

## Harvey Butchart's Hiking Log

### DETAILED HIKING LOGS (June 4, 1962 - March 16, 1963)

#### Nankoweap Basin

[June 4, 1962 to June 5, 1962]

Allyn and I sat around resting and eating on Sunday. He wanted to try to beat Willie Steinkraus' record of four hours and 47 minutes for the cross canyon trip on Monday morning. (He did break the record with a time of three hours and 56 minutes and again with an incredible time of three hours and eight minutes.) Bob Powers and I saw him off at 5:05 a.m. after which I set out to see Saddle Mountain and various points in the Nankoweap Basin. At first I had planned for it to be a five day trip, but I finally decided to spend three days at it. As I get older, I seem to be getting less self-sufficient, and between loneliness and my shoes coming unstitched, I turned around after spending one day going to the bottom.

First I drove outside the park and tried the road marked Saddle Mountain. I moved one fallen tree out of the way but I soon came to another that I couldn't budge. In trying to drive around it off the road, I got the car stuck and had to jack for at least 30 minutes to get it loose. I drove through some very pretty country but the road didn't seem to be taking me close to Saddle Mountain. In fact, from certain signs, I got the impression that it was going off the plateau down towards South Canyon. I turned around and went back to Point Imperial. I believe that I came to its end after an hour of walking from Point Imperial.

The huge burn has made the foot travel easier out this way. You don't slip on the pine needles, and you can see where you are better. However, the second growth aspen shoots are coming up and in a few years this will be almost impenetrable. I was careful not to climb the two outlier mountains of the main rim. I made the mistake of going too far to the north just before I was to go down the Coconino. However, I made the pleasant discovery of water in a ravine that seems to be the main beginning of Buck Farm Canyon. It's running so slowly that it probably dries up later in the summer. In getting down the correct ravine for the descent to the saddle, I also found a little water. There is a clearly man-made trail down into Houserock Valley, along the north side of Saddle Mountain, and also going down the south side of the saddle about 100 feet below the top of the Supai.

One of my objectives was to climb Saddle Mountain. After an obscure region of manzanita, I was gratified to come to a clear and helpful trail up the most logical place for a trail to go between the outcroppings of Coconino Sandstone. With this help, I reached the top in about 45 minutes. Surveyors have left a large rock cairn and also a board marker on top. The Summit is very different from the same elevation on the main plateau. It is only 8400 feet high, but it shows signs of timberline struggle with the gales. The pinyons look almost like bristle cones and are twisted and gnarled with many dead limbs and trunks showing great age for their height. The views of the canyon and desert were all that could be expected. That trip would be worth a hike anytime. I believe that driving into the burn on the rim makes the closest approach, but it would be very interesting to go from the end of the road in the buffalo range.

After lunch I took off down the trail into Nankoweap. Boyd Moore and I should have looked around before we headed out along the Hermit Shale. The head of the trail is in a small alcove at about the lowest

part of the saddle. Much trail construction is still in evidence and no difficulty is encountered for the first third of a mile. Even a few tree limbs have been trimmed, possibly by the man who told Dan Davis he wanted to take dudes down to see Goldwater's bridge. Abruptly the trail changes. For the next three and a half hours you're going along a trace where you often must test a foothold before you shift your weight. In a way this route takes more guts than climbing Wotan, because you are constantly exposed and know that one slip would be your last. I know just where the Las Vegas dude explorers lost one of the packs. I didn't remove my pack, but I got down on my hands and knees to get under an overhang. What amazes me is that the scientists in 1882 ever thought that they could build a horse trail along this narrow ledge, and it's something else that this ledge never quite pinches out for so many miles. (Actually, in 1882 the scientists went down the head of the valley, not this route.) If anyone wants evidence of current erosion, he only needs to notice how many tons of rock have fallen across this trail since the days of the horsethieves, or even since 1937 when McKee and others took stock over this trail. It's obviously impossible now. About one-fourth of the way along, below the top 100 feet of the Supai cliff from the saddle to the top of the Redwall at the head of Tilted Mesa, the walking is fairly easy. On the east side of the bend at Marion Point, there are some good overhangs that would be protection during a storm. In fact, there are signs of a rock windbreak and some charcoal here.

It was 4:30 p.m. when I got to the upper end of Tilted Mesa so I thought I would undertake the second of my projects for the trip, going down Tilted Mesa and try for the top of Barbenceta Butte. I had been able to keep going steadily since morning with almost no rest, but on the way back I at last felt quite weary. The drop in altitude was almost as great as going to the level of Nankoweap Creek directly below where I left my pack. Unfortunately, I forgot my camera on this detour. Barbenceta is an interesting residual of Supai. Unfortunately for my project, the cap rock is overhanging slightly all the way around and the one crack I could see would only accommodate a single finger. Since I'm not that sort of climber, I built a small cairn ten feet below the top and went away. Two people with a rope could sling it over the top and one could climb the rope while the other held the other end. The rock is only about eight feet wide and ten feet high. I was tempted to go to the bottom of the Little Nankoweap Wash above the drop-offs that stopped me on a previous hike and walk up to my pack. There is a good talus slope at the upper end of the valley, but since I had taken one and a quarter hours to get to the top of Barbenceta and I knew it would take somewhat longer to go back, I withstood that temptation. I might have camped at the top of the Redwall, but it was rather chilly in the strong wind, and I knew I would be short of water as well.

I started down the trail through the Redwall at 7:15 a.m. Only a few years ago this part of the trail was well preserved, but before long I was merely guessing where it was. In order not to waste the little daylight left, I quit trying and went down to the top of the Tapeats cliff. After following the top to the south, about the third notch that I inspected went through all right. This was a different route than I had used before. I was down into the main wash coming from the east side of Marion just as full darkness was closing in. All afternoon I had been thinking more and more about Boyd Moore, and my melancholy was another factor in persuading me to go home the next day. It was seven years and a week since he and I had been down here with high hopes for a fine trip.

In the morning I started up the slope intending to get into the wash that comes down from where the map shows the trail ending on the east side of the spur ridge. By accident I got farther east and rather than cut across some rough blocks and ravines to get where I had intended to go up, I headed farther east to a point

where the Tapeats is broken. Quite soon I found a well constructed trail, obviously the lower end of the old trail although not shown on the map. It's quite distinct and easier to walk than any other part except the very beginning at the saddle. Just near the end above the spur ridge, it becomes unrecognizable. It seems odd that Evans and Matthes missed this. Above this point on the Redwall talus, I got tired of trying to connect the scraps of trail that are still noticeable by crossing steep ravines that seem to have formed only in the last few years. I decided to go right up where the walking would at least be firm. Before long I came to a very clear deer trail and I followed it to the rim of Tilted Mesa. It's so much better than the present residue of the horse trail that I marked its head with a small cairn, and this deer trail will get my business if I ever come back here. Even though I had cut my trip short and had let Nankoweap Mesa and Nankoweap Butte go as well as the window in one arm of the creek, I had learned quite a bit new to me about the various parts of the trail.

### Cape Royal to Freya Temple

[June 24, 1962]

Bob Schley was enthusiastic about the idea that we could go back to Wotan's Throne in one day and still have about three hours to scour the top for more Indian ruins. To make it this fast, we would have to use the route directly down from the lecture station at Cape Royal. From a distance along the Hermit Shale, Allyn and I had thought that the drop where a rope would be necessary was not much greater than it had been at the place we had come down three weeks before.

The Schleys took me to Cape Royal on Saturday evening early enough so that I had time to go down and review the route Allyn and I had scouted the year before, essentially what Merrel Clubb had told me about. This time I carried a can of green spray paint and sprayed arrows on the rocks to indicate the more elusive turns. Allyn arrived about 1:00 in the morning to go with us.

I had taken Bob and our other companion, David Krebs, out to the top of the promontory near the parking area 1.4 miles north of Cape Royal on Saturday afternoon. David came right up all the hard spots, but Bob hesitated quite a bit and was puffing harder than I when we finished. Right then I began to wonder whether I hadn't gotten him interested in something that might be too difficult for him to do in a single day. Still when we were ready to go down the slope and tackle our project, he was game to go until his better judgment would say he had gone far enough. He got across the narrow ledge where you have to crawl under the overhang and got down the place where the holds are poor. He followed us over to the head of the chute through the Coconino next to the bridge towards Wotan. We tied knots in a double rope and used it to descend the 25 feet behind the chockblock at the head of the chute. Then we came to the place where we had to tie the rope to a stout juniper and throw it over the edge. The rock sloped steeply toward the edge so that the only way we could tell whether it had reached the bottom was to hold onto it and lean out. Allyn and I tied rappel slings around our middles and prepared to go down using carabineers. David and Bob watched with interest, but at last Bob decided that the place for a beginner to practice was not right here where there was no alternate route back up in case the Prusik method proved too difficult. He and David stayed there until Allyn and I were down. To go down from the shelf where we landed to the talus, we saw that we would need another rope. The men above followed our request and untied Allyn's nylon rope and threw it down. Actually a 50 foot rope would be plenty for this high step at

the bottom, or two men could probably help each other make it with no rope at all. Just as we got off the rock ledges, I saw my first rattlesnake for this year.

Since Allyn and I knew how to get to Wotan's and we didn't think that we would have any more time to explore it than we had three weeks ago, we elected to tackle another project and climb Freya Temple, the one that Merrel Clubb had passed up as being a simple walk-up. It took us about one and a half hours to go from the bottom of the rope to the top of Freya. We built the first cairn on it, thus extending my list of named summits climbed to 16. When we had loafed at the top of Freya for 45 minutes, we came down and went out on the ridge that extends towards Vishnu Temple. The climb up Vishnu doesn't look any easier as you get closer, especially the part above the Coconino. I don't think that Clubb will have to share that one with me. While we were out on this point, we looked down into the arm of Unkar heading below Vishnu and saw what looks very much like a good way through the Redwall and Supai. This may be the route used by the prehistorics when they climbed Wotan. The ravine in the Redwall below the southwest corner of Vishnu leading down into Vishnu Creek didn't look good. The top cliffs of Supai are remarkably continuous all around the Vishnu Creek drainage, but I'm pretty sure that there is a breach southeast from the highest part of Freya. The lowest part of the Hermit was better walking and we made good time on the return. Prusiking up the rope took me 45 minutes and I had to tie a sling above the top edge of the rock. We got to the top rim by 4:30 pm.

### The Sinking Ship

[July 7, 1962]

We came to the Grand Canyon to show the park to our institute participants. Nine of the boys wanted to hike to Phantom Ranch. I figured, somewhat erroneously, that 17 year olds who had gone up the San Francisco Peaks and had climbed Sunset Crater in less than 25 minutes could do the loop down the South Kaibab Trail and up the Bright Angel Trail without any supervision from me. (They managed to make a mistake when they found that the orange drink in their lunches had soaked through the cardboard cartons and had reduced their sandwiches to a soggy mess. Most of them threw their lunches in the garbage can and had only one orange apiece for the whole day. As a result they dragged themselves out after 8:00 p.m. in sad shape.) In the meantime, I did a little visiting and then went to see whether I could find the ruins that Bert Hunt had told me were along the northeast base of Sinking Ship.

As usual, I found the trace of a trail from the notch in the rim out to the Sinking Ship. I have always thought that this was one of John Hance's improvements that was a convenience to his tourist guests who desired to see the sunset from the west side of Sinking Ship. I went along the east base of the cliffs and came to the metate under an overhang, which I had noted on several previous trips. I passed by the place where Marshall Scholing and I had climbed up through the notch separating the north tower from the middle. North of here I had been clear around the base, but I had descended too low. This time I kept on near the vertical cliff. At the notch separating the middle tower from the north and lowest tower, I found the three ruins. The first to catch my eye was the one farthest north but facing south. It is merely a granary. Then I saw two more on a higher ledge a little to the south and farther west. These are big enough to allow a small man to lie down in them. There are a couple of well constructed doorways and the Indians used juniper logs to widen the ledge where there was a break in the shelf. I noted one corncob still here, but there didn't seem to be any obvious pottery fragments.

