to the nearest solid ground.

A little before noon I reached the mouth of Clearwater Canyon on my side of the river. A wide delta, washed down from this side gorge, crowded the main river far over to the left in a narrow rapid and formed a boulevard for walking along the shore. There I found another campsite of the party that had preceded me down the canyon. A piece of damaged movie film lay beside the ashes of their fire and footprints marked the sand. For an instant I looked down the river, half-hoping to see some boats disappearing around the bend. But a light coat of rust on an empty milk can made me realize what a vain hope this was. Kicking aside the can I headed down the river.

At midday I came to a place where I had to swim the river to the other shore. To avoid a roaring rapid I swam diagonally upstream until I saw that I would not be sucked over the edge. After I had dressed again I found a cool shadow under the southern wall and opened the sack to see what I could spare for lunch. The two cantaloupes were beginning to spoil and, anyway, were too heavy to carry any further. So I sliced them into sections and ate them down to the rind, thinking with gratitude of Mr. Pariott in Moab and the coincidence that had sent him in my direction 5 days before.

With my load considerably lightened I continued along the left bank after a respite in the shadows. Time after time that afternoon I came to sheer cliffs where I would have to perform my strip act, lock my clothes in the sack, and jump into the swirling river to swim for hundreds of yards beneath vertical or overhanging walls. In between these plunges I plugged steadily along the left shore and watched on the topographic map how the miles slowly passed. Late that afternoon, in an aisle where the river flowed south for several miles, I climbed high on the wall and skirted along the edge of a cliff on

a narrow sloping terrace that was heavily overgrown with bushes. After a mile of fighting tangled vegetation and edging along ledges high above the river, I came to a flood plain at the mouth of Dark Canyon, a gloomy gorge entering the Colorado from the southeast.

Evening was approaching when I came to the end of the flood plain where an unbroken wall of rock rose from the water. On looking over the place from a narrow perch on shore I thought that I could never pass it alive. On my side of the river I was faced by an overhanging precipice, impossible to scale or to avoid by climbing higher. On the other bank a similar cliff hemmed in the river and down through the river bed raged a foaming cataract.

The heaving current, traveling with great speed at the lower end of Dark Canyon Rapids, made a sharp bend to the west. Because of this curve the apex of the current crowded far over to the left, beat against the dank undercut wall, and boiled away downstream in a huge reflex wave that danced with surges and whirlpools amid rock pinnacles. This was apparently the tail end of the rapid where Clyde Eddy had what he called a "narrow squeak" when a boat got away and went careening down the rapid.

Since there was nothing else to do and no point in prolonging the suspense I undressed and thrust my unprotected body into the current, hoping that no rocks would come into my path. I had an uncomfortable feeling of claustrophobia as the stream seized me and whirled me under the overhanging cliffs. By fencing off with arms and legs I kept myself from being brushed against the jagged walls. The seething current carried me over the reflex wave out into midstream through the tail of the cataract and into quieter water around the next bend.

About a quarter of a mile below the flood plain the cliff finally broke away and I was grateful to regain the narrow shore on the left bank. Now thoroughly exhausted I dried off, dressed, and began looking for a place to crawl in for the night. By the maps, I had swum and scrambled 17 miles since dawn and there was no way to count the miles I had added to that figure by my circuitous wandering.

180 miles above Lee's Ferry, on a narrow ledge hewn from solid rock 30' above the river, I found a bank of dry, soft sand drifted in like snow, where the river had eddied during the Spring freshet. I burrowed a hole into the sand before dark, gathered dry driftwood, and prepared a meager supper. I fried two of the onions the aluminum cap using some of the butter, which was already turning rancid. The resulting dish nearly gagged me, but I forced myself to eat it down to the last scrap. The best part of the meal was a chaser of muddy river water.

The cool night was clear and the western sky a darkening blue, with the pinnacles and capes of the opposite shore resplendent in the light of the setting moon. I wrapped myself in the rain gear and life jacket and wormed a way into the bank of sand till I was comfortable. I awoke many times during the night to watch the constellations on their march across the sky. I could tell time fairly well by the stars from a summer spent sleeping beneath them. Slowly Scorpio sank in the southwest, while the Pleiades and then Orion mounted over the wall of Dark Canyon in the east. A tremendous cedar stump in the fire burned and sputtered till morning. Many times I rolled over in my burrow and looked at it wondering what the next day would bring. Soon the rippling river was visible again in the reflection from the paling east.

Breakfast on Tuesday consisted of as much Colorado River water as I could swill. Anxious to put more miles behind me before the heat of midday, I started walking as soon as it was light enough to pick my footsteps. All morning I hobbled along the left shore, trying to keep my weight off my right foot, which was rapidly becoming lame. The two woolen socks had already worn through in several places, so I turned them over and lashed them around my leg with rawhide.

Mille Crag Bend, named by Powell for the thousand pinnacles on its curving walls, marks the lower end of Cataract Canyon. I had been telling myself since Sunday night that my troubles would be over on passing the last cataracts at the bend. But, when I got there at mid-morning, I found the walls just as steep and the mud banks as slimy as they had been above. I slowly completed the 180 degree turn to the north and then the river turned abruptly into a steep aisle, 5 miles long, called Narrow Canyon, heading due west. Actually there is no break in the canyon walls to distinguish one canyon from the other. Just inside Narrow Canyon I followed an undercut shelf for a few hundred feet to the next patch of shore. The ledge ended at the head of an overhanging chimney and I had to jump for it, falling about 10' on to a steep pile of rubble and getting scratched and bruised.

The narrowing canyon walls crowded the talus slope more and more into the river. At noon I had to leave the shadow of the southern wall and swim across to the right-hand shore. My strength had ebbed rapidly in plugging along the sun-scorched rocks. My jury-rigged headgear blew into the river every few minutes, but I needed the protection and I always recovered it. Then a welcome shelter opened itself to me -- a huge cleft boulder that offered a shaded seat. I gratefully retreated into its riven entrance and there I rested during the noon hour, too weak to lift my head. Like a Rock of Ages this shelter strengthened me to the point where I could again take an interest in life. Feeling

that the exigency justified my action, I ate one of the four oranges. This revived me further and several long drafts of river water allayed my thirst.

