## Harvey Butchart's Hiking Log

## **DETAILED HIKING LOGS (December 27, 1966 - August 18, 1967)**

Diamond Peak to Granite Park [December 27, 1966 to December 31, 1966]

Jorgen Visbak spent the night with us in Flagstaff and showed me a lot of his fine pictures Monday evening. The possible hikes were restricted by the closing of the Kaibab Trail and the snow on the road west of the village. We settled on a trek to Granite Creek via the Diamond Peak Pass and the left bank of the Colorado River.

The road down Peach Springs Wash had been rerouted in several places and was quite safe. I remembered how it had been last June and kept expecting it to get bad. I lost my nerve and parked about two miles short of Diamond Creek. Actually, there would have been no difficulty in getting back from the junction, but it took us only 40 minutes to walk down to the water. The walk up to the pass was longer than it seemed from a distance and took us an hour. There was one place toward the top where it was not only steep but had an abrupt drop. On the return we found a game trail around this place using the rockslide to the east.

The east slope of Diamond Peak is quite steep, but it seems very broken and I would consider it a real possibility for me to climb. Near the top, I believe I could go up the summit ridge from the south. I had thought something of continuing upriver at the level of the pass, but we soon saw that this would involve some very rough travel. The route down to the river was much better. I noted, however, a way to climb the Redwall to the east of the pass.

We went clear down to the river before proceeding upstream, but on the return we found that there is a trail along the contour about 300 feet above the river which leaves the bed where it becomes rougher. Above this place a sort of travertine conglomerate forms an even floor. On the return we supposed that a skyline near the peak was the pass and Jorgen elected to go up out of the bed to it. I decided that I would stay in the bottom and join him at the top. I soon changed this plan and went up the next tributary to the west. I joined him at the crest of a ridge while he was enjoying the supreme thrill of our whole trip, the sight of nine bighorn sheep in one band. We tried some long range pictures as they filed across the ridges and valleys to the east. There were no real difficulties along the river up to 222 Mile Canyon, but the walking was over broken blocks, short sandbars, gravel bars, and through some mesquite. We found on the return that we made better time along the trail that leaves the immediate river vicinity about Mile 225. We reached 222 Mile Canyon at 5:00 p.m. with the interval since leaving the car at 1:20 divided up as 40 minutes to reach Diamond Creek, an hour to get up to the pass, a little less to get to the river, and a bit more than an hour to walk to Mile 222. There was enough wood and room to put our bags on fairly level sand. On the return Jorgen even located a shelter big enough for two under an overhanging block of diabase about a hundred yards up the slope. In the morning, we made our way almost immediately past a big outcrop of diabase. This material cracks up in odd shaped lumps and seems to acquire a shiny desert varnish. The walking was easy to Mile 221.1 but here the igneous rock comes right down steeply into the water. We tackled the traverse on ledges about 50 feet above the river to get through all right. This was

better than our choice on the return, a climb up to the base of the sedimentary rock and a steep descent of around 400 feet. The going near the river was easy to Mile 219.6 where we had to decide whether to go up a ravine to the north or try to climb by the black rock cliffs along the river. After getting by the first difficulty where we took off our packs and passed them by hand, we came to a nearly vertical climb. I went up the first pitch with my pack on my back, but Jorgen didn't trust the rotten rock and precarious holds. I scouted ahead and came back with the report that we would be certainly stopped ahead. The return down the small cliff was worse than the ascent and I had to let my pack down by a string until Jorgen could support it. Then I tossed my canteen down to the sand. Jorgen thought that it would stay where it landed, so he didn't try to catch it. Instead it rolled into the river. He acted fast and plunged in getting one very wet foot in order to save the canteen. We got back to the ravine and ate lunch before going on. In this ravine at Mile 219.2, we saw some copper ore, blue and green streaks in the Tapeats Sandstone. At the top of the ravine we dropped down a short way to cross a small wash and then climbed higher and toward the river beyond. On the return, we found that we were paralleling a trail through here. When we were descending to a more uniform contour walk along a bluff above the river, we found the trail. In coming back we followed the trail more consistently and found a mining claim containing a legal paper with the information that in 1957 Fred Mahone, a Hualapai Indian, was reviving a claim that was first discovered in 1921. From about Mile 219 to Mile 214.5 we were able to follow the trail quite well and the miles went by easily. The vistas were fine along here also. There were impressive rapids in the river and the side canyons looked intriguing. The river sheet names one Trail Canyon, presumably indicating an access route for the burros that seemed much more prevalent along the right bank than on the left, a condition that held true all the way to Granite Park. It also seemed that the walking might have been faster along that side.

We found that the springs were as shown on the river sheet with water in the canyon at Mile 220.5 and more and better water at Mile 215.5. As we approached Mile 214, it was getting close to 5:00 p.m. and we chose a campsite soon after we were past another outcrop of black diabase. At this outcrop we made the mistake of following the terrace above the river along the shelf of Tapeats Sandstone. We were not stopped but it was slow getting by the huge black igneous rock. We camped opposite 214 Mile Creek. It turned out that this was a fine campsite with quite a bit of wood and even a shelter under a leaning rock that we had to use during the rain that arrived the second night of our stay here. It had been eight and one half hours since we had broken camp, but we had wasted an hour on the attempt to force a way along the river instead of leaving it at the copper deposit.

On Thursday morning we started a little earlier than before and promptly made the mistake of getting too high on the talus slope. There were two or three ravines just above the river. There seemed to be no more trail but there were no definite obstacles either. We covered the five river miles to Granite Park between 8:15 and 11:40 a.m. The area was most interesting and the broad plain at the mouth of Granite Creek formed quite a contrast with most of the Grand Canyon. The island is quite a landmark. As we walked over the dune near the east slope just south of the creek bed, I found some potsherds, and when we inspected an overhang at the top of the dune, Jorgen found a small bone that had been decorated with parallel scratches and had a hole drilled through one end.

When we were rounding the bend at Mile 213 on the return, Jorgen saw something that I had just walked by only a few yards away, a mineral spring that had been reported by John Harrington who had come all

this way up from Lake Mead. John had been so busy keeping the boat off the rocks that he hadn't been able to remain oriented on the map and he wanted us to get the location of the spring. The spring water is the same bilious yellow green as that of the Sipapu in the Little Colorado. Similarly there is a good deal more gas coming up than water. The temperature of the pool was higher than that of the river, but it was no warmer than would be expected of a constant yearly average. The most interesting feature is the smooth, nearly vertical dam that curves around the pool and separates it from the river. The rim of this dam was about eight feet above the river level. There was an interesting indentation in the Tapeats shelf about Mile 212.6 which would have made a good landing for boaters if the river had been higher. During the evening there was no wind, but before 8:00 p.m. we noticed that no stars were showing. Jorgen found the good shelter with his flashlight and about 1:30 a.m. we had to move into it since the drizzle had started. We had to do some shifting later when the water began dripping right on Jorgen. In the morning the world had undergone a fantastic change. Fog and falling snow obscured all the higher buttes and snow had whitened the benches to within a few hundred feet above us. We walked until nearly noon in the light rain and hoped that the sun would dry things before it was time to camp. There were very few natural shelters where the floor was level enough. After several false starts the sun finally showed, but by the time we had reached our site at Mile 222, it had set behind the cliff. It took seven hours to come from Mile 214.

Attempted descent at Mile 21.9 [January 14, 1967]

The first time I had followed Reilly's lead and had gone down the small canyon at Mile 21.7, I had been unable to find a rappel less route through the Coconino. When I tried again with a rope along, I found a way through that formation without a rope, but I had run out of time when I came to the Supai rim above the river. The falls in the main canyon are obviously impassible, but I had gotten the impression that the secondary ravine to the south might furnish a passage. The main purpose of this hike was to see whether this route would go.

Chuck Johnson, student, and Betty Emery, instructor, came with me. Perhaps as much by luck as by map reading, we found almost the best approach by car to Piute Cave on the north rim of the right canyon. We left the highway as usual a little north of Curve Wash just beyond a turnoff to a group of Navaho houses that are east of the highway. At the fork very close to the bed of the small wash in the bedrock, I kept to the left. I had thought that the two branches would soon rejoin, but I was up on the top of the ridge before I saw a track coming from the north. I turned right here and soon had to decide whether to turn left on a long straight stretch that went northwest down across a sloping plain or keep to the right. We took the right, but before long we found ourselves going back to the highway with a sheep corral in the valley down to the left. We returned to the straight road to the northwest and stayed on the main track. At one place we passed up a hogan that would have meant a left turn. Beyond here there were no tracks in the shallow snow. The road bothered me by turning almost north or even a little east for a while, but then swung northeast again. We kept up on a ridge and came to a place where we would have had a steep descent to a stock tank to the right and here we parked. We headed, on foot, west toward the rim of a canyon that had developed in the valley to the south and found that this was Mile 21.7 Canyon. We found wheel tracks down off the ledge to the south and these led right to Piute Cave. We could have driven right

to the cave if we had made an obscure turn back about a half mile, but walking time from the car to the cave was only 15 minutes.

The snow in the bottom of the canyon made the footing precarious and I fell more than once. At the drop offs in the bed where one had to get down by small footholds, fortunately there was little or no snow. Where the canyon comes out on the wall at the top of the Coconino, there was a little snow on the exposed ledge, which made me move along here with extreme caution.

As we arrived at this place, Chuck pointed to a precariously balanced pile of large blocks of stone resting on a thin slab that was standing on edge. We almost felt that we shouldn't shout as we passed below.

I was slow in getting down the Coconino over to the south to the ledge that is the key to the descent, but while Chuck was looking around for my route, I caught up and went along the lower ledge to the east and down to the talus. At a place on the lower talus, I pointed out fossil footprints on a block of Coconino.

It took us two hours to go from the car to the rim of the Supai where I had stopped before. Here Betty decided to stay and take some pictures of the river. Then Chuck and I went over to the bed of the ravine to the south, we could see at once that we were stopped (Doty found the way down from here). We ate an early lunch out on the point above the river. I noted three only slightly submerged rocks just to the right of the middle of the river about Mile 21.6. We reached the car in 115 minutes. Just below the cave, Chuck showed us a wildcat that I had passed about six feet away. It was a thrill to see how easily it could get down and up the other side of the canyon.

Moran Point to the head of Papago Bay [February 4, 1967]

Norvel Johnson and I parked at Moran Point about 9:00 a.m. and went along the rim to the east. My main objective was to get a precise location for the ruin that David Hunt had shown to Marshall Scholing and me on July 4, 1961. David had said that he thought Zuni Point was one or two points west of where he showed us a small promontory with a wall facing the main rim. As I remembered it after five and a half years, the charcoal drawing on the wall of a shallow overhang was just back from the point to the west. I also have a picture taken here of a small wall showing some clay construction. It didn't take us long to reach this site from the highway, probably not more than ten minutes. David had been shown a mark along the road where we should leave it to walk to the rim.

The rim between Moran and Zuni Points didn't appear to offer any suggestion of a promontory or overhang. Beyond Zuni, we often got just below the rim and checked under overhanging rocks or little cavities, but with no success, until we came to the point that separates the bays of the two arms of Papago Canyon a hundred yards to the southeast there was another point that has an outlier butte with a crude wall on it. To reach the top we had to go southeast about 50 yards. Norvel got down one place but I went a little farther and went down a notch in the rim. On our way back to the isolated platform, we passed a low ceilinged cave that was partially closed with a wall. We had a rather difficult climb up a notch on the east side of the citadel to the top. There appeared to be little evidence that this outlier had been more than a temporary fort. On the west side and 50 feet lower at the farthest north, one can go along the bench.

There is a hollow that is still sheltered by an adobe wall. West of this is an impressive limestone tower with a scree filled slope going down to the north between this tower and the butte with the wall on it. My impression is that one would not get far down before coming to a cliff.

About halfway from here to the deepest part of the Papago Canyon Bay were two more promontories with construction on them. One seemed too easily reached from the rim to be worth while for defense, but when we walked out on it, we noted low ruined walls outlining about five rooms. I should have carried a pencil and marked them on the piece of map which I had along, but almost as soon as we had passed on, the exact location for these ruins began to seem hazy. When we hit the highway at the head of the east arm of Papago Canyon, we had time to walk back to Moran Point and come back along the rim looking once more for the overhang with the charcoal drawing, but we still couldn't locate it. I began to wonder whether it could have been east of Papago Point.

