Harvey Butchart's Hiking Log

DETAILED HIKING LOGS (January 22, 1965 - September 25, 1965)

Mile 24.6 and Hot Na Na Wash [January 22, 1965 to January 23, 1965]

My guest for this trip, Norvel Johnson, thought we were going for just the day. When I told him it was a two day trip, he brought in his sleeping bag, but since he had no knapsack, we decided to sleep at the Jeep. The idea was to see Hot Na Na from the rim on Friday and then go down it as far as possible on Saturday.

We thought we were following the Tanner Wash Quad map carefully when we left the highway a little to the north of the middle of the bay formed by Curve Wash in the Echo Cliffs. What we didn't realize is that there is another turnoff only a quarter of a mile north of the one we used. This is the way we came out of the hinterland on Saturday. Our exit is marked by a large pile of rocks and it gives a more direct access to all the country we were interested in seeing. The way we went in goes west, south, and north and we got thoroughly confused before we headed toward the rim of Marble Canyon. The track we followed goes considerably past the end of the road which we finally identified as the one that is one and a half miles north of Pine Reservoir. It ended near a dam. We entered the draw beyond the dam and after looking down at the Colorado River, decided that we were on the north side of the bay at Mile 24.6. I could recognize Stanton's Marble Pier although it is not as clear from the east rim as it is from the west.

After a lunch where this draw comes to the rim, we proceeded southeast along the rim of the main canyon. We could see that there was a sheer drop below the bed of the main canyon, but I wanted to see whether we could get down to this point, far below the rim at the top of the Coconino Sandstone. About a half mile back from the sheer drop, where the channel turns due south, we were able to climb down through the Kaibab Limestone. The bed soon became red and pitted with water pockets. My geology student companion wanted to call this Hermit Shale, but I convinced him that the regular Hermit Shale had to be much lower. He was convinced when we came to the top of what was clearly Coconino Sandstone. There were a couple of steep drops in the bed before this, but we could get down safely. We came out to the notch formed by the bed with a sheer drop of about 100 feet to the bottom of the Coconino. Below this it would have been simple to go to the river except that I couldn't see a place quite close to the beach. This wash has one advantage over the Tanner Wash as a candidate for the one the Glanton Party used. One can see the river where one is stopped. It must be about 800 feet up to the rim and 1300 or 1400 feet down to the river. There are no deep pools, however, and the walls hem one in for only a short distance near the end. Furthermore, travelers coming north would stay in the valley next to the Echo Cliffs and would very naturally start down the Tanner Wash drainage rather than any over the cut up country to the west.

When we got back to the car, it was still early so we drove back and then north to the road that goes between the Hot Na Na draw and the one that ends at Mile 22. We missed the way again and followed the track farther than it is shown on the Tanner Quad. The Jeep reached another dam about a mile from the

rim. When we walked to the brink, I could see that we were two miles south of the mouth of Rider Canyon. We went north along the rim until we got a good view of the barrier rock at Boulder Narrows and then returned to the car. We thought there would be a closer approach to Hot Na Na if we drove back up on the plateau, so we did that before we camped. Just north of a fork I stopped for the night although I could have driven farther north either down a draw or out along the higher land which would have put us closer to Hot Na Na.

We managed to keep warm with two sleeping bags apiece although the night was a little below freezing. The sky was crystal clear and Venus and Mercury, I believe, were impressively closed in the morning sky over the Echo Cliffs. When we got up it was so cold that we just threw some groceries into my pack and started to walk with the intention of eating breakfast when the sun came up.

I thought incorrectly as it turned out, that the next drainage to the east was the beginning of Hot Na Na. I had the idea that we should go out to the rim and look down at the mouth of Hot Na Na before we tried to get down along the bottom. When we came to the first draw, we stayed on the plateau to the west and found a car track which we followed until it gave out. Since this draw was not deepening, we figured that Hot Na Na must be farther east and crossed another draw without finding anything deep enough. We followed the bed of this one clear to the rim of Marble Canyon and found ourselves still downstream from the mouth of Rider Canyon. We were only about a half mile from where we had been on Friday afternoon. We now walked up past the mouth of Rider Canyon and looked down at the mouth of Hot Na Na. We saw that if we could get through the Coconino Sandstone, it would be simple to reach the cliff right above the river. It ought to be easy to walk to the rim of the Supai above the river and return up Tanner or even Salt Water Wash. Since I had promised to get home by 5:30 p.m., at the latest, we knew we would be doing well this time if we could get to the bottom of Hot Na Na and follow it to the Coconino. We were able to get to the bottom opposite where the dotted blue line comes in from the east below the high point marked 5063 on the map. Progress along the bottom was easy. There were a lot of sheep tracks and rather surprisingly a man's shoe prints looking quite fresh. There were probably two men, because we came to four, half grapefruit rinds, a food that we thought unlikely for Navaho sheepherders to be carrying. The only water was very shallow mostly on flat rocks from the recent snow, but we finally came to a real drop in the Coconino Sandstone. It seems to be about 60 feet thick here, and about halfway down there is a deep pool. We assumed that we had to bypass this place along a shelf to the east, but on the return we found a shorter way still to the east. We also saw that we could have walked up the bed and passed the pool on the west side. I had set 11:00 a.m. as my deadline for turning back. About three minutes before that time we came out to where we could see into the wide open canyon. It is quicker and easier to go down Hot Na Na to the Supai rim above the river than it is to do this in Tanner Wash. On the return to the Jeep, we lost our bearings somewhat and expected to see it quite a while before we actually did. We really didn't get off the most direct route and came back to the car using the same track we had followed in the morning. I got home with a half hour to spare. On the return around the pool in the Coconino, I found some very clear fossil footprints about the size of a half dollar.

Hot Na Na doesn't rival Tanner as a candidate for the Glanton Party canyon. It lacks the series of pools and doesn't give one a hemmed in feeling. Besides, there is no place along the bed where a person has to stop and just look ahead.

Of the tributary canyons that might have been followed by the Glanton Party, Tanner Wash seemed to meet the description of Chamberlain the best, since it has a narrow bed with pools of water and a channel that would be hazardous during a flash flood. However, the man would have been stopped by a fall in the bed at a place where there is no view of the main canyon of the Colorado. If they had backed up and gone along a steep talus on the east side of the wash, they would have come out where they could see the sweep of Marble Canyon although they would not see the water of the river. If they went to the right along this upper talus, they probably could not get down to the last small cliff above the water. If they had gone along this level to the left (west), they might also conclude that there would be no way down whereas there is a way around a bend further north. Hot Na Na Wash also seemed not to be right since one can proceed smoothly right down to the edge of the cliff immediately above the water. Marston wanted me to check the minor side canyons that come to the river at Mile 15.3 between these two major tributaries.

Gordon Denipah, the finder of the pole platform at Mile 43.3, and his survey crew boss, R.V. Tramall, went with me. We left the car at the end of the road just west of the service station at Bitter Springs and went down the arm that soon reaches the main bed of Tanner Wash where it starts to be steep walled and narrow. One can get out of it to the right farther down where I entered it on the other occasion, but it is a climbing stunt to leave it to the left and this is only possible at one or two places. The Glanton Party would have thought that this deepening canyon would be a logical approach to the river, and their horses would have found the going easy for a couple of miles more. Then there would be no exit without returning to this point, or the lower trail to the east. It would not be easy or natural to switch over into the relatively shallow draw that we proposed to inspect.

A trail leads from the bottom of Tanner Wash to the top of the plateau to the west. We got to the top and then paralleled Tanner. After crossing a swale or two that drained into Tanner, we got to the drainage that goes to the river at Mile 15.5. As we were about to follow it, we met a young Navaho man, Bill Tunney, who was reading a comic book as he watched some sheep. He supposed that we were prospectors, but when he heard that we were just interested in seeing the country, he volunteered the information that if we could go down a 100 foot rope to the bottom of a pit near the start of Hot Na Na Wash, and had flashlights, we could follow a tunnel three miles long to the bank of the Colorado River. At least he said he could show us the pit, but he had just been told that there was a tunnel. His other information wasn't very reliable, because he said that we could not go to the river down Tanner, but we could get down the one we were beginning just now. He did understand our questions, however, and he pointed to the place on the Tanner Wash Quad that was our correct present location. He may have meant that we could get down the cliff with a rope.

In about two hours of walking from the car, we came to the end of the valley. We were about two thirds of the way through the Kaibab Limestone, and there was only about a 40 foot drop to a ledge that could be followed to the west where one could get on down by a talus clear to the rim of the Supai immediately above the river. After lunch at this notch, we had no difficulty in climbing to the plateau to the west only a few yards back from this drop off. In fact, one can leave this valley at will, and there would be no

hazard from floods. We followed the rim west to the view into the mouth of Hot Na Na and Rider across the river. It took about two hours to walk back to the car. I was slightly amused that the engineer and surveyor thought we were in Tanner when I knew we were just in the upper end of the draw where we had lunch, above Mile 15.3. He also missed two or three other identifications that day, but he and Gordon were both fine walkers and interesting companions.

Cremation Canyon [March 13, 1965]

I was slow making up my mind to go because the paper promised more storm. Highway 66 was so hazardous that some drivers were doing less than 35 mph. The road north to the canyon was much better and I reached the Visitor's Center by 10:20 a.m. After a visit during which I learned that Cureton had recently made a solo trip to the river down the Grandview Trail, I started down the Kaibab Trail at 10:40 a.m. right behind three teenage boys from Durango who were going to sleep at Bright Angel Campground. They had to break trail through the drifts. I wish I had taken a picture of the peculiar knife edge cornices along the outside trail.

The first snow and the cloud effect in the canyon made the views fantastic. Across the canyon, the west side of numerous buttes would be in clear sunshine while dense fog clung to the east sides. The updraft from the west would leave a sharp edge of cloud inclined upwards at 45 degree angles for a thousand feet above the tip of the butte. The day was generally sunny, but there were several short snow flurries and the constant shifting of the clouds made the experience unforgettably scenic.

The original plan was to go along the rim of the Redwall east from the South Kaibab Trail, go down through this formation east of Cremation Canyon, and return along the Kaibab Trail. Since the Redwall rim was still snowy, I decided to reverse the order. It was not hard to go down the muddy trail and I was enjoying the trip to the full. It took from 11:30 a.m. to 1:30 p.m. to get from the trail to the end of the east arm of Cremation with about a half hour of that time for lunch. I noticed three caves high in the Redwall on the west wall. The one farthest south is the one we climbed into in 1957 after it had been explored and furnished split twig figurines. I believe Art Lange has also explored the one farthest north, but the middle one seems inaccessible. There were other seemingly inaccessible holes on both walls of this canyon.

There are parallel streambeds in the upper part of this east arm of Cremation separated only by a clay and gravel ridge. I followed the eastern one, and this does continue farther than the other. At one place in this shale streambed, there was a short flowing stream. The streambed came out of the shale just east of the bed. As there was no snow on the slope above, this may be a seep that runs most of the year.

About 100 yards short of the end of this wash below the Redwall, I started up. I had seen deer and burro signs ever since I had left the Kaibab Trail, and I continued noting them up the talus immediately below the Redwall here. There was a place at the top of the talus where I could go almost straight up by using my hands to milder slopes that led without further chance taking to the level of the figurine caves across the canyon. If I had been more daring or skillful, I might have gone on across a steeply sloping part of the Redwall. There were many little nubbins of projecting rock and a few bushes growing in the cracks. Since

I have resolved not to press my luck and get in a fix that might induce the shakes, I decided to turn back. Scholing and Todd (?) came down somewhere near here, but perhaps they used the ravine that opens to the north on the other side of the promontory. I knew I was taking too long so I couldn't scout more places. For over 20 minutes, I had to look for the place to get down from this upper talus or rather I was trying to find an easier spot for the descent. Finally, I went down six feet from where I had come up.

The mud and snow made the trail back rather hard. I needed two and a half hours for the last three and a half miles. Eight years ago this would have seemed much easier. (March 8, 1969: 1 hour and 55 minutes for this three and a half mile leg, also mud and snow.)