For the first hour after resting I barely managed to stagger along the right bank, picking a painful way over heaped scree along the canyon wall. Then I felt a little better and struck a faster pace, determined to get out of Narrow Canyon by nightfall. Twice I scrambled up the wall through dense scrub growth to avoid banks of mud and quicksand along the river. Fortunately a rim of rock, 40' above the water, allowed me to pass safely. When this ended after a quarter of a mile, I had to resort to the mud banks again. Once I sank through the crust above my knees in a nauseous pool of red and blue muck, seemingly bottomless. When I dragged myself out I almost lost the socks on my right foot despite the rawhide thongs. The mud bank gulped and sucked noisily after I had extricated myself.

Straight down the aisle ahead I could see a sharp peak framed symmetrically between the canyon walls. This was Mt. Hillers, 10,650', some 20 miles away in the Henry Mountains west of the Dirty Devil. Powell named the peak for his faithful photographer on the second expedition, Jack Hillers, the youth born in Westphalia, who remained with Powell many years in the U. S. Geological Survey. His photographs, laboriously made nearly a century ago by the wet-plate process, are still among the finest ever taken on the Colorado.

Half way through Narrow Canyon I saw I would have to navigate most of the remaining three miles to the mouth of the Dirty Devil, since both walls dropped sheer into the river. There being no other choice, I stripped again and prepared for a long swim. The current didn't help me, since the sluggish water hardly moved. I swam steadily for half an hour, using the breast stroke, until I had to float and let the life jacket bear my full weight. After resting a while I was able to paddle along for a hundred yards more. Thus, between floating and swimming, I came at last to the lower end of Narrow Canyon. I could hardly drag myself out of the water when I reached a small patch of shore on the left bank across from the Dirty Devil. Through a V-shaped gash in the cliffs of the other shore flowed the stream after which I had so optimistically named my scow. Powell's party had discovered the mouth 62 years before:

"As we go down to this point we discover the mouth of a stream which enters from the right. Into this our little boat is turned. One of the men in the boat following, seeing what we have done, shouts to Dunn, asking if it is a trout stream. Dunn replies, much disgusted, that it is a "dirty devil" and by this name the river is to be known hereafter. The water is exceedingly muddy and has an unpleasant odor."

Later Powell seemed to regret the unsavory he had chosen and decided to call the stream the Fremont River in honor of "The Pathfinder", who had followed its upper course in 1843. Although fastidious geographers tried to enforce this change of name, the Dirty Devil it is called today, on recent editions of several maps and by the ranchers along its shores, and the Dirty Devil it will be called for a long time to come.

Any thought I might have had about trying to go up the Dirty Devil to Hanksville, 60 or 80 miles by the winding course of the canyon, vanished when I looked at the forbidding walls which hemmed in the river's course as far upstream as I could see. According to the map the distance was now only 2 miles to the beginning of a river road at the mouth of the North Wash. This route led 5 miles downstream to Hite, passing a cabin on the way. But the map gave no clue to the route overland north to Hanksville. In any case I saw that there was trouble ahead before I could reach Hite. The northern shore of the Colorado rose in a precipice and, on my side, a bold headland projected far into the river and gave me some doubts about its easy passage.

I determined to find a way overland, if any existed, since I felt I had done enough swimming for a while. I fought a path through scrubby holly thickets and worked up the face of a sandstone cliff till I found a trail made by mountain sheep, 200' above the river. At three places I almost admitted that the sheep were better mountaineers than I, but, in the end, I was always able to pass, sometimes nearly slipping off the cliff when the friable rock crumbled under my weight. Then I came to the point of the headland, a sharp cape with a huge standing rock at its extremity, eroded from the massive sandstone bench. The sheep trail entered an intervening chasm and somehow climbed through it onto a plateau. By scrambling up a holly clump I got a slim foothold on the last 10' rise of the cliff and, in a few minutes more, I was on the plateau.

It was an easy hour's walk along the sandstone bench and down to a sandy beach opposite the mouth of the North Wash. For the last time I stripped, drew my clammy life vest, with its heavy load, around me, and pushed away for the other shore. I was thoroughly chilled and shivering violently when I pulled myself out on the northern bank in the late afternoon. Since I was in the cliff's shadow, the dry flannel shirt from the rubber sack was welcome.

A short walk brought me to the mouth of the North Wash, a deep cleft that cuts through the barrier of the Orange Cliffs and discharges the runoff of thunderstorms into the Colorado. On either side of its mouth I could see the sheer walls rising for 500' to the sterile upland. On the eastern side of the wash I found a cave-like den beneath an undercut cliff. Human hands had added a rough lean-to shelter and, on the rock wall of

the cave, a crude feminine figure had been traced in soot from a candle flame. Below it were the letters "Kate Smith", a sure sign that I was approaching civilization. Archaeologists of a thousand years from now may conclude that a cultural link existed between the vanished North Wash cave dwellers and the prehistoric Grimaldi race of southern Europe, who carved plump figurines in ivory. I found signs of recent occupation in the lean-to and dim wagon tracks circled nearby. But I could not determine which way they were heading -- up the wash to Hanksville or down the river towards Hite. Since it was only a mile and a half to the first cabin on the river road I decided to walk down before nightfall. I picked up the road that was shown on the map; actually just a pair of faint ruts high on a red shale terrace under the Orange Cliffs. I followed them as best I could across a broad bench for about a mile and then down through an arroyo to the flood plain where the cabin was situated. My heart sank when I stumbled out of the ravine and found the deserted log cabin on the river bank, its broken door swinging in the wind.

By this time the sun was setting. I had come 15 map miles down the river canyons since morning, a day's work that had included many extra miles of scrambling. At least I had roof over my head for the night for the first time since Moab. After drawing water from the river with some difficulty, since the entire shoreline was a treacherous bog, I fixed a supper of one onion, boiled this time, without butter. The cabin had a wide stone hearth where I cooked my meal. Although I had no appetite, and my stomach was growling, I ate the meager slices and drank off the watery broth. After supper I was so tired that I stretched out by the fire and inadvertently fell asleep on the earthen floor without even wrapping up in the rain coat.

