

## Harvey Butchart's Hiking Log

### DETAILED HIKING LOGS (July 15, 1961 - June 2, 1962)

Toltec, Chemehuevi, Piute, and Jicarilla Points

[July 15, 1961 to July 16, 1961]

I got away from town by 1:45 p.m. and reached Bass Camp by about 5:00 p.m. For a wonder, I found a young couple prepared to camp right near the center of the grounds. After a few minutes of conversation with the young man, I started on towards Toltec Point. However, I learned from him that an airplane had been sent out to look for a hiker who was overdue on the South Bass Trail a few days before. I supposed that the hiker would have been Merrel Clubb who was two days overdue when he came out. I had a compass in my pocket but the sun was shining so I used it for direction. This time I had left my map at home, but I remembered the angles in the rim and hit the rim about where I was supposed to have, halfway from Chemehuevi Point to the angle east of Toltec. It took me 80 minutes to walk to Toltec from Bass Camp.

The ruin was all that Clubb had led me to expect. It was separated from the rim by a notch several yards deep. There were about three distinct lines of breastwork on this spectacular platform whose only approach was about a yard wide. Bob Euler isn't convinced by this ruin that there was much actual warfare involved. He thinks that these defensive measures were carried out against a threat that failed to materialize. I slept in an ideal setting on the needles dropped by a juniper quite close to the rim where I could stand in bare feet and look at the brilliant sunset. From the same angle, I could watch the sun come above the horizon in the morning.

After as good a sleep as I have ever had in bed at home (my bag was just right for this summer night on the rim), I got off at 5:40 a.m. for a memorable day. First I wanted to investigate a possible descent to the seep spring. A talus covered half the Coconino just west of Chemehuevi Point, and there is an obvious descent down to the top of the Coconino. Getting through the Toroweap was interesting but the solution was just around an angle facing Huethawali Point. Just below the Toroweap promontory there is a deep notch in the Coconino. I had to inspect it at close range before I could tell what it was like. A bighorn sheep could have jumped a few yards, and a man could make it feasible by propping a pole at the critical place, but I gave it up. I also inspected some cracks just north and decided that the route would be possible if one were determined to take a chance, but again I gave it up. (Both Packard and Walters have done this route.)

It was still early when I reached the car at Bass Camp so I decided to pick up another named point, Fossil Mountain. I left the car one mile east of the junction connecting the Signal Hill Lookout with Bass Camp. On the return, I arrived at the fork just north of the Lookout where the road branches from the Havasupai Point road, and I decided that this would be a better starting point. There are fewer valleys to cross and one should be able to walk it in less than an hour. The route up Fossil Hill is simple, but the outside face is spectacular and the view is at least as good as that from Havasupai Point. The latter is one of the prime attractions from Fossil Mountain. There was an old cairn at the very top of Fossil Mountain.

From the map I estimated that I should drive from three and a half to four miles east along the telephone line road to reach the head of Turquoise Canyon and proceed from there around Piute Point. I believe I walked a bit east of north after stopping four miles east of the Pasture Wash Ranger Station. I hit the rim at the base of Piute Point. The walls below the rim all along the extent of Turquoise seemed unscalable. I could see game trails either at the top of the Coconino or below that. One sure way to reach this area would be to start from the South Bass Trail and keep coming around. If that is the only way to reach the bases of Pollux and Castor Temples, I would predict that it will be a while before they are climbed, but the ascent of both temples doesn't look impossible. (Al Doty found a route off Walapai Point and Jim Ohlman got all the way down through the Redwall and said there were Moki steps in the Coconino.)

I was expecting a break in the walls of Piute on the Sapphire side, but the most hopeful place was around the bay just south of Jicarilla Point where a talus covers most of the Kaibab. There's a small ravine breaking the rim for a few yards down near the base of Piute. A good burro trail goes below the rim here and comes back on top about 50 yards further along. I was about to conclude that only burros ever found this spot attractive when I noticed about the best preserved granary I had ever seen. The construction is rather neat and thin with clay covering all the rocks. The door is precisely outlined by long thin rocks. The whole thing is no bigger than a card table.

From here I made good time around the rim and investigated the place near Jicarilla Point where I thought you might get down below the Kaibab. At one place I could go down easily for 50 feet and then I had to crawl along a narrow place using hand and toeholds above that made side stepping possible. (Some of the college boys later went down a rough place without using the crack.) From there one could go down a jamb crack, but the step at the bottom seemed a bit high for comfort, and I didn't make it. A juniper pole or a couple of flat rocks at the bottom would have made it quite easy. I may go back and do this sometime and then study the possibility of getting down the Coconino. The best possibility seems to be on the east side of the fin that sticks out from below Jicarilla Point. (I found out that it goes.) If this can be done, I feel almost sure that one can get down through the Supai and about sure that this must be the route used by the shipwrecked rivermen to reach the rim between Boucher and Bass Canyons; the climb that W. W. Bass called impossible. (I found out that this was indeed the route.) About 100 yards north of this break in the rim, but still at least that far south of the point itself, there is a shallow draw. Fifteen feet out from the lip of the dry fall is a previously unrecorded natural bridge. The opening inside it is roughly 25 feet long by 15 feet wide and the span under the bridge itself is something like 40 feet. The drop below is the spectacular feature, probably between 100 and 150 feet. The bridge is about as interesting as the one near the head of the Redwall in White Canyon. There is a juniper stub propped up by rocks at the end of Piute, but I didn't notice any marker at the end of Jicarilla. It surprised me slightly to find axe hewn trees and limbs in the featureless woods both on the way to Toltec and also south of Turquoise and Sapphire Canyons. I even found a surveyor's stake where there seemed no reason for one.

I had been cagy when I parked the car at the place where the road switched from going along the south of the telephone line to going north of the line. I came back to the road as I had expected, east of the car. There was one more thrill, unmistakable bear tracks in the dust of the road. I hope my black and white pictures show the tracks.

After I had driven more than three miles east I noticed the temperature of the coolant going up and then I noticed that the oil gage showed zero. I had cracked the oil pan. I was glad it was still early, only 2:45 p.m. I decided to walk to Hermit's Rest rather than back to Pasture Wash to phone because if I were at Hermit's Rest it would be easier for a car to get me. The Ken Todds took care of me with a good meal and about four glasses of lemonade and four of water before I got over my dehydration. The Gibsons brought Roma up to the canyon since Jim and Cynthia had our other car. After three more cups of soup near midnight, I still weighed only 122 pounds, the lightest I have been for years. However, I felt fine by then. We got the car by driving up with the '55 and a gallon of oil and a piece of soap on Monday afternoon. The soap finally held the leak to a very slow drip. It was a day to remember - a rope route below the Coconino at Chemehuevi, Fossil Mountain, a fine granary, a route down the Kaibab at Jicarilla, a natural bridge, bear tracks, and finally a broken oil pan.

Coronado Butte, Red Canyon, and Papago Canyon  
[August 5, 1961 to August 6, 1961]

After another good visit at park headquarters, I got going down the Red Canyon Trail about 10:30 a.m. David Hunt had told me about going up to the base of Coronado Butte, so I decided to do likewise. The butte had been climbed before 1900 (see my logs for April 4, 1971), but it looks plenty tough. I checked the crack that faces southeast and separates the south tower from the central one. I stopped at a place where the step is about 10 feet high. There is a dead log leaning against a live tree which projects almost horizontally higher up. It was wet and slippery from the intermittent rain and I decided that I would turn back. I also climbed around near the crack that faces south and poked a bit up several other places, but the one with the dead tree seemed to offer the best chance of getting into a high notch. From the flats near the bottom of Red Canyon, the wall leading up from this notch seems rather smooth, and I would guess that the climb would need hardware.

After a late lunch where I had left the pack near the saddle connecting Coronado with the rim, I started on down through the Supai. Some people do follow this trail, because I'm sure that there are more cairns along it than there were in say 1954. Some of these were put up by misguided people and they succeeded in misguiding me. I tried Davis' route down the Redwall nearer the end of the valley through the Supai. I came down a slightly different route than the one I had used in going up about two years ago, and this time it was harder and slower. Walking along the stream at the bottom also seemed worse than I had remembered it, and I decided to use the historic route up the trail on my return. I might note here that the walk along the top of the Redwall on the return was rougher than I had remembered it with more of the trail obliterated by slides, so now I'm not sure what I really favor. I believe I would vote in favor of working out the best way down Davis' route.

My impression that you can find permanent water in the Muav below the Redwall in the creek was born out by the flowing springs. There were also rain pools that were obviously temporary. In fact there were rain pools lower down than I had seen before, just about anywhere that the bedrock showed. The only part of the bed I had to bypass was right at the top of the Tapeats. A little north of here is where the Tapeats, the Shinumo Quartzite, and the Hakatai Shale come together at an interesting angle.

There were fresh burro signs along the wash, and I saw two on the return. Even though the Supai Indians rounded up and removed a couple hundred during recent years, there are still enough to keep up the population.

Any ambition I had to cross the river and sleep in Asbestos Canyon was put aside by my late arrival at the river, 6:00 p.m., and I was wearier than I had expected. I did take a cooling dip and looked around at the larger rocks to see whether I could find a nearby shelter from rain in the night. While doing this I found the canned food cache that Dock had invited me to raid. On Sunday before starting back I got a can of tomatoes and one of tamales. The tomatoes were fine but the can of tamales was bulging at the ends, so I didn't dare to eat any. The labels were off the cans and the cans themselves were mostly rust. I'll probably eat some span the next time I come down here. I still intend to cross the river and try climbing Sheba and Solomon Temples and the Tabernacle. The latter should be no problem but it will add to my collection of named buttes. Sheba and Solomon seem as if they might or might not stop me. About 8:00 p.m. it started raining and I finally had a chance to test my substitute for a tent, my plastic sheet. I was on sand where rain didn't run underneath me, and the sheet shed water and kept me dry. The noise on the sheet right above my ear was enough to keep me awake during the rain, but it was over in less than the time it often takes to fall asleep, and the few ounces of plastic sheet was certainly less of a burden than the lightest tent. Warmth was no problem. A light cotton blanket was not even necessary for several hours. Then I used the blanket, and finally for about three hours before daylight, I put on a nylon jacket which was entirely adequate. There was no more rain and I enjoyed a fine night.

The main project I had in mind was to go upriver to test the idea that one could get from Hance Rapids to 75 Mile Rapids at the low stage. Owens had evidently done this in his bare feet two summers ago. The walking was mostly very easy. Mostly in sand, but there are stretches where boulders and pebbles would have been pretty bad, and there were a few places where it was necessary to go behind thickets of willows and clamber over some rather uneven rocks. Just west of the mouth of Papago Creek, the cliff comes right into the water. I climbed the talus just west of here far enough to see that it ended 40 feet away. I went in without clothes or camera prepared to swim if necessary. It was only hip deep so I carried my stuff across and continued easily to 75 Mile Canyon. This is where Owens was finally picked up on the last pass of the helicopter. If the water had been as low for him as it was for me, and if he had tried it before he became too weak, he could have swum past the next cliff. I tried this with no trouble. It meant about 200 yards in the water, but a slow sidestroke was all I needed to carry me past the rocks. There were many handholds in the cliff where I could have rested if it had been necessary, and I broke the swim by walking along a sandbar. This time I landed without shoes or clothes, so I merely visited my former campsite where I found the two rocks I had used for a cooking fire and a pile of wood that I had left. I feel sure that there would be little trouble in going upriver with an air mattress along here. If there is no slack water on one side of the river, there is on the other. One would walk wherever possible in going upstream. I noticed the large pole still upright where 75 Mile Wash comes out on the beach. There were three mooring poles in the sand near the quiet water below 75 Mile Rapids and I saw a couple of cairns perched above the first bluff above the beach between 75 Mile and Papago Canyons. The principal objective of this jaunt was to get into Papago Canyon. Access from above had seemed impossible when I had skirted the rim in going from Tanner Rapids to Red Canyon. (Later students from NAU were able to get down at three different places.) I assumed that it would be simple to enter it at river level, but it is almost another Mystery Canyon. You can enter it from the east as I did by going up on a bench and around the corner into it.