Black Water Canyon (Oak Canyon on the Navaho Mountain Quad) [March 20, 1965]

The occasion was the third trip of the college hiking club to Rainbow Bridge under the management of Jay Hunt and my sixth trip. Some of the students went in from Rainbow Lodge, some over the top of the mountain with Hunt, and others came in by boat from Wahweap. Those that walked in got to go out by boat. Everything worked out all right although I had predicted that the party would have to retreat the way they had gone up and then would be quite late in arriving at the bridge by one of the two regular trails. They were two hours slower this year than they had been last year with two girls along, but apparently their feet were stopped by a buried crust in the snow just about as deep below the surface as we stepped last year. Cureton kicked his foot down through this crust and still hadn't found the bottom at four and a half feet.

Since I was more eager to see something I hadn't seen before than I was to see whether I could defy good sense and make my way through the deep snow, I took the north trail around the base of the mountain. We had left Flagstaff about 6:00 p.m. Friday evening and reached Navaho Mountain Trading Post about 9:30 p.m. After some palaver, two students went with me by car four and a half miles farther north to the brow of the hill. They drove the car back to Rainbow Lodge where the non mountain climbers spent a cold night out. I walked down the road by moonlight toward the beginning of the trail for an hour and turned in. It was a surprisingly cold, clear night and by three I was wide awake and cold on the underside where my down bag was compressed. After due consideration, I exercised my freedom as a solo hiker and got up and walked for over an hour. The moonlight on the snowfields of upper Navaho Mountain and the bare sandstone below was unforgettably beautiful. Some features of the route seemed unfamiliar and there was a little difficulty in keeping to the trail. About 4:00 a.m. I inflated the air mattress and stopped to sleep again, but by 5:30 a.m. I was wide awake once again.

Soon after I started on at 5:40 a.m. I came to Balk Rock Canyon and had the assurance of the distinctive route down the east side that I was still on the regular route. The mountains out to the northeast were unusually clear in the early sunlight. I was still not sure of the identification. The two domes on the left had steep sides, but the range a little farther to the left seemed higher, farther away and more snowy. From the shape of the summits, I decided that this range must be the La Sals and that the two on the right were two sections of the Abaho Mountains. This doesn't account for the Henrys, so I am not sure about this geography yet. The north side of Navaho Mountain was covered solidly with snow, except for cliffs,

to within a few hundred feet above the trail. The creeks were running less water than they had last year in February and even in November if I could remember correctly.

After only about two and a half hours of sleep Friday night, I tried sacking out in the sun at 9:00 a.m., but my habits were too strong and after a ten minute nap I was wide awake. I reached Black Water Creek by 10:30 a.m. and turned down it for a short way before an early lunch. The water that is flowing at the trail crossing soon disappears. The arm of the creek that comes in about 15 minutes walk down from the trail crossing had a nice flow of water that kept the creek flowing above ground for over a mile. For the rest of the bed I covered, possibly about two miles, there was water only in infrequent standing pools.

The canyon is a beauty. First there are views out to the prominences and back to Navaho itself. Then there are short stretches of narrows that open again on open areas where the walls slope back at a gentle angle. Then the walls close in again and finally form the narrowest of narrows. In a place or two, I lacked only a foot in being able to touch both vertical walls with my finger tips. I was hoping to have time before my 1:30 p.m. deadline to either reach the lake or the spot that had stopped Hunt, Cureton, and Earl in November, 1965, when they had gone down this canyon by mistake. At 1:15 p.m. I came to the place. A couple of chockstones had formed an eight foot step in the bed. Perhaps I could have climbed up the slope to the shelf on the left, but after going along it for 40 yards, I would have had to jump down a six foot wall which would have stopped me from returning. This was the objective and I returned feeling that I had seen a most interesting canyon. It would be absolutely insane to go through this lower narrow part in flash flood weather, but it seemed about as interesting as Anasazi Canyon. If one dropped a short log over the chockstone, he could go around the next bend, but Cureton found more obstructions below when they let him down the six foot wall with a rope. I got back up to the trail crossing in about two and a half hours, so I figured I had been down canyon about four miles.

There were signs of a horse trail in the first mile below the main trail and I noted an old ramada about five minutes walk north. There were several fault cracks that came down to the bed before the real narrows began, and I wondered how many places there were where a man could enter this canyon.

There were no signs of sheep, horses, or man yet this season to the west of Black Water Canyon. I wasted no time entering the right crack where the straight drainage begins that finally drops into the east arm of Bridge Canyon. At the end of this fault crack, I wasn't positive which route was right, but after following my hunch for a little while, I came to the trail construction with the switchbacks down to the brook in the east arm of Bridge Canyon.

About ten minutes after reaching the brook, I noted a triangular mouthed cave in the sandstone across the creek on the right. It went back about 35 feet, but there was a sand terrace at the very back caused by floods, so there was no chance that it was ever occupied.

The park people have improved the trail from the boat landing up the canyon to Rainbow Bridge and there was not a scrap of trash to be seen. Boats now moor about 100 yards above the narrows. They even have a house trailer parked on the terrace, and a foot bridge takes you from the west side across to the trail on the east.

I thought I was thoroughly familiar with the scenery along the lake back to Wahweap, but I got a greater impression of its grandeur from the boat than I had when I had floated down the river two or three hundred feet lower beneath the rims or had flown a couple of thousand feet above the rim. Lake Powell is a much more scenic than Lake Mead as the Alps are more scenic than the Sahara.

Clear Creek [April 15, 1965 to April 16, 1965]

The most unusual thing about Clear Creek at this time was the number of visitors. It seems to be coming into its own after all those years of solitude. I met two family groups and 31 Sierra Clubbers. I had known John Ricker and I became acquainted with Bill Poston, Marshall Eaton, and especially Tom Pillsbury, another college teacher but one who has independent means and still teaches chemistry. Several of them made the effort to get up early and be ready to go with me up to Cheyava Falls even though they weren't supposed to be ready to leave the area until 5:00 p.m., while I intended to start back for Bright Angel Campground quite a bit sooner.

I was rather disappointed in the small flow out of the cave at Cheyava Falls. At this time of year I had hoped for a picture such as the Kolbs had taken. Tom and Marshall went with me on up the long arm of Clear Creek to see how it ended in the Redwall. One of the visitors, Francis Smith, had been up the day before, but we finally passed his last tracks just below some large rocks in the bed. A more serious block at a fall in the lower Redwall was passed on the east side up a talus filled crack where we had to crawl under a chockstone. Here Marshall decided that he could use a rest, but Tom and I kept on. About ten minutes farther we came to a couple of chockstones effectively barring the passage. They were only about seven feet in diameter, but the cracks between them were harder to start up because they were wider at the bottom and the rocks themselves were smooth. I wedged my body into the likeliest of the three cracks. Although there were almost no rough spots to push against, I kept on trying and made it up an inch at a time. Tom decided he was not that agile and waited and watched while I went around a corner and up a wet slope. (Tom has done climbs that have baffled me.) I then came back into sight from below as I climbed up a steep pitch that had a lot of good holds. Above was a worse slope, gentle but rather smooth. Using a few small holes for toes and heels, I was soon up and could walk ahead above the Redwall. There was no time to investigate the upper formations for a route to the rim. (Bob Dye has been down there from the rim.)

Ranger Bailey had seen something in the side canyon to the west a little south of Cheyava that he thought was a natural bridge like Goldwater's or Hartman's. I looked up here in the forenoon without seeing anything. After climbing up over halfway from the bed of Clear Creek to the base of the Redwall in this side canyon, I saw that there was a large block, convex both above and below, lying across the vertical walled ravine. There seemed to be less space beneath the block than the thickness of the block. It would take time and care to negotiate the cliff below this place and I didn't get a close picture. (Later I went up and there isn't even a block with a hole beneath.)

Redwall rim south of Shiva Temple [April 18, 1965]

Allyn Cureton joined me at Bright Angel Campground. We proceeded along the river near the telephone lines and then started up the granite. A number of people along the trail on the south side of the river were quite interested in our progress, steady at first and then slow and careful towards the top. We had done this years ago, but we still don't feel sure we have the best route, high on the right until we were just below a cliff and then across. We had previously gone ahead to the west on the shale, but this time I preferred to go up on the large blocks and talus of quartzite to minimize the shale. Beyond Cheops Pyramid, we went down the north side of the island of Tapeats and got into the draw that Kolb used as a route up from the river into Trinity drainage. We turned up to the northwest and finally got above the Tapeats and reached the rather deep wash that goes into Trinity. On my former trip up between Shiva and Isis, I had gone down into this and across, but Allyn had followed it to its junction with Trinity. He was pretty sure we would find water near the junction. There were several nice pools connected by a tiny stream. We filled the canteens and even took a bath. We then proceeded upstream to the place where I had formerly camped, at the very top of the Tapeats. Here we found the two small rainpools I had found in August, a good 45 minutes walk upstream from the next water. We stopped here by 5:30 p.m.

In the morning it took us almost two hours to walk to the top of the saddle between Isis and Shiva Temples. I remembered correctly that the very top needed some use of the hands. After putting both lunches in my almost empty pack with Allyn taking water for both of us, we started the tedious process of walking the top of the Redwall. About half the time we could find a deer or bighorn sheep trail, for we saw some droppings and tracks that indicated bighorn as well as deer. In three of the bays at the rim of the Redwall, there were rain pockets holding less than a quart of water apiece, and in the bay below the middle of Shiva, we found a very slow seep running. None of these could be trusted during a dry season. After three hours of careful stepping, we reached the saddle between Shiva and Osiris. At the hollow just before we reached this divide, we could have gone up the Supai and probably the Coconino towards Shiva. I believe this is the uphill route used by the deer to reach the top of Shiva.

After a late lunch at the saddle, we went out to the angle projecting northwest from Osiris Temple and took pictures lining up objects rather well with those in Stanton's view. We also went farther south until I got a good look at the Redwall leading to the notch between the Tower of Ra and Osiris Temple. The Stanton Party couldn't have gone up here. They could have gone up all the Supai except the last cliff forming the top of Ra and they probably could have done that well on Osiris also. I think the picture shows the Redwall rim considerably lower than the camera. From the line up with the knolls below at the Tonto level, they were probably on Osiris. (SHK went down here, also Don Davis.) Starting from the last water up Dragon Creek would give us a better chance for repeating Stanton's hike on Osiris.

On the way back to our packs, we drank all the water we could get out of the midget rainpools. We had thought that we would have time to get our packs down the Redwall into Phantom Creek before dark, but dusk was descending when we arrived at the break I had checked last Thanksgiving. We were careful not to drink copiously but we found that we had enough for light meals both at night and in the morning. It took us two hours to get down the risky part. Allyn led and he practiced without his pack before proceeding. At one place I handed the packs to him, but the rest of the time they were on our backs. At two places I threw down my unrolled sleeping bag before coming down with the lighter pack.

We now had some extra time so we spent it going up two arms of Phantom Canyon. It becomes more spectacular as it closes in. At one place, two room sized blocks are leaning against each other across the streambed. At another, there is a 20 foot fall with a huge boulder wedged into the narrow slot above. A deer trail bypasses this, but you finally come to a dead end in a peculiar chamber about 30 feet wide at the bottom. The curving walls above seemed to be no more than ten feet apart and thus almost shut out the sky. A series of falls bring the snow melt and storm waters down from the basin, but on the present occasion, there was almost no flow. There are also several caves high in the walls of this most interesting gorge.

We returned to the Bright Angel Campground by the high trail east of Cheops Pyramid but not before locating the overhang at the beginning of the trail to upper Bright Angel Creek. There are still some cow chips here so many years after the cattle have left. Long parts of the trail out are covered by slides and I think it is harder to find them than it was several years ago. A few cacti were in bloom and we saw several Mariposa tulips, but the best flowering is still to come. We noticed more birds than usual.

Down the South Kaibab Trail then above the Redwall to Cremation Canyon [May 9, 1965]

Norvel Johnson and Allyn Cureton came with me and after checking in at the Visitor's Center, we were starting down the South Kaibab Trail by 8:30 a.m. We left the South Kaibab Trail in the Supai east of O'Neil Butte below the continuous cliffs but far enough south so that we had to choose a route to get through to the rim of the Redwall below. I noticed that it took the three of us two hours to go along the rim to the head of the east arm of Cremation Canyon. On checking with my report of the trip on February 2nd, 1963, I see that this time wasn't too much slower than the two and a half hours I needed to go by myself from the South Kaibab Trail around the end of Cremation. On the present occasion, Allyn and I had time for a few pictures while waiting for Norvel to catch up. We were able to find the deer trail about one quarter of the way. The day was cool and bracing. We sat down in the shade of a pinyon at the top of the Redwall for lunch, but before I was through, I wanted to move into the sun. This time I was sure where we should try to go down, the notch where the Cremation Fault meets the Redwall. At my suggestion, Jerry Rassner and Dick Jacobs had done this last week. We found that it is a simple walk down. If one didn't move from the main bed to the broken region to the left, it might be somewhat difficult.