CHAPTER XX - IN GOD'S POCKET

I was so stiff and cold on awakening Wednesday morning that I could hardly stand up. After I had limbered up the muscles in my legs by massage and exercise, I began the 4-mile walk along the river road to Hite. Gradually the lame muscles felt better and I hit a steady pace, although my right foot was badly bruised and blistered.

The road followed a line of low cliffs crowded close to the river. The wagon tracks meandered dimly ahead and other signs of man were evident -- a campsite, a wire fence, and rusty cans. My apprehension grew as I approached Hite. If the place were deserted, I did not even know the way out of the country to Hanksville, some 45 miles north in an air line. There are several possible routes such as the North Wash, Trachyte Creek which enters the Colorado just below Hite, and the lower washes such as 2-Mile Creek and 4-Mile Creek. Since my physical reserves were nearly gone, I could not

afford to make a mistake with the necessity of doubling back, if I lost myself in a blind canyon.

I hardly dared look ahead as I walked around the last turn through a grove of willows. And then I was there -- standing before two empty log shacks that were falling into ruin. It was evident that they had not been lived in for several years. Over the door of one cabin was a dim penciled sign "Post Office", still legible from the days when Hite was a center for placer mining along the upper end of Glen Canyon.

My let-down on finding the ranch abandoned was hard to overcome. I ransacked both buildings in the vain hope of finding someone's cache of food, but all I found around the ranch was a litter of empty cans and old bottles. These relics made me realize that I was really getting hungry. At a low ebb of energy I decided to spend the middle of the day at Hite and escape the sun's heat. I filled some old mason jars with river water and settled down under the twig and adobe roof of a sagging porch to reflect on my situation. My food supply was nearly gone. I was already weak and lame. It was 50 or 60 miles to Hanksville by whatever winding route I decided on. I did not know which of three or four routes to take and the usual waterholes were probably dried up by the long drought. In the face of these uncertainties I gave way to an overwhelming lassitude and took a nap in the early afternoon.

I woke up once to see a large yellow snake in the twigs of the roof over my head. As it stretched its neck down a foot or more to look me over, I looked it over, too, and visualized a delicate morsel of snake meat for lunch -- at least it would be sweeter than the dismembered grasshopper I had roasted experimentally. A few wild shots from my revolver sent the snake back to its hole, puzzled but unscathed. I also wasted half a dozen rounds on a brace of mourning doves in a dead cottonwood; they didn't seem to mind my target practice and finally flew away in boredom. Then I loaded some high-speed .22 long cartridges and took careful aim at a magpie, holding the revolver with both hands. The heavy charge burst the shell around the rim and lodged a fragment in one of my finger tips. It gave me half an hour's diversion to pick the piece out with my pocket knife.

While stretched out beneath the sagging porch at Hite I began to observe the world from a new viewpoint --- one that showed my actions in a truer perspective. The futility of my wanderings since leaving home suddenly struck me and I realized that my efforts had been doomed to sterility from the start. The hawks that flew around the cabin so fast that the wind whistled through their wings, the two cooing doves, and even the lizards that scampered around my legs, seemed to be engaged in activity more fruitful than mine.

As the sun declined in the west my energy slowly returned. A walk around the ranch showed that the wide out-wash plain towards the mouth of Trachyte Creek had once been cultivated, for there was still evidence of old ditches and furrows. Cairns and claim stakes on the bench above the cabins attested to the former gold prospecting endeavors in the area. I had noticed many claim stakes along the river below Mille Crag Bend, reminders of the indefatigable prospectors whose wanderings throw doubt on those who say they have discovered valleys in the West never before trodden by the foot of a white man. The absence of old tin cans and footprints does not prove that a region has not previously been visited by a prospector, archaeologist, or geologist.

The map showed that the road ended at Trachyte Creek, where it was succeeded by a trail that continued along the Colorado for a few more miles. Since the other end of the road stopped abruptly at the North Wash, I was not sure of the usual route north to Hanksville. By carefully inspecting the wagon tracks and hoof prints I convinced myself that the latest tracks were heading east and, therefore, the outfit had left the country up the North Wash. I decided to end my day of inactivity and retrace my steps for six miles to the cave at the mouth of the wash to be ready for an early start overland for Hanksville the next day.

Before leaving Hite I cleaned out a mason jar and an old kerosene can, putting them in the rubber sack to use later for carrying water. The remaining camera did not seem to justify its weight; rather than discard it later on the desert, I left it in the old Post Office, where I hoped that someone would find it and put it to good use. I stuck a note under the camera saying that I hoped to reach Hanksville via the North Wash.

It seemed like a long walk up the wagon tracks to the cabin where I had slept the night before. I left another note there and continued across the terrace at the foot of the Orange Cliffs. The sun was setting as I slowly walked along the base of the huge wall. The normal reddish tint of the sandstone walls was accentuated by the vivid orange glow of sunset. Mesas and buttes, 40 and 50 miles away to the southeast, loomed sharply against the sky, brilliantly colored by the sun. Nearer at hand the broken plateau fell abruptly into a dark confusion of cliff, pinnacle, and gorge that marked the lower end of Cataract Canyon. A stillness like that of death seemed to brood over the region; only the river moved in that silent land of tortured sterility.

The clear air chilled quickly in the shadow at the bottom of the wash. At the combination cave and lean-to I built a large fire for warmth and boiled half of my last onion for supper, saving the other half for breakfast. I wrapped up in all my clothing and stretched out on a wide plank inside the shelter, the smoothest bed that I could find.

Glad of the prospect of action on the next morning after the futility of the day, I fell asleep almost before it grew dark.

The shelter of the cave allowed me to sleep soundly all night on my narrow wooden mattress undisturbed by the ghosts of wanderers, human or subhuman, who had sought refuge there during the past centuries. I awakened early on Thursday, very stiff and cold and again had trouble in standing up, until I massaged my leg muscles.