Above and to the north of these two rooms, one can go up through the V separating the middle castle from the northern one. From the top of this notch there is a not too difficult route to the top of the middle castle. When I got to the top, I found a well built rock pile. I couldn't see any sign that the north castle had been climbed, and when I followed its base north to the end of the promontory, I didn't discover any practical route up it. (Ken Walters climbed this north tower.) On my way back along the west base of the whole formation, I tried going up a long break in the wall of the south castle. (Reider Peterson and I got up the south peak starting some yards south of here. We used a rope and came down here.) A daring climber, who had a companion, could have gone quite a bit higher than I did, but I saw no positive assurance that the summit block could be climbed even from the top of this break. Maybe I'll get Allyn Cureton to come back with me when we can belay each other up this break.

### Fishtail Mesa

[July 24, 1962 to July 25, 1962]

After inquiring at Jacob Lake, I drove to Big Springs by the canyon road that leaves the north rim highway just south of Jacob Lake. It was quite all right and much more interesting than the route from the north below the plateau. By this route, Big Springs is only a four and half hour drive from Flagstaff. Don came along well before noon and we drove to Indian Hollow in his new pickup. They have worked on the road down Indian Hollow as well as improving the Thunder River Trail, and there was no difficulty in going right to the rim by this route.

After a lunch near the truck, we got started down the trail about 1:30 p.m. It took five and a half hours to reach our campsite on top of the mesa, but part of this time was spent inspecting Walapai Johnnie's Bean Cave (an overhang where there is an orange crate for shelves and some supplies lying around). We were also expecting to find some rain pools along the way and we did a bit of checking for them. There were a few very shallow and temporary pools and one deeper one. This had rather foul water which is a good sign that it lasts a couple weeks after a rain. It's in a ravine just before you go over a ridge and see the route over the saddle to the north side of Fishtail Canyon. I'm not sure, but I think Bean Cave is a little farther east. There is also a mescal pit a bit to the west of this water. We were glad we had carried enough for about 24 hours so that we wouldn't need to use this uninviting fluid. Progress along this part of the Esplanade is a lot easier than that across the river for some reason. There are pretty definite signs of a trail in most places, and the part up the long talus to the top of the pass is very distinct. Don had done little or no walking for a couple years and he really felt out of condition. When we reached the saddle, we even considered the possibility of his staying there while I went on.

We were glad you don't have to go very far around the mesa before you come to the place to go up. We followed the trail down for a few hundred yards, but then we decided it would be better to keep our elevation even if the footing was poor. The route up is easy to identify, a large bay filled with unstable rock slides with here and there some sage or other vegetation. Don had to take very frequent rests along here, so I went on to make sure that the route really lay to the west above the loose rock. We found that this hunch was correct and that if we kept on to the west at the very top, there was practically no need for hands. We found ourselves on a promontory near the northeast corner of the mesa. To get a flat spot near timber that would allow us a fire, we crossed the minor saddle and went up near the east rim. We could

tell that we might be short of water on the return unless we dipped into the buggy stuff I had seen, so we decided on an early start in the morning. I had carried six quarts and Don brought five. In order not to entirely miss the chief purpose of the ascent, I left Don on his blanket and started to hike the length of the mesa. I started well after 7:00 p.m., so I'm afraid my attempts at photos will be failures, but I did shoot toward Mount Trumbull and took a minute exposure in the direction of Granite Narrows. I reached the south end of the mesa, already marked by a pile of rocks supporting a stick, about 8:15 p.m. It was rather dark but I could make out the branches of 140 Mile Canyon. Mount Sinyala seemed large and close. I regretted that there was no chance for pictures and also that I couldn't go along the west edge and see into Kanab Creek.

My trip back was uneventful. I've done some very rough walking after dark so I figured this mesa top would be a breeze, and that I couldn't lose my way if I kept the east rim in sight. It wasn't as simple as I had thought because I would walk into the small limbs of fallen juniper trees and many times I stopped to pull cactus spines out of my canvas top shoes. Once, I got too far away from the east rim and came up against a cliff ringed valley. I had been steering by the stars, but in backing away from this false rim, I found myself going due south. Even with all that confusion, the entire return required less than half again as much time as the trip by daylight. I was very glad that Don had a good fire going at 10:00 p.m. and that he shouted just as I arrived in the vicinity for at that time I was again veering too far away from the rim.

When we tried to get to sleep, there was a strong wind blowing. I had thought we would be sleeping down on the Esplanade and I had brought only a cotton blanket. I had to use my plastic sheet for a wind break, and it whipped around so that I didn't fall asleep until the wind died about 1:00 a.m. After that the night was quiet and cold and I built up the fire for warmth. The return was uneventful taking five hours to the car. Don had to press himself to make it up the final grade. His condition was not imaginary either since he threw up the juice and water he drank after we reached the truck. It was obvious that he couldn't take five more days of rough hiking especially since he also had some bad blisters.

Judging by the time we made even with Don so out of shape, I would say that Fishtail could be done in one day if one were to camp at the end of the road and get an early start. It would mean a long day if we walked the length of the top before returning, but one would not need so much water or a bedroll. The last grade would be done after sundown.

Source of Bright Angel Creek  
[July 26, 1962]

When Don couldn't go on with me down to Thunder River for some investigation of Stone Creek and the bed of Tapeats above the flow of water from the main source, I felt at loose ends and almost started for a visit to the coast. After I talked to Jerry Bortle, I decided to stick around the canyon. He had no transportation to start him on any hikes. If I would think of some way to spend the next two days, he could go with me on Saturday and Sunday. One minor project that would fill in was to go to the source of Bright Angel Creek.

I had been up the Old Bright Angel Canyon Trail and I had seen the source from the rim of the Redwall above, but I had never been along the creek to it. Allyn Cureton had rather impressed me with the

difficulty of the feat, because he and a friend had given it up when they saw how slow the travel was. On the other hand, a faculty member from Flagstaff, McCreary, and two fishing companions had made it. In order not to have a near miss, I took my sleeping gear and enough food for a second day down the Roaring Springs Route. It would have been more direct if I had gone down the Bright Angel Canyon Trail, but I didn't give this route a thought until later.

The seep springs along the Kaibab Trail were showing more activity than I had seen before, proving that there had been more snow last winter than normal. When I was above the junction of Bright Angel Creek with the tributary from Roaring Springs, I scrambled down to the creek and left my blanket and hiking shoes and other extraneous gear. I walked up along the creek in my tennis shoes prepared to wade wherever it seemed more expedient. With only one crossing, the old trail took me about two-thirds of the way. After that I was on deer trails most of the time. It's a beauty spot with many small cascades and dells of maple and fir. Beaver felled trees often slowed one. Most of the cuts seemed rather old, but there are still runways from the bank down into the water, and one white fir, although completely girdled, was still entirely green. Many fine pools held numerous nine or ten inch trout that were making no attempt to hide.

At a couple places, there are small falls that necessitate slight detours. Still it required only two and a quarter hours to go from the junction to the source. I found the source not as interesting as it had seemed from the top of the Redwall. Water gushed out from about six different places within 50 feet of each other. The flow does not arch down into the pool free of the wall, and the orifices are only about four feet above the surface of the pool. Still, it makes an interesting sight to see half of all the water that flows in Bright Angel Creek originate at this one interesting place. I had seen minor springs along the way up, and the side canyon to the west where the old trail is leaving the main creek has a fair flow and a fine fall (called Emmett Fall) about 200 yards back from Bright Angel Creek.

I followed the dry bed above the source until I was stopped by the Redwall. Even here it appears that one might bypass the drop by going around to the west. I did a little steep climbing here and could have descended to the bed above the dry fall, but I could tell that the final obstruction was just beyond, so I was content with a picture. (I learned latter that I missed seeing a window.)

After a swim with three fellows who had come down to spend the night by Bright Angel Creek, I went up from the creek to the head of the South Kaibab Trail in three hours.

### The Goldwater Natural Bridge from Point Imperial

[July 27, 1962]

Ever since I heard that Merrel Clubb had taken Emery Kolb down from Point Imperial to see the bridge that Goldwater discovered from the air, I had intended doing it myself. When I was down below the Coconino to go around Mount Hayden, the route had looked quite easy. This project seemed like a good one to fill a little over half a day.

Right near the top I fumbled by starting down the Coconino at the wrong place. While I was getting down the Kaibab Limestone, I angled too far to the east. I really remembered that there is at least one well

established deer trail in the right bay. As it was, I got nearly to the bottom of the Coconino before I had to come back and descend in the larger bay to the west.

This is below the area to the west of the rest rooms.

In the deep woods near the rim I flushed out a couple dusky grouse. They flew up into a tree. On my return at about the same level, I had a fine view of a female about ten feet away. It was in no hurry to leave. If it had been in the boulder field on Long Peak, I would have called it a ptarmigan.

I arrived at the Redwall near a rounded bay but I knew that the bridge was not in this one. It can be seen from some distance down the canyon and this bay is off to the side. When I had gone around to the ravine that is straight with the lower canyon, I had to go right down to the brink before I could see the bridge. If Jack Roak saw the bridge from above in 1920, he probably didn't get his first view from this position. Out on the promontory that leads to Bourke Point you can get a good view of the bridge, probably the place where Roak first spotted it. From this ridge, you can also see a good route down the Redwall. There is a good break down through most of the Redwall leading to the southwest end of the bridge, and you would need to rappel only about 80 feet at the bottom. This might be the most convenient method to get from a car down into Nankoweap Basin.

When I was trying to follow the same route back, I caught myself drifting too far to the southeast while going through the Supai. Of course it is tiring going up through the loose soil and brush, but the entire trip should take about six hours. I recall that Dale Slocum said that the Life magazine party were below the bridge with their cameras in position only two hours and 40 minutes from their car.

Saddle Canyon

[July 28, 1962]

After my trip down to the Goldwater Natural Bridge, there was still plenty of time to drive back to Big Springs before Jerry Bortle was through work. We had some more chess that evening and I enjoyed a shower and an indoor bed again. In the morning we took off early and were ready to hike down from Swamp Point by 8:30 a.m. Jerry was in better hiking shape than I at any time last year and he could more than keep up with me all day.

We checked the modern cabin at the saddle and found that it was open and would make a convenient place to camp that is out of the rain. We could still find something of the old trail leading from the saddle to Powell Springs, but beyond there the streambed seemed to be the best walking. It also was rather overgrown in places. There were a couple of drops in the Supai that made us look a little for the bypass. Either side is all right, but after we had done both, we concluded that the northeast side is less brushy. On our way down, we were on this side, but we continued on around into the next drainage, although we saw later that we could have gone down a crack quite a bit sooner. This nameless draw on the right really has a bigger wash than Saddle, the one we were following. About where the first Redwall shows, there are so many about equal valleys coming together that it would behoove one to look back at landmarks and remember them. We were glad to get the assurance of finding our own foot prints when we returned.

When we looked up at Steamboat Mountain from below, we were sure that it could be climbed. This might be done in one day if one camped at the Muav Saddle or at Powell Spring. The latter is pretty insignificant now. It seems much weaker than it did about five years ago when I first saw it, and now it's above ground for only about 30 feet.

