

## Harvey Butchart's Hiking Log

### DETAILED HIKING LOGS (March 24, 1959 - July 30, 1960)

Loop trip from Topocoba Hilltop north on the Esplanade and then on to Supai  
[March 24, 1959 to March 29, 1959]

Allyn Cureton and I slept next to the car parked in front of a cabin near the junction of the Topocoba road and the one going north on the mesa.

On Sunday we made good time with our rather heavy loads along the road near the east edge of the mesa. We carried almost one and a half gallons of water apiece so that we could return to the car if there was no water down on the Esplanade after this very dry spring. I watched the map carefully to try to get down off the rim in the same break between Gatagama and Hamidrik Points where we had come up two years ago. When I thought that we had reached the right draw to go west, we noticed that we could just get a glimpse of Great Thumb Point. But when we came to the fall in the bottom of the Kaibab, it didn't look like the right place at all. As I had remembered it, there should have been a longer approach below the fall after you turn into the ravine on your way up. However, when we scouted about 20 yards to the east, we found the place along a ledge where we had come up. It still didn't look like a good place to be carrying a pack, so I used the rope and let the packs down to Allyn. While I was doing this, I dislodged a rock which gave his finger a rather nasty gash. We ate lunch in some fine shade just after we got past this tough spot.

We noticed something we hadn't seen before; a way to get down from the rim into Fossil Bay. We didn't try it, but it looked sure fire. The route is south of the place where one would say the wash starts. This will be useful when I want to go along the Esplanade from Apache Point to the spring above 140 Mile Canyon. I could break the trip there and proceed later after getting more water.

The seep was still running in the main fork of the east arm of Olo Canyon, so we dropped our packs about 3:00 p.m. After a short rest, we started down canyon to see whether we could reach the bottom of the main part of Olo. There were several fine rain pools in the bedrock and we even took a bath in one on the return. A big drop stopped us about a quarter of a mile before we got to the main branch. We made our way along a bench on the south side until we could look up and down Olo Canyon. If we had been able to get down to the bottom we could have followed along the top of the Redwall to the Sinyala Fault and we could probably have followed this up and down right over to Mount Sinyala.

On Monday we got a fairly early start to try to find Reilly's Keyhole Arch. The walking was easy along the rims of small canyon tributaries of Olo, but we found later that we would have saved much walking by staying closer to the Hermit Shale slope until we could head this series. A short look at the fault canyon into 140 Mile showed us that it was well broken down and the descent would be easy. Furthermore, there is just about the best spring in this entire area near the bottom of the Supai here. There was actually a small flow of water from one pool into another among a grove of cottonwood trees. It took only about 25 minutes to get from the Esplanade to the top of the Redwall. If anyone really thought that the Redwall should be broken too, it was a mistake. There is a peculiar pit where two tributary canyons meet. On the north part of the partition separating this pit from the sheer precipice beyond, there's a

depression which would appear to be the extension of the fault. Below this groove, entering the pit near its bottom about 100 feet down, is a cave which we at first assumed was a tunnel and would show an opening on the face of the wall to the east. However, there was no sign of this when we looked. Water going down into the pit actually flows out through Keyhole Arch a little south of this cave. One can stand on the west rim of the pit and look down through the arch to the bottom of the canyon beyond. It impresses me as being as interesting as either Goldwater's or Hartman's. I would estimate it's being about 100 feet high with a maximum width of about 40 feet. In an inconspicuous place a little south, near the outer end of the arch, Allyn noticed a small rock pile; more like a little wall or bridge built of seven or eight stones. We wondered who could have made it.

After lunch at the campsite, we made good time around the heads of the branches of Olo although we first went too far to the west and had to back up towards our escape route east of Hamidrik Point to get past the first canyon. When we were rounding Chikapanagi Point, we noticed that the fault canyon into Matkatamiba seemed to be just as feasible as the extension into 140 Mile Canyon. When we reached the place where McKee had reported water about halfway from Chikapanagi to Panameta Point, we were gratified to see two fine big cottonwoods growing just at the right place. However, when we got to them, there was not a drop of water on the surface. We had seen a seep in the small tributary to the north just before we reached this arm, but it appeared that we could not get down to it, so we spent our time going down the canyon we were in. Before too long, we came to a drip which we thought would be adequate if we used all the pans and got up in the night to collect the water into our bigger containers. In fact, when we left in the morning, we threw some of the water away.