When we were looking across to the east side of the Papago Canyon wall, we noted a place where there is almost a sure route through the Redwall, and above it one could walk up a long talus slope clear through the Supai. At the near approach of the highway to the head of Papago, one can walk down through the Kaibab and some of the Coconino. We couldn't see the rest of the formation, but it would bear checking. There is also another break in the rim farther east where one could go through most of the Coconino, but the bottom appears bad. Investigating these places would be a one day project. It would be interesting to find that there is still another route from the rim to the river, down into Papago and then east to the mouth of 75 Mile Canyon (or right down Papago three ways). At times we were on the old road out to Zuni Point.

I believe this is the place I was looking for. If we had gone back from the point below the rim to the west, we would have found the charcoal drawing (no success on February 18, 1967).

Ruins above Papago Canyon and two false descents [February 18, 1967]

I still thought I should be able to locate the ruins shown in the pictures taken on July 4, 1961 when David Hunt took us to the rim which he called east of Zuni point. This time I parked not far west of the low point in the road at the head of Papago Canyon and walked along the rim to the northeast. I kept the map in my hand and consulted it frequently. This was not the complete answer to my difficulties, because there are minor promontories so small that they are not shown on the east half map.

About a fourth of the way from the head of Papago Canyon to Zuni Point, there is a narrow promontory shown. It is the one mentioned in my former log as having no value for defense, but there are outlines of rooms on it. On this second trip, I also ran across a couple of rooms just west of the base of this projection. Across a small bay to the west, there is a lesser promontory with a slight notch separating it from the rim. Norvel and I had gone up on it and found quite a few ruined walls. Today when I got out my black and white picture of Hunt and Scholing standing near a wall, I could make a positive identification with this wall and background. This was the promontory with the vestigial wall protecting a pocket under the cliff 50 feet down on the west side. A triple tower just to the west of this shelter makes a good landmark. When I was sure that David Hunt had taken us here, I was ready to swear that the

overhang with the charcoal drawing would have to be nearby. I climbed down still lower and went west but found nothing that I was looking for. On the return I looked to the west at a higher level, but the charcoal drawing seems to be lost.

I already had the location for the isolated flat rock that involved the difficult climb mentioned in the previous log. It is the first projection southeast of the point that divides the two arms of Papago Creek. I recognized the small cave with the little wall on the lower approach from the east. In continuing along the rim around the next part of this bay, I found three rooms only a few yards from the rim at the southernmost bay part of this bay. At the double point directly east of the double point named Zuni, I turned back. On the return, I was able to walk right to the room outlines at the head of the bay, but I may have missed one of the sites in the woods that I had seen on the way out.

After eating lunch and looking some more for the charcoal drawing, I spent about two and one half hours checking two possible descents into Papago Canyon. The one at the head of the canyon went smoothly until I came to the beginning of the Coconino. Here I spent some time looking at two places before selecting my first thought as the best. I was able to go down 60 or 80 feet of Coconino, but then I was stopped. When I tried the place about a third of a mile farther towards Papago Point, I had to look a bit to get through the top ledges of Kaibab, but it was fairly easy and safe to get to the top of the Coconino. As I had planned from the rim across the bay, I went down to a neat little tower of red Toroweap Sandstone and then entered the ravine that had looked quite promising. A daredevil probably could go down here halfway through the formation (fairly safe through to the Hermit). However, since it seemed impossible to go lower than that, I didn't press my luck and returned to the rim.

There was still some snow left in the shade below the rim although the most recent precipitation in Flagstaff was several weeks ago. I would guess that the inhabitants of these dwellings along the rim may have used these houses only at certain seasons. They could get water by melting snow through much of the winter. Although living on the canyon rim would be cold, the Indians would have plenty of firewood.

Diamond Creek to 234 Mile Canyon [March 27, 1967 to March 28, 1967]

The road down Peach Springs Wash was still in fair shape although spots of loose gravel and sand made me worry on the return. I hit them faster than 20 mph in second gear and had no trouble getting through. If I had bogged down, I would have put on chains. The car was left at the junction of the wash and Diamond Creek just past the rise where trash from an old camp can still be found.

Since I couldn't remember clearly any route to the Tonto level nearer the river, I climbed up directly to the west. On the return I found that there is a break in a narrow ravine that reaches the creek almost a mile closer to the river. As you approach the river along the Tonto, you get an impressive view of Diamond Peak, and from this angle you realize that it has two summits, the north one being the harder (easier) to climb and also almost surely the higher. It appears to be a real challenge.

At the sacrifice of fine views down at the river, one can save some time as well as more distance by climbing over ridges. The first chance occurs very soon. I followed the burro trail along the contour out

above the river, but I am sure I could have climbed up through the gap in a ridge in less time. There are plenty of burros in this area, and they increase in numbers west of Travertine Creek. The trail is rather faint east of Mile 238 Canyon, but there are clear burro trails, usually at more than one level about everywhere else.

An observation that suggested a future project was an apparent route through the Redwall across the river from the mouth of Diamond Creek. To get out of the inner gorge, one should go up a draw a bit to the west (east) of Diamond rapid and then follow the Tonto around into a bay to the east. The very top of the Redwall seems to offer the only possible obstacle (east better OK). One might camp at the river and then cross, reach the top of the Redwall, and cross the higher elevations to Kelly Spring in one day. Going down Separation or Trail Canyon would make an interesting loop trip.

For the first several miles to the west of Diamond, just about every ravine on the south side of the river shows at least one break through the Tapeats Sandstone and hence there are lots of escape routes from the river. West of Mile 228, these breaks become scarcer, but they still seem commoner than breaks in the Tapeats in the familiar Bright Angel section. Something else that really surprised me was the prevalence of seep springs. Between Travertine Canyon and Bridge Canyon, the side canyon with no spring at the base of the Tapeats seemed to be the exception, and there always seemed to be a burro trail down to these seeps. Water above the Tapeats rim was very unusual, but there were wet spots in the bay just west of 228 Mile Canyon and of course Ervin's good spring from near the base of the Redwall from the east side of 234 Mile Canyon. Travertine Canyon has the most copious flow, almost as much as you find in Spencer Canyon. I saw a place where a man might climb the Redwall out of 228 Mile Canyon, back from the river on the east side but not back to the head. This looks easier than where Ervin climbed out in 234 Mile Canyon. However, 228 is so close to Diamond, it would pay a man to follow the Tonto east and then walk out Peach Springs Wash.

Despite the drought, there were quite a few flowers blooming. Beaver Tail Cacti were the most beautiful, but I believe I prefer the delicate Mariposa lily. Small migratory birds were also plentiful and their songs were unusual in the dry canyon. I watched for crucifixion thorn and found plenty growing at frequent intervals in the north facing bays. It is thicker on the slopes near the base of the Redwall. Ocotillo was still more prevalent all along the Tonto. Something that I had never before noticed were lots of Ocotillo with bark bitten off and the whole stalk covered. One stump had grown to jumbo size, 15 to 18 feet tall and the individual stalks were two and a half or three inches in diameter. Still only three stalks were standing and the rest lay around on the ground, cut off about five feet from the ground. The fresh bark had been chewed off. Something else that amazed me was to see staghorn cactus likewise with sections cut through as if the burros had found a way to use it for food. If they are reduced to eating Ocotillo and staghorn cactus, I would say that they must be hard up for forage. The Tonto did seem much more bare of vegetation than in the Bright Angel section where it is a good thousand feet higher.

If anything the walls of the Lower Granite Gorge from Mile 228 to Bridge Canyon seemed steeper than they do higher up the river. There were places where the dark walls seemed almost as steep as El Capitan in Yosemite National Park. One could stand on the Tapeats rim and look almost directly down on the river. When one considers the rapids with no visible gravel bars or ledges beside them, the feat of the Wheeler Party in getting rowboats upstream seems nearly incredible. It also amazes me that there would

be any men in that party willing to take the boats back down to Fort Mohave. I should think that they would have seen enough of those rapids to last them a lifetime.

The Tonto burro trail seems just about as circuitous along here as it is in the Bright Angel section, about three times as long as the river mileage. After leaving our car at 9:50 a.m., I sat in the shade of some rocks in 238 Mile Canyon for a late lunch and was ready to start climbing out of Travertine Canyon five and one half hours after leaving the car. Filling two half gallon canteens in Travertine, I went on at 3:30 p.m. and stopped at a dry camp only a couple of yards from the rim of the inner gorge about 6:40 p.m. just before reaching 232 Mile Canyon. The immediate reason for stopping just where I did was that I found a dead catclaw for firewood within easy reach below the rim. I slept right on the trail with plenty of rocks to wake me if I should start to roll towards the brink.

The winter weight down bag was a bit on the warm side, but I slept rather well free of the biting flies that were a real pest where I had lunch both days in canyon beds, 228 and Travertine. The weather both days was mainly overcast, and about midnight, it seemed as though a storm might finally do something. I hadn't scouted for overhangs by daylight, so I resolved to wait until the rain began and then put the plastic sheet over me, but instead the sky cleared up.

I ate breakfast before it was really light and got started walking by 5:55 a.m. with the main destination Ervin's Spring. This took one and a half hours, so I figured that there wasn't time to make my way down to the river where he had probably come up. I did spend more time following the rim above Mile 234 Canyon and east above the river, and I have about decided that there isn't any way to come up from the river between the mouth of the canyon and the place along the river where I took the overlapping pictures last summer. I didn't locate the projecting rock, however. If I took another two day trip in from Bridge Canyon I would have time to investigate this point further. If I were a good enough climber, I would like to get back to the car by Ervin's climb up the Redwall.

I got back to my pack just as I had planned at 9:30 a.m. It took me about 15 minutes less time to get back to the car than it had to come away from the car the first day. I took fewer pictures and I also cut across ridges away from the river. This was a loss as I failed to see Travertine Falls on the return, but I hope my picture the first day shows all right. There is a fine landmark at the head of 232 Mile Canyon just south of where I slept, a small butte capped by red sandstone standing out away from the Redwall. It is visible for miles, probably east of Travertine, and Diamond Peak is visible from west of Travertine.

On the west side of a short side canyon east of 228 Mile Canyon, there is an unusual outcropping of some metamorphic or igneous rock that comes up higher than the prevailing level of the Tapeats Sandstone. Above the rim of this, possibly gneiss, I found the only indication that Indians had once used this barren area, a mescal pit. It may have been fairly recent since I noted bits of charcoal.

Upper Beaver Canyon and Wescogame Point [April 9, 1967]

Allyn Cureton has been doing a lot of looking at roads and routes to the west of Havasu Canyon, and I was certainly happy to have him as a companion and guide. He knew that we should turn off the main

Supai road to Camp 16. We went through several stretched wire gates, the first one to the south of the house at Camp 16. I believe we were following the road that goes past Higgins Tank, shown on the National Canyon Quad but the road now goes to the west of the tank. North of the tank it forks, and since we had elected to go to Beaver Canyon first, we took the west fork. The place marked Bishop Camp on the map must be where we saw a burnt down building. There was a gate a mile inside the monument boundary where we turned due west for 0.6 of a mile. A pile of white rocks used to mark the turnoff to the north, but no car tracks show for about 100 yards north of the cairn. When you drive north and zigzag a bit, you soon pick up the track. At VABM 5947 there is a survey marker, and soon after you have to go over some mean rocks in the track. There are a number of other rocky places along these roads both here and on the way to Wescogame Point. It takes something over an hour to reach these positions from the main Supai road. The fork near the road end at Beaver Canyon seems more used than the continuation to Yumtheska Point.

At the end of this road, no trail is immediately evident, but when one follows the draw north 50 yards, he comes to the rim. You stay to the right and soon see the trail going down a few yards and then to the right under the first small cliff. It goes down and to the right at times using cracks between blocks leaning out from the wall. At one place the whole trail is supported on old juniper logs. They appear to have been cut by a steel axe. The trail below has many switchbacks in a steep scree slope and after swinging to the east finally cuts to the west to get through the Coconino in the middle of the canyon.