There appears to be only one way down from the bench to the bottom of the wash just before the ledge cliffs out. On the west you can climb straight up a few yards with lots of holds to bypass the dry falls in the very end of the bed. High water in the river might put a boat above these falls. After only about a five minute walk up the bed, you come around several sharp turns and face an immense chockblock. There seems to be only two ways to climb past this obstacle, both on the west side. Above here you can walk without obstruction up to the fork in the canyon. The map makes the west arm look slightly the more impressive, but from below the east arm looks longer. The west arm would stop a walker in short order (however, later Ken Walters got out here), but I got around a drop into the east arm and continued for more than five minutes until the bed narrows to a slit and you meet more dry falls. There seemed to be no break in the lofty rim of Papago, and I don't think a burro could ever get into it. I would nominate it as the side canyon of the Grand with the fewest visitors over the years. Ives words "lonely and majestic" apply with special force here. (Later, Jim Sears and others have climbed south in the east arm.)

Hartman Natural Bridge, Lava and Unkar Creeks  
[August 20, 1961 to August 22, 1961]

After visiting with Merrel Clubb all Sunday morning, I drove along the Cape Royal road south of the Two Rivers Viewpoint and parked the car at the first chance on the east side of the road after I had passed the low place 1.3 miles south of the viewpoint. It was already 2:00 p.m. and I had my doubts as to the possibility of getting down by the Hartman Bridge before time to make camp. Going a bit east of north, I came right to the bay where a deer trail goes through the Coconino, but I checked by going out on the spur of sandstone to the left of the ravine before starting the long descent. I knew from experience that there are many places that go more than halfway down the Coconino. At the bottom, I checked to see whether the little spring a few yards to the west was still flowing. It was.

Following the Hermit Shale to the east means bucking locust thickets, other thick brush and alternating between picking your way through all sizes of tumbled rocks and trying to step safely along the shale slopes. The latter is the easiest place to progress. Pushing through the dense prickly locust is about the worst, and there are other sorts of brush that were more effective in tearing my shirt and trousers. I was gratified when I got from the spring to the saddle between Kwagunt and Lava in two and a half hours instead of the three and a half I had needed in 1958. On the return, however, I used three and three-quarters for the same leg, possibly because I was more intent on following deer trails in the hope that they would show me how to avoid the thickets.

My previous impression had been that the Supai below this saddle down into Lava should offer no real difficulty, but I was very unsure of the feasibility of the Redwall. I started gaily down the streambed from the lowest part of the saddle, but about 200 feet down into the Supai, there was a 30 foot wall that seemed to be continuous. After going along the ledge to the east, I saw a good prospect around to the west. A talus came far up on the wall. When I got over there, the highest part of the talus was seen to lack about eight feet of being enough. Still farther to the west, about 20 yards, there was a break in the ledge which led down to a shelf connecting with the talus. This seemed to be the neatest problem encountered in the whole two and a half days. The talus and another slope across one ravine to the east solved the problem of getting down the rest of the Supai.

My impression obtained when I had been at the Hartman Bridge in 1958 was that the hope for getting through the Redwall lay to the east of the center of the draw. As I circled in this direction, I found ways to drop lower and I got to the bottom of the draw before I had intended. There were deer trail bypasses for several impossible drops in the bed. I could see that I was already below a lot of the Redwall and I began to hope that the relatively level bed was going to lead right out of the Redwall. Just as I remembered, however, there was one more cliff, the biggest drop of all. My first impulse was to go to the left, but there were no deer signs in that direction, and I couldn't see whether the narrow ledge went on around the corner. (As it was, I returned on this east side.) When I was out on this shelf, I could see that there was rather certainly a way to go through an overgrown bench on the right and descend, perhaps a bit beyond the bridge. Since I wanted to go up under the bridge anyway and get some more pictures, I elected to camp where I was and proceed in the morning when there would be more light.

The night was clear so I didn't regret not being at the Indian ruin overhang where I had planned to spend the night. I was a little afraid that my one cotton blanket wouldn't be warm enough at the higher altitude so I pulled a big drift log into place and got enough small wood together to light it. The blanket, augmented by a nylon jacket towards morning, was just right.

The route through the woods to the right was somewhat rough and overgrown, but I had the encouragement of a well established deer trail. At one draw, I was pausing to decide whether it would pay to start going lower when I happened to glance up. There, only 50 yards away, was the Hartman Natural Bridge. It looks better at close range, more shapely than the Kolb Bridge, but only about two-thirds as wide. The space behind is roughly as far to the wall as the bridge is long. My way of measuring the span was to pitch a rock a bit bigger than my fist under the span of the bridge. As yet I haven't calibrated this measurement. I also checked to see how easily I could climb to the top of the bridge. The north end would be the better one to try, but it would involve some risk for one who is not an expert and I passed up the chance. A spring makes a series of small pools just below and a bit south of the bridge, so that a trip from the rim to the bridge would form an easy two day backpack. (One day using the route from the rim above Hartman Bridge.) To bring burros down the route I used would require considerable trail construction, and I found no such signs. I don't believe this is the answer to the question as to how McDonald reached his mines with pack animals. However, this route is not only more direct but it is probably easier than my other way up near Hubbell Butte. No wonder I found no signs of a deer trail on that climb. McDonald must have used this route to the rim when he was traveling with his animals, so we can safely conclude that Hartman was not the first white man to see the bridge.

There is one seep above the mouth of the side canyon which comes down from Hubbell Butte and a good shower-bath spring is only a short walk below. There's another good seep a little below the short western arm of Lava. You can go from here right up to the north against the overhang to the ruin. A hundred yards or so downstream is the big spring that keeps Lava Creek flowing for several miles.

The ruin was about as I had remembered it. The intact ruin was only about three-fourths standing. There were more signs of other rooms than I had thought, about six in all. Before I left, I happened to glance up and saw what appears to be the only petroglyph around. The artist must have stood on the roof of a hut that has since fallen down, because it would now take a scaffold to reach the place. The marking looks like an H but with two crossbars instead of one, or you might call it a square with curved handles. The

evening and some of the night was slightly rainy so I was glad of the shelter. Other things liked it too and my sleep was marred by rodents scampering around, and I seem to have a few chigger bites from my night there. My light blanket was actually on the warm side, so I didn't sleep as well the second night as I had the first.

As I previously implied, I reached this spot in the middle of the forenoon and after some food and rest I was ready to move on by 9:30 a.m. I had assumed that the logical route would be up the streambed in the south arm of Lava. The time spent in going over to enter it was wasted. The Tapeats forms a 100 foot fall, but it is easy to go up a slope directly opposite the ruin. I dropped down into the wash upstream from the tributary that leads to the Lava-Unkar pass and had to fight more brush than I should have when I discovered where I was. There was a good talus of assorted blocks on the lower and middle parts of the Redwall, and towards the top I came on a well established deer trail. Clubb feels that he can distinguish a pure deer trail from an aboriginal trail that is now deer maintained. I feel that this trail up to the top of the pass and also the part where the steeper slope into Unkar begins should qualify as a man improved trail. It took over two hours to get from the ruin to the top of the pass and only a few minutes over an hour to come down by the best route.

After lunch I faced the decision as to whether I would rather climb Juno Temple or go down Unkar and connect with my other trip up Unkar. I elected the latter although the way up Juno looked plain enough. The Supai cliffs are uniformly small ones and I was rather sure I saw the route. On the way off the pass to the south, I was amazed not to find a very sharp line between the slope of the pass and the Redwall. It just gets a bit steeper. The faulting that makes a descent into Kwagunt and the north arm of Lava possible is more pronounced here. This was the part of the trip which held the most mystery for me. I know I couldn't see this from the top of the Tapeats when I had came up Unkar, and I don't believe I could see it from the rim near Cape Final. The climb out of Lava had turned out to be quite straight forward where it had seemed barely possible from a distance. However, the descent into Unkar beat about anything I've seen in the entire Grand Canyon. You could almost say that there was no limestone to be seen. Even the high Redwall exposed under Cape Final is sloping and rounded like a dome in Yosemite. I believe one could walk up this 45 degree slope. I want to come back and try another approach. There is a deep notch in the Coconino that left me only about 60 feet from the bottom, situated a short distance north of Cape Final. If I roped down this vertical section, I believe I could be down to the Lava-Unkar pass in about three hours from the rim.

There were no more problems for the day. I had been wondering what had happened to my rattlesnake average, about one sighting per year. It had been over two years since I had seen one. Near the old Indian trail down from the pass, I saw another one, rather close but not where I might have stepped on it. The rest of the trip was rather a study in timing and scenery than a study in route finding. It took me about an hour and a half to walk from the divide above Lava to the Tapeats in Unkar. Going from the ruins in Lava to the mouth of Unkar to other aboriginal sites would take about six hours. I believe I would now use this route in going from Nankoweap to Bright Angel Creek. I think I would also prefer going from Kwagunt into Lava Canyon over the pass right under Point Atoka rather than along the Butte Fault Route near the river.

Most of the time on this trip I was studying the view with an eye to route finding, but especially on the way out it occurred to me that this is certainly an outstanding area for scenic values. There are more towers both up along the rim and also down in the Redwall than you usually see. There are also numerous caves, however, all that I noticed were inaccessible. I also noted a possible Keyhole Begay, a place where a large pothole seemed to connect with a vertical slot below. There was another larger feature, a thin roof of limestone over a vertical hollow. There are water stains on the back of this hollow, so I believe that there is already a start for another bridge. The Hartman Bridge and the numerous water holes would make this a popular place for a visit, but it appears to be well guarded for some time to come by the difficult approaches. The shortest way here is down from the rim just above Hartman Natural Bridge, but the easiest way is from the river, about a five hour walk up the bed. However, there aren't too many river tourists with even that much ambition.

The way out of Lava to the north needs more study. I didn't do it as well as I did on the way in, although I had to finish in the same way, the only route. The Hermit Shale below Atoka also gave me more trouble than when I was coming in, possibly because I tried following deer trails slavishly instead of my own judgment. When the deer come up to a mass of locust, they seem to follow Abe Lincoln's maneuver when he was in charge of some volunteers on the march -- Break ranks and fall in on the other side.

The Tabernacle; Unkar, Asbestos, and Lava Canyons; and Juno Temple  
[September 1, 1961 to September 4, 1961]

There was nothing unusual about the trip down the Tanner Trail after a leisurely start at 9:45 a.m. Without trying to hurry, I made it from the rim to the river in a little over three hours. I wanted to see Reilly's old copper camp on the south side of the river just below the Basalt Creek delta, so I branched to the left and went down into Tanner Wash. I got too close to the water too soon, and in order not to detour back and up, I blew up my mattress and floated a few yards past an outcrop of consolidated rubble. I guessed that the camp would be well back in the mesquite but still on the sand, and I had the good luck of walking right into it. There was a wide plank supported by rock piles at the ends for a bench with a five gallon kerosene can nearby. About 50 yards west was a long ridge pole supported by four uprights which might have supported a tent or tarp. Its age was shown by a big mesquite which had grown under one end of the pole.

The river seemed a bit swift for this time of year but I was able to cross with room to spare above the next riffle. By this time I had decided to do my climb of the Tabernacle the next day. It seemed like a good idea to go downstream from the mouth of Unkar Creek and camp where I had two years ago in late September, but this time I couldn't make it along the bank. With the higher stage, I had the choice of pushing off into some big swirls eight feet across and a foot deep or going back and trying another route. I felt sure that these whirls would not have carried my mattress and me down, but I like to have things under better control than that and I turned back and went up the bed of Unkar to the nearest spring, about 50 minutes walk from the delta.