We now had the idea that the fault canyons would make a fine shortcut over to Sinyala, but again we couldn't get very far down the canyon we were in until we came to a complete barrier. Just a few yards below our campsite, Allyn had to go back and look for his sweatshirt. While he was doing this, he located a better seep than the one where we had camped. It's near the junction of our canyon and the smaller tributary from the north. One cannot go up this arm because of cliffs. We followed a bench for a short way and then went out by way of an arm that led up to the ridge joining Panameta with Mount Akaba. We did not get around to the waterhole McKee indicated as being southwest of Mount Akaba. However, there was no sign of the two waterholes he mentioned as being in the Hermit Shale and just below it a little south of Paya Point. We checked down this canyon a short way but were soon stopped by a cliff. We did pick up some rainwater about where we ate lunch.

After lunch, the sky got quite cloudy and we had a few drops of rain. It was easy to get down to the bottom of the long arm of Matkatamiba which comes from the bay to the east. There were several good rain pools before we reached the main branch of Matkatamiba, and here were the first fresh signs of horses that we had seen. In fact, we saw the print of a man's boot also. When we reached Supai, we learned that a couple of young men had come over this way two weeks earlier to look for horses, but they had found only one. We made camp quite early at another good rainpool a little ways down the main arm of the canyon. Allyn scouted ahead while I took a bath and did a little laundry. He reported that only a half a mile or so downstream, the way was blocked. (I later found out that it does go clear to the river.)

On this trip, we noticed an almost sure way to climb from the Esplanade to the rim in the bay north of Paya Point.

Near the end of the Apache Trail, Allyn looked up and saw a ladder against the cliff. We inquired later and learned that someone had come down using this ladder all the way from the top of the plateau where we had first come and then had retreated.

When we left the camp by the rainpool in Matkatamiba, we counted on making a dry camp that night somewhere short of Supai, so we carried the most water of the entire trip, a gallon and a half apiece. We had to back up a bit before we could climb out of the canyon, but then we soon found a faint horse trail which saved us quite a bit of time the rest of the way to Supai. We got around between Mount Sinyala and the rim before noon. Rather than get a day ahead of schedule by going on in to Supai that evening, I elected to see the spring east of Sinyala. There was no trail going over there as we at first thought, and we wasted some time trying to follow something that turned out to be the regular trail leading towards Supai itself. Again it wasn't difficult for a man on foot to get to the bottom of the fault canyon. This time we were not at the base of the sandstone, but we found the spring, three shallow pools rather full of dead leaves and little bugs. Since we now had no worries about being short of water we decided to go down canyon and see how the Redwall looked there. After following it a short way, we came to an obstacle. We could have gotten by this place by going first up and then coming down a little farther, but we felt pretty sure that we would be stopped cold later. So as to assure ourselves of success, we hit upon going along the top of the Redwall on the west rim of Sinyala Canyon out to look down on the Colorado River. Here we had the benefit of a well defined burro trail. In fact, we saw three burros as we started along here. The Indians who had been over to Matkatamiba two weeks before had seen three bighorn sheep here. One interesting experience along here was to hear a shower of rocks from the ledges high up on the wall and to watch a dust devil slapping the cliff as if it were something at least as tangible as a tarpaulin.

The view of the river was outstanding. In fact we seemed to be standing right above it. Allyn gave me chills by insisting that there was a way to climb down the rocks as they were broken up. On the way back, we got buzzed by a small rattlesnake.

We were both pretty tired when we reached our packs after this detour of almost four hours, but after a short rest, we went on for an hour and camped at a rather windy, exposed site.

On Thursday morning, we were very glad to have the horse trail to guide us through the intricacies of the head of the north arm of Carbonate Canyon. We reached the head of the canyon leading down to the Apache Trail into Supai in good time, about 11:00 a.m. Here we made the mistake of following the horse trail along the top of the plateau to the west. We left the horse tracks rather soon, but we began finding cairns leading us on. When we got near the end and could look down on the village, we couldn't see a good way down, so we went clear back where we had come from at the head of the canyon. After eating, we started down the bottom of the wash and about 2:15 pm we were stuck again as we were looking down to the schoolhouse and chapel. We had to retrace our steps a second time until we could climb up to the horse trail on the north side of the wash where it goes about halfway up the entire cliff. Finally, at 3:25 p.m. we made it to the bottom of the valley and soon took a good soak in the cool water. We dropped our packs at a slightly wild spot and went down to see the falls without them. By this time, I could see that I was weaker than when we had started because I seemed to tire pretty easily. We reached the car on Friday about 2:45 p.m.