There is a long slope covering the Hermit Shale with soil which supports a thick growth of blackbrush before one comes to the canyon through the Supai Sandstone. The trail which had been patently artificial up in the Kaibab and Coconino was only intermittently seen in the canyon. Some burro droppings were to be found but these were not as numerous as the bighorn sign along the upper part of the trail. Three springs are located in the lower half of the Supai. Just below the middle one, the bed drops off sharply at three steps which together account for more than the 40 feet cited by Ives. A ladder might be helpful here, but now the trail is plainly constructed up on the left side to bypass about one quarter mile of the south steep bed. If Ives had been coming down this canyon, he could easily have gone up along this slope even if no trail were there. I am not seriously proposing this as Ives' route since it is such a long walk from here to the village. In this impressively steep and narrow canyon we found several redbud trees blooming, and on the Hermit level shrubs were in bloom. Two Mariposa tulips were in bloom near the top of the Redwall. When we reached our former trail along the rim of the Redwall, we had lunch and then returned to the car. It took one and one half hours to get down and two and one quarter to get back.

We could see that there wouldn't be time to go down below the Coconino at Wescogame, but we drove over there anyway so I would know the route. I am not sure that the National Canyon Quad shows the road we took to get across. It leaves the way we took north at a huge earthen dam across the Little Coyote Canyon drainage. This dam looks rather new and the road follows the rather narrow crest. If a lake would fill behind this dam, it could be 60 feet deep, an unlikely amount of water.

Allyn's system to get down from Wescogame is to go out along the narrow ridge nearly to the end. On the northwest side of the end are three junipers and the descent is about 150 yards back to the southwest from these. It is plenty steep, especially near the top. He goes down here clear to the top of the Coconino and then turns to the right along a distinct trail, thanks to bighorn sheep. The route through the Coconino past

a chockstone requires a rope for one's pack. He reports an easier way through the Coconino on the opposite side of the point, but he reaches this from the same rim descent.

Wescogame Point and Diamond Peak [May 13, 1967 to May 14, 1967]

Allyn had showed me the way to drive to the plateau approach to Wescogame Point, about 17 miles from the main Supai road via Camp 16, the modern home with a TV aerial. Reider Peterson and I walked out on the end of the Wescogame and ate an early lunch. It looked simpler to walk down to the bed of the wash on the west side of the rim rather than to go directly down where Allyn had showed me that we should get directly down to the top of the Coconino. It was quite a bit longer the way we went down, but we found more of the surprisingly good trail than we would have by Allyn's route. We felt fairly sure that the Indians must have cut some of this in the steep clay bank but that it is now used mostly by deer and bighorn sheep.

When we got to the place on the north side where Allyn had come down, I couldn't see much future in going clear down to the rim of the Coconino. It seemed that one would very soon come to a corner where there was no way to proceed. When we went on without a trail above the bottom cliff of Toroweap, we soon saw that there would be no other place to go down. We backed up around one corner and went down where Allyn had said to. The route was quite spectacular around the corner at the top of the Coconino. Reider walked a ledge about five feet lower than the one I was on. I had to get down on all fours to get by a low overhang, but he had to clamber up from his ledge just east of this place. He saw a pile of stepping stones here. Beyond here the trail again became quite distinct.

When we came to the cleft through the Coconino that Allyn had used both on the north descent and to the south, I got a shock. One has to get down an almost vertical 25 foot wall before he is in either cleft. After a bit of searching, we found a way. Reider tried to descend first and got down halfway before getting stuck. A few feet to the south I saw a place with more holds and steps. Just where it was getting hard I found a perfectly placed short groove in the sandstone and then I noticed that it still showed the marks of a sharp tool which had been used to cut it. When we started down the cleft to the south, we noticed a cairn and definite short switchbacks. Halfway down the Coconino there is a large chockstone but it can be bypassed to the side. In getting back to the center of the ravine, I noticed a couple of footholds that had been gouged out with a sharp tool. On the shale below, we figure that the obscure route probably goes to the left down the shale to the head of Horse Trail Canyon. We went out on the Esplanade to the rim south of Horse Trail Canyon and got a fine view of the village area and the wide part of the canyon to the south.

After getting above the Coconino on the return, we followed the trail back to the bed of the wash where I had left my pack and then went up the bed before going up to the plateau. This is probably the fastest way to reach the car although Allyn's route along the top to the three junipers and then straight down through the Kaibab and Toroweap is the fastest way to go down. Saturday evening Allyn met us and we ate in Truxton since the cafe in Peach Springs was temporarily closed. It was 11:00 p.m. by the time we were getting into sleeping bags where Peach Springs Wash meets Diamond Creek. I remembered Davis' report concerning mosquitoes at this place, but it seemed too cool for them. However, before the night was over,

Allyn especially had been bothered. I had only one. Before the night was over, I was willing to exchange my light down bag for the winter one.

I hadn't hiked much this spring and I was afraid I had gotten out of condition. It was gratifying to see that I could walk from the creek to the pass in 40 minutes, only two thirds as long as it had taken Jorgen and me with heavy packs. We spent some time with our cameras and then looked carefully at the east side of the peak. We concluded that my former idea was erroneous. We decided to go up the talus to the base of the continuous cliff and turn to the north. At first we thought that we should go about twice as far as we actually did. We went around the first point and started the real climbing just south of a big crucifixion thorn tree. From here our route led up and to the south. On the ascent we thought we had to go up a nearly vertical route just north of two small pinnacles. We noted tufts of flowers growing on their tops to serve as a guide in getting back down. However, on the return, the descent seemed so formidable that we tried going around them to the south. This proved to be quite an improvement but it did involve the uncertainty of getting around a point right below the two towers. Above the towers, the route switched up and to the north. There was one particularly steep place where an Ocotillo serves as a guide post. Up here where we had been using our fingers and toes to get up the steep pitches, I was startled to find droppings of a deer and also of bighorn sheep. We actually found tracks toward the north ridge. We reached the summit along this ridge where one felt a bit more like crouching than walking along the yard wide crest. There was no previous cairn on the summit.

Allyn came up with his camera tripod occupying one hand, but he admitted that he had to put it down and use both hands at a number of places. I was willing to settle for the north summit only, which I considered a foot or so higher than the south summit. Reider found that one can get down from the north summit to the saddle between them and go over to the south. He built the cairn there just after I had finished mine on the north. When we looked from the top down to the slopes from the south, west, and east, we agreed that we had found the only practical route up for non technical climbers. We thought that we had been pretty lucky in route finding because there hadn't been any real conviction that what we were trying would go.

It took us less than two hours to get from the creek to the top of Diamond Peak even allowing time for plenty of pictures. The return was done slightly slower. I seemed to be the most timid on the return. There were lots of safe holds at the steep places, but there were also lots of places where we were forced to walk on lose pebbles lying on the slope. I wanted to hold onto something almost all the time. I was about to conclude that I ought to leave this sort of climbing to younger men. It was about as difficult as Weaver's Needle in the Superstition Mountains.

When we went down to the river in the car, I found that the road for the last one and one fourth miles is no improvement over the previous parts. I bumped the frame a couple of times and a new sound may mean that I have punched a hole in the muffler. We were surprised to find five or six cars down by the river. One can drive up on the dune to a turn around or along the creek to the river.

There must have been quite a few picnickers and fishermen using this road during the time since they improved it. Almost all the pieces of granite boring samples have been picked up. To prove that I had seen such things two years ago, I brought out the only piece I could still locate.

Kolb and South Rim ruins [May 20, 1967]

James sounded so sure that Mallery Grotto was worth seeing that I still wanted to find it. Earlier I had been searching far out toward Maricopa Point. This time I looked much closer for overhangs about where the rim turns north to form the west side of the bay formed by the Garden Creek drainage. After 10 or 15 minutes here I went over to see whether Emery Kolb could be of more assistance than the rangers at the Visitor's Center.

In front of the studio sweeping the sidewalk was an Indian, probably a Supai, who works for Emery. He knew nothing of any pictographs nearby, but he told me about a couple of pictures down below the first water station around the next switchback. They are on a large boulder beside a bit of the old trail above the present one.

While I was talking to the lady who manages the store, Emery phoned upstairs. He was up and invited me to come down and talk. We had quite a visit, for about an hour. He said that when he had last seen the pictographs that James must have been thinking of, there was only a piece of one deer left. He gave a rather exact location for the overhang, below and about 150 feet east of the parking viewpoint where the blacktop road comes to the rim at the head of the Bright Angel Trail.

During my subsequent search, at first I stayed too high and found a mine shaft that is small but has turns causing the end to be completely dark. It is hard to see why a miner would expect wealth in the solid Kaibab Limestone just eight feet below the surface. When I finally went down through three or four ledges to a steep dirt slope only 40 or so feet above the present trail and followed tracks to the east, I came to the real thing. It is a little to the west of the fin of rock through which they cut a tunnel for the Bright Angel Trail, and the overhang is distinctly below the top of this projection. I was pleasantly surprised to find that there are numerous deer and some geometrical designs left. In fact the only way in which there is any deterioration is that numerous tourists have scratched their initials in the rock and some have put them on over the old pictures with a spray can of paint. I believe it would certainly be no worse if the park service constructed a trail down here and made it seem more public. The original pictographs are all done with red clay pigment and show more fine lines than most. Deer antlers are rendered with a great many branches. There are also some heavy bodied animals, pregnant sheep, such as one can find at Canyon DeChelly. I didn't see any great similarity to the markings in Havasu Canyon at its junction with Lee. These so near to civilization are also the best spread I am aware of in the Grand Canyon (more near Thor's Hammer). More study could be done on pictographs to try to connect them with certain cultures.

After leaving word of the location of Mallery Grotto at the Visitor's Center, I drove east of Moran Point to the next picnic area and then walked to the rim to try again to locate my lost pictures of the ruin under an overhang having the charcoal decoration on the wall. I reached the rim in the bay just east of Zuni Pint and went to the right. I ate lunch on the point that separates the two arms of Papago Canyon and soon came to the defense ruin to the east. I gave up the search before reaching the cluster of rooms on the promontory where I took the recognizable picture.

The final project for the day was to find the cliff dwellings around the bay to the northeast of Desert View first located for me by Ranger Bill Tanner and later photographed by Betty Emery and Reider Peterson. They are very low ceilinged, about three feet high, but are quite well protected from the weather and are well preserved. One feature is that the builders plastered juniper logs into the relatively thin walls. The overhang is so low that one has to crawl to reach the farther rooms. There are signs of other construction at a lower and higher level in the same general area, the south face of the promontory that forms the north side of the large bay east of Desert View. The main row of rooms is reached by going down a slide area about 150 feet below the rim.

Conversation with Emery Kolb [May 20, 1967]

Emery was able to tell me where to look for Mallery Grotto, the best showing of Indian pictographs in the Grand Canyon. Then we talked about various things of mutual interest. I was right in supposing that he and John Ivens kept their boat in a cove quite a bit downstream from the mouth of Pipe Creek. They would go from Indian Gardens out to the west along the Tonto to the slot through the rim cliffs where I found the inscription H B Mar 4 06. Emery repeated the story about their trip down to the boat, downriver to Hermit and back to the rim in one day in time to give the evening lecture. They portaged around Horn and Monument (Granite) Rapids. He also gave the figure of his trotting down the yellow streaked ravine on the north side east of Horn from the base of the Tonto to the river as 23 minutes.

Emery also gave me some more details of his trip with Ivens downstream past Horn, up the nameless canyon east of horn, up between Isis and Shiva, to the rim and back by the Bright Angel Trail. He said they camped the first night at a spring near the base of the Kaibab east of Shiva Saddle. At noon the next day they had lunch with Jimmie Owens at his cabin which stood where the mule barns are now, in Harvey Meadow. During the afternoon they went on to the head of the Bright Angel Trail and got down it as far as the base of the Redwall. He implied that they returned to the south rim on the third day. I asked him what they did with the boat. He said he couldn't recall ever going after it and in fact the idea had never occurred to him before. He tried hard to recall whether they had ever returned to get the boat but his mind was blank on that point. He could remember many details such as which chicken coop they had dismantled to get wood for the frame and how they had covered it with canvas and that the boat weighed 100 pounds, but he couldn't remember whether they had abandoned the boat or had gone back to get it along the north side of the river.