At the bottom, I led the others up the wash to the place where I had found the seep earlier this spring. It was now completely dry even after our wet April. We had found several rain pools and a seep active along the rim of the Redwall on our way over from the South Kaibab Trail. There was even a very slow seep in the lower Redwall in the fault ravine we had descended. I believe there had been some rain here only two days before.

After our detour up the wash, we left the base of the Redwall descent at 1:00 p.m., an hour and a half sooner than the party the week before. I predicted that we would be on the South Kaibab Trail near the lower end of the white switchbacks by 2:30 p.m. and to the rim by 4:30. We left the wash in Cremation

before we came to the Tapeats bluff on the west. There were acres of Mariposa tulips along here although some were beginning to fade. In fact, the notable part of the trip was the profusion of wild flowers. A certain shrub above the Redwall was covered with white blossoms, and many other flowers were blooming along the Tonto Platform.

When we were leaving the wash, Allyn decided that he would like to see the Colorado River at close range in its high stage. He left us about 1:30 p.m. and I predicted that he could reach the rim by 5:30. With all of his records in mind, he thought he could do quite a bit better. He crossed the river to go to the bank at Bright Angel Creek, and on the way back up the white switchbacks, he encountered two bighorn sheep, a ram and an ewe. They were in no hurry to get away and he had time to get his camera out of his pack and take some rather close views. He reached the car just five minutes before my predicted time. The day was cool and the trail was free of dust and mud, and I reached the car by 4:05 p.m. My conclusion is that it is a little faster to reach the caves in the east arm of Cremation by way of the South Kaibab Trail than to go along the Redwall rim. I would still like to go over to Lyell Butte, and the route would be along the rim of the Redwall and over the saddle south of Newton Butte It would take more than one day (false) and you would have to carry water for the full time unless it had rained recently.

The Transept and Ribbon Falls Creek (Upper Ribbon Falls) [May 29, 1965 to May 31, 1965]

Doug Shough and I went down to Bright Angel Campground between 5:45 and 7:45 p.m. and had a good evening that was enlivened by some scouts whose leaders were staying at Phantom Ranch while the boys were running loose beside the river and anywhere else. In fact, for the entire weekend, the place was alive with scouts, most of whom couldn't resist jumping on the suspension bridge even though they could see that something was breaking the bolts out of the boards.

Doug and I were on our way by 6:00 a.m. Saturday morning. The air was bracing and we made good progress until we came to the heliport, 1.5 miles south of Ribbon Falls. Doug thought there might be something wrong with his feet. When we looked, he had about the most extensive assortment of blisters I have seen on one person at one time, but fortunately they weren't deep. I was short of tape, but the chopper pilot gave us quite a bit. I took some for possible future use.

I went on while Doug made up his mind whether to proceed or not. He caught up with me while I was eating a snack at Ribbon Falls. Then he went back south while I went on past Cottonwood Camp to the Transept. Crossing Bright Angel Creek in its high stage was a bit of a problem. I kept my shoes on since I have learned that bare feet in the swift water are no good. I picked a shallow place and made it all right.

The Transept is a beautiful canyon with a lot of verdure, but at most places there is a clear terrace for better walking on one side or the other. I found these improvements more consistently coming back than I did going in. The walking time to the fork at the upper end was two hours going in and one hour and 40 minutes coming out. About 15 minutes from the mouth, I was surprised to find a horseshoe. The little stream was flowing well, especially from a spring two thirds of the way from the mouth to the upper forks. There were wet places on the cliffs where snow was still melting, but about three fourths of the way

to the upper end there was a nice pair of falls coming down big jumps in the Redwall. Both of the main forks also had neat falls. Water ouzels and canyon wrens added charm to grandeur.

Donald Davis had climbed the Redwall at the ends of both forks, but he had warned me that I might find the west fork a little severe. As I bypassed a couple of small drops in the bed, I muttered to myself, "Purely routine." Then I came to a broken angle in a wall to the east of a waterfall. As I carefully found my way up here, I thought that this must be the hard part. At the top of this, I really saw the trouble. I picked the place where I thought I could go the highest, to the east of a travertine lined fall. I got to a shelf above a fir tree, but here the handholds seemed more precarious. Since I value my remaining years more than my rock climbing reputation, I went back down and figured that Donald Davis had just joined a not too select club, the climbers who are out of my class.

The longer, east branch was a good deal easier, but not too easy to be dull. There is a minor forking at its end and the easiest way is on a projecting angle between the forks. The Supai Formation above didn't give me any encouragement. I rather think that there would be a way through it somewhere out of my sight to the west.

There is a fresh rock slide near the angle between the main forks. I went from the west to the east branch fifty feet above the bottom and had seen what might be deer trails going up. It was getting late in the day, but I tried getting up the Redwall here. Again I could get up to within 30 feet of the top by testing all holds, but finally there was a place where a projection stopped me. A good climber could have gone on, but I don't take chances. I got back through the fir and maples of the upper end of the Transept and crossed the creek to the North Kaibab Trail eight hours after I had started in and had time to get down to the Ribbon Falls Campground by 7:00 p.m. Here I met Bob Bell and Bill Burkhardt of Phoenix and learned that the Sierra Club had passed that way about five.

With an early start at 5:30 a.m. on Sunday, I thought I could see what I wanted above Ribbon Falls and still catch the Sierra Club at Phantom Ranch since Jerry Foote had said that they would eat lunch there at one. I began by allowing three hours for this side trip, but when I finally saw that I might hope to reach the source of the water by a slight extension, I ended by making it three and a half. The valley above Ribbon Falls impressed me more than it had 13 years ago. The trail is still in fair shape. I noted the Indian ruins to the south of the falls under the overhang before I started up the juniper covered slope that takes you above the cliff to the south. There is a fair deer trail here and I could follow it around toward the stream. The valley above Upper Ribbon Falls is one of the most interesting in the whole Grand Canyon. There doesn't seem to be a prayer of a chance to climb the Redwall anywhere. To the north of the upper falls, I noted an interesting looking overhang above the lowest fifth of the Redwall, just where some caves are found. This one has a feasible approach and I first thought I would use my time to inspect it, but when the light got better, I concluded that it is probably nothing more than an overhang.

The bed of the creek and the level ground on both sides are more densely overgrown in this valley below the Redwall than they are anywhere else I have been in the whole canyon. Travel is impassible in or near the creek so I went up on the south facing slope. This was more open but it was steep and covered with shale, so my progress was slow. First I thought I would turn back when I had determined which of the upper arms carried the water, but after I had seen that it was the one from the west, I went on until I found

the bed dry. The highest spring is very minor, just a small pool in the middle of the boulder bed. The dense cottonwoods below for some distance seem to mark additional small springs. I went back on the north facing slope and found the travel among the junipers much easier. This upper upper valley is a fine place to get the feeling of being in a remote area while you can actually be down to the main trail in an hour. Two thirds of the way from the mouth of the Transept to the upper forks, I noted an area on the northeast side that might give a good climber another route to the top of the Redwall. I got back to Phantom Ranch by 11:15 a.m. and met a couple of the Sierra Club group, but Jerry Foote and most of them had already taken off for Indian Gardens. I had kept to my schedule much better than he had to his, but I didn't blame him because the day was getting warm and I could see the point of getting out of the inner gorge before two. Allyn Cureton found me eating at the campground and we walked out together. He had missed me up at Ribbon Falls. He had come halfway down on Saturday evening and was looking for me on Sunday. In addition, he was going to spend Monday and Tuesday going through Sycamore Canyon with Dr. Hunt and some scouters.

Coconino west of Cape Royal and the rim above Clear Creek [June 2, 1965]

When Norvel Johnson and I reached the north rim on June 1st, we stopped in and paid our respects at the Ranger Headquarters. We got acquainted with Robert L. Peterson, the ranger in charge, and also Jim Richardson and Ranger Timmons. We further visited with Timmons and a seasonal ranger, Jim Dyer, who knew me slightly since he is a Flagstaff College student. Peterson and Richardson told us that they had sighted a natural bridge or arch right on the rim of Clear Creek in the area above Cheyava Falls when they were observing the falls from an airplane. They were going to walk the rim sometime and photograph it and get a better location. We got permits for the one day effort to see about going down from the rim above Clear Creek to the top of the Redwall and also for a five day trip from the rim west of Point Atoka into the Chuar Basin.

Since this was Norvel's first visit to the north rim, we stopped at the viewpoints starting at Point Imperial. There was no snow left around the campground, but it almost covered the ground on the north slopes in the woods around Point Imperial. There were still some snowbanks below the Coconino in the shade. I tried to locate the Powell inscription on a tree at Point Imperial but without success. Perhaps it was on a tree that was removed to make way for the widened parking pavement a few years ago. At Vista Encantada, it was very simple to see the window through the south buttress of Alsap Butte. In the morning the bright surface beyond contrasts with the dark cliff.

At the next viewpoint, formerly called Two Rivers Junction, we observed the place to come down through the Coconino west of Point Atoko. After taking in the sights at Cape Royal, I got the urge to see what sort of descent Donald Davis had made through the Coconino west of Cape Royal. It was easy to follow his directions and go to the bottom of the ravine below Cliff Spring. A short distance east of the mouth it is quite easy to scramble down through the Toroweap and most of the Coconino. About the middle of the Coconino, there is a ledge where one can have three choices: a possible friction descent with no good holds for several yards, a climb down a narrow crack, or a route distinctly separated from the first two to the west. On the way down, I left my pack above the crack and used it, but on the return, Norvel and I

went up west of here and I had to come back down a short way to pick up the pack. There is no further difficulty until one reaches the very bottom of the Coconino. The only way here involves trusting to friction alone to get on a steeply sloping step possibly four feet above the good step below. With a rope it would be easy and safe. Davis warned me about this spot, but I couldn't see myself getting back up, and Norvel had shown himself a poorer climber than I the night before at the little ruin just below the rim at the southeast corner of the north rim campground. We gave this place up and returned to the car. I wish now that I had looked around for a loose tree trunk or had considered the possibility of building a step from loose rocks. Except for this one place of about eight feet, this descent is routinely simple.

We returned to the main project, try to get down to the top of the Redwall at the end of the long arm of Clear Creek. In order to intercept the bridge that Peterson had seen from the air, we parked at the lot 1.4 miles north of Cape Royal and headed west until we hit the rim. As luck would have it, within a couple hundred yards we came to the bridge or window. It has a good shape, but the hole is only about 35 feet in width.

There is no deep valley leading to the drop off into Clear Creek. We did succeed in getting down through the upper cliff a bit southeast of the end of the gorge. A deer trail seemed to lead down to the south, but we soon found that there is no chance to get through the Coconino, and the Supai also looked formidable. (Bob Dye succeeded one and a half miles South of the head of the canyon on the east side.) We had to give up. Since there was still quite a bit of time left, we went out to visit the Indian ruin on the promontory northeast of the parking. This time I used the little tree.

Ascent of Bridger's Knoll and Tapeats, Stone, and Deer Creeks [June 3, 1965 to June 7, 1965]

I had been intending to spend these five days in the Chuar Creek area, but after Norvel and I had spent 15 minutes going down the steep hillside toward the break in the Coconino through the wind felled aspens and other impediments, it occurred to me that Norvel and I might both have a better time going to Thunder River where there is a good trail. He accepted the change of plans with alacrity. I had the feeling that fighting brush and making our way from ledge to ledge on Gunther Castle would not be a fair initiation for a person who was just getting the feel of Grand Canyon exploration. We notified the rangers of our change of plans and headed for the beginning of the Thunder River Trail at the Indian Hollow Campground.

We left the rim at 1:00 p.m. and by three we had arrived at the good campsite under the overhang near the wash that comes from between Monument Point and Bridger's Knoll. It has been used considerably since there is even a small heating stove there with quite a bit of stovepipe. Someone even left a bottle of detergent. It was looking more and more like rain, so we decided to hole up under such good protection. The immediate threat passed and we deposited our packs under shelter and took a side tour down the ravine. There had been a little water in a couple of pockets near the trail, but lower in the bed there was water running. This water from a ravine to the east could not be trusted after a drought. We bypassed one big drop in the bed and finally came to another. The Redwall was still out of sight below when we managed to scramble to the top of the Esplanade. It was now after five o'clock so we went back to camp.