The fault through Saddle Canyon is about the most amazing that I've seen anywhere. The Redwall shows about 400 feet deep on one side when you can still see Supai on the other. The creek erodes impressive slits through the Redwall and then comes out to the Supai again two or three times. Right at the start, we had to go around an impossible drop but the detour over some Supai let us get back to the bottom of the wash again. We were so deep into the Redwall that Jerry was quite sure we had made it when we were shocked out of our optimism by an impossible drop. Just before the end, I sounded the depth of a muddy pool and then waded across to check the impossible fall just ahead. (The fall is not impossible - see logs for May 21, 1974). Here Jerry insisted in trying a climb around a corner to try to get to a shelf below. It looked impossible to me. While I was putting my shoes back on, Jerry remarked that maybe I would have to help him back up. I didn't take this too seriously until he said, "Doc, would you kind of hurry." He had slipped somehow and was helpless to get back. If he had fallen, he would have been able to break the fall on a shelf a few feet below and then go on to a gravel bar about six feet lower. If I hadn't been along, and if the water had been too deep for climbing out, he could have been in real trouble. I have never seen Allyn in a jam like that. I was able to brace myself and use two hands on one of his wrists to get him up.

I hadn't really tried what I had at first intended, to go along the top of the Redwall to a place several miles farther northwest before trying to get down the Redwall, but travel here would have been so slow that this would have been out of the question for a one day operation. When we got back to the saddle, we filled our canteens at the good spring to the east, and Jerry announced that he couldn't go with me around the top of the plateau because his shoes were shot.

Powell Plateau  
[July 30, 1962]

Doctor Joseph Hall, a mamalogist who teaches at San Francisco State, looked me up to hear what I knew about climbing Shiva Temple. He had just spent four hours trying to leave the north rim, and had finally worked out the right place to leave the rim. At first I said I would go with him up Shiva, but then I thought it would be interesting to see more of Powell Plateau than I had before. It was really better country for this work, the study of the Kaibab squirrel. There are few or no ponderosa pines on Shiva Temple but about three-fourths of Powell Plateau supports a fine forest.

We drove out in Hall's VW microbus and were ready to hike by a little after eight. It took us just over an hour to get to the top of the plateau. Just before we reached the top, we disturbed a big fat rattlesnake that was sunning itself on the trail.

After passing the toll cache we turned to the northwest to go to the point nearest Steamboat Mountain. There are tool surveyor markers a few yards apart at this point, the only bench mark on the entire plateau. Joe was properly impressed by the view from here. We wanted to expose film in all directions. I really intended going down along the west rim next, but in my effort to keep away from the head of the trail up

from the saddle, we went east. We followed the blazes for about an hour and I figured that if I wanted to keep to the west of Dutton Canyon, I should be careful to go more to the west. Here, Joe left me to spend his day among the big trees to the north where he had seen more signs of squirrels.

I had intended to keep just west of Dutton Canyon and go up Wheeler Point first by following the east rim when I was sure to be south of the big valley. I goofed again and I must have gone rather close to the west side of the plateau in the sagebrush area before I set my course definitely for the east rim. It seemed that I had to cross just about all the ravines there are on Powell Plateau before I hit the rim about one mile north of Wheeler. We saw very few signs of civilization on the plateau, two old corrals within a mile or two of the north end, and the bench mark. However, there was a little horse or burro manure near the extreme south end. I also saw five fine bucks with wonderful antlers. Three were in sight at one time. I also saw about three does. It would have been easy to go down through the Kaibab Limestone at Wheeler Point, and the clearest deer trail I have ever seen, led along the base of the limestone pinnacle that is south of the point. This bare crag could be climbed rather easily, and I was sorely tempted to see what I could from the trail that leads to the south of this final crag. I had hopes of seeing the Royal Arch, but I had told Joe that I would be back at the head of the trail by 6:00 p.m.

Next I went north of Wheeler, along the west rim. The ravines tallied with the map all the way to Newberry Point and I hit the rim only a few hundred yards to the east of it. I went around the angle until I could see to the west, but Stanton Point still showed much better than Fossil Bay. East along the rim from Newberry Point, I was rather sure that there is a place where one could descend through both the Kaibab and Coconino Formations. I hurried back to the tool cache and arrived just on the dot of six. I was surprised to have to pull a couple ticks from my legs after this day.

Downriver from Pipe Creek to Hermit Rapids  
[August 28, 1962 to August 30, 1962]

When I heard that a friend was taking some scouts to Supai intending to return to Flagstaff on Monday afternoon, I decided on the spur of the moment to float on my air mattress from Pipe Creek to Havasu Creek with food for six days. Roma thought I was about to take off for the North Rim for a longer period until I phoned her after she had gone to work about my change of plans. The Braleys had agreed to drive my car back from the canyon after I had started down the Bright Angel Trail. I was on my way down by 3:15 p.m. and reached the river by 5:45 p.m. Something I noticed for the first time was a bit of trail construction to the west of the Bright Angel Trail just a little below the bottom of the Coconino cliff. Possibly this once continued on to the mine east of Powell Point (the Orphan Mine). Another thing that I considered for the first time was the possibility of reaching the Battleship from the Bright Angel Trail along the top of the Redwall. This would be shorter and walking would be easy until you came to a wall of Supai. I didn't see a way through it, so perhaps this would not be a shortcut.

There were no observers at the mouth of Pipe Creek, but I still elected to walk around the corner below the rapid before taking to the water. The river was quite low, about as low as I have ever seen it, and I feel rather sure that I could run a rapid such as Pipe with impunity. One advantage of walking up around this corner was that it gave me a good look at a riffle downstream. I decided that it was entirely safe. I took the center of the current here with the mattress crosswise and had a fine ride. From here on to Horn Creek

Rapids, the water was exceedingly calm. There was little or no tendency for any back eddies to form, evidence that I was on a lower stage than when I went down to Horn the other time. When I landed at Horn on some sand on the right, I found that I was a few yards too far upstream and had to go back in the water to get past a rather smooth fin of rock. When I found a good level spot of sand for the night, I noticed that it had taken almost an hour to go from the mouth of Pipe Creek to Horn Creek Rapids.

The rocks at the head of the rapid stood out farther than I had remembered them from other visits, and the projecting part of the bedrock on the right about halfway down stood considerably higher above water. However, the rapid was still kicking up quite a roar and from the foam all the way down, rocks must not have been buried very deeply. The chief difference between this and higher stages of water is that the waves die faster in the tailrace. When I proceeded on Wednesday morning, I noticed that the surface was rather calm by the time I came to the access ravine from the left. The logical way to let excess passengers return to civilization from Horn, as long as you still have a boat, is to row back upstream for 300 yards. This could be done except at flood stage if you stay close to the right wall. Then the passengers could be put ashore on the left where they could easily walk to the foot of the Bright Angel Trail. The ravine below the rapid would also be a possibility, but they would have a rougher walk up to the Tonto Platform and over to Indian Gardens.

A feature of my night beside Horn was the warmth all night long. I was comfortable all night on top of my blanket. Another thing I noticed was something crawling over me at numerous times. There were no bites, and I finally concluded that small frogs were taking liberties. At least they were climbing over me the next night at Hermit Creek even before dark. The most interesting memory I have from that noisy spot next to the head of the rapid is seeing the first ringtail cat I have seen away from a zoo. As I was packing to leave, it looked at me from under a rock about 12 feet away. I didn't think of the camera, but as it was before six, I am sure it was too dark for a good picture. As luck would have it, the very next day I found a dead one near the top of the Hermit Trail.

The trip by water was fairly uneventful. The water was reasonably calm farther upstream than it had been the year I went up to the north rim between Shiva and Isis Temples. As I passed the ravine on the right where you can come down to the river from the bottom of the Tapeats, I thought about the report given me by Pat that Stanton had left some instruments at Horn. I wondered whether the upright pole in a rock pile a short distance up this ravine had anything to do with this cache. The water was very quiet between the rapids and the riffles. I kept paddling all the time, but still I must not have been going along more than two miles an hour. However, the scenery through this stretch of river is marvelous with so many of the streaks in the schist almost vertical. Small islands appeared two or three times. I got out and walked the beach past Salt Creek Rapids. The mouth of Salt and Trinity, for that matter, looked intriguing, but at that time I hadn't decided to quit the voyage at Hermit, and I thought that all due haste was the order of the day. The next time through, I'll shoot down the tongue at Salt since there are no rocks in the channel. I did shift the mattress crosswise and shoot two riffles, one of them being the lower part of Monument (Granite) Rapids. I can't place the other, but I know I walked past the upper part of Monument. It's really roaring against the right wall in a very narrow bed. I walked at another riffle where the current bore hard against projecting rocks although the waves were not so fierce looking. With these slowdowns to walk past three rapids and getting out to look at a couple others, I averaged only a mile and a half an hour. Even if James White had come through shooting all the rapids, he couldn't have done any better since he

couldn't have paddled the raft forward or even enough to take advantage of the best current. When I got to Hermit Rapids, I looked at the watch and took stock of the situation. If I could average 15 miles a day, I would either just miss or just catch my ridehome from Supai. I was also thinking of counter attractions, such as visiting in Los Angeles or going somewhere over the weekend with my wife. To cap it off, the frame of my pack was beginning to hurt my right shoulder, and I decided to abandon the project and leave by way of the Hermit Trail while I had a good chance.

It was only 9:15 a.m., but I thought I wouldn't bother going home that very day when Roma was expecting me to be gone for six days. Something that I had thought about for more than 10 years was to see the source of Hermit Creek. One thing that surprised me on my way up the old trail to Hermit Camp was to note footprints of about three hikers. The marks were so fresh they could have been from the previous day. I checked my time and it takes about 45 minutes to go from the river to the camp. Leaving the pack where the Tonto Trail crosses, I hiked on up the creek among thickets and the finest display of red mimulas and horsetail rushes I have ever seen. Judging from other springs in the canyon, I was expecting the source to be a short way below the base of the Redwall, but Hermit is different. The main springs are above the lowest fifth of the Redwall. Right above the last spring (not one that is conspicuous) there is quite a wall in the main bed. I was able to climb it, and at the top I found a conspicuous cairn. At a couple of places lower down, I had seen a stick supported in the center of a rock pile and another cairn. I had already given this effort more time than I had intended, but now the going was quite a bit faster without the dense brush. I had to see whether one could go out above the Redwall. It was no trick to climb the heaps of broken Supai blocks and get out at the end of the east branch. The hard job would be to go up the Supai, but it might be possible if one were to backtrack along the east side of the gorge. (Dripping Springs is above the Supai to the west.) On the way back I found the old trail along the east side below the Redwall which was used to service the pipeline carrying water to Hermit Camp. The round trip had taken about three and a half hours.

On Thursday I climbed out to the rim in an unhurried five hours. I enjoyed shade most of the way. The night by the creek had been quite cool for one cotton blanket. After a lunch at the head of the trail, I walked to Bright Angel Lodge by the trail through the woods, a route that must be a couple miles shorter than the road.

Unkar to Krishna Shrine

[September 4, 1962 to September 6, 1962]

From the tongue projecting from Freya towards Vishnu, it appeared that one might be able to climb the Redwall in the east fork of the arm of Unkar that rises toward Vishnu Temple from the north. From the top of Freya Temple, I thought I could see a good way to climb Krishna. Checking out these guesses seemed like a good three day project from the south rim. The first night bivouac was to be at the spring downstream from the mouth of the branch of Unkar which comes down from between Jupiter and Venus. Going down the Tanner Trail, floating and walking down to the mouth of Unkar, and going up Unkar Creek to the spring would not be a long day, so I didn't try for a real early start. It took me just under three hours to reach the river at the swing to the south just below the mouth of Basalt Creek. After eating, I pushed off on my air mattress, but I got out for every riffle and sometimes I got out because the current was too slow. With all these interruptions, I took longer to go downstream to Unkar than if I had walked

the bank until I came to a good place to cross once and for all. This was a contrast to my first float in 1954. On that occasion, we didn't get out of the water until we saw that we were arriving at Unkar Rapids. This time I was more inclined to worry about scraping over rocks.