A vague yearning for breakfast tempted me to try my marksmanship on a flock of magpies in some willows, with the usual luck. After consoling myself with the last bit of onion, which I ate cold, I crossed a wide gravel bar to the Colorado and sat by the river at least 15 minutes, drinking as much water as I could hold. Not knowing whether there was any water up the North Wash I hoped to saturate myself while I had the chance. I filled the mason jar and kerosene can and improvised a cover and carrying sling for the jar by ripping up a piece of my raincoat.

About an hour after sunrise I headed up the North Wash with doubt in my mind about finding water along the way or tracing the dim wagon tracks to Hanksville. A last glance at the Colorado flowing calmly into the upper reaches of Glen Canyon brought twofold regret: chiefly because I could no longer ride its current and, secondarily, because it represented the only thing drinkable within an unknown number of miles.

The first four miles of my route wound through a labyrinthine gorge in a series of narrow loops and hairpin bends, with vertical sandstone walls rising 500 to 800 feet above the floor. The canyon bottom was of hard-packed sand and gravel, waterwashed by the last flood and, since then, almost completely dried out. Occasionally there were soft sand patches still moist, showing that, in some places at least, water lay not far below the surface.

The North Wash, which was named Crescent Creek on the first U. S. Geological Survey maps, was first explored in 1872 by a party from Powell's second expedition. One of the damaged boats from Cataract Canyon had been left at the mouth of the Dirty Devil. When the party reached Lee's Ferry for the winter, Powell sent back a group, led by A. H. Thompson, to traverse the country north of the Colorado to the Dirty Devil, repair the boat, and return to Lee's Ferry by water. The party included Jack Hillers and Frederick S. Dellenbaugh, the first Colorado River historian. They encountered rough going among the steep washes of the northern plateau, crossed the high ridges of the Waterpocket Fold and the Henry Mountains, and descended into Crescent Creek. Following this to its mouth they made their way to the Dirty Devil and found that, in their absence, high water had swept within a few inches of the abandoned boat.

I had a hot and dry morning since I decided not to drink any of my water supply until afternoon. Towards noon, however, I was delighted to find a good waterhole in the shade of some massive boulders. After drinking as much of the clear, cold water as I could hold, I refilled the containers, which had warmed up during the morning. Greatly encouraged, I kept on steadily till afternoon, trying to keep in the shadow as much as possible. Every two miles from there I found another waterhole. But, since I never knew which would be the last, I always stopped and had a good drink, like a sailor on the Bowery.

About 1 o'clock I rested for an hour at a point where the canyon split into two branches. A triangular patch of gravelly bottom land, grassy in spots and overgrown with young willows and cottonwoods, extended down the middle between the divergent gorges. The beauty of the clear deep-blue sky, carved red canyon walls, and dusty green grass captivated me. After resting I looked over both branches of the wash and decided to pick the one coming down from the northwest instead of the eastern branch. Wagon tracks a few hundred yards beyond confirmed my choice. Many times that afternoon I lost the tracks entirely where they crossed strips of bedrock or where drifting sand had covered them. Gradually the canyon walls decreased in height as the wash headed back onto the plateau. In the western wall of a wide glade I found a cave like the ones near Moab; crude picture writing adorned its walls and there was evidence of primitive burials.

About 3 o'clock some fresh cattle tracks showed up in the sand. Farther along were tracks of a horse and dog heading north. These signs that a cattle outfit had recently been in the country indicated waterholes ahead. The canyon grew more beautiful in its upper course. Glens and grassy glades branched off from the main valley. Water became more frequent and the canyon floor was carpeted with grass.

Towards evening I turned up a bend to the west through a rocky defile. Startled by the clattering of hoofs, I looked up to see two men approaching on horseback. They were prospectors going into the river region, their supplies loaded on a burro. They told me that a vanadium mine was located about 12 miles to the northwest and I should have no trouble finding it with a full moon for illumination. They generously gave me a can of peas from their limited food supply. Our meeting was so brief that I did not even learn their names.

Around the next bend I took a long rest near a waterhole. Since I was within reach of a haven at last I ate two of the remaining oranges and threw one away that had spoiled. I also discarded the kerosene can, but decided to hang on to the mason jar.

I hoped to reach the mine before nightfall and resumed a quick pace, following the tracks of the prospectors wherever there was a choice of routes. At sunset I stopped at a waterhole in a meadow enclosed by red rock walls. I lit a clump of dead sagebrush, opened the can of peas with my pocket knife, and warmed the can over the fire. While the full moon rose over the canyon and the orange glow faded in the west, I devoured the peas and drank off the warm juice; I have never tasted anything better. Then I stretched out on the grass and rested. Again, as at Hite, I mused in the silent land and mulled over my basic goals. Was I right in seeking the solitary, wandering life of a would-be Ulysses? The very grasshoppers mating on the sagebrush mocked the emptiness of my purpose.

I continued up the wash by moonlight and felt strong enough to walk all night, if necessary. Fortunately there was no need to do so. A few miles beyond the place where I had eaten, well after dark, I nearly bumped into a cowboy in the shadow beneath some willows. He looked at me in surprise and then stuck out a huge paw, saying: "My name's George Waldamont".

In a few sentences I told him about the wreck in Cataract Canyon and my subsequent wanderings. He took me over to a loaded wagon where two grizzled prospectors were starting to build a fire. In the moonlight their seamed, deeply-tanned faces looked like old mahogany. Billy Hay, the boss of the outfit, welcomed me with a rich brogue and introduced me to his partner, Tobe Barnes, of Grand Junction. They were not a cattle outfit, as I had thought at first. Barnes and Billy Hay were going into the Colorado for a winter prospecting trip down Glen Canyon and George was taking in their supplies with his team. The wagon was piled high with a load of lumber for a boat they intended to build at the mouth of the North Wash.