On our way the next morning, Friday, we took time out to climb Bridger's Knoll. The Coconino was no problem when we went to the obvious place, a ramp about in the middle of the west side, but the Toroweap called for hands as well as feet. There were two or three closely associated routes near the north end. We left the first cairn on top and got some impressive views.

In reworking the trail recently, they have shortened it by taking it from the Esplanade almost directly down to the place where the switchbacks into Surprise Valley begin. When we were below the main Redwall down the switchbacks, I suggested to Norvel that we test the route above the two big slump blocks of Redwall. He followed the trail and I cut across to a place on the trail where it climbs some to get down to Thunder Spring. I needed about 20 minutes to do this and then waited about five for him to arrive. A trail across this route would save another five. We were as thrilled as ever by the sight of Thunder Spring, and it seemed to be flowing at least half again as much water as I have ever seen on my other four trips. The trail, about a third of the way from the bottom of the inner gorge of Tapeats Canyon where it used to be slightly moist, was now under several inches of water.

Almost directly above this place, high in the Bright Angel Shale, there is a spur trail that I once thought to be the way to the Colorado River. In 1951, when I tried to use it as an approach to the Colorado, I soon lost it. On the recent trip, I finally saw its meaning. After the first fine view of the falls, the former trail went to the south away from the creek and reappeared where the spur is still seen. The present trail seems more precarious in places, but it gives finer views of the cascades. We met three men from a Bus Hatch river party coming up to see the falls. They told us that there was a safe way to cross Thunder Creek near the bottom where it broke into three channels with trees lying across the two larger ones. They said that Tapeats Creek could be crossed with a little difficulty just above where Thunder River joins it.

Tapeats Creek was so high that part of the trail was under eight inches of water. We took off our packs and pushed them ahead of us over a rock under an overhang.

We had eaten an early lunch up near Thunder Spring in the shade at the end of a spur trail leading to the improved sleeping platform under the overhanging rock. It was only noon when we got down near Tapeats Creek. Almost on the impulse of the moment, I suggested going over to see the cave at the source of Tapeats with the hope of getting the first close up pictures of water coming out of the cave itself. Norvel and I crossed on the logs and scrambled up the north bank intending to climb to the top of the Tapeats at the break I had used in 1957 with Dale Hall. Before we got there, we saw another inviting ravine that led up quite a distance. About halfway up, this stopped cold and we had to climb back down. At this point, Norvel decided to forgo this part of the expedition. I didn't have to descend clear to the creek to reach the right break, the ravine opposite the place where the trail comes down to the water about two thirds of the way down the inner gorge. In 1957 I didn't regard this as anything out of the ordinary rock scramble, but Dale Hall was rather impressed when we came out on top. This time, I seemed slower and more intent on finding the easier way. Towards the top, I went into a crack and braced against the wall. I am rather sure I marked the approach above with a small cairn before, but I couldn't see it and put a rock on top of a barrel cactus and also stood a slender rock upright in a crack of a larger rock a little higher on the slope above. It now took me an hour and a quarter to walk, keeping fairly low, to the angle into the source canyon. In another hour, I was taking pictures at the cave. On the return, I avoided the

tangle along the creek and the steep ravines that bar progress along the lower west slope by going high up near the base of the Redwall. Progress is better here.

At the campground, we met two Flagstaff men and a high school boy; Father Turner, Earl Sanders, and David Fronske. After a late supper that was slowed by quite a rain storm, we had a pleasant evening visit with the other party.

On Saturday we were ready for the main event, a visit to Stone Creek. Norvel had scouted part of the way to the river Friday afternoon and he knew how to lead me to the one tree bridge across Tapeats Creek. We had to go away from the creek twice along the shale ledges where the footing called for great care before we got to the bridge. On the east side, the trail goes over some old rock slides as well as furnishing level walking along the terrace where Indians used to farm. When you come to the place where the creek enters the final gorge to the Colorado River, you would almost surely lose the trail. I couldn't see how a trail could stay below next to the creek, so I led Norvel up higher with no trail at all. When we got near the river, we saw a good trail below and found that it had been down there all the time. On the return, we followed it and had to do a couple climbs up ledges. In low water, you would just wade through the water to pick up this part of the trail.

Unfortunately, I hadn't intended to include Thunder River in our trip at this period and hadn't brought along Beck's sketch map locating the Wayside Inn and the other ruins. We should have slowed down to look at things as well as the cavers had. We took some pictures and I thought we were using our eyes to spot Indian ruins, but we missed them all. It took us about an hour and 35 minutes to get from Tapeats to Stone Creek and only an hour and 10 minutes for the return when we were intent on getting back to our camp before dark. If Beck had shown more different falls, his sketch would be more useful. We went up the creekbed although I was sure there would be an obstruction. Pat had told me something about a bypass to the east, but I wanted to see what sort of difficulty he had in mind. We soon saw the Twin Chimneys and to the east below there is a fall lined with travertine that stopped us. From a distance, it had looked as if we could get up a ravine just west of here, but the lower part is impossible (others have done this before). We went back perhaps a third of the way to the entrance at the top of the diabase and started up to the east. Before long we found a good deer trail which led us to the southeast to a break in the cliff. If we had climbed a little higher here we could have looked down into Galloway Canyon across a rather slim ridge.

To judge by Beck's sketch, we should have gone down into the creekbed as soon as we had passed the Twin Chimneys, but I thought that there might be further barriers and I led Norvel along the contour until we were definitely in the valley right below the spring. It was fairly easy to go up the bed beyond the last water. All the canyon country below the highest rims were a mass of wild flowers, but especially in upper Stone. One dripping wall was covered with maidenhair ferns, primulas, and columbines.

When we returned to where we had come down into the streambed, I crossed to the west side to examine a platform next to the shale cliff. There was a little charcoal here but no other signs of ruins. According to the way I read the sketch, these are in the middle valley that we avoided for fear of more barriers.

The return to camp was uneventful. Again we passed a little running water in the two main indentations along the river. There is a place as you get rather close to the mouth of Tapeats Creek where a deer trail obviously follows a narrow ledge above a shear drop into the river. We regretfully detoured to a higher level where the footing was poor but where you could think that one slip wouldn't be your last.

At the campground that was vacated by the Flagstaff men, we found three more, John Harrington, Howard Booth, and Henry Morgan. They has just succeeded in getting down Tuckup Canyon to the Colorado River, although they had needed a rope in one place. I told them about going to Stone, the source of Tapeats Creek, and over to Deer Creek. They asked about getting to Deer Creek along the river. I told them that Dr. Ricker had given this up, but only from the start at the river level below Deer Creek Falls. I suggested that they start along the bench at Tapeats mouth and then walk up the ramp where the beach gives out about halfway to Deer Creek. On Sunday they did this after a poor start. Not knowing the proper way to reach the river beach, they started up too soon and almost came to the level of Surprise Valley. They got to the beach by going down Bonita Creek (the wash that drains Surprise Valley) although they needed the rope at one place. The feasibility of the rest was never in doubt, although at the very end they went along the ledge on the east side of the Deer Creek Gorge matching the well used ledge on the west. Here they had to get down on hands and knees for a few yards. (I would have preferred walking up over the low ridge into Deer Creek valley.) They are a tough and cheerful gang. They were swimming below the fall when I met them again and they seemed very unconcerned about arriving back at the campsite rather late. Anytime before midnight would be fine. They returned by the standard route up to Surprise Valley and down the trail to Tapeats. The following day they planned on visiting Stone Creek.

Norvel and I went over to Deer Creek on Sunday by the standard route. The trail was just as clear as I remembered it being in the fall of 1957, but I had forgotten how it went down after the gently sloping valley gives way to the first steep pitch where the bed is cluttered with room sized rocks. On the return we found that the trail is high above the bed along the south side. When this steep part comes to the actual cliff above Dutton (Vaughn) Spring, the trail swings across to the north where it crosses the shale on a narrow ledge and then is almost lost in a big rockslide.

This time I was aware that there are Indian ruins in the valley, and when the trail swung to the base of the shale cliff near some platforms, I looked and made out the outlines of rooms. There was a little charcoal, and Norvel found a bit of obsidian. Around to the north about 50 yards are two well preserved storage bins.

We had needed three hours and 45 minutes to get over from Tapeats Creek and now we loafed over a leisurely lunch and soak in the creek. About 2:15 p.m. we started off to see a few things. We went above the water in the bed and then looked into the storage bins. Now Norvel decided to skip the visit to the fall down by the river since his knee was giving him some trouble. I went by way of the slope west of the creek to see whether I would agree with Don Finicum that the terrace he saw had an artificial retaining wall. Following a deer trail, I found it all right and a little to the south I saw an Indian ruin or two. The terrace was of the same age as the ruin and probably formed the base for more housing. When Harrington, Booth, and Morgan were leaving they came up to see this area with me, and between us we found many more dwellings. They were so thick that they must have looked like a pueblo, a regular village. This is on

the west slope above the creek and about a quarter of a mile north of the beginning of the gorge. Another observation that I hadn't made before, but that I had been told to watch for, were horse skeletons. I saw two, one of them right where we camped at the end of a passage through the willows that came from the end of the trail over to the creek. Norvel and I agree that camping next to Tapeats Creek is much more pleasant than near Deer Creek. We have no explanation for the host of small flies that tried to get into our ears and bothered us around the eyes and nostrils. More serious than these tickling gnats were the chigger bites we found we had when we left the next morning.

On the way out, we tried a variation that didn't really pay off except in experience. We went up a talus that covers the Coconino about a quarter of a mile northwest of Monument Point. We had thought we would follow a deer trail into the bay between the promontory and the main rim that leads directly to Little Saddle where the trail comes over the rim. We felt rather sure that we could get up on the rim at this angle and then follow it to the trailhead and the car. After we had gotten above the Coconino and Toroweap formations and had found the deer trail we wanted, the clearest deer trail led up to the rim at the notch not far west of Monument Point. We went up here contrary to the original plan and when we came to wide stretches of scrub oak at the bay we had intended to skirt from below, we wished we had kept to the lower route. We wound up getting into a draw that led down to the Indian Hallow Road, 1.3 miles from the end. We knew which way to turn to reach the parked car.

After walking about 15 minutes, we reached the Jeep belonging to Norvel's father. The starter turned the motor in fine style, but nothing happened. When Norvel looked under the hood, he found a bird's nest on top of the motor block and woven into the nest was an essential wire leading from the generator to the distributor. A nine inch piece had been cut off by the bird. We would like to know what sort of bird can bite through the insulation and about as much wire as is in half an ordinary extension cord. To get wire for a splice, Norvel took a piece to the horn and with adhesive tape and about 45 minutes work with his knife and a screw driver, we were ready to travel. We assume the bird thought that under the hood of a car would be a fine dry place for her nest, but when the sun came out on the metal, she thought that there would be better places for a brood. We wonder whether birds have ever cut wires before.

North of Saddle Mountain (Saddle Canyon) [June 8, 1965]

We noticed that the distance from Indian Hallow Campground to Jacob's Lake is surprisingly short, only about 36 miles by the back road from Ryan up to Jacob's Lake. After a good meal here, proceeded by my first shave for five days, we drove on to investigate the way down the Coconino I had tried before in Saddle Canyon.

On an impulse I called for us to turn off on the East Side Game Road. After three miles of curves and hills, we came to a crossroad. We elected to go down to Houserock Valley, 10 miles. The road got so bad in the dark that we stopped and slept above the last big slope into the valley. We could see the car lights on the highway not so far away. Strangely enough there were mosquitoes up here and I spent about the worst night of the trip.

On Tuesday we left the deer camp and soon went down below the upper ledges of limestone hoping to find an Indian ruin. No luck, but we found ourselves on a deer trail that I had used on my trip two summers ago. I found the same small fireplace where I had boiled soup under an overhang, and a little farther I came to the level spot under another overhang where I had slept through a very wet night. We located the unique descent into the lower valley from our (north) side and followed a deer trail over to where I had attempted going down. This time I had a rope along which was supposed to make all the difference. However, when I got close to the edge, the bottom seemed so far down that I didn't even uncoil the rope. I guess I need a more optimistic type of person along who wants to hang out over the edge to see exactly what is below. Norvel and I meekly climbed to the south rim of Saddle Canyon to go east along the rim to see if we could locate what had looked like a natural bridge from below. Norvel was quite sure that what he thought to be a hole was only a white rock, but since there was quite a tributary canyon to circumvent, we settled by going back to the deer camp mostly along the south side of Saddle Canyon.