At the upper limit of the Unkar Delta, I walked across to intercept the creek higher up. There was more broken pottery on the red sandy ground than I had seen on other parts of the delta. There must have been a lot of Indians around at some time to scatter so much pottery. The afternoon was warm and I didn't hurry up the dry wash. I was a bit dismayed when I came to the first spring I had marked on my map from two previous trips. Reeds were still growing on the bank, but no water showed. I decided that if there was no water running at the next place, I would quit and go back to the river. About an hour's walk from the river, I came to the place where I had camped before, but there was no water there this year either. However, a short distance upstream, I came to a continuous surface stream. It got bigger as I went farther up until I came to the main source. A reed grown bank was a little farther on in the middle of the bed. The night was warm at first, and a small frog climbed on me as I lay on top of the blanket. By morning I was a little chilly with my one cotton blanket.

It was cool enough for good walking when I set out at 5:45 a.m. on Wednesday. I hadn't brought the map along, and I didn't recognize the mouth of the arm of Unkar Canyon that I wanted to follow. For a half mile, it parallels the main bed only a few yards away. Finally, I noticed that it was time to leave the main bed if I wanted to go up the valley to the south. I climbed over the low ridge and almost at once found that the Tapeats bars the way in the bed.

Fortunately, there's an easy bypass to the east of the fall. As you come near the base of the Redwall, you find that I was fooled by appearances when I looked down from the Freya projection. The fork to the east looked hopeless. The way ahead looked better. Everything went well until the last 20 feet. I had to go up by bracing my back against one wall while finding footholds for my feet. I don't see how deer could get up here.

It was only a short scramble from here to the saddle between Vishnu and Freya Temples. Right away I became interested in knowing whether one could go down into Vishnu Creek from the saddle. All went well until I was four-fifths of the way down, but then there was a sudden drop. I decided to see what the ledge to the west would bring, especially since some deer tracks led in this direction. Shortly after rounding the point, I came to a continuous talus right up to the ledge. Within a few minutes, I had added two more routes through the Redwall to the eight I had previously found in the entire park.

Travel along the top of the Redwall over to Krishna Shrine is relatively easy. I headed for the saddle between Vishnu Temple and Krishna. My hopes were well founded. The talus which covered the upper slope of Krishna came down through a mere notch of the lower Supai cliff. I couldn't tell at a glance about the feasibility of climbing the summit, but I have turned back before, and I could do it again. Near the end, I had to leave the pack below and climb a vertical crack. There were plenty of footholds and there was no danger. I withheld my elation until I could see whether a single summit block would finally turn me back, but this did not happen on Krishna. I had the pleasure of building the first cairn on the highest point. The particularly fine view from Krishna is right between Angel's Gate and Wotan's Throne. Zoroaster is almost squarely in front of Shiva. The view of Vishnu Temple does not tempt me to try that

one. The separate summit towers seem too sharp for words. It is amazing that Clubb could do it. On the way back, I decided to look at the ravine in the Redwall into Vishnu Creek directly west of the saddle. From the top of Wotan, Allyn and I had thought it looked like a real possibility. Here again all went well until I was about four-fifths of the way down. Again there was the sudden drop with slight ledges on either side. I went out on the ledge to the south to see whether there might be any future there. The ledge on the north soon dropped vertically 50 feet. From the end of the southern ledge, there was a crack leading down. It looked most improbable, but it continued down to the talus, so I had logged my eleventh break in the Redwall and had climbed my nineteenth named high point in the Grand Canyon, all in the same day. This third break in the Redwall for the day gave me the most satisfaction, because I had so nearly turned back thinking that you can't win them all. I returned to my bedroll by the same route except that I used the bed of the wash until it came out to the main bed of Unkar Canyon. Just above the Tapeats, I flushed a fine big buck. They are rare down here at this time of year.

When I got to the spring, I packed hurriedly and moved camp down to the river above the rapid. The calm water reflected the sunset glow on the cliffs and made me think that they don't have rivers like this in Illinois. The white sand and some rocks for steps down into the water formed an ideal site. I took a quick bath while soup was heating. The river was the cleanest I have ever seen it at this time of year. While I was stirring the soup, something happened that put me out of a happy mood into one of depression. A plane came over only about a 1000 feet up. Furthermore, the propeller was turning slowly, but the motor was not firing. The pilot glided the machine over the hill behind Unkar Rapid and then suddenly dipped downwards toward the ground. I concluded that he was trying a forced landing on the sand east of Cardenas Creek. I thought about dumping the soup and using the little daylight that was left to see if I could help. After some thought, I decided that I couldn't do anything in the dark and proceeded with supper and a rather broken night.

In the morning, I got away at 5:25 a.m. and went along the north bank until I was far enough to cross well above the wall on the left side. I went out of my way to search in the willows and on the fairly level ground above the dunes, but there was no wrecked plane anywhere. Perhaps the pilot was just seeing what it would be like to have a forced landing at the best place in the canyon, and he simply switched the motor on at the last minute.

The return up the Tanner Trail was uneventful. I had the good fortune to notice for the first time in 20 odd passages over the trail, a natural bridge near the top of the Redwall in the promontory about two-thirds of a mile west of the one the trail uses. In about 40 extra minutes, I could have gone over to it and returned, but I was more interested in getting home. This will do for a destination for a college hike. I would estimate that the bridge is about 25 feet broad by 15 feet high. There is a small drainage leading through it, so it is a bridge rather than a window.

Red Canyon, Asbestos Canyon, and Rama Shrine  
[September 21, 1962 to September 23, 1962]

Since I had no classes Friday afternoon this semester, I could take off as soon as I could get organized on Friday after noon. This turned out to be about 2:00 p.m. and I had to hurry down the Red Canyon (or New Hance Trail) to get settled by daylight. No matter how many times I cover the Hance Trail, it always

seems to have some surprises for me. On the way down through the part at the bottom of the ravine through the Supai, I believe I followed the trail better than I have hitherto. At least I stayed out of the streambed. The trail seems to cross the bed only three times. First you are on the left, then on the right, then on the left again, and finally on the right. The disturbing part about finding where you should be at all times to follow the real trail is that I was unable to do as well on the way back two days later. I missed parts of the second and third legs.

When I was taking the contour part above the Redwall over to the descent through the Redwall, I consciously left the trail to inspect the way down that Dan Davis had found. This is less than half as far north as the standard route. If the real trail had gone down here, they would have had permanent water in the creekbed. On the other hand, it would have been difficult to build the trail here and the creekbed is far better for a man on foot than it would be for a pack horse. With all the slides along the top of the Redwall, I'm afraid it would now be impossible to get a horse across this leg. The route down the Redwall also needed review. It is quite clear, but it didn't look altogether as I had remembered it.

I would defy anyone to positively identify the old trail very far below the Redwall. I believe it goes over toward the biggest side canyon which enters the main canyon well down in the Hakatai Shale. This time I followed the trail which stays out of the stream bed below this junction for a half mile. It climbs a bit and I decided not to use it on the return. Down in the narrows a half mile above the river, there are large blocks that have made walking down the middle of the bed very difficult. This may be the first time I followed the old trail around these obstructions. After a few feet out of the bed to the left, the trail crosses and stays up in the mesquite to the right for quite a distance. It was still dark when I came through here on the return, and I didn't try the trail. One thing that caught my attention on the way back, since the night had threatened rain, was a good shelter. About a quarter mile below the junction of the two canyons, a huge block rolled down and lodged about 20 yards up from the bed. A smooth and level spot, big enough to sleep three, has been hollowed out beneath one corner. I noted a similar shelter up Unkar above the branch coming down from between Jupiter and Venus Temples. Unfortunately, one would have to carry water to both of these bivouac sites. It took me just under three hours to get from my car to the river. I crossed just before dark and had to find my way among the rocks beside the river in the dark, slow going. With my recollection of the trail to the mines in Asbestos Canyon, I was able to recognize it when I came to it, really more luck than sense. I wanted to reach one or the other of two mine shafts because I thought I might need the warmth and I was looking forward to an evening of reading by candle light out of the draft. It was good that the trail remained fairly intact until I came to the first shaft, which is only about 15 feet deep and is cluttered up with three wheelbarrows. I lit a candle and maneuvered the wheelbarrows aside to make a large enough space for my bed, but what I didn't discover until I noticed that the air mattress was slowly leaking is that there are some cactus spines on the floor of the cave. I moved my bed outside to the flat area formed by the tailings and had to blow it up again every 40 minutes during the night.

Shortage of sleep doesn't seem to affect my hiking strength and I was away by 6:25 a.m. I had been over this trail twice before, but this was the first time I felt that I had time to explore the large tunnel with the prominent tailings, easily visible from Hance Rapids. Its bottom is clean and smooth, and it would be a fine place to spend a rainy night. However, it wouldn't be cozy because it is cut right through two windows on the other side of the spur. I scrambled down to the trail across the tailings and then

discovered that there is a trail on a shelf outside the spur that would have been shorter and easier as a route into Asbestos Canyon. From the window on the west, there is a fine view of the fall through the granite in the bed of Asbestos Canyon.

There was water running in the last quarter mile of the streambed above the fall. I was counting on it to fill my gallon canteen. Just after I found a fair pool where I could dip with a pan, the stream went dry. There were a few rain pools, however, in the main bed and also in the steep ravine which I followed up to the base of Sheba Temple from the area of the old miner's shacks. It took me about an hour to go from my campsite to the shacks and another 50 minutes to climb up the ravine. In 20 more minutes, I was in the wash that leads up to the passage through the Redwall east of Rama Shrine. I saw a harmless snake on the flat below Sheba.

From a distance I had noticed a talus sloping up to the south end of Rama. This route worked out all right. If I had come over to its base first, I wouldn't have had any problems at all until I arrived near the summit cliff. As it was I found some interesting and safe cracks through the cliffs. The cracks in the highest of the Supai cliffs were around to the east. I built a summit cairn from a disintegrating pile of red rock that was about two yards from the highest point of the shale. The views were magnificent in just about every direction. I had a field day with my camera. There was no difficulty in going along the ridge over to the secondary summit at the north end. While I was coming back, I got a good look at another way to make the climb, a ravine just north of the true summit and a long talus clear down to the top of the Redwall. I retrieved my pack and descended using this route. It calls for less route finding, but it might take a few minutes longer than the other way assuming that you approach Rama by my route through the Redwall. While I was going along the slope below the Supai cliffs, I found the first artifact I have ever seen in the Grand Canyon, aside from pottery fragments. It is a piece of chert flaked into a sort of burin about five inches long. It may be an unfinished spearhead.

I got down to my previous campsite by 3:30 p.m. and moved across the river in plenty of time to eat an early supper before it would do any more than threaten rain. The best shelter I could find near the river was a rock that would protect the upper half of my body. Unfortunately, some red ants also liked this environment, and after I was bitten once, I moved out on the flat sand nearby with the intention of coming back if it really rained. It finally sprinkled a few drops about 4:00 a.m. I packed and started up the wash by moonlight a little before five. It took me almost exactly five hours to reach the car.