Emery's stories haven't changed perceptibly since I first heard them several years ago. He had the impression that the Scientists had climbed Shiva in 1938 instead of 1937, but I could well understand mixing up dates of events of which one is a participant. He said that he purposely discarded some film boxes in plain sight on top of Shiva and built cairns on all four corners before the scientific party arrived. New to me was the information that he had seen a rabbit on top and the skulls of two stags with their antlers locked so that they had both died of starvation after a battle. Also new to me was that Eddie McKee had found potsherds on top of Shiva.

Emery also talked a bit about the prospector that they stopped to visit with on their way down the river a few miles upstream from Diamond Creek. He also told me more about the time he and Ellsworth visited

Blue Springs. They rode mules to the head of the trail with a survey party and went down and back the same day. He didn't know that the last part of the way through the top of the Redwall is easy if you go upstream 50 yards. They climbed down a cottonwood tree that was growing up against the cliff. I am sure there is no cottonwood nearby now. It is hard for me to understand how anyone would miss seeing the easy way to the bottom after finding the much more difficult route higher up.

After about an hour of such chatter, Emery was tired enough to go to bed again. He parted on excellent terms and I promised to show him the inscription pictures from Hance Canyon. He had never been down the Old Hance Trail, and he knew nothing of Hance's rock cabin.

Emery remembered the ponderosa pine below the Tapeats near his route to the boat. He also remembered the waterfall in Phantom Canyon and said that they got past it right near the fall by helping each other up the cliff.

Impressions from the air [May 23, 1967]

Again Bill Martin took me on a day that was overcast and showing a few rain squalls by the time we could get away, about 2:30 p.m. Reider Peterson went along, but the others let me call the route. I got quite a few good looks at a number of climbing possibilities. I hope my pictures come out well since I snapped quite a few with the idea that I could look at them later rather than try to study the region and remember the features.

There is an almost sure route through the Redwall on the southwest side of Apollo. The ravine separating Jupiter from the ridge to Venus should also go, but one would very likely not be able to follow this ridge over to Venus. Another picture shows a likely place to come down the Tapeats on the south side of Point Chiavria and east of Juno Ruin. Another picture may be worth studying for a route to the top of Gunther on the west. Hutton and Duppa were close to our level and made a fine show.

I pointed out Goldwater's Bridge to Reider but it didn't show well in the shadows. He may not have made it out. We had to circle to gain enough altitude to go over the shale ridges near Kibbey Butte. The ravine at the base of Kibbey is easy through the Redwall, but the top cliff of Supai may be impossible. Surely one could get through it somewhere not too far away (to S. R. Cave and around or directly). I believe now that the trail Art Lange found going down toward Kibbey somehow connected with this ravine and was built to go clear down to the bed of Nankoweap.

The tributaries of Nankoweap and Kwagunt are striking as they penetrate back into the Redwall. I snapped some shots in here that I probably won't be able to identify. Another shot shows the Coconino remnant in the Kwagunt Lava Saddle and I got a close one of Siegfried Pyre. I was so busy looking at it that I didn't look down for Hartman Bridge. I tried for a picture of the rope route down from the north side of Cape Final and I got quick shots of Juno and Jupiter. We weren't very close to the parallel ravines through the Coconino below the Walhalla Glades parking, but I tried for a picture here. I let the out thrust Coconino that I had seen from north of Desert View escape without a shot, and I also missed taking one

of the chute next of Wotan, and I tried for pictures of the protruding ridge and also of the two easy places to walk up the slope west of it.

We went rather close above the top of Zoroaster and Reider and Bill said they saw a cairn. I got a picture that pretty well covered the summit. I can't see how one can climb the upper Supai just below the Zoroaster Brahma Saddle, but it may be a little easier over to the north nearer Hattan Butte. I don't think much of Ellis' suggestion that the Redwall should go easily at the base of Jones Point. I could see what Chuck Johnson meant about the ridge out to Sumner Point being like a knife blade for width. I'll probably want to crawl for quite a distance here. I couldn't see how Chuck came up the Redwall without using the ravine. Another oversight was that I didn't use any chance to see how the Redwall looks down the ravine to the north opposite the place where we come up from the Clear Creek Trail (OK).

One shot should show the west side of Johnson Point. This should be climbable. The ravine paralleling Haunted Canyon on the Buddha Temple side looks like a maybe (OK). The north slope at the east side of Osiris through the top of the Supai looks much easier than the Supai along the west of Brahma. I would like to attempt this. The highest part of the Coconino on the southwest side of Shiva may be tough. I could see that the slope is easy to this height. I snapped two more views of Stanton's ascent below Ra and also of his descent area. We were much too high to try duplicating his pictures toward Dragon Head and also the shot to the southwest.

The river was really roaring through Crystal Rapid and I would agree that it is a major, worse than Hermit. I finished 36 shots and took a few on my second roll including one of Pattie Butte. At this late point, I began to feel airsick.

Sierra Club trip and Sumner Butte [May 27, 1967 to May 29, 1967]

Jerry Foote notified me about the plans and schedule, so I went down to camp at Bright Angel Campground and visit him. He introduced me to several couples. I got acquainted with the Reznicks, the Ellinwoods, and the Northhooks. Dave Northhook has had a lot of mountain experience including climbing the Grand Teton. Mrs. Reznick is Mirian Pederson's sister. I had heard a lot about the devastation caused by the freak flood last December, but the actuality was even stranger than my mental image. It seemed freakish that the water kept to a narrow channel beside the main buildings of the ranch but out through the mule pasture. Some of the former rock wall is still standing on what was an island during the flood while the corral is a mess of boulders. Hardly any work has been done yet to put the trail back up beneath the exposed pipeline. Wooden bridges get the walker across the creek on his way to the ranch. They are so near the water that any summer thunderstorm should take them down into the river. The weather was abnormally threatening for this time of year, and on Sunday morning at 5:15 I was awakened by a little sprinkle. I moved up to the porch by the swimming pool but I didn't get back to sleep. While I was eating breakfast, Allyn Cureton came along. Two weeks ago I had told him I wanted to climb Sumner on this day.

As we went up the wash leading to the ravine at the beginning of the promontory to Sumner, we looked at the route up to the lowest part of the ridge that Chuck Johnson had used. I couldn't see what he had done

to get up one ledge. Later when we were nearly to the main part of Sumner, I believe I saw a crack that he must have chimneyed up. I wish now that we had tried it. I knew what we would be up against in the ravine at the head of the wash, and I figured that if he could go along the crest of the ridge leading over to Sumner, we should be able to also. Going up the ravine with a pack, containing my lunch and a gallon of water mostly, was harder than I had found it three years ago, but we made it with no real hesitation. The bypass to the east of the vertical fall in the bed seemed a bit steeper than I had remembered it. We noted a couple of helpful cairns, probably built by Doc Ellis on his April 16th investigation of the route. It took us abut two and one half hours to go from the ranch to the top of the Redwall by this route.

From below I had thought that there should be more gentle bypasses for the drops we could see in the ridge, but we learned that going right along the top was the only way. In a number of places we had to face in and descend by hand and toeholds. However, the most unusual part of this route was the extreme sharpness of the ridge. Allyn trusted his sense of balance much more than I and kept to his feet, but at a number of places I did a crab walk or used hands and feet for yards at a time. A few times I sat down straddling the edge and inched my way forward. At one place I would have turned back if I had been alone.

We saw a prominent cairn near the lowest place along the ridge and wondered whether this marked the top of the direct route up from the east. There was no cairn on the highest part of the butte, but the one at the edge in view of Phantom Ranch was at least two feet high and just as wide.

After lunch at our packs just above the ascent ravine, we tried going down to the north. It was easy to get down over 200 feet, but then there was a sheer cliff about 100 feet, and there was no way to go along any ledge to either side.

Sunday evening I talked to the group about my experiences in the canyon and then had quite a visit with the ranger, Ken Kulick. He seems more eager to learn his way through the back country than anyone else for quite a time.

Kirby Trail and the upper Cataract Canyon [June 1, 1967]

I had marked the Bachathatooiva Trail, which must be the same as the Kirby Trail, on my Williams Quad map, but aside from showing that one should go west through Anita, it was not very helpful. I followed the main road, what must have been northwest, until it ended at a ranch called The Well because of the deep well with a timber derrick still in place. The Lathams manage the area for the Babbitts who own the land on both sides of Cataract Canyon although the Indians have the bottom as an extension of their reservation. It is 19 miles from the highway to the well.

I didn't understand Mrs. Latham's directions very well and turned through a gate about two miles south of their ranch. This road ended at a metal tank a mile or so to the northwest. After continuing on foot for a half hour, I decided that this would get me nowhere and returned to The Well. Mr. Latham was now at home and he drew me a good sketch of the route to the head of the Kirby Trail. You continue past the gate I had entered and after veering to the east the road swings west to another gate. Beyond you continue

along a ridge to a fork where the route is to the left down to a metal storage tank and some feeder troughs. Here the track is obliterated but you go straight on through and find the wheel tracks again. Soon the tracks turn north and in a mile from the feed lot, you come to an east west track. This is a T turn for cars, but cow paths continue north. I overshot this turn a few yards before heading west. There are no more forks and in three and one half miles one reaches the trailhead with a rough cabin. The limestone is broken by earth movements and a corral has been built using one of the pits.

A peculiar feature of this trail is the rather obscure beginning compared to the elaborate work of trail building for the upper third down into the 1000 foot canyon. One might not be sure he is starting correctly until he comes to the snake rail fence made of railroad ties, but just below the fence the trail has been built five feet wide with an unusually gradual grade for the switchbacks and a surface that seems to have been graveled over the finish with a rake. At several places short railroad rails have been used to bolster the edge and the size of the blocks used in the retaining walls is startling. Then suddenly the costly construction ceases and the trail is what one would expect, a maze of tracks formed by wild horses and deer down the talus that covers the Toroweap and Coconino. The bottom is in the Hermit Shale.

As I looked back up the trail, my eye was caught by a natural bridge in the ravine just north of the trail. There was another, likewise up near the rim, on the west side of the canyon something like an hour's walk south along the bed. On my way back paralleling the rim I saw a big overhang on the west side with an indication of a pit behind the ceiling, but I couldn't be sure of this. At the lower end of the second ravine on the east side south of the Kirby Trail, I found another small natural bridge piercing the rim. They ought to call the whole canyon Havasu instead of Cataract for the upper end, but if one had to choose a different name for the upper end, Bridge Canyon might be appropriate.

Walking is easier along the horse trails up away from the bed of the canyon. Progress was fairly steady although it took me two hours to get above the Hermit. Around a mile from the trail, I passed a short side canyon from the west, more like an indentation with vertical walls.

Mrs. Latham had said that the spring which was formerly near the bottom of the trail is now dry (no, it flows). I looked for it and the best prospect I could see was a spot of dense green at the top of the Hermit down canyon on the west side. I intended to inspect it carefully on my return in the afternoon, but I didn't come back that way.

When I had been walking up canyon for two hours, the appearance changed abruptly as the bed entered the Coconino Sandstone. It is much narrower and great blocks impede the way.

Furthermore, there is a great deal of brush to break through. Progress is slower, but the route is more interesting. There are still small clearings where one can walk without difficulty, however. The grade is steeper and it took me only one hour and 45 minutes of this slower walking to get to the top of the Coconino. It had rained two days before, and I was watching to see how much water would be left. There was none in the Hermit, but about 20 minutes before I reached the top of the Coconino, I found a pool next to the west wall. Right at the top of the Coconino there were numerous deep pools. The top 30 feet of the Coconino exhibits a fall in the bedrock that at first sight seemed to be a real obstacle. I could have gone back and got up, but I was able to scramble up by some ledges on the east side.