I left all but my lunch and canteen at that campsite on Saturday and went upstream almost to the large tributary coming from between Jupiter and Venus Temples. From here I could see a good route up through the Tapeats. Walking towards the Tabernacle from here was direct but slow in spots. It took

about two hours to get from the bottom of Unkar to the base of the Tabernacle, a much more direct route than the one I used in the afternoon for the return. Climbing the Tabernacle was a simple walk from the west except that I used my knee on a ledge at the very top. What complicated things was the strongest wind I've ever felt under a clear sky. I had to crouch most of the way up, and on top I didn't stand at all. I built the summit cairn while sitting down. I decided not to tackle Solomon or Sheba Temple in that gale. I did go over to the north end of the saddle north of Sheba and inspect the ravine which seemed to lead to the top of the Redwall. It's a perfectly simple route to the north of Rama and Vishnu Temples. One might approach Wotan's Throne from here, but the distances would be discouraging. From here I went and looked down in the upper part of Asbestos Canyon which is cut off from the lower by an impasse in the Tapeats. (I found out latter that an old trail bypasses to the west.) I couldn't get down near where I was standing, but one could on the west side, and I believe there is also a way farther to the south on the east side. The map shows a spring beneath where I was, but I couldn't see any signs from my distance. (The spring is shown incorrectly, it is actually southeast of here.) The return was by way of the north end of Sheba, between the Tabernacle and Solomon. You must go down the Tapeats at my spot from two years ago, far down into the valley and over the shale hills to the lower part of Unkar.

Saturday evening I lay under my plastic sheet through two hours of gentle rain. Then it got clear and cold and finally about midnight I had to build a fire. Four hours of fitful sleep didn't seem to hold me back on Sunday, however, and I made it up Unkar past the Tapeats fall on the right and on to the pass between Unkar and Lava Canyons. By 12:30 p.m. I was ready to attempt Juno Temple. The way up didn't seem as obvious now as it had two weeks earlier when I had just thought about going up. There were three almost continuous walls in the Supai, and I may have found the only non-technical routes through them. The lowest was about the hardest, over a bit to the right of the depression leading down to the south end of the pass. Then I angled to the north for the next wall and found a break that is pretty obvious. The highest wall is only a little above the second, and the route behind a huge block that is leaning out is simple when you finally find it. The air was crystal clear and Navaho Mountain looked green rather than blue. I noticed that the top of the Coconino on Vishnu Temple was exactly projected onto the top of the south rim. I built the first cairn near the highest part of Juno, a fairly broad flat place. There were no deer signs that I could see on the top. At the very south end, there were a number of good depressions several inches deep in the flat rocks. Quite a few held four or five inches of water from the recent rains.

Jupiter Temple would have to be approached from below the three walls and it would have to be regarded as a separate climb. It took me two hours to get from the pass to the top of Juno and back to my pack, so I would allow at least four for Jupiter. The Supai and Redwall to the west above the pass are well broken down. There is a notch northwest of Cape Final where I could get to within 60 feet of the base of the Coconino, so now I would like to tackle Jupiter by prusiking down a rope at the base of this notch and see whether I could make the top of Jupiter in one day from a car parked on the Cape Final fire road.

In dropping off the pass into Lava, I had to guard against a tendency to start down before I had gone far enough to the left. The deer trail should be followed to the head of the talus. I slept in a clearing across the wash from the Indian ruin so as not to pick up more chiggers, but I was prepared to reach it in the night if there was more rain. There was plenty of dead cottonwood where I stopped and I was glad to keep a fire going all night. In the morning I was scattering the coals to put them out and I must have flipped one onto my blanket. Before I noticed it, there were two big holes in it, and in getting the coal off, I singed my air

mattress. If I had burnt a hole in it, I would have had to walk out to the north rim, a long way from home. I had planned to check a possible route up through the Tapeats and the Redwall right behind the ruin to reach Poston Butte, but now I figured I'd had enough solitude for a while and headed for home down Lava Creek. When I was well out of the narrows to the forks under Naji Point, the terrace to the south looked as though it would be a welcome change from walking the wet creek bottom. At the edge of the first terrace about on a line from the nearest projection of Redwall below Juno to the south profile of Chuar Butte, I ran into an interesting two room ruin. I brought out sherds from the ruin near the forks of upper Lava and also from this ruin. Dr. Colton and Dr. Euler identified these as being Walnut Canyon and Black Mesa black-on-white, respectively. They date from about 1170 ad and 100 or more years earlier. These terraces extend for miles sloping uniformly to the east matching the slope of the stream. Water worn boulders and pebbles cover the shale hills many yards deep offering quite a contrast to the bare shale hills to the north of the creek. If the climate was once moist enough to allow farming on these flat terraces, the Indians must have had hundreds of acres of arable soil, by far the largest farming area in the present Grand Canyon. A few men with simple tools could clear a landing strip for light planes and the whole area is one big heliport without further preparation. A few deep arroyos spoil this succession of terraces as a perfect route for foot travel, but even as it is, this is much faster than following the bed all the way. I reached the river from the upper forks in about three hours, going downhill of course. Lava Creek Rapids looked a bit different from my previous low water recollection. There were about four large rocks showing at the beginning in a line about at right angles with the river, and towards the bottom, there was a still larger rock well out of water with about two-thirds of the river flowing to the west of it. The waves were quite choppy although they were only about three feet high. This is not the stage I remember when the water shot through with only smooth swells, an impression I had acquired another year at the low stage. There was no difficulty in crossing below the rough water and above the next riffle.

That the present stage was low was clear from the fact that the big island was connected with the left bank both at the top and at the bottom with a lagoon of almost clear water between them. This island is subject to flooding since there are drift logs clear across it, but at the very lowest end a clump of mesquites are holding their own.

The bars seem to be changed slightly at the angle just before you come to Tanner Wash and the travel is easy over the sand. I was able to go along the base of the bluff except at the very end and here I needed only a short climb to get around the place where the river comes to the cliff. The trip up the Tanner Trail was routine with the weather cooler than usual for this time of year. I tied my best time of five hours and ten minutes.

The principal accomplishments on this trip were the identification of Reilly's mining camp, climbing two buttes, checking another route up the Redwall (to Rama Temple), and locating an Indian ruin. From a distance the ravine from the north up between Freya and Vishnu Temples seemed worth investigating, but I have a feeling that the lower fourth of the Redwall is impassable. (Latter I found out that the west branch goes through.)

Cape Royal Area

[September 10th and 16th, 1961]

Roma and I took the Stevens for their first visit to the north rim of the Grand Canyon on Sunday, September 10, 1961. We looked out at the usual places: Bright Angel Point and the viewpoints along the Cape Royal Road. I noticed something from Vista Encantada that I didn't remember having observed before: a large window through the Redwall. Ray Stevens agreed with me that it was actual rather than an optical effect caused by overlapping overhangs. I wanted to get down closer to take a picture. It must have been seen by many people, but apparently the light must be just right for the background to be distinct. The hole is lens shaped with the vertical dimension the longer one.

At Point Imperial, I looked for the mouth of Silent River Cave which Clubb told me is visible at the head of the arm of Nankoweap just north of Kibbey Butte. I'm pretty sure that I recognized it, but I was a bit surprised that it seemed rather accessible. I'm not sure that it was the same thing Art Lange had in his color slide. The thing I saw would be worth a closer inspection .

Another project I thought would fit with our trip with non-hiking guests was to take a little time to inspect the Indian ruins which Clubb had told me was on the promontory about a mile north of Angel's Window. The Hunts had also visited this, and now there is a big parking lot right near the place where you can begin the walk. Ray went over with me, or rather he started over. We noted a deer trail starting down on the north side of this promontory. According to one report, you were supposed to climb a tree to get on top of the Butte, but there was also supposed to be a way to climb up the rocks. I preferred to look for the route up the rocks. In fact, I didn't see any real good tree to go up. (Later we went up the tree.) You work your way up on a ledge on the north side of the island which is still 20 feet below the top. There are several equally difficult places to do this, but there is little danger. Then you go out to a place on the east end where there are some fairly good holds to make it to the top. The catch is that the exposure is impressive. A fall would take you at least to the bottom of the Kaibab Limestone. The ruin is back near the west end of the top, about a dozen rooms still easily recognizable. There is still quite a bit of broken pottery lying around. I'm glad the display case at the parking lot says nothing about this ruin. It's an interesting one for those in the know, and there would be repercussions from frustrated tourists if many tried to climb to the top of this interesting butte. This would be a fine temporary citadel in the ravine west of Cape Royal and if the raiders knew about the spring, they would have no trouble conquering by siege.

On the night of the 15th, I slept by the car prepared to get an early start down the cliffs at the same place to try to go to Wotan's Throne and back in a single day. Clubb had pointed out the two breaks in the Coconino southwest of this same promontory and said that one of the them could be negotiated without the use of a rope. He had used this route on his first ascent of Wotan, but he thought the work of traversing the Hermit Shale to get around below Cape Royal was discouraging. Since I'm interested in ropeless routes, I wanted to do it this way. He couldn't pinpoint his exact route through the Kaibab after so many years, but he did say that he thought the rope could have been left behind.

I tried starting down the Kaibab in a ravine very close to the promontory. I succeeded in getting down possibly a fourth of the way but then there was a continuous cliff. This convinced me that I should try the deer trail on the north side of the butte in the hope that I could go around the base to the west and reach the ravines through the Coconino. This worked perfectly and I was pleasantly surprised at the safety of this route. From Angel's Window, it had seemed dubious that you could get clear around here. There are three parallel breaks in the sandstone, but the first one is so abrupt that I dismissed the possibility of

getting down there. The second looked good. There was one place in the middle of the gully where the safest way down was through a chimney for a few yards. There was no difficulty except that my rucksack tended to jam in the crack. If it had been larger, I would have needed a short rope to lower the pack. There were no real difficulties except for the need to be alert for loose rocks. Now and then one had to go to one side of the gully or the other to find the best way down. When I seemed to be four-fifths of the way to the bottom, I was dismayed to discover an almost sheer drop of about 50 feet.

Next, I tried the ravine farther to the west parallel to the first. If there was any difference, it was in favor of this last route. Near the lowest part, I needed to get over to the left and out of the ravine itself to get farther down, but still when there was about 50 feet of vertical descent left, I was stopped again. Maybe Clubb thinks that the Indians could get up and down at one of these places, but I doubt that it could be done without using ropes. I would like to see him do it without a rope, but with a rope it ought to be quite simple. The drop appears to be much less here than it is below Cape Royal in Clubb's trough.

When I was on my way back, I ran into a wrecked car (actually two cars) at the bottom of the Kaibab Limestone. It was remarkably scrambled and yet it was almost all in one place. The license plate seemed to be NJ for New Jersey #VO 352, 1952. I seem to recall a newspaper story about a car rolling off near Cape Royal with no one in it. I got the impression from the article that it had gone farther down and was completely inaccessible. I went back up the way I had come down, by the deer trail. From the railing guarded point at the parking lot, I thought I saw a way to go lower than I had succeeded in doing by getting out of the east ravine higher up and then going down to the east of the bottom. This time I tried going down through the Kaibab directly to the wrecked car. There were no sudden drops in the gully, and it makes a much more convenient route than the deer trail detour. However, when I tried the slope to the east of the bottom, I couldn't even go as low as I had been before.

All this reconnaissance had taken the morning. In my frustration, I decided against using the rest of the day for some minor objective and got in the car to go home in time for an evening of bridge.

Below Jicarilla Point  
[October 1, 1961]

We had a social engagement Saturday evening which kept me from a two day weekend in the canyon at this ideal time of year. For a time I had been thinking that there were no more interesting one day trips for me on the south rim, but Marshall Scholing has recently pointed out a couple, the Crystal Forest Cave below the west side of Horseshoe Mesa, and the unusual approach to the east arm of Cremation canyon along the top of the Redwall from the Kaibab Trail. I also wanted to follow up on my discovery of a route through the Kaibab Limestone just west of Jicarilla Point. I decided to take a chance on another accident to the oil pan and find out what was possible below Jicarilla.

From the map it seemed that driving four miles west of the drift fence across the Telephone Line road would be about the right distance. Actually, I turned the car around and parked about 0.1 mile east of this position to place the car at the top of a rise so that it would be visible from some distance along the road. I knew from experience that the most annoying feature of a day is not being able to locate the car. I started away from the car at right angles to the road and hit the bay between Piute and Jicarilla Points a bit far to

the west, so that I concluded it would have been better to stop the car about three and a half miles west of the drift fence.