Fragment of a log to Cardenas Canyon  
[date unknown]

Some white man has set up a vertical stone marker inside. It was easy to walk the beach upstream from here with only a short detour a time or two where the river was still up to a vertical part of the bank. Not far up from Cardenas, I noted a place in the river where wading across looked distinctly possible. Bars of pebbles went down into the water on both sides and the river looked swift enough to be shallow but seemed to be over a bed of small rocks that looked ideal for fording. I would estimate this to be about Mile 70.8. There was another place higher that appeared almost as good.

The outside bends to the south along here are fine traps for drift wood. I noted several timbers which came from country road bridges since they still had big iron bolts in them. Another interesting bit of drift was a life jacket which still had some of the Kapok in part of it. I didn't feel that I had the time to look for the Lantier Mine workings, but I saw the only unmistakable section of trail of my trip going from this area up some draws to meet the Tanner Trail about a half mile from the river.

I had heard that the Park Service approves of burning piles of driftwood to try to diminish the nuisance of logs in Lake Mead. There was a beautiful pile about a quarter of a mile below Tanner Creek, about three feet thick by eight wide and fully 60 feet long. There was a lot of small stuff caught in with the large, so I set fire to it. I got the thrills of an arsonist without causing the damage. I got a picture from several hundred yards as I was about to go out of sight when the fire was only about ten minutes old and another from the level of the Muav Limestone when it had been going for over an hour. The flames must have been 20 feet high by then, but it was about two miles away and the picture I took may not show the fire very well. The climb out showed that I still have what it takes. At least I more than matched the five hours and ten minutes it took me two years ago in fairly cool weather. I felt fine at the top after a few minutes less than five hours from the river to the rim including 25 minutes for some lunch.

Upper end of Lake Mead  
[October 13, 1962]

Doctor Hunt took Hayden Green, Allyn Cureton, his son Jeff, Pete Marshall, and me to Temple Bar Friday evening. After about four hours of sleep at the campground, Allyn's alarm went off. The boat planed along at about 30 miles an hour and the distance to the Grand Wash Cliffs went by quite fast. It's 33 miles to the lower end of Grand Canyon. The water level was only about six feet below the high mark.

I was carrying the river map along, but there were relatively few places that I recognized for sure. We noticed a nice little waterfall in a sort of angle on the left side of the river and I think it may be at Mile 274.3. I believe I would get along better with quad maps of the region clear back from the river. The distinction between major canyons and mere alcoves isn't always clear from the river map. The next location we recognized for sure was the cable at the Bat Guano Cave. This is not shown on the river map, but I think it may be at Mile 266. We stopped here and the others had a late breakfast. I had eaten my bread and raisins at the campground before the others woke up. This gave me time to precede the rest up the trail and up the ropes to the mine. At first I thought the rope might indicate a difficult shortcut and that there would be an easier way if I followed the base of the cliff farther to the east. There was a ropeless route over this way, but I'm sure it's no easier than the route where the ropes are fixed. Allyn went up where the ropes are placed without using them, but I was glad to hold tight to the middle rope. The other two were extra as far as I was concerned. The top part of the scramble is made much easier by fixed ladders, mostly steel. The discoverer of the deposit must have been a very skillful and bold rock climber to get into this cave. (Beck says it is easier to go up over to the west.) The big cable from the south rim across the river must be about two inches in diameter. Doctor Hunt told us that a jet plane had cut the lighter cable which was used to pull the car back and forth. His version of the story was that the plane returned to base with no damage.

From here we tried to keep track of the side canyons, but Allyn and I were thoroughly confused for some distance. At last I saw an unusually large side canyon on the left with a sharp angle in the river a short distance upstream. At last I felt that we knew we were passing Spencer Canyon. After the right distance northeast, the river turned abruptly to the right toward the southeast, and I knew we were approaching Separation Canyon. Doctor Hunt said that when he and Joe Felix came down here on their rubber boat, they had kept track of their location at all times. He didn't do as well when he was piloting the boat, because he frequently asked Allyn or me if we could tell where we were. My call that we were arriving at Separation Rapids was immediately verified when we saw the plaque. After landing here, we continued on past a place where the water had some swirls and then a couple miles higher, we saw the first real rapid. It didn't look bad with waves not more than two feet high. I thought it would be fun to shoot this one on my air mattress, but the others wanted to get located to swim, eat, and fish; so I didn't press the point. We dropped back to the place where there is an old shack up on a bench as well as the burnt remains of several other buildings. These must have been the quarters where surveyors lived when they were working at the Bridge Canyon Damsite. The buildings must have been quite comfortable with piped water and screens. Allyn and I followed the trail up to the level above the inner gorge and I observed that one of them follows the contour upriver into Bridge Canyon before there is a chance to go up the Redwall. After this hour on foot, I took to the water on the air mattress to see how effective the current is at this part of the lake. I could cross the river without being carried downstream, but the current was steady and I think I covered over three miles in the hour I was on the mattress. When boats came by and the waves got me wet, it was cold enough to make me get out on the bank for warmth.

We had a slow trip back to Temple Bar with a sluggish motor. The waves were high by Sandy Point and we got thoroughly splashed.

Defense ruin at Enfilade Point  
[October 20, 1962]

This was a Jeep trip with the Gibsons and my wife, Roma. We took about two hours to get from home to Grand Canyon Village. Ellery went into headquarters with me and we had a short visit with Ranger Womack. I was interested in hearing that a couple men were at the bottom of the Blue Springs Trail preparing to take a sample of the water with the idea of tracing ground water flow. Womack remembered well the place where Bob Schley and Rock Mullens had balked. He also told me about some unmistakable trail construction in the Supai quite far from the bed of the wash. I called his attention to the fact that the government mappers had shown the trail in the direction he mentioned, and it was my thought that it was not a different trail heading somewhere besides the bottom. Womack thought that from the care with which this part of the trail had been constructed, someone must have thought that they could get stock down the trail. My thought was that if stock could formerly get down the trail, there must have been walls built up for 60 or 80 feet to hold the trail near the top. It surely is a mystery why the trail should look so well constructed at the very top and also down in the Supai but should seem so impossible in between.

It had been quite wet for the previous four days, and there were places along the road to Topocoba that were mud holes holding water. We stopped a couple of times to inspect a bypass before we proceeded, and our speed wasn't much. It took us over two hours to reach the park boundary sign. While we were eating lunch, I wondered whether we would have time to do justice to the Enfilade Point Ruin and still get

back on the blacktop by daylight. At the turn-off to Great Thumb Mesa, we stopped and changed to the four-wheel hubcaps. The road up the draw was negotiated in low-low gear and still it felt a little precarious to tilt the car at such steep angles. There are places before you get up on the mesa where you don't see how any tires can come through without being wrecked, but we felt a lot more secure going along with lots of power at a crawl than I did when I drove the family car up here. There are almost no places to turn around and you wonder how it would be to meet a vehicle coming the other way.

Just after you pass the turn to Manakacha Point, taking the right fork of course, you come to another fork. A bit of brush has been put across the right hand fork here to keep you from going that way, but I thought that this track might take us quite close to Enfilade Point. I never have accounted for this track. We had gone out to the bench mark west of the upper end of Forester Canyon, and I wondered whether this track was left by surveyors. It simply quit after two tenths of a mile, but I think we must have been rather close to Enfilade. I chose to go back and carry out the approach I had planned, follow the road until it made the next close approach to the rim and then walk south to the point. This is a pleasant route even for Roma who doesn't like much upgrade. The point is easy to locate since it's lined up with the river through Conquistador Aisle.

Roma watched while the Gibsons and I climbed up to the top of the rock. It was just a bit difficult for Maxine to get up the last part of the scramble and we braced her heels. The ruin was obviously constructed for defense with breastworks only on the side toward the rim. There are also some rooms outlined by walls all the way around and there were a few small pieces of pottery, both plain and black on white. This ruin has attracted attention at least as long ago as the Doheny Expedition of 1924, so the pottery must have been previously studied. Just north of the center of the living area, a wide crack goes down on the west side which wasn't hard for me to get down using the chimney technique.

Tahuta Point

[October 28, 1962]

This trip was planned especially for Francis T. Worrell who had read my article in Appalachia and wished to avail himself of my general invitation to hike with me to unusual parts of Grand Canyon. I had at first suggested that we study the possibility of a ropeless route down through the Coconino south of Cape Final and then try to climb Jupiter Temple. He had demurred at the idea of a first ascent and he preferred my next suggestion that we fill in the four miles below Points Tahuta and Great Thumb to complete my traverse of the entire southeast side of the river from one limit of the National Park to the other.

He came up from Phoenix about noon on Saturday to go out with me on Great Thumb Mesa in my four-wheel drive Jeep station wagon. We left home about 1:30 p.m., but we lost time at the service station just outside the park when we found that the motor had overheated. After blowing a geyser, it took almost two gallons of water and then behaved itself thereafter. We changed to the four-wheel drive hubcaps at the turnoff to Great Thumb Mesa about 5:30 p.m. and it was dark before we had come to the really bad ledges. A number of times, Francis jumped out to move a few rocks before I took the vehicle up some seemingly impossible slope. He also got out to search the brush for former wheel tracks and finally we decided that it would not pay to proceed in more darkness for fear of becoming totally lost in unbroken brush.

The evening around our cooking fire was pleasant and we found many mutual interests. Doctor Worrell is only eight years my junior and has had at least as broad a background in travel and hiking. We enjoyed a few minutes of sky study assisted by Reilly's present to me, the light weight clamshell glasses. The night was cold, but our bags were entirely adequate and I slept far better than I often do. We had some tense moments trying to get the Jeep to start, but Francis succeeded after I had failed. We drove on past the first surveyor's pole fastened in a juniper but not as far as the second. We gave up the motorized transportation when I suggested that we were making only a little better time than we could on foot with less wear and tear on the car. A further advantage of walking was that we observed more. The first consideration was to locate our position so that we would not miss the car on the return. When we looked over the rim, I noted that we were in the angle formed by two ravines which go into Fossil Canyon rather close together. We watched for the place I had left the rim to descend into Fossil Bay and found it and the cairn I had built near the car track. We parked the car just south of the knob marked 6270 on the map.

Francis and I are about the same height and although he outweighs me by over ten pounds, we like the same steady pace. We followed the horse trail while I watched for the place where I could first see the cliffs of Tahuta. It is about here that one can go down a draw to the northwest and find the shortcut into the Olo Canyon bay. In what seemed a short time, we were looking over the rim into the bay formed above 140 Mile Canyon. I could see by now, about 10:00 a.m., that we could not hope to fill in the gap along the Esplanade from the Great Thumb Trail to the terrace below Great Thumb Point, so I elected to lead the way along the top to look down on the same area. We hit the rim in the bay between Great Thumb and Tahuta Points where we found a stick in the middle of a cairn. There is a fine view of Deer Creek Valley from here and one is struck by the amount of green. It seems possible to follow the talus from the mouth of Tapeats Creek to the mouth of Deer Creek. The Redwall rim cuts off the view of Deer Creek Falls.

We then proceeded to look for the beginning of the Great Thumb Trail. There are two ravines leading down to it, and we entered it from the northern one. There is a barb wire fence near the lower end of this gully. The trail was in good shape and I felt that the Supai had done trail work since Allyn and I went down here five years ago. We observed two places where you should be able to go from the Esplanade up to the rim between here and Gatagama Point. I also thought that I should be able to go down the Supai Formation to the top of the Redwall on the east side of 140 Mile Canyon rather near its mouth.

Attempted descent to Supai near the telephone line

[November 3, 1962]

I owe apologies to Dan Davis for trying to get down the cliff near the telephone line. He had told me that it is impossible, but Jay Hunt and I had talked to the Supai who seemed to be saying that there is a descent route requiring two ropes somewhat to the left (south, as we understood it) of the line. We hoped to combine a trip down from near Manakacha Point with a descent of the travertine deposits as detailed in the Wampler Guide. A large party from Flagstaff would be down at the campground and we would join them. I thought that I would be down early enough to get in a visit to Horsetrail Canyon.