I relaxed by the fire while Old Billy prepared supper: salt pork, canned corn, potatoes, skillet bread, and coffee. As far as I was concerned, the can of peas only served as an appetizer. After finishing this hearty meal we sat down around the fire, spinning yarns about the river and the canyon country. Billy had made a number of trips on the Colorado between Hite and Lee's Ferry, but had never navigated the rough waters of Cataract Canyon. He had found his way down to the river from the rim of Cataract Canyon several times on such missions as searching for gold, hunting bighorn sheep, or driving cattle, when the season was wet enough for them to forage that far south. Billy told many stories about Hite in the old days when it was flourishing ranch and placer mining settlement. Johnny Hite at one time had irrigated the bench at the mouth of Trachyte Creek, but the flow gradually dried up until the bench reverted to the desert. No one had lived in Hite for 8 or 10 years.

Billy confirmed the wisdom of my decision not to go up through the canyon of the Dirty Devil. Sheer walls rising above quicksand shores formed an almost insuperable barrier. "Aye, she's a Dir-rtly Divvil", was his laconic comment. After hearing his yarns about the Colorado canyons and the few insane survivors from Cataract Canyon who had been found stumbling across the desert, I tended to agree with Billy when he said: "Young feller, you was sure in God's pocket!"

George and I crawled under a bundle of quilts for the night beside the wagon and the champing horses. But I slept little because of the coffee and the sudden change of diet. My stomach seemed surprised that its apparently permanent vacation had ended.

After a good breakfast at daybreak I helped the men pack their outfit and get under way. Before leaving I gave them my life jacket, which would be of no further use to me except as a means of carrying the rubber sack. Tobe, who could not swim and who had become nervous at my rough-water story, insisted on giving me two silver dollars in return. Except for this generous payment I did not have a penny; the empty wallet was still in my pocket, but the \$20 bill had been lost with the duffle bag.

When everything was loaded Billy and his crew pushed off to begin a journey down the Colorado where I had left it. I said goodbye to my benefactors with regret. They were generous hosts and cheerful companions.

CHAPTER XXI - HELL OR HANKSVILLE

Friday was another hot, cloudless day. When the lurching wagon and the riders had disappeared down the canyon in a dusty cloud, I turned to the north and began again the painful business of putting one foot ahead of the other.

Billy said that I had walked 20 miles up the North Wash from the river on Thursday and that it was only six more to the vanadium mine. He told me to follow his wagon tracks from the day before, up the North Wash for a short distance and then west through a side canyon to the mine. I started off in high spirits with the rubber sack slung over one shoulder by a rawhide thong. I still carried the glass jar full of water, although a small amount spilled through the make-shift cover at every step.

It was easy to trace the fresh tracks made by the loaded wagon and the horses. The fog of anxiety I had known for the past five days was gone, dissipated by the sun of Billy's kindly nature. My tranquility was undisturbed when I saw a herd of beef cattle lumbering up the canyon at full speed several miles beyond our campsite. They had pawed the earth so vigorously that every trace of the wagon tracks was gone.

In a short while I reached what I thought might be the canyon turning off to the mine, but now I was on my own because Billy's tracks were obliterated. I headed up the gulch to westward for a mile or so, finding nothing but cattle tracks from one wall to the other. Since the canyon began turning to the south I decided I must be wrong. I doubled back to the fork and turned due north up the principal branch, still on the lookout for a side canyon. Mile after mile slipped by as the sun climbed higher. The canyon had broadened into a wide wash or arroyo, sun parched and dusty, its floor strewn with white round boulders as big as basketballs. In some places the dry river bed, occupied during storms by a stream of torrential power, extended across the valley for a 100 yards. Water disappeared entirely as I climbed onto the plateau and the sheer walls gradually broke away into low clay hills, gullied and ribbed by erosion.

At last, near noon, I could not even pretend that I was still on the path to the mine. Obviously I had missed the side gulch completely. Now I was well-up onto the plateau. A dim trail -- two old ruts -- meandered up the shallow gully due north to the top of the tableland.

I debated for a few minutes whether to turn back for the mine or to continue across the desert 25 miles or so to Hanksville. I still had a pint of water sloshing in the jar and a can of tomatoes that Billy had given me. I felt strong enough to push on till midnight. Rather than turn back and take a chance on losing the way to the mine again I decided to make my way across the upland to the little settlement on the Dirty Devil, following a line slightly west of north by the compass.

This decision was not altogether reasonable. A streak of stubbornness asserted itself and I determined to push on to Hell or Hanksville.

In a few more miles I emerged from the shallow head gully of the North Wash and stood on a high desert plateau with a clear sweep of the country in all directions. I found myself in the midst of a region weird almost beyond description, the true nature of which had remained concealed from me on the long grind up the North Wash. It was a land in which erosion had clawed the earth unchecked by vegetation of any kind. Soft clay deposits had been gouged into raw gorges, gullied mounds, and gashed terraces. The landscape nearby resembled the Badlands of the Dakotas at their worst. Then, from the rolling tableland where I stood, the ground fell away to the east into the drop-off marking the labyrinthine canyons of the Dirty Devil. In the west the plateau was slashed by the corroding headwaters of Trachyte Creek into a thousand seracs of clay. Far to the northwest the blue, hazy Henry Mountains "Henry Mountains: why named", named by Powell for the noted Secretary of the Smithsonian Institution, rose in a jagged wall

from the terraced plain. Away to the south the land broke off sharply into the "breaks", so characteristic of the Southwest -- the lines of cliffs and terraces at the end of a mesa or plateau.

It takes the vivid impressionistic prose of Zane Grey to do justice to the grim wilderness between the Henry Mountains and Cataract Canyon. The following is taken from "Robbers' Roost", a novel of the Dirty Devil Country:

"Nearer and to the left there showed a colossal space of rock cleavage, walls, and cliffs, vague and dim as the blank walls of dreams until, closer still, they began to take on reality of color and substance of curve and point. Mesas of red stood up in the sunlight, unscaleable, sentinels of that sepulchre of erosion and decay. Wavy benches and terraces, faintly colored, speckled with blue and gray, ran out into the void to break at the dark threads of river canyons.

"All that lay beyond the breaks of the Dirty Devil.