By this time, I was developing a cold sore on my lip and I also felt the need of some good sleep and food at home. After an early dinner at Cliff Dweller's, we went on home to Flagstaff.

North Canyon, Mile 19 Break, and Jacob's Pools [June 11 and 13, 1965]

After digesting my experiences of the previous eight day trip, I decided that I would like to go back and have a crack at reaching Cave Springs Rapid by land, namely along the Hermit Shale slope. I should have driven up the night before and been ready for an early start. When I left the car it was about noon, and I felt rather sure I couldn't expect to get very close to the goal. I carried six quarts of water with the expectation that I might not be able to find more for 24 hours. I started towards the break in the rim at Mile 19, but soon got the impulse to investigate North Canyon. I had parked the car six miles from the Kram Ranch on the road that keeps north of North Canyon. If one would stop about four and a half miles past the ranch, he would be closer to the descent into North Canyon. I had to walk the rim for about an hour to find a way down, about the middle of block (township) 13 on the Emmett Wash Quad. There was no real barrier in the bed of the canyon until you reach the Supai. After bypassing a couple of ledges, you soon reach the narrow slot. A good climber can get down into this narrow part, but you would soon come to an absolute impossibility where the stream drops through a narrow polished slot into a dome shaped chamber below. Coming up from the river, one could as easily climb the walls of Music Temple as pass this place. The rest of the bottom seems to be much more easily walked than the corresponding part of Rider Canyon. The difference is that Rider has feasible climbs past its obstructions. The Escape Routes Pamphlet should list Rider (Houserock) Canyon as a sure way out and scratch North Canyon.

It was about 3:30 p.m. when I reached the Supai in the bed, and I proceeded along the bottom of the broad slope for the next hour. What with taking a few pictures and having to go up and down as well as exercising vigilance for loose footing, I only reached Mile 21.3 where there is a steep and bare slope of shale. By climbing, I could have found a way across, but since it was obvious that I wouldn't be able to even approach Cave Springs, I turned back to find a good place to spend the night (We crossed the bare slope of shale with care later.)

One of the surprising things about this region is the lack of any deer signs. The only tracks I found in the sand of North Canyon were Coyote. Deer trails and droppings are more abundant at Saddle Canyon then about anywhere else, but in North Canyon and along the shale slope above the river, I saw no sign of deer or bighorn sheep either.

The only firewood I could find on the bedrock where I stopped were pieces of driftwood that had come down from a distance. After my soup, raisin bread, and sardines; the sky began to rumble with thunder and lightning. There had already been light showers about 5:00 p.m., but now it really poured down for a few minutes. I got down on my bed with a plastic sheet over me. Furthermore, the overhang protected me when the wind wasn't blowing. It soon cleared and there were no mosquitoes or bugs.

Saturday morning I followed the shale slope to the north and came up at the Mile 19 break. I located the peculiar fossil footprint and photographed it again. My impression that the Coconino here is only 30 feet thick was erroneous. A slide covers the lower part, but the formation is more like 80 or 100 feet thick.

On leaving this area, I drove two miles up to the ranch near Jacob's Pools. There are three separate patches of greenery hidden behind the Bentonite Hills. I was intrigued by the rock walls that were old corrals and I believe I recognized some terracing. Only one seems to have much water at present and a pipe conduits a good flow to the pond near the ranch below and on clear across the highway.

Donald Davis climbed to the top of the plateau behind the spring. I suppose the break was the one to the southeast. He found names scratched in the rock: G. M. Wright, Armon Davis, Maddox 41, and also some cattle brands.

Redwall ascent at Sumner Saddle [June 20, 1965]

Ever since reading about the successful ascent of Zoroaster Temple, I had looked from a distance at the ravine up the Redwall where the promontory to Sumner Point meets the main mountain whose superb summits are Zoroaster, Brahma, and Deva. I assumed that this ravine would have some for me impossible features, but still I wanted a closer look. Whenever I was going to Clear Creek, I was always in too big a hurry for this detour, but when I was waiting for the Belknap Marston boat party, I thought I might as well take a look.

To get up to the Clear Creek Trail, I scrambled up the schist of the main ravine west of the bridge. There were no more than the expected difficulties and I needed about a half hour to reach the trail a few yards to the east of the first point on the trail where you can look down on the Colorado River. One observation I made after all these trips up and down the Clear Creek Trail was that there are three ways to get through the Tapeats Cliff on the west side of Bright Angel Canyon, the route we use to go from Bright Angel Campground to Phantom Canyon and two more further north.

When I was approaching the Redwall ravine from the south, it looked easier as I got closer. At first I had thought that I would just go up the talus as far as it reached, take a picture, and come away. However, I found that the limestone was thoroughly fractured and that there are many hand and toe holds. In fact as I reached the end of the scree, I found deer hoofprints. I bypassed the lowest fall in the middle by going up the broken slope to the east and then with care got back into the main ravine. Very soon there is a narrow slot stopped by a chockstone. You can bypass this by climbing a few yards to the west. There were no other obstructions. I needed 30 minutes to go from the talus at the base to the top of the Redwall and 25 for the descent. As one learned all the holds, this time could be cut. I wouldn't mind carrying a pack up here with no help from another person, and I regard this as easier and safer than the climb up the Redwall at the west end of Phantom Canyon.

From above, the climb down the Redwall on the other side of this neck seems even simpler, although I couldn't see the very bottom (impossible below). There is a narrow cave near the top of the south ravine on the east side, and at the very top there is an interesting little window about three feet wide by two feet high. This ravine intrigues me and I wouldn't mind trying a hike along the Redwall rim clear over to the break I found below Deva. It would probably be possible to go from Bright Angel Creek up here and along the Redwall rim and down below Deva in one long day.

Impressions from the air [July 8, 1965]

Bill Martin flew me up around Apollo Temple and I saw for myself the cave with the hole through above the Redwall on the north side of Apollo. He flew me over the pass between Apollo and Venus twice for two photos and then he made one or two more passes from the east so that he could take his own pictures. I was a bit surprised at the small size of the orifice on top. The lower entrance appears to be possibly 40 feet in diameter but the hole on top is not more than 20 feet across. I would estimate the height of the tunnel as being about 100 feet.

What interested me as much as the tunnel was to see that there are about three sure ways up the Redwall to the top of Apollo, one on the east side, one from the east up the ridge between Apollo and Venus, and one up the west side (I doubt this) of the same ridge. As well as I could see it, one could come up from the bed of Unkar Creek, climb this ridge and ascend both Apollo and Venus. I also saw a striking basalt pinnacle in the west arm of Basalt Creek. There was a lot more greenery in the east arm of Basalt than I had remembered.

We then skirted the west side of Gunther Castle but we crossed on the south side so that I could inspect the route I had picked to climb the Redwall. It looks absolutely easy. To get to the very top, one should go around to the northwest side of the summit pinnacle. (We went up the southwest side.)

Then we cruised by Chuar Butte to give me another look at the place I thought it might be climbed at the northeast corner. It looks difficult but it may also be possible. It seems that I should be able to collect four more fine summits.

The Colorado River was a lot lower than it had been only a few weeks ago, and it also seemed to be clearing up. These aerial views made me all the more eager to get in there on foot again.

Venus and Apollo Temples [July 16, 1965 to July 18, 1965]

After Bill Martin had shown me from the air that one could get up the Redwall saddle between Venus and Apollo, I was eager to try the hike. I left the head of the Tanner Trail about 4:00 p.m. and reached the Colorado River in less than three hours.

For the second time I used the cutoff near the bottom of the Redwall where I had found that I could climb up a steep ramp in the Bright Angel Shale. This meets the present trail about 100 yards south of the saddle where it leaves the bare green shale and heads north down to the Tapeats exposure. It took me so long to pick my way safely down these crumbly ledges that I decided that it is no real saving. Actually the trace of the old trail that leaves the present trail about three fourths of the way down the Redwall and heads north with a couple of switchbacks doesn't reach the shale rim at the place where I can climb down. It deteriorates just above this place and continues as a deer trail north around the angle to the west. A picture on page 118 of the August, 1914 National Geographic, taken by the Kolbs, shows a man and a mule on the shale cliff rim right at the corner north of where I found a place to descend. I had followed this deer trail around the corner before, but I hadn't gone far enough to discover any way down. On the return two days later, I decided to investigate this possibility a bit further. Only about 100 yards west of the corner, I found a good break in the shale cliff where a talus came up from below. With only a little work, a horse trail could be constructed here. I should discuss this route with Emery Kolb or Melvin McCormick.

At the bottom of the Tanner Trail, I cut to the west of the last shale hill and went across the low water boulder field to cross the river above Basalt Creek Rapid. I landed on the island and had to use the air mattress again to reach the mainland of the delta. Where I climbed up on the sandy flat, I found a concentration of pot sherds, the most I have seen at Basalt Creek. The night was warm and overcast and I was bugged by a few night crawlers including a couple of ticks. A light rain woke me early but I was able to eat without interference from the weather and by 5:30 a.m. I was on my way up Basalt Creek with a full gallon of water and food for a long day. Right away the streambed impressed me as being unusual for the Grand Canyon, a smooth surface of sun cracked mud. The west fork, on the other hand was a more normal surface, sand and pebbles. I think I soon found the explanation. For the next quarter of a mile up the east fork, there is a small stream running with water that seems twice as mineralized as the Blue Spring water of the Little Colorado River Gorge. In fact, I didn't care to swallow more than a thimble full. The minerals must act as a sort of cement to keep the mud from washing away during storms. I recall that during the heat of August six years ago, this little stream was dry except for one tiny pool.

I have often noticed that burros seem to avoid Tanner Canyon and the park generally east of Red Canyon. There is even a scarcity of deer sign, but in the wet part of the east arm of Basalt, a number of fresh deer tracks were seen. These showed the way past a couple of low falls, and in a few places cane patches and mesquite make for bad traveling along the narrow bed. As soon as the ravine began to widen, I started up the rock strewn slope to the west. Not far below the basalt cliff there is a cairn as large as my Kelty pack.

I was able to continue up to the top of the basalt promontory that dominates the junction of the two arms. I got a fairly good view of the black pinnacle that comes up two hundred feet or so from the bed of the narrow gorge to the west. I then was able to get up the escarpment to the north and reach the west arm of the creek above the basalt canyon. On the return I went down into the east arm of the creek a half mile farther north of where I had come up. In so doing, I encountered a jungle of cane and large cottonwood trees. From a distance, I felt sure that there would be springs here, but when I forced my way through the tangle, I didn't even find any mud.

The way to the top of the Tapeats at the upper end of Basalt Creek was sure since I had gone over to the Chuar drainage here six years ago. From a distance I saw some indications that I might be able to get up the Tapeats in the arm that comes down from Jupiter Temple. If I couldn't get through, it would make the trip at least an hour longer but if I succeeded, it would probably shorten my project by a couple of hours. I decided to take the gamble, and it worked out fine. The route was just intricate enough to be interesting and I was soon above the Tapeats heading for the valley between Apollo and Venus. The cave on the north wall of Apollo was even bigger looking than when we were bussing by in a plane. I estimated the mouth to be 60 or 70 feet in diameter. I went up directly below it, but I still saw no light through the hole above. When I got to the brink of this hole above the Redwall, I tossed a stone into it. For a long time I heard nothing and then I heard the impact on the lower lip of the big cave and finally the rock falling down the whole Redwall cliff.

Going up to the top of the saddle between Apollo and Venus was simple. I was startled to find a cairn right at the pass leading down to the west. From the plane it appeared that one could go down here a third of the way and then proceed to the north until you could get the rest of the way down the Redwall. I considered doing this with the object of getting into Unkar and returning down that drainage, but I was afraid of the Tapeats below. Perhaps I'll come up this branch of Unkar sometime and study the possibility. I had no real trouble climbing Venus Temple although the false summit fooled me. From this first summit, the real Summit looked nasty with overhangs on both sides. When I reached it, however, it was simple to walk up the side right in front. No cairn was there before mine.