Just the day before we were to go, I met Norman Thomas who works at Lowell Observatory, and he asked me what I was about to do and could he come along. I invited him since he has had considerable camping and hiking experience and said he also knows his way around on cliffs. I picked him up at six and we got Hunt and his duffel at Grand Canyon Village where he had been attending a scout meeting. We left the village in my Jeep and got to the end of the Telephone Line Road at the rim above Supai about noon.

By 12:30 p.m. we were through lunch and were resolved on being down to the village of Supai by 3:30 p.m. We could see various game or horse trails going down the valleys on either side of our ridge. Right away we had three heads working on the problem, and I began to get the feeling that any one of us would have done better than the team. I was figuring from the map, which I had looked at without bringing it along. Hunt was trying to remember the exact advice given us by the Indians, and Norman was taking turns following my ideas and Hunt's. If I had brought the map with me, I believe I would have given up on this locality immediately and driven back to a branch road that had gone to the north. I would have known from the proximity of Mount Wodo and the position of the mouth of Hualapai Canyon, that we were too far south. As it was, we spent all the time we had allowed to get clear to Supai in getting down to the cliff formed by the continuous Toroweap-Coconino contact and following game trails along it to the north and the south. We found a pile of surveyor's stakes and a cairn on a point about 200 yards south of the telephone line, but we should have known better than to take so long here.

When we were going to the car, I was carrying a ten pound rope as well as about 24 pounds of pack and canteen, and I really pushed myself. Norman couldn't keep up with Hunt and me. When we got to the car, Hunt wanted to try again by going off to the south and looking at the rim beyond where I had reconnoitered. The idea was that he would get back about the time that Thomas caught up, and I loaned him my watch so he would know when 15 minutes had passed. Norman and I got a bit worried when he actually took an hour for this solo jaunt. Again I thought that going by myself has some advantages.

Hunt was obligated to join the group at the campground since he was sponsoring both college organizations. I took him over to the head of the Topocoba Trail which he had covered several times previously, and he expected to make the campground in five hours, by 10:00 p.m. I would have gone with him except that Thomas was quite sure he couldn't go 16 miles to the campground that night. If he did, he was more certain that he could not get back to the head of the Topocoba Trail by a little after noon on Sunday, and I had promised my wife to be home by 6:00 p.m.

After we parted with Jay, we started home. What I should have done so as not to feel that the trip was more or less wasted was to go back out the Manakacha Point Road and this time take the turn to the north that is rather far west. I now feel rather sure that if there is a way down, it's from the end of this road and not from the end of the Telephone Line Road.

Cape Final to Juno Ruin

[November 11, 1962 to November 12, 1962]

Jerry Bortle, my companion on this trip, wanted me to help him locate Silent River Cave. I pointed out what I thought it to be from Point Imperial. This was his first chance to see the Point Imperial-Cape Royal

area, so I took him down to Cape Royal before we tackled my first project. Clubb had told me that there is a way to get down through the Coconino without a rope in the region of the Promontory Ruin 1.4 miles north of Cape Royal. I had tested the two ravines to the south of this promontory, and I thought I should investigate the region just north of the promontory before concluding that one must use a rope to go down through the Coconino Sandstone. Jerry and I got to the top of the Coconino and assured ourselves that there is no way down along here. (I found out that the right hand ravine does go without a rope for a determined climber.)

We next drove out the Cape Final access road and easily found the big ravine northwest of the point. I had scouted this five years ago and knew that one would need a rope to get down. The details of the route down were vague in my mind. There is a cliff at the very top of the Kaibab only about 10 feet high. Several breaks get one through it, and then you skid down through the soil under the first and other trees until you are well started down into the Coconino. One 30 foot drop in the sandstone can be passed by some easy scrambling over at the west side. There are no more difficulties until you come to the bumping off place, about 180 feet above the bottom of the formation. We were about to give up the idea of rappelling down here when we noticed that the descent is broken by two shelves wide enough to support vegetation. It appeared that the lower shelf led right to the lower forest to the east.

Both of us had carried ropes down to this point, and in order not to waste this effort, we each rappelled down our own rope. When we had passed the upper ledge and arrived at the lower, I found that we would still need a ten foot rope to get down to the forested slope to the east. I fastened the Prusik slings together and tied this improvised rope to a small tree growing in a crack. This was enough help to put us on a narrow shelf that really did lead away to the forest below the Coconino. I had some difficulty getting my pack down through the bush to which our rope was tied, and on the way back, we ran into real complications. We both climbed up past the bush or small clump of trees. Jerry was able to pull his rather flat pack past the obstruction, but my fatter pack would not make it. Jerry finally got my pack past by using a knife on the obstructing inch wide trunk. Also on the return, we found it unnecessary to begin the Prusik from the lower shelf. By using the two ropes for support, we were able to stop on some small ledges and get up to the higher shelf where the real Prusik began. It was about 30 feet up from here, and the rope was tied in such a way that it was possible to slip the knots past the edge of the cliff at the top. Jerry went up first and I kept tension on the rope to help him slide the knots. When I started, I tied my pack where its weight would keep the rope taut, and my progress was better than it had been before.

We were able to follow a deer trail quite close to the base of the Coconino over to the point above the Unkar-Chuar Saddle. This leg took about 25 minutes. The way down to the saddle was rather easy, but it was necessary to do a bit of looking for breaks in the Supai cliffs. These are only 15 feet high, and from a distance they seem negligible. The rule seems to be to stay rather close to the ridge forming the north edge of this slope. We went from the car down to the saddle in a total of two hours. Less than one more hour was needed to go down to the familiar route to the Indian ruin that Reilly had called the Juno Ruin. This morning we made it back from the ruins to the car in five hours and 20 minutes.

I found a piece of pottery at the top of the saddle, thus confirming this as a prehistoric route.

Esplanade above 140 Mile Canyon

[December 15, 1962 to December 16, 1962]

I got a leisurely start from Flagstaff on Saturday morning figuring on camping in the Jeep station wagon on the rim. It took me two and a half hours of four-wheel driving after leaving the Topocoba Road. The return took the same period, and this time I noticed the breakdown. It seems to be about 12 miles of driving to reach the rim above 140 Mile Bay and the first six miles to the place where the Jeep track goes down a sort of crack between limestone outcrops on both sides takes me about 40 minutes while the last six take almost two hours. The slow time for this part is explained by my having to get out and scout for the track on four or five occasions. There are sharp turns among the trees where I would have to back to make the angle, and while I was by myself, I became careless and backed into some limbs that cracked the safety glass in the rear window and also split one of the side windows. If the Park Service would cut a few trees and mark the route with plastic ribbons, it would be a big help. At present, I would about as soon walk from the halfway point.

Since I reached the rim before three, I had time to go down to the top of the Toroweap and walk west to see what the descent is like, the one that Reilly used in going to Keyhole Bridge. I'm not sure there is a safer approach than the one I used, but when I came to the broad talus through the Toroweap and Coconino, the going was relatively safe and easy. There are signs that horses come up here rather high, and I can believe they can come out to the rim also. After getting below the Coconino, I followed the talus east to the two broken areas that also pierce the usually impossible formations. These are rather close together, but they are separated near the base of the Coconino by a difficult ravine. I went up the first one I came to and had no trouble going on to the rim a bit farther east. There was still time to follow the rim west to Gatagama Point although it was six-twenty when I got back to the car by the last light of day. Sunset had occurred just before I reached the point where I noted a fallen pile of rocks that formerly supported a large juniper stick. The views up Kanab Canyon and west over the path of the Colorado River were terrific. I was glad I had taken this detour although I was groping at the end of the walk back and I felt rather lucky not to miss the car.

Three sleeping bags plus newspapers for insulation under my air mattress were supposed to be sufficient protection from the cold. I spent a comfortable two hours reading Time by the light of the gasoline lantern. After sleeping an hour, I woke up too warm and got along with only one bag for the rest of the night.

My ambition for Sunday was to go down the Great Thumb Trail and follow the talus below the Coconino around to the point east of Great Thumb Point. It was a long assignment, so I started from the car at 5:15 a.m. and found the moonlight quite a help in reaching the beginning of the trail. I lost the horse trail about halfway to the trailhead and went down and up the other side of all the draws next to the rim. It was daylight when I was about halfway to the bottom of the Great Thumb Trail and I headed around to the east rather high on the talus, which was probably a mistake. When I was below the angle west of Tahuta, I found a well defined trail at the base of the talus. This trail is better than most parts of the Tonto Trail until you are directly north of Tahuta Point where it peters out. Horses go around the point a little way into the bay between Tahuta and Great Thumb but then the going becomes much rougher, and the only further tracks I saw were bighorn. There were also plenty of deer tracks before this rather abrupt boundary.

I wanted plenty of daylight to drive the Jeep back to the Topocoba Road, and the allotted five hours for the outbound leg was obviously not going to suffice for my project. I killed some of the time by going out on a point of Supai just north of Tahuta to look down at the river. It seemed especially low and the oblique light brought out the riffles from the mouth of Tapeats Creek to Granite Narrows. I noted that a traverse from the mouth of Deer Creek to the mouth of Tapeats would be about impossible if one were to try starting from the river level at the bottom of Deer Creek Falls. (Some have now done this up from the river first.) I'm pretty sure it would be feasible although slow walking if one left the Deer Creek Valley above the formation through which the creek cuts the final gorge to the river. (Right, an Indian route.) On the return, I stayed low and made better time. I checked the spring where Allyn and I had camped at the end of May in 1957. I'm rather certain I found the right place, below a grove of cottonwoods, but it was now bone dry. What was rather sinister was a dismembered skeleton of a horse as if it had died of thirst and been taken apart by vultures or coyotes. I wouldn't count on this as a source of water in the future although it may flow for several months after the winter storms. There were two horses near the base of the Great Thumb Trail, so there must be some water somewhere, although I saw none. (There is a spring shown on the 1962 map.) My route to the rim was up the third talus which cuts through the Coconino, the place just east of where I had gone up the day before. It has about the best developed animal trail of the three. It comes out on the rim exactly where I had arrived by the other route. If I try this project sometime in the future, I'll go down here and carry enough water for a day and a half away from the car. The same route will be used on the return which will help by allowing the caching of water for the return.

Just to the west of Tahuta Point, a talus almost goes to the top of the Coconino. It would be possible using about 100 feet of rope to descend here.

## Supai

[January 19, 1963 to January 20, 1963]

I was invited to go with Jay Hunt and Don Kimball to Supai starting Friday evening with the express purpose of getting down to the river and back. Don is the new scout executive and Jay wanted him to see the proposed hike that the boys would be taking sometime in the future. Because of various last minute car repairs, we were delayed in getting to Hilltop until about 10:00 p.m. When we were about 20 miles from the end of the road, it started snowing, and by the time we arrived, it was coming down about as thick as it can. Don had no chains for his car, and I was afraid it would pile up deep enough to keep both cars where they were if we didn't get back to the highway without delay. It went against Hunt's desires to do this, but we headed for Peach Springs. By the time we had gone halfway to the highway, the snow had stopped completely, and from the amount we found on the ground the next morning, it stopped at Hilltop too. After getting more gas, we camped a few miles north of 66 on bare ground where there were some junipers for firewood. By morning, the temperature must have been close to zero. At least my ears couldn't take it with no protection.