The natural bridge was easy to locate. The draw leading down to it impressed me as being deeper than I had remembered, and the hole behind it seemed bigger this time, probably 50 feet long by about 20 feet wide. The break in the rim is just past one angle to the southwest. I scrambled down to the narrow ledge and tiptoed over to the crack where I soon fastened the rope and easily climbed down the ten feet using the crack for my toes and the knots in the rope for grips. From a distance it had seemed possible to climb on down to the bottom of the Kaibab Limestone directly below this first break, but I soon discovered a small cliff that would be nasty. It was easy to go around the corner below the natural bridge and go on down with no trouble. Also the view up at the bridge was quite interesting.

The walk to the ridge below the point was simple, but I was disappointed in thinking that I would be able to walk out along the projection towards Pollux Temple. There is a deep drop down to the top of the Coconino and no way to climb up beyond. (The ridge toward Pollux Temple is a route down on the east side, through the Coconino.) It was quite easy to get down into this notch to investigate the possibility of descending the Coconino either to the west or east of the notch itself. The west side appeared to be more promising. After careful study, I was able to go halfway down the Coconino here, starting down a bit to the north of the center of the ravine. However this promising start ended in a sheer cliff with about half the Coconino still to go. (However, the east side goes all the way.)

Just before I started down this ravine, I found something that was the high point of the day, some fine petroglyphs. They are pecked in a nearly horizontal section of reddish rock which appeared to be at the bottom of the Toroweap Formation. There are two main types, scrolls, and lizards. They're also a few other minor designs. I looked in vain for any sign of ruins in the neighborhood. Bob Euler tells me that it is quite common to find petroglyphs clear away from any habitation. From what I learned in a negative sense during the rest of the day, I would also say that these are away from any logical route to anything of importance. The ravine to the east of this notch became abrupt almost at once, although it is just barely possible. However, a clear deer and bighorn trail leads in both directions along this bench below the Kaibab. It was mostly relatively easy walking to the east. I wanted to investigate the possibility of getting through the Coconino in the ravine west from the notch between Diana Temple and the rim. There were a few places along here where the brush was a problem, but it was not nearly the nuisance it can be in the shady places below the north rim. Before you go very far to the east, you have to decide whether to stay up on the main talus slope or whether you want to follow the narrow bench separated from the upper by a low but nearly continuous cliff. The lower bench seemed to be more free of vegetation, but the lower trail did not seem to be so well established. I kept to the upper.

I had left the car about 9:50 a.m., and it took about an hour to get to the point at the bottom of the Kaibab below Jicarilla Point. I reached the rim from the road in only 15 minutes, but I had spent a bit of time looking at the bridge again, and naturally using the rope delayed me some. I did not begrudge the time it took to investigate the ravine to the west, especially since this led to the discovery of the petroglyphs, the first good ones I had found for myself. By noon, I was below the first bay to the east of Jicarilla. As I was looking for a suitable place to sit and eat, I noticed a peculiar chamber near the top of the Kaibab in the cliff to the east of this indentation. The mouth of this chamber is in an overhang, and is completely

inaccessible. The hole widens as it deepens and I would guess its mouth to be about 15 feet across while the interior is about 25 feet across and 35 feet vertically.

Something else noticeable from where I stopped for lunch was a window not far below the rim near the deepest part of the indentation in the rim. I thought it might be another bridge until I went over to it at the end of the day. It was only a window through a projecting fin of limestone. The hole was about 10 feet in the horizontal direction by five vertical.

From a distance I could see that a talus covered most of the Coconino west of the notch separating Diana from the rim, but when I got there, I found that the steps near the top were too high for comfort, more than ten-feet high. I was about to run out of time, but I wouldn't attempt the climb down here without a rope. Perhaps if I were coming up and knew that my life depended on finding a way, I could climb this, but I intend to take a rope back there and see what the descent is like. (Allyn Cureton has done this climb without a rope.)

The return was by the same route except that I followed the lower bench near the top of the Coconino for about a fifth of the way. My time was less for the return from Diana to Jicarilla, a little less than two hours. When I was ready to leave the rim near the window east of Jicarilla, I used the map for orientation and the sun for a compass. I wanted to be sure to hit the road east of the car and know which way to walk. It took 22 minutes for me to reach the park boundary road and another 20 to reach the car. My speedometer told me that I had covered just a mile on the road. The only break in the monotony of the junipers was a porcupine a few feet away.

Below Jicarilla and Mescalero Points  
[October 14, 1961]

I cooperated with the hiking club by taking a load of hikers up to the head of the South Kaibab Trail. Jerry Bortle was eager to go with me and I was glad to have someone along with his experience in rough hiking. The trip was over the same ground I had covered two weeks ago, but this time I would photograph the points of interest, and I also hoped to get down through the Coconino with my long rope by the Prusik knot method.

As usual, I was careful not to speed on the bad road. In fact I almost never shifted into high gear. This time I parked three and a half miles west of the gate and we reached the rim quite near the natural bridge. We looked at it and I took a picture and then we proceeded down the route in the notch to the southwest. The bridge definitely looks more impressive from below. Jerry waited for me on the ridge directly under Jicarilla Point while I went down to the petroglyphs. To get down, you have to stay just west of the ridge because there is a vertical droop to the bottom of the notch, but it's easy in the ravine. The petroglyphs are just across the saddle and to the west. Three shots got about all the good designs.

I was able to follow the deer and sheep trail more efficiently this time. We started away from Jicarilla at 11:10 a.m. and got to the ravine below Mescalero at 1:00 p.m. We had eaten our lunches precisely where I did on the other trip, about one-fourth of the way over.

Jerry wasn't much interested in trying any Prusiking, so he went up the Kaibab cliff to see whether he could find a way to the rim. He didn't think much of the walking along the deer trail, and he thought he could find an easier way to the car. I thought he would soon strike an impossible place and I asked him not to go on anything that he couldn't descend, but I told him that if he did get stranded on a ledge to shout for help and I would see what I could do about it.

When I got down to the top of the Coconino, the way down the middle of the ravine looked bad from above, and as the talus seemed to reach up quite a bit higher at the base of the perpendicular cliff a bit to the north, I hitched my rope around a live pinyon tree and started down. There was quite a bit of difficulty in getting the Prusik slings over the edge of the rock. On the return, I avoided this trouble by getting my feet out of the slings and pulling myself over the edge. The process worked all right although it was slow. The process was slow for me, but in less than a half hour I was down 40 feet to a ledge. After stepping out of the slings, I went down another 12 feet with a few toe holds gripping the half-inch rope for support. It was easy to go on down through the Coconino on the talus and a bit of bedrock. There were unmistakable signs that deer and bighorn sheep use this route. On the way back, I tried going up the broken ledges near the middle. If I had been willing to take a bit of a chance, I believe I could have gone up here without a rope. There were some narrow, outward sloping ledges that weren't very comfortable, but I believe that Clement and Tadge could have done it. (Allyn did it.)

In the meantime, although I shouted to Jerry that the way ahead of him was clearly impossible, he went ahead to see it at close range. He found the going quite difficult, but he kept going up until he finished climbing clear to the rim using a chimney climb. This agrees so precisely with the story of Clement and Tadge that I feel we can conclude that this is the place. They found water in the canyon below and were able to get up the Redwall without too much difficulty. They went up a crack at the very top for the most difficult climbing of the day. Furthermore, they took the stock back to the boat down the Boucher Trail in preference to the South Bass Trail, which would indicate that the boat was not farther downstream than Agate at the most.

When Jerry suggested that we go out his route with the rope to pull up the packs, I had qualms about the safety of the method. I might go back by myself and study that route, but I thought we had taken enough chances for one day. Jerry reported that he had been on a worse rock climb than that at two places above Supai, but I would rather not be responsible for a student on this route a bit west of Mescalero Point. However, I thought it odd that Clubb and Wing had decided that there was no feasible route to get off the rim to climb Diana Temple. This place is certainly near enough to be an obvious approach for expert rock climbers.

On the return, I was able to follow the bighorn trail back to Jicarilla Point more continuously than before, and instead of taking an hour and 50 minutes, it took us only an hour and 25. It was odd that Jerry felt that we were in greater danger of hurting ourselves on the loose rocks of the trail than he had been when he was inching up the cliff on narrow ledges and chimney climbing. On the return, I detoured directly under the natural bridge to get what I hope will be an impressive shot of the sky through the hole. We came out to the road about 10 minutes walk east of the car but still made it in two and a half hours from below Mescalero Point.

## Caves in Cottonwood Canyon

[October 21, 1961]

Marshall Scholing had told me about visiting Crystal Forest Cave. He had told me that you follow a trail at the base of the Redwall for about a half mile north of the trail coming off the west side of the neck to Horseshoe Mesa, and then you climb up a simple scramble to the caves. Pete Huntoon wanted to locate all the caves in this area, and I figured that after we had located the lower caves that would be new for me, I would leave him and a caving companion to study the big cave just below the rim of the mesa while I took the other two guests off the east side of the mesa and up the climb to the west side of the saddle connecting Sinking Ship to the rim.

To begin the day, I figured that we would all go down the bed of Cottonwood through the Redwall where Allyn Cureton had come up by himself. I remembered that he had needed a tree trunk to help him up a step of over six feet, but I figured that we would be able to go down everything fairly well, especially since Pete brought along his climbing rope. Almost at once in the Redwall we ran into a chock block. We used the rope to go to the east side of this block. I figured that this must have been the place where Allyn used the pole, and we gaily pulled the rope down after us. Then we thought about the method of going up if we ever would want to. Jim McCann, the other caver, almost showed us that he could climb to the west side of the chockblock, and Pete did enough on the broken rocks of the west wall to assure us that a route went up there. Only a short distance to the north, we saw a possible cave to the east and found that the climb to it might be possible but it would have involved some risk. George Miller went to the top of the talus opposite and came to the conclusion that there was small likelihood of it being 50 or 60 feet. Pete soon found a possible descent over to the east, but at least the first four or five feet at the top were very uncomfortable. I called off the attempt to go down the rest of the Redwall. When we retraced our steps, we climbed out by the west wall about 20 yards below the chockblock. Jim McCann and Gary Taylor seemed to feel rather insecure at one stage here and Jim asked Pete for a belay before they came up.

Scrambling back to the trail was rather time consuming and Jim showed that his overweight was going to be a drawback to our progress. He slowed us down again as we were going along the slope below the Redwall north of the trail off Horseshoe Mesa. The main trail seems to go along the bottom of the Redwall here and I didn't discover until later that we missed the trace of a trail leading to the caves. We went around the first bulge in the wall and noticed a couple holes above the first cliff to our right. It looked improbable that we could reach them, and Marshall had said that the cave mouth was invisible from the trail below, so I considered this to be not far enough. I had a mental picture of a talus in a fairly narrow ravine, and nothing seemed to match this. We went at least three times as far as those first holes, and I finally concluded that we must have gone too far. A ravine ahead seemed to offer some interesting climbing so I went up it while the party rested below. I could see some chockblocks in the narrow upper part of this ravine, but when I got to them, it was not too hard to get by with good holds and no loose rock. I went up on the mesa far enough to determine the position of this route, about 200 yards south of the dip in the prong of the horseshoe. I knew that the main cave was south of here. When I had come down, Pete told me that Jim and he would like to give up the search for Crystal Forest Cave and go up my route to visit the big cave above. I thought I had made myself clear as to how to find it, and we parted.

As Gary, George, and I retraced our route along the base of the Redwall, we went up the talus at two or three spots so as not to miss the caves. From a south facing projection, all of us saw the mouth of a possible cave in the bay that turned out to be the one we had suspected and given up in the first place. When we got to the entrance, we found that there was a good trail along the ledge to the two cave entrances we had seen from below. We spent about 15 minutes in Crystal Forest Cave without exhausting its possibilities and only a few minutes in the next one which is apparently interesting only to pack rats, to judge from the prevalence of droppings. However, someone built a wooden door to this cave like the others at Crystal Forest and White Cave above, and the 1904 sign was still tacked to the door saying that this area had been withdrawn from development by private interests.