The bed through the Toroweap and Kaibab is similar, not quite so narrow but still with big rockfalls in the way and much brush. There were a few shallow waterholes. It took me one hour and 25 minutes to come past the vertical limestone walls to the place where it is an easy scramble down the broken slope to the bottom. This change is true for both sides. I had begun watching for possible exits. The only place I felt sure I could climb out was to the east only one quarter mile from the Kirby Trail. There was a grass covered talus from the west wall that would take one two thirds of the way to the top. Then it might be possible to go north along the level and enter a side canyon and get up to the rim. This looked probable but not sure from the east rim as I went back to the car.

Just before I reached the walk up to the rim, I investigated a cave in the east wall. It had a smoke blackened ceiling and a juniper log cut with a steel axe lay on the floor. About a mile north of the exit from the canyon, I noted a couple of pieces of Indian pottery, black on white design, about 100 yards from the rim. This was not far from another ranch with a sheet metal barn and a house painted a weather beaten green.

I had thought that along the rim I would be able to get back to the car in something like three hours instead of the five plus it had taken me along the bottom, but it came out more like four hours. There were so many ravines to cross. I would have been easier if I had stayed well away from the rim, but I wanted to see into the canyon at intervals.

Perhaps the most unusual thing about the trek was the very chilly weather for the first of June. Early in the day, I was wishing I had some gloves and when I ate lunch, I had to put on a jacket and still move from the shade into the sun. Birds were singing and flowers were blooming. One wonders how it happens that some places become so famous as beauty spots while others are virtually unknown. Thousands make the pilgrimage to Canyon de Chelly for one who goes to upper Havasu Canyon or to Spencer and Meriwitica. Arizona Highways should do something about this state of affairs. Still maybe it is a good thing to keep a few places off the beaten track. A note about ecology might be in order. There were many walnut trees in the narrows of the Coconino and higher. I saw one big deer in the bottom and thirteen along the rim, the biggest group having six. There is apparently not enough hunting on this private range land. The deer had stripped the big cliff rose shrubs as high as they could stand and had bitten through some of the slender strands.

Shinumo Amphitheater [June 5, 1967 to June 8, 1967]

My primary aim was to complete the traverse from Crystal Creek to Shinumo and in the process check the possibility of a route down the Redwall on the south side of Flint about two miles from the Tuna Flint Saddle. At headquarters they told me that not only was the Point Sublime road closed but the fire road west through the basin was also impassable. The scenic drive to Point Imperial and Cape Royal was also closed, so projects in that direction were impossible or rather better left until access would be more direct. That left me thinking of Cogswell Butte and the descent at the mouth of Crazy Jug Canyon into Tapeats. While I was driving over there I saw signs leading to Quaking Aspen Canyon and finally Fire Point. I drove back a couple of miles and started walking south. I crossed Grass Canyon and Castle Canyon and a

couple of tributaries and was able to reach the Swamp Point Road in 35 minutes. In 40 more I was on the point starting down. After 20 minutes down to the saddle, I could see that the view towards Dox Castle was what Moran (Moran's painting photographed in Stone's Canyon Country) was looking at when he painted his famous picture, but I know I didn't have the right elevation. All through the Supai the view was constricted, so I first thought that he must have been at the top of the Redwall where the Bass Trail goes down, or perhaps along the Redwall rim farther to the south. Still the skyline didn't quite fit, but about halfway down the Redwall, on a promontory I had everything in the right perspective with the vertical wall at the left and the skyline right except at the very right, where the artist took some license. I didn't notice this agreement on the way down as forcibly as I did on the return. I hope my camera shot has a big enough field to prove my point. Incidentally, the painting is more accurate than the etching (Exploration of the Colorado River and Its Canyons, J.W. Powell, 1895), for the river is not in view, but the etcher put the river in the right place.

After investigating the place where the map puts the trail below the Coconino, I found that the best way to avoid heavy brush is to go down a rockslide west of the spring. At the lower end of the slide, about where it becomes a streambed, dry of course, there is a small ridge dividing this wash from a running stream to the east. Here along this ridge some trail is still usable and some one since I was here ten years ago has marked it with a few plastic ribbons. One can get water and then cross the ridge down to the previously used wash where there are some new cairns. One of them marks the BM 5697. You stay in the wash all the way to the Redwall. In getting to the west side at the Redwall rim, I noticed the collapsed cave that forms a bridge. The main drainage south from Rose Point cuts just to the north of this so it is more like a window than a real bridge. The wash held a noisy little brook and there were high wet falls down the Redwall.

I was hoping to get below the Redwall for camping since I had brought only a cotton blanket and thermal underwear for warmth at night. Two years ago I had made the mistake of walking right past the proper descent route. This time I made the opposite mistake by trying to get down to the ledge across the cliff in two ravines too soon. Climbing back up was both tiring and time consuming. I had to settle down for the night on a smooth clearing in the juniper on a saddle leading out to one of these promontories. If I had reviewed the map, I would have known not to start down until I was opposite the bay which is the shape of one end of a dog biscuit. After a cold breezy night which I relieved by a fire after 10:30 p.m. when the wind subsided, I finally found the right descent but even then I made the last possible mistake by going along a ledge that was much above the right one. The right place still shows much of the trail work. The bay opposite has a well developed bed that amounts to a fork in the canyon. The trail is much more plainly shown on the old west half then on the new Powell Plateau Quad map. There is water on the surface soon after the bed is reached but it soon goes under to charge for a half mile or so where the Muav bedrock shows. At a drop in the bed, I noticed a trail taking off to the west and then saw that the map agreed. Right by the trail is a clear Indian ruin. On the return I kept to the bed and missed this. Without waiting for the trail to head back to the wash, I went down to it. I wanted to be sure to set foot in Redwall Canyon, a tributary from the left, and I also wanted to locate the rock wedged high above the bed in the Tapeats narrows. The rock pictured on page 106 of the Kolbs' 1914 National Geographic article came first. As I had expected, you can't get down to it in the main wash, but a ravine from the left before you come to the bed of Redwall Canyon gives access to the bottom and it is only yards to the north where the rock is lodged. I also tried to go down the bed of Redwall Canyon to the bed of White Creek, but one spot discouraged me. I followed the bed down to its junction with Shinumo Creek. There were a few obstacles where a bypass was easy. At one place the bypass seemed to be more than a deer trail. Just as I was considering this point, I found a steel rod in the rock. Bass must have taken some of his tourists right up the bed, but it might have been more popular to ride a horse up the main trail to the vicinity. I am still wondering how the ladies in the long skirts got there in the Kolb picture.

Perhaps the name of Redwall Canyon has nothing to do with the name of the Redwall Limestone. I once had the ambition to get foot in all the canyons which have given names to Grand Canyon formations, so now Hakatai and Hotauta are the only ones I haven't been in.

Tuesday afternoon I went up Shinumo to its junction with Flint. On the north side a little west of the junction there is a terrace that has five or six prehistoric rooms outlined, mostly round. There were a few places in Flint where water was on the surface. At the one I figured might be the last, where the wash from the southwest side or Arthur joins Flint, I stopped in the shade for some relaxation and reading. I planned to attack the cliff the following day and try to reach the Flint Tuna Saddle before returning. About 4:00 p.m., I got restless and decided to scout the climb for the next day. One bit of curiosity led to another, and before I realized what I was doing, I was up against the wall trying out the holds. Two or three places were scary for me, but I didn't have to practice any unusual aerobatics, just finding and testing all holds. When I came to the walk up in the talus, I was careful to note the steep route from above. It was obvious that I had to go up to the north and I needed to do a bit more nearly vertical finger and toe work before realizing that the only way to the top was to get out on a steep yard wide ramp with a lot of exposure down on both sides. Here I felt a bit of nausea, the first I have ever experienced in rock climbing, but it was now only yards to the easy walk to the top of the Redwall. After a few pictures and a short rest, I overcame that unpleasant feeling and backed down the way I had come up. My reconnaissance had turned into the main project. When the Point Sublime road is open later, I figure it will be easy to come down from the top and do the rest. I needed no fire Tuesday night.

Wednesday was going to be my easy day, some progress back to the car and a few incidental investigations. I recalled that once I had formed the ambition to check out personally all the trails shown on the Matthes Evans map, so now I tried to find the small spurs, one shown leading up and east from the junction of White and Shinumo and the other going over into Burro Canyon. Both were still clear, especially the one to Burro Canyon. There was a great deal of burro manure to be found over the entire area, but most of the burros had been gunned from the air long enough ago to be reduced to bleaching piles of bones. However, I saw two live ones in Burro Canyon and some recent hoof prints elsewhere. I also looked over the Bass Camping area more carefully than I had in the very hot weather of August, 1957. There is a bivouac under a protecting rock on the right about a third of the way from the White Shinumo junction to the camp. I saw the old camp remains with a broken down stove again and also a fireplace made of flagstone closer to the creek. There was a sort of rectangular pit dug in the terrace across the creek on the right bank. Perhaps someone was excavating an Indian ruin.

As I was coming down the bed on Tuesday, I had a close look at either a very young coyote or else a kit fox, and at my camp Wednesday evening I had to shoo a grown coyote off.

Tanner Trail and direct route up from Unkar

On Saturday we took the institute participants to Walnut Canyon, Mount Elden, and Sunset Crater and had them climb the two latter for qualification for the one day Grand Canyon hike scheduled for the 24th. Several of the young people including one girl, bettered my time for the year: 61 minutes to go up Mount Elden and 18.5 for Sunset. I had invited one of the 17 year olds, Gary Donaldson, to go with me down the Tanner Trail for a visit to Unkar if he succeeded in qualifying: 75 minutes on Mount Elden and 25 for Sunset. He just made these limits. He had said that he had done quite a bit of hiking around Tucson, so I assumed that he was used to heat and rough terrain.

By the time we had taken care of all the necessities, it was 7:30 p.m. DST when we began walking down the Tanner Trail. It seems to be getting more use than in former years and it is easy to follow. I feel quite sure that a horse could be led past the worst places and could be ridden almost everywhere. Since it was past nine when we reached the place in the lower Redwall where the trail formerly went north to the angle in the shale cliff (I recalled that the trail no longer shows all the way), we stayed on the present trail and camped next to the trail at the bottom of the Redwall. At the last minute I had left the cotton blanket in the car and had taken my Dacron bag. The night was just too warm for the Dacron bag. The single blanket would have been better after all. I heard one mosquito before morning and two or three times a few drops of rain fell.

It was easy to walk to the river before we needed breakfast. the total walking time from the car to the river was around three hours. We turned away from the trail on the lowest shale ridge and came to the river opposite the Basalt Creek Delta. After eating we continued rather close to the riverbank and found the remains of the miner's camp again. Farther west we got well up on the slope and found a very distinct trail at this level but lost it as we approached the Cardenas Creek Delta. I had intended to cross the river on my mattress and visit the tent city of archeologists students on the Unkar Delta, but I could see by this time that Gary was going to have a rough time getting to the rim before 5:00 p.m. unless we started up, which we did by 9:10. After starting up the bed of Cardenas, we turned and went up to the Indian fort on the knoll. It is surely a good viewpoint for the whole area. I also went down to the edge of the cliff to get a good view of the camp. I could see quite a few people moving around from one tent to another. As it was Sunday, I was not surprised to see them taking time out. I waved my arms, but didn't get anyone to look towards me.

We went on up the ridge but finally saw that we would have to lose some altitude to get down to the creek bed. I had no trouble in finding the good break in the basalt cliff and the broken part of the Tapeats. Here we used a slightly different route through the upper part. On the day that I had joined the Leydet Reilly Litton Party at Hance Rapid, I had come down a crack, but this time we went up from ledge to ledge a few yards to the north. I noticed a deer trail through part of the route up the Redwall, and I picked up a flake of obsidian, another proof that this was formerly an Indian route. There were modules of something like copper ore embedded in the basalt below the Tapeats.

Gary complained about the rough footing over most of this route until we were back on the Tanner Trail. He had to rest a lot and he figured that we could have made better time if we had gone back to the Tanner from Unkar before ascending. He also had a lot of trouble on the steep part of the Tanner at the upper end

and, so I think that we saved some time by coming up the way we did, even though it took us over six hours to go from the mouth of Cardenas Creek to the Tanner Trail south of Cardenas Butte. I wouldn't mind doing this again by myself with time enough to visit the other side of the river.