"Here was a dropping away of the green-covered mountain foothills and slopes to the ragged, wild rock and clay world, beginning with scarps of gray wash and rims of gorges and gateways of blue canyons and augmenting to a region that showed Nature at her most awful, grim, and ghastly, tortuous in line, rending in curve, twisting in upheaval, a naked spider web of the earth, cut and washed into innumerable ridges of monotonous colors, gray, drab, brown, mauve, and intricate passageways of darker colors, mostly purple, mysterious and repelling. For miles not one green speck! Down in there dwelt death for plant, animal, and man."

As I trudged along in the heat of midday I began to realize how helpless a man on foot becomes when placed in the midst of the desert. On horseback one has a chance of getting somewhere. In relation to the blue sawteeth of the Henry Mountains on my left and a row of buttes 20 miles or more to my right, I hardly seemed to move from one hour to the next.

At noon I reached a narrow road which winds from the vanadium mine into Hanksville. According to my calculations I was nearly half way between our camp of the night before and Hanksville. Soon after reaching the auto road I took my first rest of the day, on an eminence called "Lone Cedar Flat", where the only tree in 20 miles cast a small shadow. After dozing an hour I woke up refreshed and continued across the wavy desert. Many miles to the southeast I could see a deep notch on the skyline where

Cataract Canyon bit into the plateau. It seemed incredible that I had covered the intervening distance afoot. It was my farewell look at the Colorado Canyon Country.

My route to the north lay across an undulating upland that was broken from time to time by raw arroyos draining east from the Henry Mountains into the Dirty Devil. As the road dipped into the freshly-scarred gulches I searched them vainly for water. I was becoming thirsty, but decided to save what little water I had as long as possible.

All afternoon I stumbled along in the dust, my glance seldom raised higher than the ground two feet ahead of me, except when I limped to the summit of a crest of rolling land, when I could strain my eyes ahead, hoping to see the other side of the plateau sloping down north to Hanksville. Time after time I mounted the frozen waves of desert. But all that I ever saw was a glimpse of more shimmering ridges stretching ahead. The Henry Mountains slowly passed by on my left side until, late in the day, they lay behind me. Deep in the ravines on their upper slopes I could see timber - which meant moisture. Although I hadn't drunk a drop of water since breakfast, I didn't touch the remainder in the mason jar.

At last the hot sun sank behind the mountain peaks in a bath of crimson and the moon rose over a weird line of buttes, 50 miles away, near the Land of Standing Rocks. A herd of 30 or 40 magnificent wild horses stopped walking over the plain long enough to watch me closely from a distance of several hundred yards. Suddenly, as if given a signal, they wheeled in formation and thundered away in a disappearing cloud of dust.

By evening I was approaching exhaustion. Just before dusk I sank down near the road and opened the can of tomatoes that Billy had given me that morning. The liquid and the moist pulp refreshed me greatly. When I resumed my hobbling walk along the road I noticed a dust cloud coming up from the direction of Hanksville. In half an hour the truck that was causing the dust reached me. It belonged to the vanadium mine and was being driven in with a load of provisions. The driver, a husky chap named Ekker, gave me a drink of water from a desert water bag and let me have some sweet, ripe peaches. He told me I was about 9 miles from Hanksville.

When the truck had gone I ambled along with renewed energy, resolving to reach town that night. The evening was cool and the road unmistakable in the moonlight. But, in my impatience to arrive, I forgot how long 9 miles can be under the best conditions. Hour after hour seemed to pass with no result. It was the longest 9 miles I had ever walked. A dozen times I thought I saw a cluster of houses ahead in the moonlight, only to realize that I was looking at a row of rocks. I was having hallucinations by the time that the road finally dropped down a high escarpment into the Dirty Devil Valley. Lights

flashed before my eyes and every rocky outcrop was a monster or a demon. At last, a little after 10 o'clock, I indisputably saw a row of Lombardy poplars near the river. A barn and a haystack loomed out of the shadows. At the edge of the village a man was tending an irrigation ditch and singing "The Utah Trail" in the moonlight. In that setting it seemed altogether appropriate.

I walked up to the other side of the irrigation ditch and, in a feeble, croaking voice, tried to explain my appearance. I had little success at first. Finally, making some sense out of my incoherent discourse, the man showed me the way around the deep irrigation ditch and walked with me into the village. His name was Raymond Maxfield and he had just returned from a 2-year mission for the Mormon Church into Minnesota. It was his first night back in the old homestead with his bride. He took me to his ranch on the other side of the village where I spent a few minutes trying to drain his cistern dry. I was glad to throw away the mason jar and its unused contents. He gave me a comfortable bed on the porch of a small log cabin; there I sank into a bundle of quilts in thankful exhaustion.

CHAPTER XXII - FAREWELL TO THE COLORADO

Late the next morning, when I finally awoke, I found myself in a paradise. The clear irrigation stream bubbled past the cabin where I had been sleeping and leafy orchard shaded the grounds. Into the distance green hay fields stretched between rows of Lombardy poplars.

When I tried to get out of bed I found that I had become stiff and sore in every muscle. A blister the size of a half-dollar rose under the thick hide of my heel where the tattered socks had worn completely away. My ragged, mud-caked clothing, my bleached hair, unkempt and uncut, and my unshaven, sunburned cheeks, marked me as a desert rat from the Canyon Country.

The inhabitants of the substantial log ranch house were also just bestirring themselves. I met my gracious hostess, Mrs. Maxfield, as well as Riter Ekker, brother of the driver I had met the day before, and Mrs. Ekker. About 9.30 we sat down to a breakfast that seemed more like a banquet -- cereal and cream, pancakes, eggs and bacon, tomatoes, hot biscuits with preserves, and milk. After the others had finished they sat fascinated by my appetite till late in the morning, while they told me tales about Billy Hay and the Canyon Country.