It was already rather beyond a normal lunch time, but we were short of water and I wanted to get the boys to a good supply before we stopped. They balked at the thought of dropping clear down to the spring in Cottonwood, and I had suggested that the spring below the Redwall east of the mesa neck would be on our way. However, by the time we got up to the mine buildings on the neck, we could see that they were in no shape to attempt the entire route I had set for myself. I went down the Redwall to the spring and brought them a gallon of water which was supposed to last for the rest of the trip out. Pete had agreed to bring water for himself and a friend, and I was to furnish the water for Gary and George. However, Pete brought only one quart, and both Pete and Jim used water from my gallon on the way down until they parted from us. By the time I had come back with the full canteen, Pete and Jim had joined Gary and George. Pete had failed to find White Cave, which was just as well, because it was now 2:45 p.m. I took Pete back on a 45 minute detour just to show him where White Cave is while the others started up to the rim. Pete and I overtook Jim near the start of the steep switchbacks near the top of the Supai. Jim was in bad shape. He and Pete had shared one can of beans for their lunch, and Jim had thrown up. The other boys had my pack up ahead, and all the food I was carrying was one individual portion of raisins, which I gave to Jim. There was still some water in the quart canteen which Pete had refilled from my gallon, and we gave this to Jim.

I went on ahead and overtook the other two rather near the top. George and I reached the car about 5:00 p.m. and I got a refill there to take back to Pete and Jim. Pete was walking out ahead of Jim and he had not thought to relieve Jim of the climbing hardware and piton hammer. After Jim had eaten some bread and quite a few pieces of taffy and had all the water he could use, he recovered some strength and we were all in the car by 6:00 p.m.

The moral of this mismanagement is that just because a boy talks about a lot of trail accomplishments, Thunder river, etc., I shouldn't assume that he knows how much water and food to carry. Jim had supposedly had plenty of hiking experience in the Chiricahua Mountains in Southeastern Arizona, but I could guess right away that he would have trouble on the Grand Canyon Trails.

We did learn a little from this day's work -- how difficult the Redwall is at the head of Cottonwood Canyon, where the lower caves are located, and a possibly new route up the Redwall to the top of Horseshoe Mesa.

From Mescalero Point into Slate Canyon  
[October 28, 1961]

After two previous trips below Mescalero Point from Jicarilla, I figured we were ready to go down below the Redwall into Slate Canyon and back in one day. Jerry Bortle had shown that one could climb up and down the Kaibab Limestone and I had seen deer and bighorn tracks leading to a break in the Coconino. I decided that with ropes, these two hard places could be negotiated with plenty of safety. I was glad that Allyn Cureton had agreed to come since he had a long nylon rope, and also because we know each other's ideas about hiking.

This time we parked the car 1.9 miles west of the drift fence gate (pole 355), and steering by the sun, went almost at right angles with the road. Our hunch in direction finding was unbeatable, for we came to the rim less than 50 yards from the top of Bortle's Cairn route down the Kaibab. I don't blame Clubb and Wing for overlooking this place. You have to get down below the top 30 feet or so before you can even inspect the rest of the way, a vertical fall everywhere except here. The place you go down looks different from the other places, but you still wouldn't bet a nickel that it would be possible all the way. After you've climbed down the second rim from the top through a notch, you are on a slope back in a small bay that supports some vegetation including a well placed pinyon tree. (I should point out that this bay is several hundred yards west of Mescalero Point and is just east of an angle in the rim where the rim takes a turn to the south.) Jerry insisted that we go around the angle to the west and then climb down over about the worst place I could imagine a person going who cared for his life. I declined and was willing to hurry over to Jicarilla Point and come back below, but Allyn pointed out that we could rappel down from the pinyon without taking Jerry's risky route. Actually, there was no reason to follow Jerry anyway. The way down directly below the pine was better anyway. There is an angle here with the limestone broken into a lot of very small steps. The uncomfortable part is that there are no good finger grips, but a person with rubber soled shoes should be able to go down and up. The rappel was easy with most of the weight being carried by one's toes almost everywhere. It gets quite steep just above a lower ledge, but here there is a crack a little more than a foot wide so that chimney climbing is easy. About 12 feet above the talus below, there is a vertical drop, but one can go over to the east and climb down a detour. All of this climbing would call for the greatest care and plenty of nerve, but it could be done by men coming up without a rope. Jerry had used the harder way when he did it. We left the rope in place and came up hand over hand with our feet in the minute steps. I had a hard time up the 12 foot vertical near the bottom. In getting over the upper edge, I had to tie loops in the rope for steps.

On the slope below this steepest part, I found old bones too big to be from deer. They looked like horse or cow bones.

We were able to go down and to the east to get below one definite drop. This was easy when you wait for the best place. The next drop required more searching. Evidently, Jerry had either not found a good place before, or he had forgotten what he had done. He and Allyn tried going down a place that both of them finally gave up on. They came farther east to where I had found a break that required some agility but was quite safe. There seemed to be a deer or bighorn trail at the foot of the steep, long descent, but I lost it down here. It would be an amazing sight to find a bighorn coming up or down this break in the Kaibab.

We fastened my long Manila rope to a juniper tree a little to the north of the bottom of the ravine through the top of the Coconino. We used the rope for a grip and walked backwards down the steps of the

Coconino. Coming up and down here without a rope would be difficult and dangerous, but all three of us agreed that it would be quite possible. The going became quite simple through the upper part of the Supai, but when we had reached the lower Supai, we saw about three quite persistent cliffs. We passed the first bad spot in the bed of the ravine in two different ways. Allyn jumped down several feet after I had fastened a rope to a small redbud tree and saw that we could get back up that way. Jerry also came down using the rope for a slightly long step. When we went around to the south where we saw we could go on down, we discovered that we had missed the easy way, a broken slope that the deer use. A bit lower, we came to more of a problem. Two sandstone cliffs continued as far as we could see them. I elected to go around on the ledge to the south. We ate our lunches on a point before we could see any good way to go down.

A bit after 1:00 p.m., when we had finished eating, Jerry decided against trying to go lower as he thought he would have a harder time on the climb out than Allyn or I. He volunteered to pick up the rope I had left tied to the redbud tree. Just as he was climbing over the edge of the rock, holding to the rope, the little tree came out and he was dropped six feet. Fortunately, he landed on his feet in a balanced position, or he might have fallen 30 more feet. Allyn and I didn't know about this until we joined him at the car, but we did notice the tree lying on the lower ledge.

Allyn and I decided to go farther to the southwest and try to find a way down to the Redwall. A perfectly easy route was just around the corner in the next ravine. At the bottom of the Supai, on our return, we noticed two overlapping mesquite pits. The old time Indians got around. There were no cairns anywhere in this region, so the prospectors may not have been here. When we reached the edge of the Redwall gorge, we first went to the north side of the tributary we had been descending, and from there we could see both entrances to the cave we had explored last winter, right across from where we stood. We could also pick out the break in the Redwall where we had almost finished climbing last December. It would be quite a detour to go around the head of the set of canyons from the east side to the west, but even though we saw that we would probably run over our allotted time, we decided it was too interesting to miss.

On our way around, only a couple hundred yards south of the descent, we found a small cave beneath the top layers of Redwall. The mouth was low and it had retained a lot of warmth, but we thought we had it about explored after going back about 50 feet. The descent is on the west side of a promontory which separates the main (south) arm from the arm coming down from the notch north of Jicarilla Point. I remembered just where it should be and went right to it while Allyn went out on the point for a look. The way down the Redwall was neat, although quite steep with perfect holds. After only about 30 feet of this, we reached the broken ramp which both of us had come up to check a possible cave last winter. I feel sure that this must have been the route followed by Clement and Tadge, but I'm still amazed that they were smart enough or lucky enough to head for the only possible break in the Coconino after they got above the Redwall. I think they probably climbed up a short distance on the west side of the bowl in this amphitheater and from there they saw the possibility of going out near Diana. (I found out that it is also possible to climb out towards Jicarilla Point.)

Our return was uneventful. We were at the top of the Coconino by 3:45 p.m. and on the rim by 5:07 p.m. I determined what I thought was the best direction in relation to the setting sun, but whenever Allyn got ahead, he shifted us to the east. Before long we were getting our direction only from a bright part of the

sky in the south, and it was a relief to find the road before it got totally dark. We had the foresight, due to the suggestion of both Jerry and Allyn, to look for numbers on the telephone poles, and we came to the road 13 poles east of the car, much to Allyn's surprise. Jerry had made the same mistake as Allyn, and he reached the road 28 poles east of the car.

With two fixed ropes, one near the top and the other in the Coconino, about 120 and 75 feet long, respectively, this route is both safe and most interesting. On the return, I had to tie loops in the rope for steps up the first ten feet of the steep part of the Kaibab, but Jerry and Allyn were strong enough to pull themselves over this edge. I want to go down here again with more time.

Above the mouth of Havasu Creek  
[November 11, 1961 to November 12, 1961]

The attraction of this project for me, in addition to fine views of Havasu, Mooney, and Beaver Falls from the Redwall rim; was that it would be closing the next to the last link in a project I have been working on for quite a few years -- going from the northeast boundary of Grand Canyon National Park to the southwest boundary altogether below the rims of the canyon. My other goal is a three mile stretch below Great Thumb and Tahuta Points, which would also require a two day period as long as I can't get closer than the Topocoba road.

We left the campus about 3:30 p.m. with a party of five adults from the staff and about 15 students. I stopped at Williams to see Allyn Cureton and discovered that he was just waiting to be asked to go. He assembled his gear in a little over 30 minutes and we were off, changing from the first car in the train to the last. The others were waiting for me at the turnoff from Highway 66 and invited me to lead along this road in the dark. I had the idea that a better place to sleep Friday night would be near the old warehouse before the road goes out along the side of the canyon to the exposed parking at the end. We had counted on the sleeping being rather cool and we were not disappointed. My new down bag was just about right.

In the morning, Allyn and I got off quite a bit earlier than the rest. One feature of the trail that seemed different this time was a pool of water at least a foot deep. The easiest bypass was to stop and go under a leaning rock. I noted the usual landmarks: an overhang in the Coconino where there is always shade on a hot summer day, another sheltering projection near the top of the Supai, shade under small trees where we had rested on my first trip down here in 1947, the mining machine that was abandoned, the tall rock with the telephone line support out in the middle of the canyon, and the place where the bed drops sharply and the trail goes along the left side. One wonders where Lieutenant Ives was stopped by the 40 foot drop. (He was stopped right above the valley floor.) If he was coming down this trail, he certainly used his imagination in making it sound difficult.

Allyn and I used a few extra minutes in talking to Earl Paya, an Indian named Johnny, and the resident missionary, Ardin Rourke. Johnny said he had gone across the Esplanade to the Great Thumb, but he had no knowledge of Keyhole Bridge. He said he knew about the South Bass Trail, but he knew nothing of Royal Arch. I showed him my color slides of these places in a hand viewer.

After an early lunch at the creek crossing near Havasu Falls, Allyn and I climbed up to the top of the Redwall at the break by the cemetery west of Havasu Falls. I knew about this place from a former trip, and I had refreshed my memory by reading Wampler. Incidentally, I looked at both travertine columns south of the village, and I don't relish Wampler's route to the top of the Supai along here. It looks like a technical rock climb. I asked a Supai youth about other routes out of the valley besides the Apache Trail, and he was unaware of any others on the east side.

There are so many cairns along the top of the Redwall that it's really funny. Some of them may date back to the prospectors, but I suspect that others were built by Wampler's hikers to mark picture possibilities. They are mostly before you get to the best place for a picture of Mooney Falls. We noticed something we had heard about, the window right above Mooney. There were small cairns marking the trail out to the river, but not really enough to do much good. The trail around the point and up Beaver Canyon is quite recognizable and in many places shows retaining walls. Beyond the head of the Redwall is Beaver, there was a trail now and then, but it was more like a deer trail than a horse trail. However, Jay Hunt tells me that someone by the name of Parsons, I think, got some Indians to take a pack trip out here. There were a number of places where a horse would have to be led. We noticed droppings from burros north of the junction of Beaver and Havasu, but none at the very end. Deer droppings and bighorn scat were common.