Apollo needed a little study but there were breaks in the three Supai cliffs where needed. The summit is a platform of some size and is a jumble of peculiar erosional effects. I don't know of another place quite like it. While I was assembling some rocks for a cairn on the highest point, I happened to look south. Rather near the rim was a fine large cairn built of bigger pieces than I have ever bothered to leave around. I could very well have logged two or three more breeches in the Redwall on the different sides of Apollo or Venus, but I thought I would rather spend the extra time going up the west arm of Basalt Creek from the junction with the east arm to see the pinnacle from below.

I got back to this junction fairly early, about three, and went up the west arm. At one place I had to detour around a dry fall. Soon I came to a higher one, but this time I had no real difficulty going right up the middle on the small steps. About the time I had a good view of the pinnacle, it began to rain and I was worried about the smooth lava in the bed of the fall if it should become thoroughly wet. Actually, the rain never did wet the warm rocks. Hiking under the thunderclouds was fine, but I kept a weather eye for escapes up the banks in case of a real downpour and a possible flood.

It was still quite early when I reached the river and I was able to cross below the swift water and make a calculated landing right where I had planned. I had plenty of time for a leisurely supper at the mouth of Tanner Wash and I lay on my bed and read Time until I got sleepy even before dark. Again, the next morning I was on my way by 5:30 a.m. and I made my third fastest ascent of the Tanner Trail including an unhurried lunch break.

Into Hance Canyon southwest of Coronado Butte and the burro trail out of lower Hance [July 24, 1965 to July 25, 1965]

Barton French and Norvel Johnson left with me just after 1:00 p.m. After seeing about the permit to hike and parking at the picnic area nearest the Sinking Ship, we started to walk to the head of the Hance Trail. I found that I was still confused about the location of the head of the Old Hance Trail since they rerouted the highway. I finally recognized it farther east than I thought it would be. There is a small parking lot that is just a slight widening of the highway and only a few yards to the west you find the outlines of two torn down or burnt down buildings. The trail head is very near these.

More embarrassing than this fumble was my inability to walk right to the head of the New Hance Trail. I found a road through the woods where I thought it should be, but the road seemed to be taking us too far east, and I led the others away at right angles. Very soon I saw that we were paralleling the highway and were going back where we had come from. To avoid further mixups, we went over to the rim and walked until we came to the draw at the head of the trail. The trail itself is about the same as ever, nothing to brag about.

I had Don Davis' report of their trip down from the Coronado Saddle to the rim of the Redwall in Hance, so I was expecting a little trouble in route finding. Our system was to follow the main ravine that is a bit to the south of the saddle until it meets a small cliff. Then we shifted to a ravine over one ridge farther south. This brought us to a lower cliff. We got by this over to the south, but not in a ravine. The 12 or 15 most difficult feet made us face in and look for handholds. Below this we turned still farther south after another slight difficulty that we bypassed by going a little to the north. It took us an hour and a half to go from the rim to the place in the Redwall where I had been before on the Old Trail. French slowed us down a bit since he was carrying a much heavier pack than I would have thought necessary. He also stabbed himself on a century plant and got against some cactus.

At one place I thought I saw a cave up to the east. While Norvel and Barton walked on, I climbed up to see what it was. It was only a slight overhang that had formed a shelter for rats. I caught up with the others before we reached the point directly below Bida Cave. I hadn't remembered how high up the Redwall it is. I would think that the tube from it to the rim above would have to be only about 130 feet long. I also noticed that it is considerably south of the seep spring where Hance had his rock cabin. We camped here and filled our canteens at the splashy little fall. There were a very few burro tracks around so that we think the extermination campaign hasn't been 100% successful. However, we heard no braying during this trip, but we did hear coyotes far away in the darkness.

The rock walls of the corrals were just as I had remembered them. When we went on at the fairly early hour of 6:30 Sunday morning, I was looking for the inscription wall, supposedly on the east side under an

overhang just below where the Tonto Trail crossed the bed of Hance Canyon. (Really on the west side at the southern most Tapeats.) I missed seeing it both on the way downstream and also when I came back to look again.

The little stream in Hance in the Tapeats gorge seemed to be running less water than I had seen before, and I also thought there were more willows growing than before. Perhaps the willows are using the water. We had no trouble finding the place to go up out of Hance to the west although I had never used this short cut recommended by Dan Davis before. It is directly opposite the place where you can come into Hance from the east. French was having a tough time with his heavy load as we were coming up to the Tonto, so I relieved him of most of his weight and more than doubled my burden for the rest of the way out. We also switched from going out towards the river to go up the trail on the west prong of the Horseshoe and went up past the spring east of the neck. Even while carrying nearly all of French's weight, I could still walk away from him. I went after the car while he and Norvel walked out together.

South Kaibab Trail to Lyell Butte [July 31, 1965]

From Grandview Point it had seemed that there might be breaks in the cliffs around Lyell Butte. I figured that this should be a one day round trip from the South Kaibab Trail. On rereading my log from the trip in May, I see that at that time I considered this a two day trip for which one would have to carry all one's water. My experience this time shows that I had been wrong on both counts. It took me 40 minutes to get down the South Kaibab Trail to the place at the bottom of the main cliff in the Supai east of O'Neil Butte where I can start down to the Redwall. From there I needed one hour and 45 minutes to get to the head of the east arm of Cremation Canyon, one half hour less time than we needed in May. (My system in leaving the trail is go down to the south to a creek in the small cliff then north to the slide area.)

To vary my trip to the Newton Butte Saddle, I started up from the Redwall rim at the southernmost rim of Cremation instead of going to the place directly below the saddle. Hands were needed to get up one ledge, and the walking was a little slower at this level than it had been along the rim of the Redwall. However, it just now occurs to me that one could leave the South Kaibab Trail at the right level in the Supai and come over to this saddle. One can get through the entire Supai southwest of the saddle where there has been a lot of tilting and faulting.

Going from the saddle over to Lyell presented more of a problem than I had thought it would. The Supai drops off in a continuous cliff north of here and I was afraid to go to the south also. I didn't study it well enough and decided to go over the higher saddle northeast of Shoshone Point into the Grapevine Canyon drainage. Here the rocks are all smashed by the syncline and it was just a long walk down to the Redwall in the valley. By now it was noon and I ate lunch in the shade of a large rock.

The day didn't seem excessively hot, but I realized that I was perspiring profusely. I had brought a gallon of water with me and I'd drank all I care to. Apparently this was not sufficient, or I was not making up for the salt loss. My appetite was poor. A few minutes after I started on, I found two rain pools at the top of the Redwall that were deep enough to fill the two quart canteen by submersion. I had no fears of water shortage since I still had two quarts in the pack. As I reached the south side of Lyell Butte just after 1:00

p.m., I began to feel unusually weak. It was now clear that I couldn't climb the butte, but in spite of my weak feeling, I continued to the point of the promontory that goes farthest east from Lyell. It was interesting to get a bird's eye view of the Tonto Trail heading the Tapeats gorge of Grapevine Canyon. I could see exactly where Allyn and I had left the Tonto Trail and had gone down to the bed of Grapevine.

I returned to where I had left my pack around the other side (north) of Lyell. By now all movement was an effort and I decided that I would rather go clear around the north side of Newton Butte rather than climb the slope I had come down just before lunch. As I reached the angle between the ridges that extend towards Newton and Lyell, I thought from the view below that I could go up here. I couldn't see all the details, but the probabilities were so good that I decided to try it. Again, at one place I had to use my hands, but the gamble paid off. It was easy to reach the Newton Saddle and I climbed down to the Redwall rim at a third place, directly in line with Cremation Fault.

By now I was swallowing extra salt every time I took a drink, but my leg muscles were cramping worse than they ever had. I had experienced cramps on the inside just above the knee, but now I was getting fleeting cramps in the calves and even in the feet and hips. I filled my canteen again at a rain pool and arrived on the South Kaibab Trail as it was getting dark about 8:15 p.m., very glad to be past the bad walking. It had taken three hours in the evening to cover the same ground I had done in one hour and 45 minutes in the morning. It was a good thing that I had about two quarts of extra water, because on the trail I met a young fellow who had been without water for four hours.

Hermit Trail [August 14, 1965 to August 15, 1965]

Barton French wanted me to take him for a float on the Colorado River so I suggested going from Hermit to Boucher Rapids and coming back out the next day by the Boucher Trail. Norvel Johnson got feeling bad before we reached Cathedral Stairs so we decided to stay at Hermit Creek near the old camp and just visit the river Saturday afternoon. After lunch and some cooling water in a pool of Hermit Creek, Norvel got over his weakness and we all had a good restful time playing in the quiet water above Hermit Rapids.

It was quite windy for several hours while we were eating supper and getting to bed, but the night was plenty warm for our single blankets. We slept under an overhang along the trail where it is getting down to creek level. A mouse ran over my bare feet while I was lying on top of the blanket. We saw it by daylight in the morning.

There were few new observations. I noticed that one can climb out of the Tapeats Gorge below where the trail meets the creekbed around the bend in the large bay on the west.

I was showing the others fossil footprints in the Coconino and telling them about the existence of more in the Hermit Shale. One of them saw some good ones in a piece of shale which had been put on top of the low wall at the side of the trail where it starts down the first small cliff of Supai. I hope my picture shows it.

We got an early (6:15 a.m.) start back out on Sunday and had shade for quite a bit of the way. About 11:00 a.m. we reached the junction with the Dripping Springs Trail and detoured over there. This took about one and a half hours and we got caught in a mild but chilly rain before we reached the car about 1:40 p.m. Norvel and Barton both showed up fairly well, but I was not extended to keep up with them.

North Rim (Dragon Creek and Hartman's Bridge #1) [August 21, 1965 to August 25, 1965]

After Norvel Johnson's poor showing the week before, he decided not to come. I got off about nine and ate lunch at Cliff Dweller's. For the first time I was shown the interesting collection of fossil footprints that Haynes collected and mounted on plywood. One series of several prints are what I found at Mile 19, four claw marks showing for each foot.

On arrival at Park Headquarters, I learned that Joe Hall had left only two days before but that Merrel Clubb was around, out to Widforss Point that day. I left a greeting at his car on my way out to Tiyo Point. I learned later that he managed to make an adventure out of this easy hike. He got benighted and couldn't tell his directions by the stars. He finally stopped and set out a cold night thinking that he was in the bed of a ravine. When it got light, he found that he was at the end of the road down the ravine leading to the Transept and that his car was only 200 yards away. Later I learned from him that his cross canyon pilgrimage to see where his son and grandson had died took about a week. For instance, he was exhausted when he reached the engineer's home at the junction of Roaring Springs and Bright Angel Canyons the first night. This was surely when he was in worse condition then he is this year. In his prime he went from Bright Angel Creek up the Kaibab to the rim in two hours and 23 minutes, 15 minutes shorter than my best.

By Saturday evening at five, I was ready to leave the car about a mile north of Tiyo Point. I lined up Buddha to the left of the Colonnade so that I would know which way to go after I reached the road on the return. To make sure I wouldn't be in dire straights if I had to camp without water, I carried one and a half gallons. After crossing the usual number of ravines, I reached the drop off point in 35 minutes which was ten minutes faster than I did this lap on the return when I was tired. It took not quite an hour to reach the rim of the Supai on Shiva Saddle where one can start down into Dragon Creek. I had this place marked wrong on my map. It is right in line with the trend of the creek below, the notch in the rim that reaches farthest east. On the return, I found the water that Kolb had mentioned and that Joe Hall and his brother had located when they went to the top of Shiva. There are a number of big flat rocks in the vicinity of this break and on the top of the largest are several pits up to nine inches deep. Days after a light rain they still had water three inches deep. If I had spotted these rain pools on the way down, I would have stopped for the night and continued in the morning along the Hermit Shale along the north side of Shiva as planned. Instead I went down past the top half of the Redwall to the place where a side ravine comes in over a dry fall. Here, there were a couple of rather copious rain pools and even a nice overhang under the wall with a smooth, level spot for the bed. It was a good site except that I had too warm a bag, my three and a half pound down bag, and there were a few mosquitoes. Even this high, my cotton blanket would have been right. The water was red with suspended clay, and two days later when I was leaving, I noticed thousands of mosquito larvae.