Clear Creek [July 17, 1967 to July 19, 1967]

I had been intending to use this period to look into Havasu Canyon north of the Kirby Trail, but the copious rain had convinced me that it might be hard to drive the dirt roads. I settled for my tenth and probably last trip (no!) to Clear Creek. Three things over there that interested me were Jim Bailey's report that there was a natural bridge in the short side canyon to the west south and opposite Cheyava Falls, the cliff ruins that Beck had seen south across a small ravine from the falls, and the possibility that one can go up and down the other side through the notch separating Angel's Gate from The Howlands Butte.

I left for the canyon after our company left for Denver, and I got started down the Kaibab Trail about 10:40 a.m. and reached Phantom Ranch in just under two hours. Johnathon Upchurch, a 16 year old from our math institute, was waiting for me as planned. After a leisurely lunch we started for Clear Creek about 2:30 p.m. and arrived at the foot of the trail in just under four hours. The area shows more flood devastation than ever, a very far cry from the cottonwood grove and willow lined shallow creekbed I knew when I began visiting the area in 1946. It used to be a fine trout stream although the fish were little, but now I don't believe there could be any left. Above the narrows there are still areas where the trees are big and the mesquite is still growing on broad flats. I recognized the place where the old cache of blankets, canned goods, and pots stood. Someone must have burnt it. All that shows now is the metal roof of the large box and a large pile of pots.

After we ate our evening meal where we first reached the creek, Johnathon and I moved up to the junction of the long arm with the wet arm of the canyon and slept at the overhang by the ruins. The metal tag, Surface collection by Gila Pueblo. is still there. The thought struck me that the ground is unnaturally level under the overhang, and I noticed for the first time a bit of a retaining wall. The clay floor seems to have been made wet and smoothed by hands and feet, but I can hardly believe that this could still show after 800 years. It is still a fine place to sleep. My companion said he heard one mosquito, but neither of us saw or felt any ants. We were well protected from rain. Although there were two showers during the afternoon, these were the last for this trip. Rainwater must have stood for some time in the pockets near the trail between Sumner and Bradley Points because it had considerable algae in it.

Sixteen year old Upchurch hadn't succumbed to "the spell of the canyon," to quote Fletcher and others. When he had soaked in the creek for a few minutes before we retired, he remarked that it felt so good it almost made the walk to Clear Creek worthwhile. In the morning he said that my project of looking for a natural bridge sounded better than the trip over, and he came up the Cheyava arm with me. When we found the right tributary, he followed me up the bed and around a couple of bypasses. Then when it was clear that I would have to do a little fancier route finding, he decided to wait below or else go back to camp and read. For me this was the most interesting part of the trip. There was only one fairly good way around the fall in the lower Redwall, north up to a ledge and then along the ledge back to the streambed. One could go on above other drops in the bed both to the north and the south. I did the latter and reached

the bare main precipice. There is a crack angling up this wall that a good climber might go up for another 60 feet, but I feel rather sure that there is a top 20 feet of wall that would be still harder. I was already up through more than half the Redwall. The nearest thing to a bridge I found were a couple of chockstones, and there was no opening behind them.

Before returning to camp, I went up towards Cheyava and looked for the ruins. At first I was looking too close to the falls, but when I glanced across to the south side of the ravine, there they were, better preserved and more obvious than any others in the park with the possible exception of the row south of the mouth of Nankoweap (better in Nankoweap). They seem unusually tall for their width and the doors appear to be tall and slender rather than short and keyhole shaped. The most interesting feature is the approach. They are on a ledge about halfway up a cliff of Bright Angel Shale. It is clear that the builders had to go up to the north of this ledge near the bed of the ravine and then go southwest along it to the wide part of the ledge to their structures. When I tried this approach I soon came to a place where the ledge was completely gone. Now I recall that Beck and his companion came down a crack from the top of the shale cliff. I'll have to ask George whether they needed a rope (yes). However they accomplished this visit, it must have been sporting. It was past time for me to return to camp. I was getting hungry, and Upchurch would soon have a right to worry. These ruins certainly enter the competition for the title of most impressive in the park. They take clear precedence for being the most difficult to reach. Sturdevant's account of these ruins indicates that there must be more in the area than I saw. In the April, 1928, Grand Canyon Nature Notes, he says that there were twelve small caches on the shale ledges near the falls. Range Brown climbed a 20 foot pole to reach the caches. What Beck and Hassemer (?) found were three tall rooms with gaping open rectangular doors. Quite different from storage bins. These are at least 40 feet above the talus below and about the same distance from the top of the cliff above. The difficult part of the account is how the rangers who found so many obscure ruins, wouldn't have seen these (Beck says they did).

Since there seemed to be little possibility of rain, we ate at our first night camp site and then moved our packs down to the narrows near the foot of the trail. Johnathan elected to remain in the shade by the creek and read the magazine I had brought while I investigated the notch between The Howland's and Angel's Gate. Until this afternoon, I had been congratulating myself as having unseasonably cool weather, but as I was climbing up the gulch toward the notch and then from the Tonto level to the Redwall in the notch, the heat got to me. This route was steeper than I had remembered it being, and both times I had been here were during cool weather, spring or fall. The Redwall ledges to the notch were no harder to climb than many places in the gulch leading the Tapeats to the plateau. On the south side of the pass I found that I could get down by a short chimney climb. This might make it handy to lower one's pack by a short rope, or there is a fair chance of bypassing the chimney. I would estimate that the use of this pass to proceed east from Clear Creek would save from 50% to 60% of the time it takes to get around The Howland's Butte the way I did it before.

I returned from this investigation in about three and one quarter hours. I had noticed for the second or third time a mescal pit on the terrace to the left of Clear Creek just above the mouth of the tributary that starts below Cape Royal. We ate dinner and decided to carry enough water for the night up on the plateau since there was still plenty of light. After walking for one and a half hours, we found a smooth place in the trail and spread out our bedrolls. It was an unpleasant surprise to find that so far from water there were

some mosquitoes and plenty of ants. After sleeping a little and brushing ants off for a couple of hours, I suggested that we take a moonlight hike on to Bright Angel Creek. We arrived at 1:40 a.m., progressing about as fast as we would have in daylight.

After a visit with Ken Rulick who seems eager to learn all he can about the canyon, I made the walk to the rim in much shorter time than near the end of May and Upchurch was still faster.

Tuna Crystal [August 4, 1967 to August 8, 1967]

The Point Sublime road was closed as it has been so much of the time this summer, but after some hesitation Ranger Stanley Albright let me go out on W1 across the Basin. The rangers have been getting to Swamp Point this summer by using the forest roads north of the park and getting into the park by a key. They say the old way using the branch from Point Sublime Road is particularly bad on the north south stretch. I had no trouble driving W1 except that I was glad to take Albright's suggestion to use his lead around a mud hole near the dump. I left the car about three and a half miles south of the junction of W1 and the Point Sublime Road.

A compass might have been useful if the sun hadn't been shining. After going over into the next ravine to the west, I followed along the bottom for quite a distance and passed the mouth of at least one tributary before going up. Then a south west course brought me to a point on the rim a bit north of the right descent. It took about an hour to walk from the car. This was 10 minutes more than it took in October, 1965, but I had left the car about a mile farther down the road then.

I remembered my former route rather well, through most of the Kaibab and Toroweap rather far to the south and then back to the angle of the ravine for the Coconino descent. Again I used the fine deer trail down into the Supai. This time I kept rather close to the bed of the ravine for the Supai too and only turned off to the left when I was about the level of the Tuna Flint Saddle. It took me about an hour from the rim to the saddle.

While I was looking for a shady place to sit and eat, I picked up an artifact, a chert scraper, which I will turn in at the naturalist workshop the next time I go to the south rim. Leaving my pack at the saddle, I angled down to the left to the top of the Redwall in Flint. It would have been possible to go quite far down the Redwall at many places along here, but I had Beck's word that a complete descent is impossible. There was a tendency to go too low and have to go up again as I neared my former ascent through the Redwall. It took 80 minutes to reach my former turn around at the top of the Redwall and I got back to the saddle after some pictures in only a little longer. Before I started down into Tuna, I checked an overhang up on the knob that splits the saddle. It was very low and there was no sign of a ruin.

After two years the route through the Redwall didn't seem very familiar. It took a moment for me to recognize the place where I had climbed down the spur separating the two impossible drops. Again there were two good sized rain pools in the main bed upstream from where I reached it below the fall. Plenty of mosquito wrigglers indicated that this water is pretty permanent. I had left the car with a gallon but still I poured all the good water into one canteen which was then not a full two quarts and filled the other with

two quarts of stagnant water. There were two or three other lesser obstacles below this place. At the very next one, I thought I should go to the west of the bed and at first went too high. Turning back, I was able to reach the bed by using a lower ledge, but I decided that I could have stayed in the bed. There were a couple of easy but longer bypasses to the west still lower. The flood had loosened the gravel of the streambeds, and there was no standing water where I had found it in October, 1965.

The burro trails are becoming faint, but I was able to get a little help from one about half the way to the parachutists' camp, and I found the break in the Tapeats leading down to the river with hesitation. My impression that it would all be routine walking down to the river was a bit optimistic. It was well that I had Reilly's word on the possibility of finishing this descent. It was getting late and I would have been worried. There were two or three places in the schist that were as difficult as what I had done in the Redwall. I found a couple of potholes near the base of one chute that were green with algae and I was bothered by mosquitoes most of the way down to the river. There was also a clear pool still lower where I thought about stopping for the night. At the bottom I couldn't reach the river down the bed, but I had my choice of going up and down to the west to a good sized sandbar or up and down to the east to a smaller one. I elected to go west, but the way was still not real obvious. I was much relieved to get to the fine level bar just before dark at 8:40 DST. The river was running strongly and I might have had a bit of trouble landing my air mattress on the bar opposite as I had done almost exactly three years before. The main current poured powerfully into an obstruction in midstream. I have about decided to give up air mattress navigation while I am ahead. The small bar for my camp showed no previous use and the threat of rain cleared away with no wind to stir up the clean sand. There were also no mosquitoes only a few hundred yards away from the ravine where they were bad. The first part of the night was warm enough to sleep with almost nothing over one. My combination of long underwear and a single cotton blanket was very satisfactory for both nights. I really needed the blanket only the second night upstream from the junction of Crystal with Dragon. It had been a rough, hot day, and I had to force myself to eat adequately to meet the efforts I wanted to put forth the following day.

On Wednesday I started up the ravine at 6:45 a.m. and reached the campsite in Crystal at 6:40 p.m., so that was another long day. In cool weather the distance wouldn't have been much of a problem. I was surprised how long it took me to get out of the inner gorge, 115 minutes. I made better time along the Tonto back to the west arm of Tuna than I expected. Until I found that I could do this in about 90 minutes, I had considered giving up the main project of filling in the last gap of a continuous route from Nankoweap to Kanab within the canyon north of the river. I was sure I could follow the bed down through part of the Tapeats to the junction with the east arm of Tuna and follow that up to the top of the Tonto. Before doing this, I went down the main bed and found some standing water and then a little farther water running out of the gravel. I had seen more in October, 1965, but this bit of clear running water might also be dependent on rains. I was now sure I would have a place for a good camp if I should have to give up. On the way out to the river on Tuesday I had noticed a place where one might quite likely be able to climb up the east wall and thus save quite a bit of tiresome contour walking along the Tonto. Rather than take even a small chance of having to turn back and lose enough time to cancel the rest of the project, I went up on the Tonto and began the hot walk to the end of the ridge separating Tuna from Crystal. This side is considerably more cut up by ridges and side canyons than the other, but a slight deer trail helped at times. In the planning stage I had thought I would stay low on the platform and get a view of the river and Crystal Rapid, but I decided I could save a little time by going up through the pass

behind the shale butte at the end of the ridge. I thought it would also be interesting to prove that this shortcut is feasible, so I took this route. The Tonto is also a poor place to make time west of Crystal, and I might have saved by going clear to the bed of Crystal at the break near he mouth. Since I had been along the bed several times, I wanted the new experience. Eventually, I passed above the junction of Crystal with Dragon. For the first time, I was impressed by the fault that cuts across here from the Ra Osiris Saddle and lifts the Tapeats several hundred feet higher to the south than it is to the north of the fault. There are interesting exposures of tilted Shinumo Quartzite capped by level Tapeats. This faulting must have occurred before the higher layers were even deposited. I reached the bed of Crystal via the side ravine formed along this fault. I enjoyed an insect free night among the cottonwoods beside the clear stream.