Hikers in good condition can make each of the four legs of this trip, from Havasu Falls to the junction with Beaver, from there to the head of Beaver in the Redwall, out to the junction again, and from there to a point above the river, in about one and a half hours. By the time you stop to eat and take a few pictures, you probably should allow seven hours for the trip. We were at the start of this trip along the top of the Redwall at 11:30 a.m. and we got to see the river about 6:00 p.m. with about the last ten minutes in semidarkness. We could just make out the river below, and it looked a long way down. People who rave about the view from Cape Solitude should give this trip a try. In the morning we were able to feel the significance of the terrific drop both into the river and into the narrower gorge of Havasu Creek. I believe the impression is more startling from the top than it is from the bottom. At the bottom, there's some grading back before the straight walls begin, but from the top, you first look straight down for eight or nine hundred feet. The narrowness of Beaver Canyon for its depth is still more striking. Right at its mouth, Beaver is dry, but for a good part of a mile there is quite a flow that seems to be from a spring and hence perennial, something that is not recorded on the map.

There had been a light rain over this area a few days before we were there and we found rain pockets almost every time we crossed a ravine that exposed the bedrock. There were a few cottonwoods growing a quarter of a mile up Beaver above the top of the Redwall, and Allyn checked that there is a pool in some gravel. We feel that this is a seep which could be trusted in the dry and hot months, but the trip is much better under our present conditions, weather cool and shortly after a rain.

There were some oddities of erosion on the left side of Beaver. We went right by a hole a few yards back from the rim of the Redwall that led into a widening tunnel to the bottom of the canyon. This was just below the first point of the Supai rock north of the junction of Beaver with Little Coyote Canyon. Another that we saw from the right rim but missed as we were passing is almost surely a sizable cave with the roof caved in. It's about one-third as large as Keyhole Bridge. When we returned, we noted its location for

future reference. It's just a few yards to the north of the main draw coming down from the largest bay in the Supai, about two-fifths of the way from the head of the Redwall to the junction with Havasu.

Something else of interest I picked up on the return, right on the trail about halfway from Little Coyote to Havasu on the right side of the canyon, was a fossil of a trilobites in a piece of the Redwall. The geologists here call it a rather uncommon find.

We went from the river to the car in almost exactly the same total time that it took on the way down, 11 hours.

Allyn's sharp eyes caught two other things of interest. Not far from the turn into Beaver on the way out, he saw a heavy walking stick free of bark with the name Ralph Paya, 1952, carved in it. On the leg between the mouth of Beaver and the rim above the Colorado, was the name Edward H--, the last name being hard to make out. From the flourishes in writing the name Edward with the corner of a soft stone on a block of Supai, we figured that it was an Indian name.

West of Sinking Ship  
[December 2, 1961]

Years ago Art Lange had told me that one could go down the ravine west from the saddle of Sinking Ship and get below the Redwall, but that he and Ray DeSaussure had not actually done it. I had looked this route over from a distance and I agreed with them, but I had not seen the Redwall clearly. From an aerial view, it seemed that there is a promontory somewhat north of this area where one could go up or down. I had intended to combine going up to the rim by this route with my trip to find Crystal Forest Cave on the west side of Horseshoe Mesa, but it was impossible that day for lack of time. This time C. R. Wylie, chairman of the mathematics department at the University of Utah, had agreed to take a hike with me, and I was glad to have the companionship of such an experienced climber on this bit of exploring. Jerry Bortle asked me whether I would take him saying that if his recent bout with the flu slowed him down, he would start back to the car rather than ask us to wait for him. With this understanding, I agreed that he could go along.

I spent a little time visiting headquarters and picking up my collection of logs of former trips. Bud Estey was there and we chatted about a few places, so we didn't reach the paved parking area for the picnic grounds near the Sinking Ship until 10:00 a.m. There was more snow in the shady northern slopes than there had been around Flagstaff, and we were rather surprised to find foot prints preceding us out toward the Sinking Ship. They were on an old trail that I hadn't remembered distinctly from my other trips out there. I thought this trail looked a bit too clear and well designed to be only a deer trail, and on the way back I found the proof, and old log chopped in two. The cut was so weathered, I thought it could have dated back to the days of John Hance around the turn of the century. I could easily imagine the guests at his nearby ranch strolling out to the base of Sinking Ship, or the Three Castles as it was then called, to watch the sunset. The footprints we saw were fresh enough to have been made just the day before. They were made by a large man and a small child.

At the lowest point of the saddle we found it quite simple to go down and to the south into the ravine. There were no climbing problems other than the ever present need to watch one's footing on the loose slabs of Coconino Sandstone. Near the bottom of this formation, Jerry announced a prediction that there was going to be a bad drop. When we came to it, however, it required almost no study. The way down was obvious. About the same thing occurred near the top of the Supai. Detours around thickets of brush were much more common than detours around small difficulties in the walking and climbing.

When we reached the top of the Redwall, we found no trouble in going down the first 60 feet but then we came to a place over to the left where it would be possible, with due care, to descend to the next level in the streambed. However, there appeared to be a strong possibility that around the bend ahead we would encounter a sudden impossible drop-off. We probably should have proceeded to get a clear view of this obstacle, but I thought that it would be more certain and efficient if we would go back up out of the ravine and go to the right or north. We spent some time going far enough to get a view to the next promontory to the north, but the best way down seemed to be clear around to the south. We ate our lunches here while we thought over the next course of action. Time was passing, and in order not to make any more false moves, I voted for the break in the cliff south of the ravine we had descended. Dr. Wylie picked out a good landmark above the place we had in mind, a block of Supai Sandstone with two white streaks in it. As we were starting the traverse back around to this place, Jerry decided that he had enough and started back. In due course, Ray and I made it around to the break with the talus leading up to the top 50 feet of the Redwall. While I was hesitating at a place where the foot and handholds seemed a bit far apart, Ray went on down and showed me how to do it. From here it was an easy scramble to the bottom of the wash. Most talus slopes in the Grand Canyon are impressive examples of Grand Canyon amphitheaters. The walls come down with few interruptions almost 3000 feet from the rim to the bottom of the Redwall. The effect is better when one is almost to the bottom, and if there were a running stream through here, I would match this spot against any in the entire park or just about any other beauty spot I can think of.

Ray was quite interested in the burro signs we found below the Redwall. Some of the manure was quite fresh, but we didn't see the animals nor hear them. We started back for the rim at 1:30 p.m. and reached the car in an even five hours. As we were approaching the climb at the top of the Redwall, I studied the drop in the bed shelf on the north side which would lead to a bypass. This possibility is worth a future investigation. If it would go, it would save several minutes of scrambling over small ridges along the top of the Redwall. I probably should have tried this route in the first place. However, the way we did get down was interesting and we all agreed we had a good workout.

Down Epsom Creek to the Colorado River  
[February 10, 1962]

Getting over the route to Indian Gardens, then west along the Tonto Trail beyond Dana Butte, and along the base of the Tapeats on the right until I was facing the river, and then to the bottom of Epsom would be a long single-day trip. In order to save time, I trotted most of the way to Indian Gardens and covered this lap in an even hour. Three years ago I was in good enough condition to do this clear to the river, but after 40 days of inactivity, it was a mistake. By 12:30 p.m. my knees were giving me fits.

Turkey tracks in the muddy trail just beyond Indian Gardens reminded me that I have seen turkeys there before. I don't know of any other place below the south rim where they are to be found. I wonder if this is because they find scraps left by the litter bugs? Of course I have seen plenty up on both rims. Possibly they come lower for the winter.

Again I was impressed by the telephone wire along the Tonto between Indian Gardens and Hermit Camp. Much of it is still in place, but most of it is down. There is even a good sized coil lying on the ground as if someone were getting ready to salvage it. This is surely the cable that mystified Coffin at Monument Creek.

This has been a wet winter, and the spring shown on the map in the east arm of Horn is now running. One would have to dig a hole in the gravel to make a pool deep enough to fill a canteen, but there were a couple pools in the bedrock in the branch that joins this east arm right where the Tonto crosses it. I filled my canteen here on the return.

Just before I reached the angle where the trail turns south beyond Dana, I noticed what might have been a couple rock markers right near the rim. After investigating, I concluded that these were pure coincidences, rocks fallen and balanced on other bigger ones. There was no way through the Tapeats unless one were prepared to wedge arms and legs into a long crack farther east. A good climber could come down here and be quite close to the descent into Epsom, but I decided to go on around and go down the rock slide where I had been before. The timing of the trip in was easy to remember: one hour to Indian Gardens, 50 minutes to the crossing on Horn, 70 minutes to the descent into Epsom, one hour along the base of the Tapeats, 30 minutes to go down to the bottom of the creekbed, and five more to go out to the river.

There were plenty of fresh bighorn signs along here and good hoof prints on the sand at the mouth of Epsom. The beach was interesting, about 200 yards long mostly upstream from the mouth. I couldn't get down or up beyond this beach, and there was no sign of any cache that I could see although parts of the talus were clearly above high water.

On the return I yielded to the impulse to see whether there was a safe way to climb up below the fall that had stopped me on my first trip here. After a couple false starts right below the fall, I backed up 20 yards and climbed on the south side. It was about as difficult as going up from the mouth of Horn, but by climbing above the level of the fall and then coming down where I had been before, I made it. I figure one could save 20 or 30 minutes by using this method in the future.

The ticks were quite plentiful again, and I removed seven or eight before they had time to dig in. Epsom was flowing more of a stream than I had seen before, but it was still too strong and bitter to drink. I found my old campsite near the top of the Tapeats on my way out. My left knee was giving me so much trouble that it took 140 minutes along the Tonto Trail to get to Indian Gardens. Doing the rock climb to the top of the fall was slow this first time and I took 50 minutes just to come from the river to the top of the fall. The rest of the trip to the Tonto Trail required 45 minutes. I ate and rested for 20 minutes at Indian Gardens, and I was in such bad shape that going from Indian Gardens to the rim after dark in mud, snow, and ice took me three hours.

I brought home a sample of the red rock where Epsom makes its last bend before reaching the river. Incidentally, the descent here is not as tricky as I thought on the other occasion. There are three ways to get down the small drop here. The two geologists on our college staff were as interested in the anomalous rock, soft, deep red, with cracks filled with calcite, as I was.

When I reported to Phil Iverson that I had finally come out at 9:20 p.m., we talked a little mentioning bighorn sheep among other things. He said that one of the rangers had seen one down in the Hermit area, so apparently they are making a comeback over quite an area.

#### The Grandview Trail and Grapevine and Cottonwood Canyons [March 24, 1962 to March 25, 1962]

Milton Wetherill once told me that Art Lange and Ray DeSaussure had taken him down into Grapevine Canyon from Grandview Point. At the time I had thought that he must mean Cottonwood, but last October I was down the Grandview Trail and I noticed that it would be easy to get into the upper end of Grapevine from the trail. Furthermore, the Coconino seemed quite possible and the Redwall looked even easier from that distance.

I had told Jerry Bortle that I was going and he asked me to take him. We had to contend with snow more than knee deep near the top of the trail. Sometimes we could see no difference between the trail and the natural slope, but we managed to keep to the trail by noting the switchbacks and where the lane through the trees led. Some of the trail has fallen away just since last fall. There is one place where a log still marks the edge of the trail, but a hole has opened up that might be dangerous at night. Only about a foot of bedrock gives a good step on the inner side.

We left the trail at the divide between Grapevine and Cottonwood Canyons, not at the head of Grapevine. We had crusted snow part of the time and soft snow covering the slabs of sandstone the rest of the time. All in all, it was definitely more difficult than it would have been in the summer or fall. There were a few places where we had to scout out the best way past obstacles, but there wasn't any real difficulty here. One had the feeling all along that if one route proved difficult, he could find an easier one. Brush was more of an obstacle than the gradient. We even went down through a third of the Redwall on a gentle slope through the trees. Just as we were thinking that there would be nothing to it, we came to a fall of more than 100 feet. There was rather clearly no good way right down the face, but it looked barely possible to work from the lip of the fall down and to the east. Jerry looked this over and rejected it. I went up a broken slope to the west hoping that there was a way down around the corner on that side, but we saw that this was out of the realm of possibility too. However, from here it looked just possible to go up the slope to the east of the fall and descend on that side.