On Sunday morning I left before six taking food for more than one meal and one and a half gallons of water, enough for a long day. First I went back to the top of the Redwall where I had come down and then followed the rim around Shiva to the west. It took 15 minutes to get to the top of the Redwall and one and a quarter hours to go from there to the place where I had come up from the main bed of Dragon Creek last year. The walking was slow along the Redwall rim in this area, and when I had proceeded a little farther, I realized that I probably would not get much past the place Allyn and I had reached last spring. I should have brought my sleeping equipment and taken more than one day for this. Instead of going on all day for the minor pleasure of completing a loop around the base of Shiva, I went back and down the break in the Redwall I had used last year. By 8:35 a.m., I was ready for a day of exploring up the east arm of Dragon. When I came to the fork in Dragon, I had no way of deciding which branch to follow. At the time I thought I would be going out the next day and would explore only one branch. The east seemed longer on the map, so I went up it. The bed was easy to follow with few large rocks and only a few rain pools. I could have dumped almost all my canteen water here.

A little over a mile north of the fork in the bed there is a bay to the east and standing near the base of the Redwall on the west is a fine landmark, a stocky tower that has an almost uniform overhang most of the way around separating the upper part from the lower. I thought of a frontier blockhouse or a medieval fortification. As I was admiring it, I happened to look up to the rim of the Redwall a little to the south and saw a neat though rather small natural bridge. I would estimate its span to be about 55 feet, putting it in the class of the Peterson Bridge above Cheyava or of the Cardenas or Jicarilla bridges. I was reminded of the conversation I had at the south rim headquarters when I was reporting the north arm of Chuar under Point Atoka. Dan Davis told me that Hartman had already reported it from the air, and another man in the office at the time had said that Hartman had also reported another somewhere in the Crystal Dragon region. I didn't get the name of this informant, and later I couldn't even get a ranger to say that he could remember the remark. I had begun to think I had heard wrong. If the one to Chuar (Lava) would be Hartman #2, then this one must be Hartman #1.

Above this landmark, the nature of the vegetation along the bed changes remarkably. Instead of consisting of a few scrub oaks and junipers, it becomes a dense forest of box elders, maples, and very shortly mostly firs. It amazed the naturalist ranger Richardson to hear about this type of forest occurring below the Redwall when for miles up on the rim 2,000 feet higher the forest is ponderosa pine. This shoots down a theory I had held concerning the same type of forest in upper Bright Angel Canyon. I had thought that the coolness which enables the firs to grow thick is caused by the presence of the cold voluminous flow of water below the springs. There is no such flow in upper Dragon Creek, but the forest is just as rich. Three or four types of butterflies were common, birds were thicker than elsewhere in Grand Canyon, and for long stretches I was scolded by the shill whistle of chipmunks. Finally, towards the upper tiers of the Redwall, there were deep springs of fine cold water coming in from the west side of the creek. Once I heard small streams of water falling a few feet on a rock hidden back in the jungle.

There had been no real barriers in the bed besides a couple of easily bypassed chockstones, but I could guess that the very top of the Redwall would still form a 40 foot drop. When I saw a rockslide to the west that led above the Redwall, I took it, but then it was rather a mess to get through the brush and ravines back to the central streambed. After taking a picture of two from a promontory in line with the lower canyon, I got back down by an easier way following a deer trail through the ravine to the west of the main

channel. Even though I had given up Osiris, I had scored two routes through the Redwall, one below Shiva Saddle and the other at the end of the east arm of Dragon, and also a natural bridge thus pinpointing Hartman's poorly located find.

When I got up the next morning, I packed everything in the Kelty thinking that I was ready to head back to civilization. Suddenly, I realized that I had food enough for another day and that I might never be this close to the west arm of Dragon again. I left my gear where it had been for two days and headed back down the familiar bed leading to the bottom of Dragon Creek. There is another branch of Dragon coming in from the northeast and almost meeting the branch I had camped in just before they both reach the main bed. On the level ground near this junction, I thought there might be some signs of Indian occupation. On the return the previous day, I had cut across here with my eyes on the ground hoping for sherds. I am not particularly good at finding them, but I was rewarded by spotting a very distinct mescal pit. It is not quite as well formed as the one Allyn and I had found on the Shiva Saddle about 50 yards northeast of the big rock with the rainpool.

I made good progress up the west arm and found the place in the Redwall on the east side about one and a half miles north of the junction where I had suspected that a climb up to the Little Dragon would be possible. The close up view from below still made this seem attractive, but there is a lot of manzanita higher up. Perhaps a deer trail makes this mess penetrable. However, I didn't go up here to test it either on the way north on the return. The appearance of the canyon is about the same as it is on the other side of the Little Dragon. The Redwall seldom makes a smooth wall. There are many high ledges and interesting alcoves and overhangs. I saw two rather inaccessible caves near the top of the formation. At one place I suspected that there is a round hole going through an overhang but I didn't force a passage through the brush to get under it. There were more small rain pools in the bed and finally as I got close to the upper end of the Redwall, I encountered a small, clear stream. It comes down from the higher regions in the main bed and forms a steep travertine chute at the notch in the Redwall rim. It was too steep for climbing, but there was a dry ravine on the east side of a crag that I could climb. Near the top of this brushy ravine, there is a bad place where a chockstone has lodged. I had to remove my canteen to wriggle through the crevice and get on top of the Redwall.

The idea of getting back to the comforts of the campground including a shower and a good meal at the cafeteria appealed more than another Redwall climb, so I bypassed the interesting route to the Little Dragon. After a short rest at my campsite under the overhang, I started for Shiva Saddle at 3:15 p.m. Instead of following the rather overgrown route directly up to the break in the rim, I experimented by keeping to the open rockslides angling a bit to the north. There was one place where I had to do a bit of a scramble to get to a higher ledge to save considerable backtracking to the south as well as down. I didn't have to waste altitude, and I believe I prefer this route to the north and then back to the south higher up near the top cliff of Supai. One factor was disagreeable. I was attacked simultaneously by two wasps. The one that stung the back of my neck bothered me for only 15 minutes, but the sting on the underside of my wrist left a swelling and an itch for several days. After discovering the water holes that Kolb and Hall had found, I ate a snack and reached the car in two more hours. I can follow a deer trail almost all the way up to the rim from the saddle.

It had been a good two and a quarter days with three more Redwall routes proved, a natural bridge located, and a mescal pit to prove that Indians had used the valley. My conclusion about McDonald's route out of Dragon would be that he probably did not use the easy way up to Shiva Saddle and out. If he had to abandon his blanket to get up some ledge, he probably went all the way up one of the arms, probably the east one. Then he could easily have encountered this kind of difficulty in the Supai or Coconino. He may have guessed that the snow would be deep on top and that it would pay him to stay low as long as possible. From the little I have heard about this amphitheater, I may have been the first white man to cover some of this ground.

King Arthur Castle and Guinevere [August 25, 1965]

I spent Tuesday visiting with Merrel Clubb. He appears to have his problems under control and we had a fine time talking canyon routes. He took me out to the point of the rim above Cheyava Falls which he succeeded in getting named for Francois Matthes. He regards it as one of the very best in the whole park since you see Zoroaster, Brahma, and Deva so well. You can get all of Wotan in one picture, and you get an entirely different impression of Cheyava Falls. The cave mouth shows so well. It is an easy six miles from the paving. Although I don't regard it as in the same class with Cape Royal or Point Imperial, it is going to be a must for guests of mine in the future. He has some fine glasses and he showed me the place where he took his son up the Redwall when they circled Isis. There is a slot in the Redwall on the north side of the point that sticks out toward the east of the base of Isis (Impossible here, promontory farther north). I should have asked him how he suspected this place would be possible. I'll have to take another trip into Phantom Canyon to look at this, but I would guess they did some pretty mean climbing, worse than mine at the end of Phantom Canyon below Shiva Temple. He must like to do things the hard way. I could come down from the Tiyo Point road and reach the Redwall rim around Isis in less than three hours. The prime example of Clubb's mismatching means with ends is when he and his son started from Bright Angel Campground going west to pick up duffel that was left by the parachutists. They got as far as the valley east of Cheops when both father and son gave out. It was a struggle for them even to go back although they had covered less than a twentieth of the project. I asked him why they hadn't tried to recover the Lawes MacRae route. Apparently they hadn't given the idea any consideration (Redwall okay south of Flint Tuna Saddle).

Clubb told me something concerning this route that I hadn't appreciated before. He says that Lawes did the real scouting and that MacRae was just along for the ride. Furthermore, they did not go down from Point Sublime but rather from somewhere near Grama. I am inclined to agree that there is no break in the Redwall between Sublime and Sagittarius Ridge. (MacRae was the leader.) I could see no sure way up the Redwall from Flint Creek (have been up here in 1967) either, so if I ever want to finish the traverse on the north side of the river, I had better count on keeping just above the inner gorge, except of course from Powell Saddle along the Esplanade to below Big Saddle.

Clubb had made such a big production of climbing King Arthur Castle that I was braced for something rough. He had scouted it by degrees over the years and had taken several multiple day trips just to reach the base. Finally, he climbed it in two days, or I rather think three days, only four years ago. I couldn't believe it would take me so long, especially when I see that the ranger had marked a Jeep road out to

Galahad Point. I got started at 6:20 a.m. away from the Point Sublime road just south of Kanabownits Spring. There is a corral just before the road turns steeply up the hill. With the bright red blazes on the trees and the truck tracks for a guide, I had no trouble reaching the angle at the south side of Galahad Point. Clubb had told me about the possibility of getting down at the end of Galahad Point, but from his tone, I thought it would be as far to start down through the Coconino where I first hit the rim. I followed a rockslide until I reached a good deer trail, or rather a deer maintained Indian trail, since Clubb likes to make this distinction. It stays up near the base of the Coconino and takes one past a dripping spring, a good base if one wanted to explore the entire area. Here, there is quite an exposure of shale which I crossed to bypass by dropping down nearly to the rim of the Supai although I later found that a deer trail continues across the top of this slope. Soon the peculiar tower of some Coconino capping the same height of Hermit Shale known as Excalibur was catching my eye. From all angles it seems worth a good many frames of 35 mm film. There are places where one loses the deer trail in brush and many low limbs where deer go under without difficulty, but progress was steady and a good deal easier than I had pictured it from Clubb's and Beatty's experiences. I passed to the south of Guinevere Castle. Clubb had never tried this one, perhaps because it is not at the end of the promontory and the views would not be as striking as they are from the slightly higher Arthur. I continued past a bare ravine in the shale below quite an exposure of the Hermit in a cliff at the bottom of the Coconino. One can go up on either side of this cliff, but I was more sure of the west side. There was no real difficulty in the climb although at one place in the Coconino and again in the Toroweap, I believe I used my hands briefly. The summit has the charm of being quite definite. I would have sworn that when Clubb returned after his success in 1961 that he told me he was surprised to find a cairn already on top and that he had taken it apart without finding any message or can. Still when he placed his own can upside down in the middle of the small cairn, he wrote that to his best knowledge it was a first ascent. I signed my name and recorded the time required to come from the Point Sublime road, four hours and three minutes. I arrived at 10:23 a.m. compared to Clubb's hour, 3:15 p.m. He also recorded that he was somewhat exhausted at the time, whereas I was still feeling fine. He carried his 30 pound pack clear to the top because he has a fear, very well justified, of losing the pack. I left mine with lunch and too much water at the bottom of the final slope.

Clubb is on firm ground in his raptures concerning the view from the top of King Arthur. If they ever develop a thorough trail system in Grand Canyon as they have say at Glacier, I certainly hope that one goes to the top of Arthur. By a good trail, it would be a splendid half day to leave Galahad Point, take in both Arthur and Guinevere, and return to the rim. The abysmal depths in Shinumo Amphitheater are a more impressive network than I know of anywhere else. I don't blame Clubb for losing interest in the rest of the park for several years.

Clubb's reason for bypassing Guinevere is not so good. I suspect that he was so tired when he got through with Arthur that the queen was just too much. After I finished lunch at the base, it was only 12:10 p.m., so I started up. I could see a Coconino ledge that might be beyond me, but I thought it was worth a closer inspection. When I reached the place, I found a convenient walk up in a crack behind a rock. There was no other discouragement except that the very top is formed by overhangs on three sides. I left my pack and canteen in the gate between the main summit and an outlying block 30 feet high to the east. I was prepared to chimney climb some crack in the top, but when I followed the base to the west, I found that the side towards Arthur is a simple walk up. The top is almost flat but slopes slightly up to the east. My cairn, in a clearing among the trees near the east end, was the first.