When I enquired about getting overland to Green River on the railroad, Raymond Maxfield advised me to go up to the main road in the village where he thought I might

have a chance of picking up a ride for the 60 miles across the desert. I thanked him for his generous hospitality and hobbled through the little Mormon settlement to the post office. Since there was no store of any kind in town I looked around for someone with whom I could make a trade. A lanky cowboy ambled towards me from a side street. I hailed him and started a conversation; he was Clive Meacham, a sheep- and cattle-rancher. Squatting on the heels of his fancy cowboy boots in the shade of some poplars beside an irrigation stream, he listened to my proposition. I told Clive that I would be willing to trade my revolver for a watermelon, a pair of old shoes, two meals, and a place to sleep for the night in case I couldn't get a ride across the desert. He considered the deal at length, inspected the revolver closely, and then said that he would accept. That was the last time we mentioned the business of bargaining; after that I was his guest.

We walked to a small log house and lolled around on the lawn under the poplars. Presently, Clive brought two ripe watermelons from the garden and went to fetch a pair of old shoes. I tried them on and found they fitted perfectly. All through the rest of the day Clive and I sat under the trees, eating watermelons and cantaloupes, enjoying the idyllic life of lotus eaters. Now and then neighbors dropped by to spin a few yarns and share the sweet fruits of the garden.

Clive lent a sympathetic ear to the story of my 40-mile walk on the day before; his horse had once run away near the rim of Cataract Canyon and he had walked 30 miles back to camp on his high-heeled cowboy boots.

At noontime we had a full dinner of corn, squash, potatoes, and gravy. Clive, his brother, and I ate our fill and then retired to the lawn. Then the womenfolks and the children had their time at the table. Late in the afternoon I walked to an irrigation ditch behind a clump of trees for a bath. That night we had another meal of fresh vegetables.

Clive and I got along well. He explained that the summer's work of haying had just been finished and that the men around town were enjoying a loaf. Hanksville consisted of about a dozen Mormon families, most of them related. They owned extensive rangelands grazed by cattle and sheep for a radius of 30 or 40 miles from town. One member of a family at a time went out with the stock while the rest did the work around town -- the irrigating, haying, and fruit picking. Almost everyone in the village was wealthy in terms of livestock. Clive pointed out a little girl running around in rags who owned 800 head of cattle on Waterhole Mesa.

During a moist season, the stock was taken as far south as Cataract Canyon along the plateau. In the drought years of the 1930's, however, the herds stayed close to the Dirty Devil which, at Hanksville, flows through an open valley before entering its tortuous

canyon. The country I crossed from Hite, once a good cattle range with abundant grass, had become a virtual desert. Its story is a vivid object lesson in the need for good soil conservation practices. In the 1870's, when Hanksville was settled, the surrounding countryside provided a lush cattle range and the Dirty Devil was a pretty little river flowing between green banks. The number of cattle increased and then sheep were introduced and allowed to range without control. They grazed so closely, and their sharp hooves cut the sod so badly, that the hillsides began to gully during rain storms. After several decades of this abuse, the Dirty Devil became a raging torrent following each thunderstorm, but was reduced to a muddy trickle between rains, lost on its wide, sterile floodplain. The river and its tributaries were eating back voraciously into the clay hills. In the Spring of 1933, a flood came off the Henry Mountains through a little ravine in Hanksville and chewed away acres of good irrigated land.

Clive told me that, since the Hite Ranch was abandoned a number of years before, George Waldemont had the only ranch near the Colorado, some 20 miles up Trachyte Creek. There he lived alone, many miles from the nearest settlement, coming into town only once or twice a year. Clive, himself, had spent an entire year with his family's sheep herd in the Henry Mountains, protecting the stock from bears and pumas. At times, when the flock was unguarded, bears had occasionally slaughtered a dozen ewes in an evening, ripping off their udders for the milk.

He said that sheep can go for 30 days without water, if the range is moist and the grass juicy enough. Once a year the Hanksville ranchers drove their sheep across the desert 60 miles to the railroad at Green River. The herd of wild horses that I saw on the plateau were known to range 60 or 70 miles from the nearest water hole. A short time before some dudes had come in with airplanes to round up the horses for dog food, but the herd had broken out of a corral in which they had been trapped.

Clive told me that Phoenix Jim Bridger was still alive and working for the Meacham Boys with their 2500 head of sheep in the Henrys. Phoenix Jim was the half-breed son of the Jim Bridger who was almost a legendary figure in the history of Western exploration -- the trapper who brought tall stories of the wonders of the Yellowstone Country and embellished them so vividly that the basis of truth in his statements went unrecognized. Long before the journeys of Fremont, Jim Bridger was trapping beaver in the canyons of the Green River and trading with the Indians from the Yellowstone to the Rio Grande.

Clive was as much interested to learn about city life Back East as I was to learn about the customs of this remote little ranch town. He had been to Green River several times on the annual sheep drive and had visited Grand Junction once. The chief thing that

impressed him about life in Grand Junction was that shop keepers wash off their sidewalks every morning with water, that precious fluid so highly-prized along the Dirty Devil. Clive liked to read magazine stories about life in New York City in the same way that a shoe clerk on the East Side devours Western stories in the pulp magazines.

Before we turned in that night Clive arranged to get me a ride across the desert with Herb Webber, who was driving to Green River the next day. Clive lent me some blankets for the night and I found a comfortable berth in the shadow of a haystack. It was a clear, cold night, with the surrounding region beautiful under the moon.

After breakfast with the Meachams on Sunday morning, I told them goodbye and thanked them for their bountiful hospitality, which had far exceeded the agreement between Clive and me. On the way to the Webbers I could not help noticing that several young ladies were just getting up from their beds, which had been moved into the front yards for the hot weather in accordance with an old Hanksville custom. I had to admire the dexterity they displayed in changing from sleeping garments to dresses in public.

Just before I left town one of the inhabitants, who knew Cataract Canyon more by reputation than experience, asked me, "What did you ever have against yourself to want to go down into that place?" I'm afraid that I was not able to give him a very satisfactory answer and I must admit that I had spent considerable time since then asking myself the same question.

Herb Webber was ready to leave at 10 o'clock. Four of us crowded into the little sedan among heaps of baggage and were soon on our way across the Dirty Devil east into the desert, away from the pleasant fields and orchards of Hanksville, separated by rows of Lombardy poplars into a waste of sand, rock, and clay, through which wound two faint ruts. Herb's uncle, whom I had met on the mine truck Friday night, accompanied us. He had come into Hanksville to get signers on a petition to the State of Utah, to build a road across the desert to Green River. The only existing road from the outside world came into this settlement from the west, down the upper valley, thus making the distance to Green River some hundreds of miles unless one had the hardihood to take his automobile over the short-cut that we were following.