Jerry climbed up here just a few yards back from the lip while I retreated about 50 yards before going up. To get over to where he was, I had to side step along a ledge that was as chancy as anything on the climb. I made a false move that he had already rejected, trying to get around the corner at the highest ledge below the straight cliff. Around the corner there was a sheer drop. He had already gone past the angle at a lower level and he left his pack to come back and guide me. The exposure here was something not to think about, but I have often taken just as difficult a climb. After a short walk on talus, we came to the

most awkward part of the whole climb. We could go down five feet to a small platform with our packs on our backs, but next came a short chimney that was too narrow for the packs. We had to pass the packs down here by hand. If one were by himself, he could let the pack down on a 20 foot rope into a juniper growing at the bottom. There were two or three other places below that required a bit of looking. I was leading once when the ledge I wanted to follow had no handholds at the right height. I solved this difficulty by stopping across at a level a couple of feet lower while holding to projections at the level of my former footing. Several of these difficult spots seemed to have the distinction of being the only route through. At the bottom it appeared that we might still be stopped, and we would have been if it hadn't been possible to walk across below the waterfall to the other side where a simple talus let us go down. We found burro manure here so we knew there were no more obstacles below. A fine rain pool in the limestone just below the fall had six inches of water in it covered by a half inch of ice. There was one more difficulty caused by a house-sized block in the bed. I chose the right side around it which was wrong. I got down by care, but on the west Jerry was able to walk down.

About 15 minutes below the fall we found the reason for the name of the canyon, a large tangle of grapevines marking the location of a spring. More water was added to the first for the next quarter of a mile and we were forced up on the talus to get by at all. There is a good stream at this time of year, but lower it goes under the gravel. I would count this as permanent water, but it's quite far from the Tonto Trail crossing. I noticed that the map shows perennial water for almost a mile along here and also in the narrow canyon farther down but still above the Tonto Trail crossing. The spring shown on the map east of Lyell Butte was also flowing, but the pools are a bit shallow for filling a canteen. Another drawback was the prevalence of burro manure. I preferred to dose the water with Halazone after dipping here.

The trail here is near the rim of the Tapeats above Grapevine which is already quite deep in the granite. Around the bend southwest of this spring, I noticed a detached castle of sandstone and from a distance it seemed possible but improbable that one could reach the ravine which led down to the bottom of the bed. I checked on this and found that there was a good way down to the saddle and from there to the bottom there was no question. It involved a vertical scramble up a crack for about six feet. I doubt whether burros can do this. I would like to go back with more time and explore the bottom of Grapevine to the river or possibly follow the base of the Tapeats around to the east and go down some ravine to the river.

One of the pleasant contrasts between this section of the canyon and that from Horn Creek west is that there seems to be no ticks. There are plenty of burros still, but perhaps the bighorn sheep are missing. They may serve as the host for the propagation of ticks. I saw no bighorn signs in this area in spite of my sighting in Red Canyon in 1954.

On a second trip, we could do the rock climb more quickly, but it took from about 9:15 a.m. until 12:30 p.m. to get from Grandview point down below the Redwall and until 3:15 p.m. to reach the spring. I needed about an hour and 35 minutes to go from the spring around to where the Tonto Trail crosses the main arm of Cottonwood. We spent the night here and walked out on the trail to Grandview Point in about four hours. Thus, it seemed just about as quick to use the trail to reach the descent into lower Grapevine Canyon as it is to come directly down the long arm the way we did.

Something that I must have passed numerous times but hadn't noticed until now were the mesquite pits on the west side of Cottonwood Creek about halfway from the main spring to the drop down the Tapeats cliff. We also noticed a couple of mine shafts on the west side of the neck leading to the mesa which I had overlooked before.

### Grapevine Canyon

[April 14, 1962 to April 15, 1962]

I couldn't get away before noon because I had to give a mathematical talk at the high school, and Allyn Cureton also had to work through the forenoon. We didn't get away from the rim at Grandview Point until about 3:50 p.m. We spent a little time talking to a man named Ball who was seeing the country in spite of a cast on his leg that forced him to walk on a projecting metal strip with his toes bare. He had been in a party of amateur rafters from Denver who went through the Grand Canyon in 1957. The water was high and it took them nine days.

All the deep snow had melted during the previous three weeks and we could see what poor shape the Grandview Trail was in. Besides the hole behind the log, there's a place where the trail has been washed out by a stream with a narrow notch missing. However, it will be a long time yet before it's as hard to follow as the Hance Trail. This time we left the trail right at the ravine at the head of Grapevine Canyon. The going was easy until we were near the bottom of the Coconino on the left. There is an obvious fault here with the west side probably 80 feet higher than the east. We could have backed up some distance until we could work our way around to the east where Jerry and I had gone down the first time, but rather than climb back that far, we crossed on some fairly difficult ledges and went to the bottom in much the same way as before. I noticed this time that to get through the sandstone you have to go back towards the center of the ravine right near the Coconino-Hermit contact on the west. At quite a few places in the Supai, we found the going better to one side or the other. Near the top, we were generally to the west of the wash, and judging by the difficulty of our return on the other side, this was better.

This time at the drop in the Redwall, I noticed a pile of rocks at the bottom of the first high step up from the wash. I'll have to ask Milton whether he and the cave boys put them there or whether they are prehistoric. The descent still seemed pretty impressive to me. We essentially repeated the route Jerry had found, and Allyn went down the place Jerry and I had removed our packs without taking his off. I tried letting mine down by a rope and got it stuck so that Allyn had to climb part way up to take it down for me. On the return both of us kept our packs on while going up this crack. When I was down, I remarked that I didn't think well of this sort of climbing and that I would prefer to go around by the trail. It was too bad I didn't keep to this resolution because on the way up I swung my right leg over into a cactus. Apparently no stickers were left in the skin (it was not a prickly pear), but the ankle and lower leg have been lame these last three days and have forced me to give up the idea of taking a super hike during the vacation.

Right below the Redwall, the redbud trees begin. There must be more of them than cottonwoods, and they were all in profuse bloom. Out on the Tonto Plateau, there were also many Mariposa tulips blooming along with a few less conspicuous flowers. Cactus were blooming down in the inner gorge, and it was a

good time of year to be there. Our bags were uncomfortably warm when we slept beside the water about a 15 minute walk from the base of the Redwall. There were very few mosquitoes also.

In the morning, it took us about an hour to carry the packs to the break in the rim of the Tapeats just southwest of the spring shown on the map. We saw some signs that burros can go down this break and many signs that they go along the bottom of the creek below. However, there seems to be ways to get down into the bed from the west also, so that one could cross Grapevine much as one can cross Hance without following the Tonto all the way around. I don't think the saving in time would be as great in Grapevine as it is in Hance and besides, I haven't actually made sure that one can go up the west side of Grapevine.

Walking along the bottom of Grapevine Canyon is easy although there are impressive narrows in the Granite that remind me of Clear Creek. Following the base of the Tapeats along here seems pretty useless and difficult. There is one unusually straight stretch that seems to be governed by the fault that guides the entire lower part of Grapevine Canyon and goes across into Vishnu Canyon. We could look down this corridor and pick out the talus where the fault went on as the creek bent to the west. I decided to try to reach the beach at Mile 80.1 by means of this slope. A little farther down the creek, about half a mile from the river measured along the winding bed, we came to the first real fall. It was a difficult climb to the west to get around it. Unlike the procedure in Hance and Cottonwood Canyons, we started the bypass right at the brink. We had to ascend quite a few feet above the bed to find a break in the smooth slabs, but coming down was easier. There was one more small fall at a chockblock which we could bypass without trouble by going to the right. When we reached the place where we could look through a narrow gate at the river, we were still 15 feet above the mud bar separating the clear lagoon from the muddy torrent. The rock was smooth and straight down. When we returned, I tried to find a safer way to bypass the upper fall by going still higher and looking down the other side of the spur ridge. What I saw was not encouraging and we used the former route. This place is so risky that I was glad Allyn stood by to tell me where the best toeholds were.

We ate an early lunch in the shade near where the fault goes over toward the mouth of Vishnu Creek. This didn't seem to be the place I had picked out on the way down, but when we went on around the next bend, we saw that it was the best route over to the river. It took 20 minutes to get to the top of this ridge and then we went along the crest to the highest point of the promontory toward the northwest. We were disappointed in the hope of seeing Grapevine Rapids because the cliffs below cut off the view. It was an easy scramble down the ravine to the beach. We could have gone quite a distance upstream, but we had only a limited amount of time to spend here and we elected to go down in the hope of getting some pictures of the rapids. To get around the first point, we had to walk in some sand only a couple of feet wide. If the water had been a foot deeper, I doubt whether we could have done this. Before we got to the close viewpoint above the rapid, there was one place that required using our hands. While I was working with my camera, Allyn went ahead and got right above the lagoon at the mouth of Grapevine, but again there was no way down to the water.

At the top of the ridge above this beach, we found newspapers anchored by rocks shaped into the letters NO. Near there, under an overhanging rock, a cardboard box was cached containing extra clothing, mostly shorts and shirts. There was also a couple of pop bottles nearby with the lettering, Property of Kist

Bottling Company, Holbrook, Arizona. We conjectured that someone was giving up further travel on the river here and was trying to tell a searching plane that no help was needed. The newspaper was dated May 26, 1961.

We left the river about 1:25 p.m. and reached the spring in upper Grapevine about 4:30 p.m. I elected to rest here and finish all my food. It took almost an hour to go to the base of the cliff and 25 minutes to do the climb up the cliff. It got dark while we were in the middle of the Supai, and I had a rough time in the Coconino by moonlight. We must have missed the best way out because it was 8:30 p.m. when we reached the trail and after nine when we got to the car. I must have been weakened by lack of food.

#### South (Paradise) Canyon

[May 27, 1962 to May 28, 1962]

I tried again to meet Bob Vaughn at Cliff Dweller's but he was up on the platform with his cattle.

Randy Morgenson and I turned off the main Buffalo Ranch Road at the right place, just south of Kane Ranch. When we came to a gate through a fence, I made the same wrong choice that I made last year, the road along the south of the fence going east instead of the road to the south or a bit west of south. Last year when I had come back along the road from the rim with Allyn, I hadn't realized that we had passed a tank different from the one where we had slept. This time I got everything straight even though it took a lot of driving across country to do it.

When we had passed the wrong buffalo tank, we headed southeast until we came to a road. My first project was to inspect the rim at the cove opposite Tiger Wash where Pat had suggested a good climber might get down through the Kaibab, Toroweap, and Coconino Formations. However, we went clear past and parked on a rise that looks down on the stock tank shown on the quad map out toward North Canyon Point. We walked southeast to the rim and looked down on Stanton's Marble Pier, upstream a mile from Cave Springs. We returned to the car and this time we drove the cars close to the rim after getting south of the fence. After one or two more approaches, I was reasonably sure we had found the right cove. There were some promising looking cracks in the Kaibab wall, but we couldn't get down the one place we really looked at. The Coconino didn't look a bit good. It seemed that one could get down the Toroweap, but our best observation made us think that there was at least 50 feet of straight Coconino wall below. After some more cross country touring in low gear, we reached the road that parallels the rim of Bedrock Canyon and camped beside the car on the road. It was cold enough for my down bag to feel good. A little shower woke Randy in the morning.

Again we came out on the rim too far northeast and had to back away from the rim to get the car into position for a descent at the fault leading down to the river at Mile 30.4 where Allyn and I found a way to the top of the Supai last year. We did this without a hitch except that the way I went through the bottom of the Toroweap seemed harder than it had before. It was in an angle where perhaps last year we went down at the end of a projection. The walk around to the west at the top of the Supai was slow and precarious with a lot of loose stuff and many small ravines to get past. My choice for a route was mostly near the very bottom of the Hermit Shale. When we had rounded the corner and were leaving the river, we could see that the Coconino and Toroweap were well covered by talus a little to the east of the point

that projects above the junction of Bedrock with South (Paradise) Canyon. It didn't seem impossible to get through the Kaibab also, a little farther to the east. When we were passing it, I resolved to try this shortcut on the way out, but when we were actually returning, I reversed myself because I thought an extra hour with certainty was better than the gamble. After we were out, I went over and inspected the descent. I'm sure that it is all right and in fact it may be easier than the one we have been using. It would shorten the trip to the mouth of South by an hour and a half.