It was obvious that Crystal had not experienced a major flood. Even in the narrows, trees were still growing as before. In the morning, I went down to the junction with Dragon to note the vast contrast. Dragon had been a river of mud that had taken out the terraces clear back to the bedrock even where the bed is 75 or 100 feet wide. I found the old mine diggings filled with debris but of course the dynamite was missing from under the overhang nearby. The terrace on the right below the junction was still there, protected by two living room sized blocks. However, the December flood had gone between these blocks and had spread clay and boulders across the lower two thirds of the terrace where Davis and I had found obsidian and the soapstone pendant. The upper third still had its mesquite intact. It would be interesting to trace the flood damage up to the junction of the two arms of Dragon. If only one of these arms is devastated, it would be evidence that an underground lake had given way rather than that ordinary surface drainage was chiefly responsible. One could easily settle this from the air. The walls still show a striking difference in color where they were formerly banked up with clay. Some places the flood of mud seems to have dyed the walls yellow brown above where the terrace reached. A surge of clay and boulders marked the wall directly opposite the mouth of Dragon about 25 feet above the bed.

I had thought that the climb out would make a short day so that the extra 75 minutes of this inspection of the junction wouldn't be missed. Progress along the bed was satisfactory and I ate a second breakfast at the last water flowing in the creek although it was only about 9:30 a.m. I soon learned that this was not the real spring for Crystal which had kept water on the surface last fall. The highest small flow from the cottonwood jungle goes under the new gravel left by the flood.

If one wanted a complete tally of all inaccessible caves in the canyon, he should fly these walls in a chopper with his notebook out. It would probably give him writer's cramp to try to keep up with all that he would see in Crystal.

Time passed rather pleasantly and I was a bit surprised to note that it was already 1:00 p.m. when I reached the fault ravine where the ascent through the Redwall is reasonably easy. Since I still figured on reaching the rim by four or so, I took almost 30 minutes to detour up the Redwall narrows, round trip, that is. It was delightfully cool among the firs and I startled a doe. I had thought that all good deer should be up on the Kaibab out of the heat.

Except for the streambed through the Supai, brush is more of a problem than working against gravity. After a fight in brush at the base of the Redwall climb, I went too high at the top and got into plenty of

manzanita. One should double back when he is out of the ravine and keep near the rim of the Redwall to get into the right ravine through the Supai. A deer trail is a good guide here, but I wasted a good many minutes by not getting down near the rim of the limestone above the main gorge of Crystal. I found a couple of small rainpools, very recent, at the top of the Redwall in the ravine, but there were no larger pools as there had been last fall. I had taken a couple of short drinks from like sources in the bottom of the Redwall gorge before starting up, but soon I was wondering whether I was right in carrying only two quarts on the last day.

Near the top of the Supai I made my second bad route decision. I recognized the place where we had left the main bed and gone up the brush choked one to the left, but I thought it would be interesting to see whether I could get up to the bare shale ridge I had used on the return from my first reconnaissance two years ago. After taking chances in the steep shale, I finally gave this up and tried to fight my way up through the manzanita and other brush. This was appallingly slow. About the time a cold rain began, I began pushing to the west and down into the ravine where the brush had been kept thin by slides. This was the best route clear through the Coconino, and then deer trails led to the top, which I reached by 5:30 p.m. This time I avoided the mistake that Chuck Johnson and I had made last fall when we reached the rim at dark. I stayed close to the rim even if it meant dropping into a ravine immediately and having to climb out. In 16 minutes I was on the road and by 7:20 p.m. I reached the car.

This trek had not only filled the last gap in my north side route in the canyon from Nankoweap to Kanab, but it had also meant that I had personally covered my fourteenth route from the rim to the river on the north side.

Grandview Point to Sinking Ship [August 8, 1967]

I left home early with the intention of going back to the upper end of Havasu Canyon. I wanted to see the canyon from the Kirby Trail to the Kla la pa Trail and Black Tank Wash, but less than a half mile of the Anita Road west from the highway convinced me that the plain dirt road farther on would be impossible after so much rain. I had only two and a half days so I decided to turn to two ideas for the south rim of which the first would be to go down on the Grandview Trail and come out by the Sinking Ship. At first I intended to follow the Redwall Rim from Horseshoe Mesa around to the break south of the Sinking Ship, but I knew that would be a slow and exhausting route, cut up by many ravines.

A shorter and perhaps less obvious route appealed to me, and when I came to the fault at the upper end of the east arm of Grapevine Canyon, I tried to follow it down into the west arm of Hance Canyon. The climb down through three fourths of the Coconino was interesting and rather challenging. I got below a couple of drop offs by going out of the bed to the east. I believe, with just a little chance taking, I could have gone down to the last 20 feet of the Coconino, but I could see that there was still a shear drop with no way around it. I returned to the Grandview Trail after spending about an hour on the investigation.

At the next notch east, the trail is almost through the Coconino on the east side. On the west it is still about 120 feet lower. The block between the two notches has settled, but it is mostly tilted down to the east. From across the bay near the Sinking Ship, one can see this situation well from the eastern notch, it

was a simple walk over broken slabs of all sizes clear down through the Redwall. There was never any difficulty worse than watching one's footing on the possibly loose rocks. I can't think of another route so simple and direct through the Hermit, Supai, and Redwall.

I had never been up the west arm of Hance Canyon unless one counts the time I brought Raymond Wiley down from the Sinking Ship through the Redwall to check Lange's statement that this was possible. For the record, this time I followed the bed down to the junction of the two arms. No burros were near, but there probably were one or two left in this region. A burro trail leads from the west arm around into the east arm going toward the seep spring where Hance built his rock cabin.

The route up the Redwall follows a most peculiar slope studded with small towers of strangely colored rock. One upended block is of a soft material that is rusty yellow. Two others are deep red, very unlike true limestone. Here is where I had noted a small natural window made by cemented fragments. The precipitous top 25 feet at the rim of the Redwall is also shattered and deep red. This was the hardest part of the trip for me. I recall that Wiley led me down and up here on the other occasion. Getting over to the main ravine going up to the Sinking Ship Saddle and finding the best way up this ravine furnished more problems than I encountered during the descent. I couldn't remember the details of our former trip. Near the top of the Coconino, one must leave the bed and go north. Much of this is over loose slabs that slope the wrong way. At the top I went directly up to the woods on the rim and stayed away from the highway as much as possible. Without the hour spent in going down the wrong ravine and the hour and a quarter spent in going down to the junction of the two arms of Hance Canyon, this would not have been a long day. I left Grandview Point at 9:00 a.m. and topped out above the Sinking Ship at 5:30 p.m. It took more than one and a half hours to walk back to Grandview Point. Because of the faulting and breaking in this area, the basin I crossed is most scenic. Several kinds of butterflies and some birds added interest to the day. The weather was relatively cool, and I can recommend this to anyone who wants an unusual trip of great beauty.

Cope Butte [August 9, 1967]

The weather looked a bit gloomy at dawn, but by the time I was ready to start down the Hermit Trail at 8:15 a.m., the sky was fine. Even with this leisurely a start, I was walking in the shade nearly to the Cathedral Stairs. The trail is noticeably more eroded than when I first became acquainted with it. However, there are more cairns to guide one through the rockslides, and deer trails have developed around big rocks on the trail. Santa Maria Springs still keeps several inches of water in the trough near the shelter, but the pipe is gone.

I was down below the notch at the south end of Cope Butte by 11:00 a.m. I carried the Kodak retina in a trouser pocket, but after taking a good drink, I left the canteen on the trail. Chuck Johnson had told me roughly his route, and after studying the wall from the Cathedral Stairs, I agreed that he had picked the best way. Even so, I had no real confidence that I would make it. More in the spirit of finding out just how far I could go than with a determination to succeed, I started up the scree to the notch.

It is easy to scramble up to a bench that leads around to the west. A scramble up a short sloping crack leads to another bench which continues north. At the end of this shelf, one must go up a steep wall with some holds or a still steeper crack. I chose the crack. It was safe enough, but I had to search a bit to find all the holds needed. I surprised myself by coming down this place more readily than I went up. After a walk up on the untrustworthy scree, one needs to go north again along a bench. Doubling back to the south, one can easily scramble up to a notch in the crest of the summit ridge.

From a distance it appears that one should be able to walk along below the crest on the west side, but Johnson's choice was to use the very top most of the way north to the summit. I agreed even though there were numerous places where I went along on all fours or wanted to crouch. It was similar to going along the knife edge leading to Sumner Point.

The summit is marked by a well built cairn. Johnson found this already here and merely repaired it. One wonders how many others unrecorded first ascents there are in the Grand Canyon. It is not too surprising that the buttes near trails should have been climbed. This would cover Escalante, The Battleship, Huethawali, and Cope. Sumner is more of a chore but it is near the Clear Creek Trail. What surprises me more is that Apollo Temple should have had a cairn. If I remember correctly, Clubb told me that when he reached the top of King Arthur, he found a cairn, but later he showed no recollection of having told me this.

The difficulty with climbing Cope is not so much the necessary acrobatics at one or two places as it is the care needed to avoid slipping in the scree and also the sense of exposure along the summit ridge.

Ropeless (?) route from rim to Wotan [August 14, 1967]

R. E. Lawes had told Clubb that one of the ravines visible from Angel's Window on the south side of the Citadel Promontory furnishes a route to the Hermit Shale, and Clubb passed this statement to me as having been verified by him, but which of the three he could not say for sure. Several years ago I had found the break in the Kaibab rim. I had ruled out the east ravine as being impossible from the top and I thought I had been stopped by the other two at about the same height above the bottom of the Coconino. Allyn and I had rappelled at the end of the middle one, but as time passed, I became less sure that I had really gone down the west one as far as I could. A further investigation would take less than a full half day.

I had no trouble finding the break at the top, the closest place to the parking where you can start down. I found the two overhangs to the west of the route that shelter pictographs, the ones Rothfuss had seen when I showed him this break. I also found 25 imperfect hand prints made with red clay higher under the first overhang to the east of the route. I took pictures this time.

The walk down to the car wrecks was just as easy as I had remembered. In 100 yards more I was starting down the west ravine. This seemed easier than the other ravine, although a couple of places might have given me pause if I had been carrying a full pack. About 80 feet above the bottom of the Coconino I came to the place which must have baffled me before. There was a sudden drop in the bed, but one could go

over to the east on the sloping slabs. After 20 feet of easy going, these too showed a vertical drop of 15 feet. Here is where I must have turned back in 1961. This time, however, I found a crack over to the east where I could chimney down using a jam crack for holds. Below, the broad ramp ended in a sheer drop, but if one could get back into the main ravine, the problem would be solved. It is filled with slide rock to the base of the big fall. At two places I feel confident that a nervy climber with long legs and gripping soles could do this (it goes, rope for pack). There are no handholds. One would have to step around an angle with only the friction of his shoes for safety. A fall here might not be fatal either, but with no one to go back for help, I wasn't about to try the two or three crucial steps. If I had brought a rope down here and had it tied to a tree, it would furnish the handhold that would give me safety. With no rappel necessary and no prusiking up, this route would be far faster than the way I showed Allyn and used solo on another occasion. I feel that I might be able to climb Wotan and return the same day, or that a day and a half would be no strain. If I would go down here, follow the Hermit over to Freya and get down the Supai to the Freya Vishnu Saddle, I would have logged another route from the rim to the river. After I had done the last few feet at the bottom of the Coconino with a rope, I might get the courage to do it without. Anyway, this vindicated the Lawes Clubb report that there is a ropeless route somewhere here.