We got a late start down the trail and it was 1:30 p.m. by the time we reached Horse Trail Canyon. I felt rather sure that we were not going to try for the river this time, and I went up this tributary canyon which is the first one on the west as you walk north from the mouth of Hualapai Canyon. I left my pack and canteen at the fence and soon found a trail. Right away I noticed a broken wagon wheel and a heavy iron

pump lying there for what purpose, I wouldn't know. Just beyond on the south side, there was a rather fresh looking grave profusely decorated with artificial flowers. This canyon is much steeper than Hualapai and there are many large obstructing rocks in the bed. The trail goes around these places by some most ingenious twisting and obscure bypasses. Several tributaries come in from the north. I doubt whether one could even scramble down the first one, but the others look possible. I rather think that Jerry Bortle and John Day came down one of these instead of going farther west and using the trail. At the main split there is a gigantic mushroom rock that would be fine in a picture, but I had left my camera in the pack below. The trail leaves the creekbed most of the time and eventually goes out and up on the south side. It even doubles back to the east to get above a ledge and then comes back to the bottom of the wash where the bed levels off even with the Esplanade. I reached this level in 40 minutes and went back down in 30 staying near the bottom of the wash instead of using the easier but longer trail. I would recommend this canyon trail as being one of the most interesting I have seen.

I ate a belated lunch as I walked to the campground and found the party, except for Hunt and Cureton, busy starting a fire and preparing for a still more belated meal. Hunt was talking to the Marshalls, the parents of the Indian boy who is living with the Hunts in Flagstaff. I used my time to go down and see Mooney Falls and inspect the mine shafts along the way from Havasu Falls to Mooney. The unusual feature of the falls at this time was the amount of ice. Navaho especially had festoons of ice hanging from the red travertine. There was not much beside Havasu, but the spray from this fall had blown over and put a heavy coat of white on a large area to the northwest of the cataract. Mooney had both, a fine frozen fall on the vertical block and also a large sheet of frozen spray on the ground. There are three mines beside this trail, the one nearest the campground being the largest and having the most branches. After I showed Jay how much warmer the interior was, we all slept in this shaft and had a fine night's rest.

Allyn bunked near me rather close to the entrance. As soon as he was awake, I told him what I wanted to do with my time, follow Wampler's tip and go up on the Esplanade between Havasu and Navaho Falls and then keep to that level right around into Hualapai Canyon. We ate breakfast and told Hunt what we wanted to do. We got to the top of the Redwall where we had gone up a year ago last November, just south of Havasu Falls. On our trip to the top of the Redwall above the mouth of Havasu Creek, I had noticed the place where one could climb to the top of the Supai, but I had not looked at Wampler's description recently, and I became confused. I took Allyn north along the top of the Redwall instead of turning to the south. We got as far as Mooney Falls without finding the break and then returned to camp. We did review the location of the small window through which one can see Mooney Falls. It's directly above Mooney and not on the north side of the next bay as I at first thought. An Indian dog had been following us ever since Allyn had gotten his breakfast at the campground. On the return we put our packs down at the top of the Redwall and came down Ghost Canyon just north of the campground. I'm rather sure I went part way up here about 1946 on my trip to Supai, but the details had been forgotten. Quite close to the top, there is a ten foot drop that must be negotiated with hands as well as feet. The dog refused to jump down here. I noticed that the miners had improved on nature here since I saw a drill hole for blasting. There are also numerous artificial steps at other places along this route and two iron pipes and a wood ladder in position at the very bottom. After telling the rest that we couldn't find the way to go up on the Esplanade, we agreed to go past the village and order the horses for the removal of the duffel. Then Allyn and I were going to go up Horse Trail Canyon and parallel the trail through Hualapai Canyon on the upper level. We were going back to the village by the route west of Navaho Falls.

As soon as I got to where we had come up the first time, I saw Wampler's route up the Esplanade. In order not to break our agreement with the rest of the party, Allyn went on to the village to order the horses and go up Horse Trail Canyon while I proceeded up to the top of the Supai. At the top of the long talus, there were a couple of places where it seemed that one might get through the lower cliff. One was around a corner in a ravine, so I relied on the one I could see best, directly up from where I was walking. As it turned out, this was quite difficult for me with my pack and canteen, but on the ledge above, I saw a row of cairns about 20 feet apart, so I knew I had missed the easy way up. There has been enough traffic up here to make a pronounced trail, and there were no more difficulties in getting to the top of the Supai. The route is interesting, however, since it finds the only practical way. This would be the time of year to make long treks along the Esplanade. There were numerous places where the ice was melting on the flat rocks. Progress is about as slow along here as one learns to expect of the Esplanade. I took just over three hours of walking time to go from Havasu Falls to the head of Horse Trail Canyon. Allyn was there to meet me. We required about two more hours to go from the head of Horse Trail to where we could easily drop down into Hualapai Wash. We could follow horse tracks or an actual trail for almost all the way. Along the Esplanade north of Horse Trail Canyon, I came to two gates through short barb wire fences. The view towards Manakacha Point was not reassuring that we will ever be able to climb down here. If there is a chimney through the cliff, it doesn't show at this distance. The view up Havasu and Lee Canyons was most impressive. I was familiar with Mount Sinyala, but I got a better impression of Mount Wodo than I previously had, and the snow on the promontories lined the main branch of Havasu to the southeast was a bonus that was most inspiring. This route out of Supai is about twice as much effort as the usual way, but I heartily recommend it.

Around Pattie Butte  
[February 2, 1963]

Marshall Scholing and another ranger had given me the idea of following the top of the Redwall east from the Kaibab Trail. At first their ambition was to climb Pattie and Newton Buttes, but they had decided on closer inspection that these climbs are for the bolt and piton operators. They had gone down the Redwall into the upper end of Cremation Canyon on the east side and had returned by the Tonto and Kaibab Trails.

I left the Kaibab Trail where it has already cut down through the highest of the series of Supai cliffs, just below the large fossil footprints. You then go to the south to get a break in a rather persistent small cliff. An indistinct deer trail can be followed most of the way to the east. It follows a contour which on the average is about 50 to 100 feet above the top of the Redwall, but when it crosses ravines, it often comes right down to the top of the limestone. The going is pretty rough, but there are not so many thickets of brush as there are on the north facing slopes of the north rim. One can make fairly good time and get around to the east side of the east arm of Cremation about two and a half hours after leaving the Kaibab Trail. I was out on the point northeast of Pattie about three and a half hours after leaving the car.

From the west rim of the long arm of Cremation, one can see breaks in the Redwall on the opposite rim. Marshall Scholing and his friend descended one of these. I had noticed one of these in 1957 when we visited the figurine cave in Cremation. These breaks don't appear to be so possible when one is directly above them. I really intended going down as far as the talus on this trip, but when I was on my way back,

I decided that there wasn't quite enough time. Another point of interest was a well built cairn right along the deer trail below the northwest corner of Newton Butte. This may mark the place where Scholing decided to turn back. I had lunch and took a couple pictures from the point northeast of Pattie and then went over to the longer one north of Pattie. The river is out of sight from both of these, but there are impressive views of the rugged Schist through which Clear Creek runs, of Zoroaster Temple, and of the whole canyon both to the east and the west.

One could easily climb the lower half of Pattie, but the two upper tiers seem to be unbroken verticals. (It is possible.) On the return along the west side of Pattie, I flushed a deer. There was time for either an inspection of the climb to the saddle south of Newton or of the way down through the Redwall. I chose the former and found that there are ways through the two walls of Supai that seem to bar the way. The way through the lower cliff is directly west of the worst part of the saddle and the deer trail through the upper one is a hundred yards farther south.

An observation that surprised me somewhat was to note how relatively high in the Redwall the caves are. When we climbed into the figurine cave, I hadn't realized that it is about three-fourths of the way from the bottom to the top of the Redwall. The other cave farther north on the west wall looks more impressive from a distance, however, I think that it's harder to reach. I can't remember whether Art Lange has explored it also. The return was without incident except that I seemed to be more weary than I should have been after a relatively short hike. I reached the car by 5:30 p.m.

#### Shinumo Wash Trail

[February 9, 1963 to February 10, 1963]

Henry Hall arrived from Phoenix about 9:10 Friday evening and by 9:20 we were off in the Jeep. A rather chilly and short night was spent at the roadside park some miles south of The Gap. In the morning, the car started without trouble and we moved up to the road west from Cedar Ridge before Henry built a fire and ate breakfast. Mine was raisins and bread eaten in the car. We got gas at the trading post and I asked for directions to the trail head. They gave me some help, especially the direction that the road went south of Shinumo Altar and then turned to the north slightly. We found the way with no real mistakes although there were numerous chances to choose between equally likely forks. Directions for reaching the trail might go as follows: after going over the hill west of Cedar Ridge, pass by the turn-off to Cedar Ridge Corral and keep to the north side of a long ridge of Moenkopi. Just beyond the end of the ridge, go past an outlier butte and angle northwest toward Shinumo Altar. You can skirt the south side of the Altar on a minor track and pick up a better road beyond that takes you on to the old Tramsite. About a mile before you reach the rim, you turn to the right and reach the head of the trail in about another mile and a half.

We had been told to go clear to the rim of the canyon at the Tramsite and then turn north. We were not sorry to see the views from the tram anchorage. We could see just beyond Vasey's Paradise upstream and a lesser amount of the river downstream. Next we followed a track to the north and got out on a point from which we had a fine view of the opposite rim, including the routes I had used to get down into Bedrock Canyon. We saw that we were still some distance to the south of Shinumo Wash. After backtracking along the road, we decided to take off cross country to shorten the route. This turned out to be a mistake, because we had to drive slowly and furthermore, I broke the wire to the tail light.

Eventually, we reached the road that leads to the trailhead. We found a big cairn which we assumed was at the trailhead and then drove on to a point which gave us a fine view both up and down Shinumo Wash. We couldn't see the river, but we got a good idea of the way the trail leaves the rim, a really spectacular operation. The trail at the very top is marked only by a row of rocks as a border, but it soon comes to the rim where it drops a few feet down into a shallow gully and then goes around to what is nearly the face of a cliff. This is broken by a series of ledges which were probably connected originally by more cracks. By some use of crowbars and drilling and the use of retaining walls, the trail builders developed a horse trail. At present, however, there are some places which would be hard for a horse. The trail is quite easily recognized down to the bed of the wash. Then for a quarter of a mile, you stay in the bed. For the next quarter mile, you go up to the left and return to the bed where the Supai rock becomes a high cliff on the left. When we had been going for about one and a half hours from the car, we came to a place where the Supai forms a floor clear across this rather narrow bottom. There were water pockets here with plenty of water for camping, and the ledge along the left was under an overhang where we could keep dry in a rain. It was only 1:00 p.m., but we elected to drop our packs here and do the rest of the hike from this base.

When we were through the narrows and quite a bit more rather rough going, dodging large rocks in the bed, we caught the trail going up to the left again. This conducted us about halfway to the river. After another stretch in the bed, we reached the trail that goes around the corner and parallels the river. Progress was relatively easy and we came to the next side canyon and then the break leading down to the river.

We noted a peculiar phenomenon a few hundred yards before the trail goes around to the river cliff. I heard a distinct hissing that I couldn't account for. Henry assured me that I wasn't suffering from an hallucination. I poked around with a little stick and found that a jet of air was coming out a crack between boulders in the streambed. The crack was only as wide as a pencil and only a few inches long. The jet was strong enough to snuff out a match. I had never heard of such a small blowhole.