My observation of the way down to the bed of Bedrock last year was not absolutely sure as part of the way was obscured by a projection, but I was gratified to learn that it is merely a good scramble with no handholds needed. The only discomfort I experienced on this two day trip was that the soles of my feet got a little sore. Both days were unseasonably cool and at supper and after, I was wishing that I had brought my jacket. We had more than half of our gallon and a half of Flagstaff water left when we reached the river.

The main object of the trip was to learn how Stanton had left the river. We had said that they followed the top of the Redwall (Marble) around into Paradise Canyon. I was also on the watch for a 12 foot ledge of mineral deposit that he had observed between the marble and the sandstone. I didn't see this, but when we were about 300 yards back from the mouth of the canyon, I noticed sunshine coming through a sizable hole near the top of the Redwall on the south side. It was another keyhole formation, a cave that had fallen in. The pit was big enough to see from the plateau above but one would really have to be watching closely to see it from a plane. The size of the opening in the canyon wall was smaller than the one near the Shinumo Trail but larger than the one in Beaver Canyon.

Randy was getting pretty tired about the time we came out above the river, and I thought I would encourage him by telling him we would reach a campsite by the river within 45 minutes if we were lucky and one and a half hours if we weren't. I had picked a notch in the Redwall that shows on the map as the one Stanton had used. However, I was pleasantly surprised to find a good break leading down to the river only about 200 yards upstream from the mouth of Paradise. At one place for about ten feet, both hands were needed but the rest was a walk down.

While Randy bathed in the river and sunned himself with my Time magazine to read, I went back to the top of the Redwall and continued upriver. I satisfied myself that there was nowhere else to go down to the water before you come to Mile 30.4, the place Allyn and I were trying to reach last year. This access to the river is a major obstacle to continue travel along the top of the Redwall, but I could see that I could go up to the base of the higher cliff and still continue. In fact, from what I have seen, one could follow the top of the Redwall indefinitely. It would be slow, about a mile an hour, but quite possible to go all the way to Cave Springs. I know I didn't have time for this so I returned for a rest with Randy. We had our suppers in a slight drizzle. We thought it would be worth the effort to spend the night in Stanton's Cave. It was ideal except that there were some mice running around and nipping at my crackers.

There are three or four Indian ruins up on the terrace about 30 feet above the river near where you come down through the break from the top of the Redwall. There was very little pottery around, and one wonders what brought people into this small area with practically no farming possibilities.

We returned to the car by retracing our route. Perhaps I should mention the drop in the bed of South Canyon just after the junction with Bedrock. You go along a ledge to the right for several hundred yards and descend where a short side canyon enters south from that side.

Topocoba Trail  
[May 30, 1962]

Jay Hunt was taking seven year old Peter Marshall back to his parents after a year in school at Flagstaff. For some time he and I had been wanting to learn about the way up from Supai village over the travertine and then up near Manakacha Point, so he invited me to go along. We left Flagstaff about 4:50 a.m. and filled the tank again at the park service station just after it opened. The road out to Topocoba Hilltop was worse than I remembered it. It required low-low gear for the pickup in quite a few places, especially near the end. On the return, the wheels often spun rocks out of the way instead of gripping on the steep grades.

We got started down the trail about 8:30 a.m. with Pete in the lead. He set us a fast pace, but occasionally Jay would give him a short ride on his shoulders, especially towards the end. He took the walk in good spirits even though his parents had taken the view that the short trail to Hualapai Hilltop was too much for him. The Supai Indians are not enthusiastic about walking. I noted one seep with water still in it, but another one right in the middle of the wash that normally kept water in some tandem bathtubs apparently was dry. So were the potholes just upstream from Rattlesnake Canyon. The wet late winter has not carried over and travel along the Esplanade would not be any more favorable than previously.

I definitely wanted to look for the pictographs just inside the mouth of the canyon below Rattlesnake. Of course this is actually the main canyon and Lee Canyon is the tributary, but from the straight course of Lee Canyon one would not think this. I had no difficulty locating them, about 100 feet in from Lee Canyon on the east wall of Havasu. There was room enough behind the trees, so they were not hidden. The most obvious ones were geometrical designs of circles split into quadrants. In charcoal on the same wall was a statement that these pictures were over 200 years old. It was signed and dated, August 15, 1900, but I didn't note the author's name.

After I had taken a couple pictures here, I was about to leave when I glanced at the wall a few feet farther south. Here were the controversial ibex pictures that Hubbard of the Doheny expedition liked so well. They are certainly very interesting.

The day was cool and pleasant with the birds singing and the willows in full bloom. I'll have to ask someone what this willow is called, the one with the large purple blossoms. I kept a fairly good watch for the giant mummy or petrified Indian on the ledge, but I was unable to locate it.

Jay showed me the big triangular rock in the middle of the canyon about three miles from the springs that he likes to climb. He went up it again and I found that I could do it as easily even though my shoes didn't seem as well designed for that sort of thing.

After we had taken Pete home, we talked to the men who were taking sweat baths. They told us that the Manakacha Point route requires two ropes and that they are now so old that they should not be trusted.

They told us how to find the route up the travertine. It's the one to the south as I had supposed, but you go up about where the travertine meets the wall on the northeast side of the deposit.

Our walk back up the Lee Canyon Trail was uneventful except that Hunt was successful in catching horses two different times. He fastened his shirt around their noses for a bridle and was able to get the horses to take him bareback up the trail a little faster than I could walk. He rode in all for 25 minutes.

Fifth ascent of Wotan's Throne  
[June 1, 1962 to June 2, 1962]

Allyn Cureton was waiting for me when I came into the North Rim Headquarters. We had lunch at the campground and then I drove out to the parking area 1.4 miles north of the end of the road at Cape Royal. Last summer the two of us had found our way almost to the bottom of the Coconino in the ravine right next to the bridge between Cape Royal and Wotan, and I had been back later to look over the ravines that are below the parking where we are now stopped. I now think that less rope climbing would be necessary by the northern route, and also that less time would be required to get down to the place where the rope would be used. I disagreed with Clubb in the opinion that at this northern route no rope would be needed. (Clubb said that no rope is necessary at one of these places and it turns out he was correct for the southwest one.)

It was 2:15 p.m. when we first started down. I was carrying 10 pounds of rope 150 feet long and one and a half gallons of water as well as the usual sleeping bag and food for two days. Allyn had a heavier pack and five quarts of water. Right away I showed how easy it is to forget details. I couldn't remember which of the breaks between the small promontories connecting the rim with the outlying Indian ruin butte one should use. You have to go down about 150 feet to find which are dead ends. We missed twice and it was slow to get our heavy loads back up to the rim. We even went back to the car for a good drink before we set out again about 3:15 p.m. This time we were at the right place, about the closest break to the parking lot. When we came to the car wreck at the top of the Coconino, we were sure we were in the right ravine. Last year I had also checked two other ravines, one to the east and one to the west. The one to the west goes just as easily as the center one, but there are bad spots near the top of the other.

We soon came to the crack in the center of the ravine that I remembered from last year, where the packs scraped against the walls. Right near the bottom we came to some chock blocks that seemed to me to stop us. We tied the rope above this place, but when I went out to the side and looked down, I could see that the rope would not reach bottom. Allyn found that he could climb up at the east side of one of these blocks, and I found that I could too. In fact, I'm quite sure I did this last year. There was a convenient small tree below, and now the rope had 30 feet to spare. Allyn brought out his carabineers and rappel sling and we went down in style. The operation of coming down from the car to the Hermit Shale had required one and a quarter hours, not bad compared to one whole day for the Wood party in 1937. Of course they did their route finding as they went along, but we wasted 15 minutes tying the rope too high up at first.

It was now 4:30 p.m. and we had ahead of us the part of the trip that Clubb had called about the most miserable bushwhacking he had ever done. Finding the best way through the brush patches and testing

footholds on shale is time consuming. One who has been over terraces like this knows that you often have to go up or down to bypass some large rocks or some especially difficult place in a ravine, but if you don't have to stop for rest and are not always trying to settle which is the easiest route (but are willing to proceed without wasting time), one can advance steadily. It took us a bit over an hour and a half to get below Angel's Window and about two hours to reach the bottom of the chute that Clubb recommends. It was nearing 7:30 p.m. when we arrived at the talus leading to the top of the Coconino on Wotan. We had to decide whether to try for the top that night or even the bench above the Coconino, or camp at the base. It was not altogether clear from below whether we would be able to find the way among the ledges and slabs of the Coconino at the top of the talus, although I was rather sure what was the best route. Just to make sure, we went past this place and checked a couple of cracks that might be talus filled ravines to the top. They were no good, but we found an excellent level sandy place below an overhang while we were doing this and decided to make our camp there. The night was too warm for my down bag and there were a few mosquitoes. The result was that I slept only a couple hours.

We got a fairly early start, a bit before six and arrived on top by 8:30 a.m. As we had thought, the Coconino gave us some problems. We left our packs at the top of the talus, or rather Allyn took his up with only some food and his camera in it. I was carrying two quarts of water with my camera in my pocket. In general the plan for getting through the Coconino is to leave the top of the talus and follow ledges left or right until a way appears where we could climb up. There are plenty of places where you want to be careful, but there are no exposures above a sheer precipice as on Shiva Temple. At one place we had to look carefully for any way up, but when we found it, the way was both easy and safe, up a crack with plenty of steps. Rather near the top of the sandstone, I saw a good bivouac spot under an overhang. Two parallel lines of building stones showed that I had been preceded in this observation. It appeared to be a rock shelter built by the prehistorics.

The low cliff above the sandstone is unbroken as far as you can see to the south. Until you get right up to the top of the Coconino, it's not clear how you could proceed, but right there in front of you is a fine gate leading around to the northwest. You turn left and go along this bench, but you can tell that before long it will pinch off into a sheer cliff. Just before this happens, there's a broken place that allows you to scramble directly up for 25 feet to the main bench that is unbroken clear around the Throne. This is well forested but we saw no signs of deer at this level except one foot print in the dust just below the upper cliff and it wasn't at all surely recognizable. I did see several prints that might have been made by a coyote. There were plenty of signs of rodents and we saw a number of lizards. Walking along the steep slope through the woods was difficult so to expedient the walk, we followed the very base of the main cliff most of the way west. Clubb had told me that there are three ravines with considerable vegetation in them around on the northwest side, as I had seen also from Cape Royal. There was no doubt about passing by the first one. Impassable ledges near the bottom stopped us from considering it. There were two projecting rock ridges, but I wouldn't have thought that either one invited climbing as mentioned in the Andrews article on the first ascent. In fact, the description of their going up a projecting ridge more easily than they had come down from the Cape Royal rim using ropes is the part of their account that looks extremely suspect. The way we went up was in the widest of the forested bays on the northwest side. It was no more than steep walking in the dirt until we reached the very top where there is a 12 foot cliff. After a little inspection, we found some holds and went up quite easily. I marked the place with a stick put upright in a bush, and then we went along the rim to the southwest about 50 yards to a place that

appeared even safer for the descent. It did look better, and I wasn't too surprised to find a substantial cairn here, probably built by Clubb.

Coming the long route from the parking area 1.4 miles north of Cape Royal, it had taken us an seven and three-fourths hours to go from the car to the top. If we came the short way, one could avoid carrying a bedroll and do it in one good day. With only one meal in route, not so much water would need to be carried either. I'm rather eager to go again.

We were on top from 8:30 until 10:15 a.m. Andrews mentioned finding a mescal pit on top, and Clubb has a picture of a very poorly preserved rock shelter. In fact, some scientific person to whom he showed the picture wouldn't consider it as of human construction. I also came across one that might be controversial, but I found and photographed another which is about as clear as any prehistoric structure can be which is not protected from the elements, walls still about 15 inches high in a perfect rectangle with the door very clearly shown. The occupants might have lived here for protection or perhaps they considered a trip to the top of Wotan's a status symbol.

Just as we were getting going Saturday morning, a large stone slipped under me and threw me downhill. I bruised my hip and elbow which took some of my strength, but we were back to the car right after six. I had Prusiked up the rope.