Review of the route west of Point Atoko [August 15, 1967]

I had given the rangers my plan for a four day trip down into Chuar Basin to climb Gunther Castle, starting at the McDonald break through the Coconino that I had rediscovered in 1957. I had used it twice since that time, but now several years had passed since I had reviewed it. The car was left at the clearing at the start of fire road E6, and I walked into the woods toward the sun. I told myself that 10 to 15 minutes in this direction would bring me to the rim at about the right place.

Where I started down from the rim, fallen aspens and small firs were a real nuisance. Below the worst of these I found deer trails at several levels, but none went down into the breaks between the Coconino promontories. I worked my way east checking down below at times but mostly just going out on the Toroweap outcrops and looking at what was below. There always seemed to be a vertical drop at the bottom of each of the bays. Finally, I came to where the top rim was hard Kaibab Limestone and I realized that I had come too far northeast. While I was walking back toward the car along the rim, I noticed that there is a broad depression that forms a groove toward the south, which soon begins to slope away from the rim. In going east, I had been below the rim before I reached this depression. I would have looked closer to the end of the line coming southeast from Point Atoko except that I clearly remembered a picture I had taken along the Hermit as I approached the right place from under Point Atoko. The way I remembered the picture, the break was considerably east of the ravine coming directly down from the highway. I decided to eat my lunch at the car and start over looking for the place as I had done in 1957. I went back to the viewpoint formerly called Two Rivers Junction and now the Painted Desert Overlook. When I went back and began again, starting down from the rim closer to the highway, I not only avoided the deadfall timber but soon found the good deer trail leading down clear through the Coconino. There was some flood damage in these ravines, but mostly the trail was clear through black organic soil. The seep spring was still just barely flowing just to the west of the trail at the bottom of the Coconino, and there were plenty of fresh deer tracks around the seep.

This lost time for the search had thrown me completely off schedule so that I gave up going after Gunther this time. However, I studied the approach to the McDonald Route very carefully so that I will never lose it again. When I followed the main deer trail back up to the rim, I found that I was only four minutes walk from the car at E6. The departure from the rim is considerably southwest of the broad depression in the rim that extends to the south. When the deer trail brings you down to the correct bay, you see a Coconino outcrop splitting the forest. The trail goes to the northeast of this. Just to clinch the identification, I built a cairn in plain sight at the end of this outcrop. There is a short tower of Toroweap resting on the Coconino on the far side of this bay, and this support is split from the main cliff by a long crack. From the promontory west of the bay, I could see that there is a similar small tower on another promontory farther east. The thing to look for is the Coconino outcrop splitting the bay for a short way, with a cairn on its end.

If no mistakes are made, the route is quite efficient. I came back from the base of the Coconino to the car in 45 minutes walking time.

Through Obi Canyon to Deva Saddle [August 16, 1967]

Clubb had told me about his trip off the rim with Kitt Wing to try to climb Brahma. He thought they had gone down to the east of Point Ariel, but I saw from the plane that it must have been through the ravine just east of Obi Point. Still the view from the air didn't give me complete assurance, and I wasn't sure whether Clubb and Wing had used a rope. Milford Benham, geology teacher at Glendale Community College and seasonal ranger naturalist, went with me to check. We drove out E4 and followed the middle branch when it split. On the way to Obi Canyon, a half hour of walking, we crossed one deep ravine quite sheer where it reached the rim. There was a shallow, short ravine before we started down into Obi. We had looked the land over from the rim just after crossing the first one. Obi is a very exceptional ravine in that it gets the walker through to the Hermit with no real climbing problems. There are a couple of ledges in the Kaibab soon after the canyon begins to get steep that call for good route finding, but the day after Benham and I reported on our trip, Larry Henderson and Harold Timmons took their wives down here. They made it all right and Larry was even carrying his small baby in a pack. Most of the bed is covered by old rockfalls and there is plenty of vegetation including firs.

We were gratified to see that we had located the route and we were also glad that we could proceed west along the Hermit to Deva Saddle. When we had arrived with only the usual delays in getting around steep shale and fallen blocks, we had filled in what I needed to have covered my fifteenth route from the north rim to the river. After eating, we also went along the west side of Deva until we were sure that I had connected with my route from Bright Angel Creek. Benham was especially taken by the views from this saddle. We could see Roaring Springs and upper Ribbon Canyon. The canyon between Oza Butte and Widforss Point was directly before us. It seemed to have some water flowing in the lower end, and the Redwall in this bed might be climbable. I'll have to investigate this possibility someday.

On the return we found that walking was easier lower along the bench than the route we had used on the way west. When we neared Obi, we climbed and came a bit closer to the base of the Coconino. I noticed an overhang with smoke stains on the ceiling and went up to investigate. We were both pleased to

discover the most interesting pictographs and petroglyphs I had seen in the park north of the river. The pictographs were notable for the different colors used: deep red, red brown, yellow, and even blue. One small design appeared very fresh and different from the others. Both of us considered whether someone had come along with blackboard chalk and had done this one. The designs were about all geometrical and seemed quite different from most pictographs. The petroglyphs were very old looking and were carved where there was little of no contrast between the surface and the deeper parts of the grooves. Two or three looked like standard mazes or zigzags, but mostly they were random looking curves that might have been dreamed up by a child. This display brought the rangers down the next day. They poked around in the pack rat droppings and found many little corncobs.

The rangers used the west fork of E4 as their approach road and they parked on the rim of the right canyon. This would be a faster and easier way to climb Deva than the one I used, coming up from Bright Angel Creek from a little north of Ribbon Falls. I am not sure that it would be the fastest approach to Brahma.

Route (?) to canyon floor around Kibbey Butte [August 17, 1967]

From the air, Beck and I had noticed that a ravine south of the base of Kibbey seems to go through the Redwall with no obstacles for the walker. However, the top Supai cliff is unbroken directly above this ravine. Milford Benham went with me to look for a break in order to get into this ravine and descend to the bed of Nankoweap Valley.

I was almost as clumsy in finding the way down to Kibbey Butte as I had been the first time. We parked at the turnout by Greenland Lake and headed for the rim. When we got a view we were to the south of Kibbey. Then we followed the old wagon road to the north. When we started down again, we found that we were north of Kibbey and too far back from the point. We got rather far down before we came to this conclusion and wasted time in getting over to the right place, but we finally found a clear deer trail leading down. As had happened when Allyn came down with me years ago, we missed the bit of man made trail on the way down but found it on the way up. There are two ways past an outcrop of Coconino. When we came out, we followed the trail up to the top of the plateau and saw that at the very top it is clearly wider than any deer trail. The old road goes right by the top of the trail near the end of the plateau above Kibbey. We marked the place with some dead poles leaning against a couple of trees.

Down below the Coconino the best trail, by now little more than a good deer trail, slants down towards Kibbey. We found a warm jacket lying on the trail here, probably dropped by someone returning from Silent River Cave. It was in poor shape since rodents had been gnawing on it. First Benham and I checked the Supai for breaks along the south side of Kibbey near the ravine and we also looked along the Supai rim to the south, but there was no way down (there is a way, rope needed for pack). At first I thought that it would be a good idea to get below the top 100 feet of Supai and follow a ledge from the north side of Kibbey around to the top of the good ravine. We could go down the north side of Kibbey around to the top of the good ravine. We could go down the way they go to Silent River Cave. However, the ledge soon became too steep to follow and I changed the tactics. We would go clear down to the rim of the Redwall and try to go around Kibbey at that level.

Getting down to the Redwall rim wasn't all clear deer trail. We were able to find a fairly good route, sometimes on a trail but about as often not. Our bypass of a troublesome Supai cliff near the top was to the east of the draw but lower we got past another bad cliff to the west of the draw. These places were not too obvious, but Benham proved himself rather clever at following the deer to the right places. We ate our lunch right above the entrance to Silent River Cave although we were not aware of this at the time.

I wanted to see what sort of progress I could make along the rim of the Redwall. At first the brush was our worst obstacle, but it was a bit tricky to cross some bare shale to pass the next ravine to the east. Benham slowed down and waited for me while I went on to the angle that projects from the base of Kibbey toward Point Imperial. It had taken a half an hour to reach this place from where we had eaten, so I turned back and joined Benham. As far as I could tell, the walking gets somewhat easier beyond this place, and I would say that one should be able to go on around to the ravine to the bottom in two hours along the top of the Redwall. We saw another cave entrance below the rim of the Redwall in the ravine just east of the one we had come down. Perhaps the explorers of Silent River Cave have been into this one, but if so I don't know what they found.

It was easy to get from the Redwall rim to the top of the plateau in less than two hours. An ice axe might be helpful for cutting steps in the bare shale above the Redwall. If all goes as I think it should, one might leave the car and be down in the main part of Nankoweap faster by this route than he could via the Nankoweap Trail. I believe I should try this project again.

Cogswell Butte [August 18, 1967]

After four hours of struggling through brush and over difficult rocks, I was ready for some plain old trails. Also going down the Thunder River Trail and climbing Cogswell Butte would fit into the day and a half that I had before I had promised to start home. However, I wasn't averse to getting off the rim the quickest way I knew even if I had to do a bit more scrambling. Thursday evening I had a good visit with Jim and Jerry Kimmel, the young couple who were studying the ecology of the ponds on the Kaibab Plateau, and then drove to Big Saddle where I slept by the car.

I have concluded that some combination of getting off the rim and using the break in the Toroweap and the talus covering the Coconino northwest of Monument Point should be the best way down to the horse trail along the Esplanade. I drove the road starting a bit beyond Big Saddle and heading for Crazy Jug Point and then turned along the rim toward Monument Point. I left the car where the road turns in away from the rim, at the low place where you have to start climbing toward Monument Point. This time I stayed up along the rim and followed a Jeep road that goes up to a surveyor's tripod. Beyond this the walking isn't bad either, through the cliff rose and sage. There is a depression that creases the rim and the plateau to the west not far north of the point. The Kaibab ledges seem to be getting more like barriers beyond here, so I started down. I found that I could walk almost down to the deer trail I had used last year along here, but I had a rather mean time getting down one small cliff. I should have gone clear to the point, walked down to the east and then followed the lower ledge around the crest to the west side where

one can walk the rest of the way down. Then I would still have a rather long walk along a deer trail to the break. This is marked by a few cairns.

The way I came out Saturday morning is still better, and it is not hard to find. When you reach the depression along the east rim, cross it and then turn west. The groove soon develops into a steep sided gulch. It picks up several tributaries from the north, so the best walking is along the rim of this ravine just to the south of the thicker brush growing in the gully. In ten minutes you would be across to the west rim of Monument where there is quite a ravine cutting the rim. A deer trail goes down on the north side of this bay and then you can follow it southeast for a very short distance to the break leading down to the Esplanade.

Reaching the horse trail was easy and so was walking along it until I began finding rainpools on the bare rock. I ate a second breakfast where there is good rain protection because of an overhang and left most of my gear there. There doesn't seem to be as many horse parties going to Thunder River as there were 15 years ago, perhaps because floods have eliminated the fish. There are enough hikers to keep the trail well defined, and there also seem to be more cairns along the way than formerly. The forest service has also installed some guide posts where one might try following the old route off the Esplanade. A few years ago the trail was worked on and a shortcut was provided. The day still seemed fairly cool and I made good progress along here and down the switchbacks below.

Surprise Valley impressed me again as a fine example of a graben. Near the trail at the bottom of the valley, Supai ledges show in their right sequence clear below the Redwall to the north. On the south side of the valley, I was soon climbing undisturbed Redwall that had remained at the original position. However, the Redwall and Supai above it both show a tilt down to the west, very slight compared to the big deformations of the area. It was easy to go up west of the center of the butte, climb the Supai, and get to the top at the west end of the narrow ridge. I was deciding how big a cairn to build when I came to a fine big one already in place. A few of the top stones had fallen over and I replaced them. With old cairns already on Poston, Escalante, Apollo, Sumner, Cope, and Cogswell, and perhaps King Arthur, I wonder how many others were climbed by prospectors who didn't record their movements.

Before returning I went to the rim of the Redwall plateau directly south of the top. I could have reached the car Friday before dark, but I stayed below.