However, I know I was not the first man on Guinevere since I found a rock shelter under the overhanging south side of the top. About 50 yards west of the shelter is a clearly artificial wall closing up a natural hollow in the limestone for a storage bin. These discoveries made me feel doubly rewarded for the climb. I was a little weary before I got back to the car, but I felt that it had been a most satisfactory day. I used the stiffer but shorter route up to the rim at the end of Galahad Point and got back to the car at the Point Sublime road in just ten hours total time. Arthur and Guinevere made my 34th and 35th summits reached in the park.

Impressions from the air [September 11, 1965]

Points discussed with Clubb, Reilly, and Marston had made me itchy for the views from the air. The wind was blowing at 20 knots and the sky between Flagstaff and the canyon was studded with clouds, some of which were dropping rain, but I wanted to see the area around Point Sublime before I tackled it on foot on the following weekend. Bill piloted me efficiently where I directed.

Without dropping much below the rim, I got a fairly good look at the tops of Sheba and Solomon Temples. Solomon appears the easier of the two. I would still think that Solomon should be climbed from the east side, but now I believe I would go up Sheba from the west (actually, on the north side Solomon is harder than Sheba) until the top cliff, then to the north ridge which might be followed to the summit.

Vishnu Temple did not seem quite so forbidding this time. My attention was directed mostly to the Coconino. The easiest way seems to be in a groove that slants up to the northeast just inside the northwest shoulder. There wasn't time to study the Supai approach which may be the harder part. I couldn't see the final route, but I could tell that there is little choice. Go up a ravine rising toward the south. I recall that Clubb needed one piton for the summit block (Sears found an easier way around on the north side). (Wotan's north ridge climbed by Packard and Walters.)

I intend studying the north ridge to the top of Wotan where the Wood Party said they climbed Wotan in 1937, but it was on the wrong side of the plane and I got only a little better look than one gets from Cape Royal or Matthes Point. I still think it would require hardware and ropes which the 1937 party did not use.

After a fleeting glimpse of Cheyava, and a brief look at the route through the Coconino Cliff Spring (this before Cheyava), I had Bill fly past Point Ariel. Contrary to what Clubb had said, it seemed to me that the easiest way down is well to the west of the point, in fact, closer to Obi Point (Obi Point no rope). Still I would think that a rope would be needed.

My next objective was the east side of Brahma. I couldn't see any break in the top Supai cliff, but I saw a narrow rockslide through the part lower down. This is north of the middle of the whole butte. There were a couple of possible routes through the lower Coconino, but I would have to try them on foot to make sure. The higher part looks easier. A quick inspection of the west side didn't seem much better. I agree with Clubb that the Supai is more of a problem than the Coconino. Most of the climb would be over when

one got to the saddle between Brahma and Zoroaster. The Supai cliff forming Hattan Butte didn't seem to have any breaks. (Davis and Ellis went to the top on the west side.)

We next steered toward Isis to see how Merrel Clubb and Roger had climbed the Redwall. From the air, there doesn't seem to be any ravine where Merrel had indicated through the glasses from Matthes Point. My aerial impression bore out the map, and the best way up (very poor though) in this neighborhood would be to climb the projecting ridge. (Walters and Packard climbed the point toward the east.) (Packard and Walters used a R W route on the projection in the middle of Isis on the east side.) I wouldn't bet much that I could do this.

A reasonable close view of the southwest corner of Shiva reinforced my impression that this offers an easy passage through both Supai and Coconino. It could be used as the uphill route by deer to the top of Shiva. We circled Osiris to the south and looked at the east, south, and west sides. It would not be best to go towards the Towers of Ra and then come toward Osiris across the connecting ridge. Part of this ridge looks narrow on top, but hardly 18 inches as reported by Stanton. One could come up a talus directly on Osiris, then move a little to the north below the top Supai cliff where one might try a steep slight break. I wouldn't bet much on my chances here either. (Davis had to go around the north projection and turn south to get up.)

Next we passed north of Confucius. A fairly good, though distant view of the upper end of Crystal indicated that the Redwall and higher formations would be quite feasible. It would be a long walk from here to the parachutists' camp above the mouth of Tuna, but a few days of energetic reconnaissance should have turned up this route for the evacuation. The next view completely changed my plans for the 18th. There is absolutely no chance to get down the Redwall into Tuna from Grama Point. (There is a fine break on the west side of the east arm of Tuna false.) Clubb must have been reporting MacRae incorrectly. [I retract this now (1969). MacRae and Lawes went off Grama and found the Redwall on the west break side.]

A few minutes later I was seeing something that completely validated the impression I had obtained from Marston and Reilly. One should cross the valley to the west of Point Sublime about 1.2 miles north of the end of the road and follow the south pointing ridge to near its end. Here you can get down the Kaibab and also the Coconino and Supai by going a bit to the north along the Hermit Shale. You can't see the ravine through the Redwall from Point Sublime, but the view from above shows this to be an easy route right down into Tuna. The plane wasn't in the right position to let me see whether one can go down through the Redwall into Flint. The next thing I want to try is this descent into Tuna and a return up Crystal as a fine two day trip. (Descent into Flint one half mile to the west opposite mouth of Gawain.)

We had been warned that we had only three hours of flying time on our 22.5 gallons of gas, so I didn't call for any circling. The principal objective that I overlooked is a detour over the upper end of Shinumo Creek to see where Clubb has climbed the Redwall north of Elaine Castle. We went directly over Powell Saddle and around the north side of Steamboat Mountain. I had a good look at the place above the springs of Stone Creek where Beck considered a possible Redwall ascent. (Nothing doing.)

Then we dropped down for a look at the Redwall in Specter. This was one of the prime objectives so we flew back into the bay. I got a good look at the ravines on the south side, and I am almost positive (?) (we failed when we came up this ravine) it can be followed right to the top of the Redwall. The Supai above looked even worse than it had from above along the rim. The bench above the Redwall can be followed around here from fossil, but it is rather steep all the way and I saw no signs of a trail. This would be the most discouraging part of this idea. The promontory south of the first drainage (?), south of the mouth of Fossil, seemed more promising (Enfilade Point Route). I am rather sure this would go, including the shale slope below the Redwall. Another good two day loop trip would be to come down into Fossil Bay, get to the river the first day by one of three routes and return by the other.

Royal Arch was in shadow and I fumbled and missed a picture as we went by. It impressed both of us as being larger than I had imagined it from the close views. Strangely, I couldn't see the bench mark cairn as we went by.

My last observation had to do with routes off the Tonto to the river. Again, I was slightly confused as we passed the Jewels. The way down west of Copper Canyon was obvious and I could see that it was likely in Serpentine where Colin succeeded. I am quite sure I snapped another place upriver, but the rim just west of Slate is a possibility. I would now go up the bed of Slate and look for a way out on the east side. It appeared probably from a distance (Yes, in two places). In spite of a pill, I still felt a little air sick, but I felt that the trip had given me a lot of leads and was well worth my fourth fifths of the cost.

Pattie Butte [September 19, 1965]

My proposed trip to the Point Sublime area was stopped cold by a storm that put down more than a fifth of the normal yearly precipitation in 30 hours. There was quite a bit of snow on the peaks and on the Kaibab Plateau. Reider Peterson, Jim David, and I headed for Pattie Butte along the rim of the Redwall east of the South Kaibab Trail, and Nancy Peterson and Lettie David came along and went down the trail as far as the edge of the Redwall.

The day was cool and there was quite a bit of water standing in all the hollows. I led the way and found deer trails about one third of the way. We talked quite a bit and I was a little slower in covering distance than I had been on the hot day last summer. Again we passed the old cairn just before we reached the saddle between Newton and Pattie Buttes. I sat down for an early lunch at the saddle and speculated about our chances to climb Pattie. I knew that Scholing had given this up, and so had I after walking completely around the base, but I had seen something from the plane the week before, a crack about ten inches wide in the most difficult cliff.

The obvious way to start up was at the south end on the west side. When we got within 60 or 70 feet of the top, the difficult part was directly ahead. It was possible to proceed a little higher without real trouble, but I called for a walk around the butte at this height to see whether there was any still better way. We saw a crack around to the northwest, but I preferred going on around once. When we came back to the starting point, we went up to the east side at the south end. Here we found the crack I had seen from the air. It wasn't too good because I could only get my leg into it and I had to search for very poor handholds

to keep from falling backwards. There were a few of these, however, and I was able to go up about ten feet and step north to a shelf. The shelf ended in about 30 feet, but there was a notch in the rim which was only about six feet above the shelf. I was able to step up using a crack at knee height and another toehold and slide up on the rim. The lack of a good hold above was a little unnerving, but I could use a bulge in the Supai rock for the right hand and pure friction on flat rock for the left. Jim David followed these maneuvers very easily, but Reider Peterson elected to stay below and watch us.

We had no trouble in walking north along the east side below the summit rock and in ascending to the top at the north end. We built the first cairn on top.

At the higher of the two hard places, I found that when I lowered myself past the two steps and reached down for the shelf, my feet didn't quite touch the deck. I pulled myself up again to think it over and look at the space below. Jim went down, and with his greater height, it was no sweat to reach bottom. He rolled a good sized rock a couple of feet over for me to stand down on. I had no trouble negotiating the crack below. Jim and I agreed that it was just hard enough to be interesting. Reider, who had been up the Grand Teton, assured us that we would find no part of the ascent of the Grand more exacting than what we had just done.

One should be able to leave the South Kaibab Trail beside O'Neil Butte and be to the top of Pattie in less than three hours.

Climbing the Sinking Ship [September 25, 1965]

After a necessary meeting that let out at 12:10 p.m., I packed up my passengers: Professor von Sivers, Migs Hubbard, and Reider Peterson. To save time we ate our lunch out of sacks in the car and left the picnic area east of the Sinking Ship at 2:30 p.m. You shouldn't head too directly for the rim or you will have to go down and up the deep part of the ravine that drains the valley just west of the paved parking. I couldn't remember details of the best walking from here to the Sinking Ship and I believe I led the party over some brushy deer trails when there was better walking higher on the slope. On the return we kept on what seemed like the old tourist route, that led up directly from the saddle to the rim. Professor von Sivers was exceptionally appreciative of the beauty of the canyon, but he was slower than the rest. He is not only interested in geology but he is also quite a bird watcher and artist. On the drive back to Flagstaff, he sketched the San Francisco Peaks as we drove along.

I was hoping for time to show my guests all the attractions of the Sinking Ship, especially the Indian ruins near the north end of the east side, but we could see that if Reider and I were going to attempt the highest point, we would have to leave Migs and Jens to their own devices. We went to the west of the south tower. Formerly I had tried the ascent unsuccessfully at a broken groove on this cliff. Now we found a place where we could go rather high that is about 20 yards farther south than this ravine. There are plenty of cracks between the rocks which have lots of rough edges. Nothing appears to be loose, which makes this better than the other possibility.

This route had the advantage of uncertainty. I called down to Reider, "we can go quite high, but I believe we'll be stopped." A little later I said, "no I think we can go along a ledge to the left and get into another chimney." This was indeed the case, and only moderately difficult climbing brought us out on top of the high point at the north end of the spine. Donald Davis suggested that the Hance Ranch guest book record of a climb of all three towers of Mount. Ayer really referred to the Sinking Ship instead of Coronado Butte which was known as Mr. Ayer at the time. I was not surprised to find a rock pile holding a stick upright at the top of this spire. Reider and I next went down and along the connecting wall to the real summit north of the first steeple. There was no difficulty until we reached the wall right below the real summit of the Sinking Ship. I found that I could worm my way behind a chockstone, but there was nowhere to go from there. Reider took the lead and went along a shelf to the left. We had both seen this, but we had also seen the awkward corner where a very low ceiling over the ledge slows one's progress. Reider went under here on his back and found the footing just beyond the corner all right. I made it on my stomach but still feet first. We could go to the top by an easy scramble from here. There was a well built old cairn at the highest point.

I had carried a 75 foot rope all the way up here, and now we had a chance to use it as we came down the direct descent in the groove where I had formerly given up the ascent, down to the southwest from the top. There is a juniper growing just where one needs an anchor. The doubled rope didn't reach past all the difficulties. We didn't have to Rappel because there were enough spots for our feet every yard or two. When Reider was down to the rope's end, he was able to flip it loose and pull it after us. By this time I was down the place where I had been stopped before. It required some ingenious use of the elbow in a crack. To save time, I let Reider step on my shoulder and also my knee at this place. It is an interesting climb.

I had already been to the cairn at the top of the middle tower by an easy route. The lowest tower to the north appears hardest of all. (Three cairns without this climbed by Ken Walters.)