Sipapu, Marston Boat Party, and Disney Crew  
[June 9, 1959 to June 12, 1959]

I left the car at Lipan Point and made it to the river in less than four hours. I didn't try to go along below the cliff at the bend and rather botched the process of circling around above. I was already feeling the heat pretty badly, a fast pulse even without much climbing, and I had to find even poor shade and sit down often while I was going up the Palisades Creek area. In the last wash before one leaves the river to go up along the Beamer Trail, I took a long rest and several dunkings in the river to cool off. I also cooked my soup and ate supper here, rather early for I got going again about 5:20 p.m. I stopped for the night a little before 8:00 p.m. in a wash which I didn't recognize at the time, but it was the one leading down to the Hopi Salt source.

There was so little water in my canteen that I knew I should go on to the Little Colorado River before I ate breakfast. In fact I started on about 4:30 a.m. and got there about two hours later. On two of the former trips to the Little Colorado River, I had missed the trail at the last quarter mile and had followed the ledges just above the water, not too bad a method along here, but this time I repeated last year's process of going up from the mouth of this wash again and finding the trail which goes on and lands one above the sand hills leading down to the wash just east of the mouth of the Little Colorado River. This time I noticed a low wall made of rocks on the north slope of the wash where the trail goes down near the Colorado River and then back up again. It might have been put there with the idea of stopping a grazing horse. After a leisurely breakfast, I headed up the Little Colorado River, which was running only with spring water at the time. I took Eiseman's suggestion and forded the stream every time the other side looked like it would provide easier walking. Just above the sand slope on the north side at a place I can no longer pinpoint because I missed it when I was coming back, I noted a shallow cave in some conglomerate or breccia. The bottom wasn't level enough for a good bed, but there was a bit of charcoal and smoke stains on the ceiling. I couldn't decide whether this occupancy had been ancient or not, but I thought a bit of the ceiling had fallen since the smoke had stained it.

Just east of the second side canyon coming in from the north there is an alcove where a spring has deposited travertine or salt. The trickle of water didn't seem any saltier than the Blue Spring water, and I didn't taste the white deposits. When I had finished the detour up here and taken pictures, I noticed it was 10:00 a.m. meaning that I had been coming upstream about an hour and 45 minutes.

The Sipapu Spring was near the end of the track to the south and then on to the north. Its brown will contrast well with the green mesquite behind it, showing the advantage of color photography. This time I noticed that there is quite a flow of gas, a steady bubbling which keeps the water humped up in a place wider than a man's palm. That the spring flows more gas than water is clear when you notice the tiny trickle of water over the east rim. The stick is still cemented in the mineral of the rim. I noticed that the pool is an oval about nine by eleven feet, and that the top of the whole mound must be about three times the longer dimension of the pool. On the river side of the mound, I believe it must be about 25 feet tall. Something that struck me as odd is an ordinary galvanized iron laundry tub sitting upside down with a rock on the bottom on the ground just north of the cone. There was also a rock pile nearby. I was keeping

fairly cool by getting my shirt and me wet in the stream quite often, but when I had taken the picture of the Sipapu, I saw that it would be at least noon before I reached the mouth of Salt Trail Canyon, and then if I went on up to the cross-over point above the Redwall, it would be quite late by the time I got back to my pack. I would have done this anyway, but I thought it would be interesting to be at the mouth of the Little Colorado River when the Marston party arrived, around four as I thought. So I turned back with the thought that sometime I would drive to the head of Salt Trail Canyon and come from the car down to the landmarks along the trail.