The other passenger was Herb's young son, who was taking his first trip out of Hanksville in order to go to school for the winter in Green River.

We had rough going for the first two hours -- into gullies, around knobs, over sharp rises, and through heavy sand banks. Then we found easier going across an extensive plain south of a curious formation called the San Rafael Swell, a huge granite reef rising

out of the sand to a height of several hundred feet and stretching for a number of miles from east to west. This was the site of a major uranium strike in the 1950's.

Near noon time, under the hot desert sun, our crate coughed a few times and stopped. Herb announced that we were out of gas -- 30 miles out in the desert. Fortunately the tank was nearly full and the trouble centered in the vacuum tank. After siphoning out some gas that we ran into the vacuum tank, everything went well for another 10 miles until we scraped our pan on a high boulder and began to lose oil at an alarming rate. We plugged the hole with a stick of wood and drained oil from the hydraulic brakes to add to the little left in the crankcase. A few miles farther the engine overheated and we had to stop again so Herb could build a fire, melt a can of cup grease, and pour the liquid into the crankcase. We were all glad to turn in at a cattle ranch on the San Rafael River, the only habitation between Hanksville and Green River, where we replenished our oil supply.

The rancher's wife gave us a drink of water and all the watermelons and cantaloupes we could eat. But cattle-raising on the desert seemed to involve difficulties, for the San Rafael River was a bed of dry sand and the cattle had to be watered at a small artesian well.

We finally rolled down the hill into Green River at 4 that afternoon and no further persuasion was required for me to agree with Herb's uncle that a road was badly needed. With the \$2.00 that Tobe had given me, I went to the telegraph office in the railroad station, hoping to send home a request for money. When the agent told me that the local bank had closed the year before and there was no way to send funds into town by telegraph, I explained my situation and asked his advice. He said that the nearest town where I could have money sent was Moab and then Grand Junction, adding that a rattler was going east in the morning and the best thing I could do was grab myself an armful of box cars. This appealed to me as sound advice.

When I had rented a room for the night I bought a razor and some soap and, after three shaves, decided that most of my whiskers had been removed, along with some sunburned skin. My landlady promised to wake me up in time for the morning freight train; she said most of her guests left town that way.

Sure enough, she called me excitedly at 9 the next morning; the eastbound manifest freight was rolling down the hill to the water tank. I barely had time to dress, threw the battered rubber sack, smelling of rancid butter, over my shoulder, and run to catch the rattler before she pulled out. Climbing onto a flat car loaded with lumber, I perched on a huge fir beam beside a dozen hobos and began to accustom myself again to the

environment of the road -- the noise, wind, soot, vibration, and hearty companionship the professional tramps, absconding cashiers, reckless speed kids, sodden wastrels, and skylarking college boys, that told me that I was back where I had been three years before -- on the bum. The class of 1929 Hobo was on the road again.

With a mixture of emotions I watched the Green River flowing placidly beneath the railroad bridge as we highballed out of the yards. 125 miles below lay the Colorado and Cataract Canyon. Every successful Colorado River expedition had gone down the Green River from the little town that I was leaving. The bridge that we were crossing had been, for most of them, their last glimpse of civilization before entering the Canyon Country.

The train labored on the upgrade for many miles east of the river. I decided to unload at Thompson's, a settlement where the highway branched off for Moab, to call on friends like the Petersons, Mr. Marriott, Sheriff Skewes, and the forest rangers, and to see if I could pick up a job or maybe work in a C.C.C. camp. The station agent had told me the train would stop there. But, as we approached, she showed no sign of slowing down. I climbed down the iron side ladder of the flat car, tossed the rubber sack off, and hit the cinders, running forward as fast as I could. But the train was doing 25 or 30 miles an hour and I could not keep my footing. I took an "eggbeater" fall, as a modern skier would say, in a tangle of flying arms and legs beside the flashing wheels, sprawling on my chest in the cinders and skidding across to the next track. When I picked myself up I found a few cuts and bruises along my arms, but was not really hurt.

The risk I had taken proved to be vain for I stood at the highway fork all day long without getting a ride. The few cars that turned off for Moab did not stop. At noon a traveling art salesman, who I met at the gas station, invited me to the hotel for lunch. During the afternoon I often went into the crossroads store to buy cheese or candy bars for my gnawing hunger, till I had only a few cents left of the money Tobe had given me. The fat storekeeper took a fancy to my rubber sack, visualizing, no doubt, the fun he could have in using it with his customers as a grotesque, oversized coin purse. Every once in a while he would come out and offer me a little more for it. He got up to a dollar, but I always refused. Somehow it had become a symbol for me -- representing, perhaps, the last shred of my former glory as a Ulysses.

About 5 that afternoon I gave up trying to get to Moab and hailed a ride for Grand Junction. At sunset we were passing the high sandstone plateau near Westwater Canyon. North, on the Book Cliffs, we saw the bright blaze of a brush fire on the skyline, like an evening star. More than I realized at the time I had passed the parting of the ways to the future. Back towards Moab was the West -- the chance to become a

uranium millionaire, perhaps. More likely I would have built another boat, disappeared into the Canyon Country that fall, and never come out again. The road I was traveling to Grand Junction led East -- to white collar jobs again, a family, and a career in the Federal civil service, about as far removed as one can well imagine from the lone wolf life of the Colorado canyons.

For several years afterwards, in the late winter, I would draw up plans for a new cataract boat and write up a grub list. But I never made the break again. Gradually I capitulated, became a loyal organization man like my classmates in big business and big government, and joined the home guard at last. Today the Canyon Country seems as dim and shimmering as a Utah mesa 50 miles away on the noonday skyline. Like a Maxfield Parrish painting, filled with fair dreams and purple fantasies, the memory of the Colorado fades away to the far horizon.

THE END

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