Another observation that had us guessing was the marks in the sand on the right bank. There were some reddish markings on the sand and then at the brink were many small grooves that were almost straight and parallel. I first thought of the marks left from boats with protecting strips on their bottom have been beached. When I went closer and thought about it, I came to the conclusion that both types of mark were caused by the melting of snow and ice. After another quarter mile, it became apparent that Henry wasn't going to be able to get along the trail opposite Vasey's in the allotted time. He agreed for me to go ahead as fast as I could and see whether I could make it in another half hour. I trotted down all the declivities and hurried all the time. It was the most interesting part of the trip for me. I noted one place south of the break at Mile 30.3 where one could get down from the top of the Redwall to the river, but downstream from here was the route used by Stanton leading away from the Indian ruins. There were two or three places along this leg where one could not walk the bench even at the present low water. Incidentally, the river did not seem unduly low. Perhaps now, all the present flow is coming through the higher diversion tunnel. The island supposed to be in front of Vasey's was entirely covered.

Vasey's looks so drab in the winter that I didn't recognize it from the rim at the tram site. It had been warm for more than a week, but there was still a small patch of ice at the base of the rock where the north facing spring puts out a small flow. Another point of interest was an artificial terrace just below the trail where two tent poles were lying. I was sorry I didn't have time to follow the trail to its end, but I had

exactly reached my time limit here. On the way back up Shinumo Wash, I noted a big rock lettered BM3 with the last number covered by a rock pile supporting a stick which had carried a flag. The next morning we got out to the rim in a little over two hours from our campsite.

Bridge west of the Tanner Trail and the seeps below Desert View  
[February 23, 1963]

Doug Shough and I got a prompt start down the trail at 8:00 a.m. and reached the place where it starts down the Redwall by ten. I underestimated the time it would take to go along the top of the Redwall around the bay to the west. It took almost an hour to get behind the bridge and then find our way down to stand beneath it. Something else that surprised me was to find about three cairns along the top of the Redwall. Maybe the old time prospectors knew something that they wanted to look at later. There were none particularly close to the bridge and we built a couple a yard or two behind it. The size of this structure is not impressive. Twenty-five feet high would be a generous estimate.

While we were getting over to the bridge, we noticed that the Redwall just to the north of the bridge was pretty well broken down. When we had taken the bridge on film from all angles including using its arch as a frame for Comanche Point, we started down the scree slope that covers much of the Redwall. About halfway down, there are two or three rather continuous small cliffs. After a bit of study, I found a ravine that cut through these ledges. We angled down to the south and ate lunch at the top of the Tapeats, but there is a good break in the Tapeats directly below the break in the Redwall. Indians could have come up this way from the fort near Cardenas Creek and saved several miles. After looking at the map, I've decided that if I ever want to go to Unkar Creek again, I'll follow the Tanner Trail only to the point southwest of Cardenas Butte. From here I'll go over the pass west of Cardenas and out to the place where we just went through the Redwall. I could go through the Tapeats and then go northwest around the point before trying to go father down. Basalt cliffs bar any immediate descent.

In a former log, I gave a location for the natural bridge. It's near the top of the Redwall facing east and is about two-thirds of a mile directly west of the place where the Tanner Trail starts down the Redwall. It's about the same distance north and slightly west of the top of Cardenas Butte.

The shale slope just above the top of the Tapeats looked quite steep, but just as I hoped, there was help in the form of a faint deer trail. Progress was easier than it had been along the top of the Redwall and we reached the main trail in the saddle just below the cliffs of greenish shale. We followed the trail south beneath these cliffs until it came to the ravine where it goes up. We wanted to see the seeps I'd heard about in the east arm of Tanner, so we left the trail and followed the contour to the east. Eventually, we decided to get down to the bottom of the wash not far from where the long arm comes in from the west.

This hike was less than a week after the latest snow and rain, and the clay was still muddy in many places. We weren't surprised to find some water in spots where the creekbed was shale. Above the junction of the two arms, water was dripping from the walls in at least three places. Drops were coming over the lip of a fall in a side gully on the east, and there was more water where the main bed ends at the impassable fall in the lower shale cliff. We backed away and went up an old slide of boulders and clay on the east. On this slope I found a badly weathered leather glove. The narrow ledge to the south and the scramble to the top

of this cliff led us back into the bed and two more seeps. I wouldn't count on these sources during the dry part of the year. One would have to leave pans and cups under these drips for several hours to harvest a gallon of water. We reached the car at 6:00 p.m., after walking for the last mile through four or five inches of snow.

Little Colorado River, Hopi and Moody Trails  
[March 9, 1963]

Three students: Doug Shough, Steve Windward, and Margaret Puckle, went with me to the end of the cable across the Little Colorado River about ten miles west of Highway 89. We noticed that there was enough water in the river to kick up some small rapids that were easily audible from the rim. We got out the map and figured that we were at Mile 46.7. On the way to the Damsite Trail, we had to cross a slight gully before we came to the major faulting at Mile 47.5. We could tell that we were at the right place because of the angle in the river, but this can only be called a trail by people prepared to go down an 80 foot rope or ladder. We stood at the lip of the wash and looked over the walls in the vicinity, so we are sure there is no way down.

When we had climbed out of the ravine to the east, we soon hit a sort of trail or old wagon track. While Margaret rested, the three of us went over to the rim of the canyon, already quite a bit lower, and looked down to see what the Damsite could be. Along here, Mile 48.6, there's a curious inner narrows at the bottom of the main canyon. We soon sighted a foot bridge, only about 30 feet long that spanned this inner gorge which is probably 60 or more feet deep. It would be a real sight to see this part of the river at flood stage. The surveyors had also left a couple ladders at places against the wall to the north. When we had walked along the rim to the part directly above the footbridge, we found a truck road leading down to the rim, definite trail construction for a few more yards, and then some heavy wire fastened to a steel rod that must have formerly anchored a long ladder. Here the drop was not as great as at the Damsite Trail, but it must have been a good 40 feet. We could see a trail going downstream on the other side staying above the inner gorge.

When we went back to the main trail below the red bluffs (Moenkopi Sandstone I think.), Margaret joined us. Along here we found a number of pieces of petrified wood. Without even leaving the sheep and stock trail, we noticed one piece as big as a volleyball. It was easy to see where the Hopi Trail went down into the riverbed. There is no cliff left. One could recognize it turning back to the west across the river as it goes up. Three of us waded across in bare feet and wondered how anyone could stand water that cold when it's more than ankle deep. While we were returning to the car, Margaret had so much trouble keeping up that she decided not to try to follow us as we went looking for the Moody Trail.

When we started to look for the Moody Trail, I slowly came to the conclusion that I had been reading the map wrong. I had thought that the scenic viewpoint is west of Mile 38. We parked near a hogan just off the viewpoint spur and started walking. We soon decided that the viewpoint must be just west of Mile 39, and we found that we could have driven much nearer the area of Hellhole Bend. The piece of Grand Canyon Highway shown on the map is the unpaved road that still leads towards the area east of Cedar Mountain. The part we walked over is in good shape and wouldn't require a four-wheel drive vehicle. Leaving the road, we walked north and reached the rim at Mile 32.3. Shortly before we got there, Doug

noticed a Navaho and went over to ask him about trails to the bottom. The Indian spoke English well, but he knew nothing of a trail in the area. In fact he said there was no chance to get down in the region just north of Hellhole Bend. He was vague about the possibility of getting down farther to the north.

There was no time to go north and west, so we decided to give the vicinity careful scrutiny even if the Navaho had assured us that there was no way down. After assuring ourselves that there was no way down where we hit the rim, we cut across the point and studied the rim south of Mile 34. Very soon we were sure that the map is wrong in showing the trail starting down from the upper rim. As a last resort, we went to the bottom of the wash which enters at the angle just above Hellhole Bend. Upon further examination of the map, I now notice that the trail is supposed to begin where a contour line bends to the west. As the wash ended abruptly above an impossible cliff, I was almost sure that there was no trail around but to be entirely sure, I followed a slight ledge around to the north where there was a further chance to descend a few more yards to a crack which seemed like a forlorn hope. Just as I was giving up, I found a heavy wire fastened around a loose block which had further smaller rocks piled on it for more security. The wire had been there a long time as it was rather rusty. There were kinks for handholds, but I would much prefer to bring my own rope. Rocks wedged in the crack below would furnish steps for resting, and only about 40 or 50 feet would have to be climbed in this way before you reached a talus that would take you clear to the river. The Indian Maid Trail across the river looked like the same sort of climb, apparently impossible near the top, but probably there is some sort of chimney to climb on that side too. The Little Colorado River Gorge is growing on me, and it will give me several projects that can be carried out in a single day. We came away from this day's looking, thinking that the gully to the west of the viewpoint seems easier than some of the places labeled as trails on the map. I want to check this route to the bottom rather soon.

Rim above Slate Canyon, Papago Point, and Coconino basin  
[March 16, 1963]

So many predictions of snow had failed this year that I went ahead with plans for a two day trip down Slate to the Colorado River. I did change from the project of going out on Great Thumb Mesa because of the likelihood of snow. Doug Shough and I got to pole number 355 and shouldered our packs containing, along with the usual bags of food, two ropes and a gallon of water apiece. We had a bright spot in the overcast instead of the sun to guide by, and we hit the rim in 35 minutes southwest of the break we wanted to descend. I felt a bit of uncertainty about the place. After we had gone down to the actual drop-off too soon, I decided to go along until we were surely too close to Diana and then double back if necessary. Almost immediately I found a low rock pile at my feet and remembered that Allyn had built one here. The details of getting down two six-foot ledges near the rim had me guessing a bit, but soon we were headed for the break in the lower rim that leads to the pinyon where we would fasten the long rope. The ground was frozen with a few loose pebbles on the surface and it was covered by an inch of new snow. A slip here would have sent one down 20 feet to the main precipice, so I decided to back out. Doug is a better companion than I've had for years since he lets me go first and takes my decisions without any argument.

We got back to the car with the position of the sun for a guide. We had left the rim at quite a different place from where we hit it, but we crossed our tracks on the way back and tried to follow them. This

worked for a few hundred yards, but then we lost them again and reached the road seven poles west of the car.

I was in a quandary as to how best to spend the rest of the time at the canyon. First I thought of taking Doug down the Hermit Trail and trying to go from the trail to the cleft in the Redwall at the head of the gorge, but then I thought more of some exploration of the Little Colorado River Gorge. We reported out of our trip at the visitor center, and I talked Indian ruins with Ranger Norman Messinger.

On our way east, my eye was caught by the point which I later learned is Papago. The semi-isolated island at the end would make a good site for a defense ruin. On our way along the rim, we also sighted a window. It's a careful but not difficult climb down from the main rim over to the island. There seems to be a slight residue of breastworks facing the rim but I saw no obviously artificial construction nor sherds. The views from here are among the best. Lower 75 Mile Canyon is right below, and I noticed an unusual overhang level with the streambed on the east side of one of the bends. It was a bit upstream from where I climbed out to the west. The views of Escalante and Cardenas Buttes seemed finer than they are from Lipan Point, and a small butte (our name for it is Wedding Cake) on the long ridge of Redwall north of 75 Mile seems interesting from here. The river was now down to 1000 cfs and it was running almost clear. The color was about as green as it was two winters ago.

This time we came out of the junipers about 200 feet from the car and I decided that the weather was deteriorating so that camping out by the Little Colorado Gorge wouldn't appeal. To do a little more before we headed for Flagstaff, we looked down the draw almost to Desert View on the east for the landmark, a round black rock, which Pat Reilly was told marks the head of the Salt Trail followed by the Navaho. In 15 minutes we came to the drop-off without seeing any more than a deer trail. From the looks of the basin ahead, I would say that the Navaho would have been smart to follow the route I noted west of Cedar Mountain. They could have come along the lower level up past Cedar Mountain. The rim is lower on this side and it would be easier to go down here. I saw no special rock near the trailhead, but I wasn't looking for it.