When I got back near the mouth of the Little Colorado River, I noted something that I hadn't seen on the way up, fresh tracks of several people in the sand. I thought this meant that Dock had already arrived, but I was a bit upset when I found no one near the mouth. I decided that they had taken a quick look and then had gone on down to the place where Dock said he liked to camp, just up from the mouth of Lava Canyon on the right bank, so I decided to join him there. The Beamer Trail would be mighty hot at that time of day, about 4:00 a.m. so after some misgivings, I decided to go by air mattress. This took a while to prepare for and I goofed in going down the blue water paddling. When I saw how rough and swift the water was over the rock bar, I climbed out on the bank and then had a tiresome fight with the willow and tamarisk before I could proceed. I should have just gone ahead in the swift water. I did take off finally, but below the island I didn't get far enough to the right, and before I knew it, I was in a back eddy. I knew this wasn't the only one, and I was so disgusted that I paddled over and got out at the place where the Beamer Trail comes down near the river. This time I started off with a full gallon of water prepared to make a dry camp fairly far along towards Palisades Creek. I stopped shortly after 7:30 pm where I could look across to the mouth of Carbonate Creek. On this trip I was fully aware of the identity of the Hopi descent ravine. The big rock which formed an island last year a bit below this place over near the right bank was joined to the mainland this time. Well before the time that I stopped for the night, I saw the power boats go by. I waved madly, but of course they had eyes only for the water. It was a pretty sight to see such a fleet of graceful craft.

I ate my breakfast where I slept and was on my way again by 6:00 a.m. My choice of a double cotton blanket fortified by long Johns was just about right for the temperature at this time of year. There were no insects after dark, but last night it still took me a long time to get to sleep.

When I had been walking only a short distance, I saw that I was right in my guess. There were seven boats lined up on the short beach. While I was filling my canteen and fooling around across the river and a bit upstream, they saw me and someone came over for me in a boat. I knew that if I crossed on my mattress I would have to go as far up the bank as I could, and then I might not keep clear of the rapids. Marston had brought a group of people from Disney Productions down the Colorado River to film the movie *Ten Who Dared*, which was about Powell's historic first boat trip through the Colorado River Gorge.

Thursday was spent in going back up to the Little Colorado Lagoon, this time the easy way, by boat. There were a couple of places along here where even the 70 horse power motors had a hard time taking the boats through. A couple of boats had to make more than one approach before they got over the hump, but finally all of them made it. The Walt Disney crew got busy with the Emma Dean and Kitty Clyde's Sister. We were in the lagoon swimming and fooling around when someone had the misfortune to take

Kitty Clyde's Sister too close to the bar of rocks where the river flows around the island. It caught with its rear up on a rock and the prow down. The water poured through the motor well and soon nearly filled the boat. They got a rope to shore and transferred the duffel to the island. Finally after several hours of work, they blocked off the motor well and stopped the river from flowing through. Then after considerable bailing, they were able to float it free and drag it up on the sand. The bottom was pretty badly scraped with the fiberglass coating torn some and the keel scuffed, but they propped it up on its side and were able to repair everything before nightfall.

At the place where Boyd and I were caught in the big eddy, the water was boiling and forming temporary whirlpools. I would have had some rough riding if I had come through there with my pack on my back. It gave me something to think about.

At the blue lagoon, I retrieved the crackers, dates, and cheese that I had discarded the day before, and they were very welcome because the Marston party hadn't put the lunches in the boats as they had planned. I was able to share some of my stuff with them.

We camped in the same place Thursday night. Before supper, I was shown the mining shaft with the pack saddle hanging up, which was a little way up the igneous rock just north of the main growth of mesquite. I also went west through the mesquite until I could get behind a small peak of dark rock. An old trail goes up here and before I was through, I had climbed as high as the base of the Redwall across the river and was looking out towards the rim at Cape Final and points north. On the way down, I came to another mining shaft which was also too deep to explore without a light. Either of these would make a fine camp in the winter. I noted a claim marker clear up on the scree above the long climb up the ravine.

On Friday morning, there were quite a few things to do to get organized for more picture taking and packing to get off. I had plenty of time to experiment with floating through the rapids. The water was fast and the waves, especially at the end of the tongue, had a way of coming to a peak which were about six feet above the trough, but the mattress carried me up the steep side easily, and only the small crest would slap me in the face. I made two runs and thought it was as much fun as skiing. Of course there is less to learn, just get out far enough so you won't be hitting any rocks on the banks and turn the mattress crosswise to your body. The second trip down, I went almost to the middle to catch the biggest waves and where I landed on the right bank, I had to use a back eddy to get back upstream without having to climb high above the bank.

When the party finally got away from the campsite, we stopped below the rapid on the left bank and took pictures of other boats coming through. There was quite a bit of delay in getting the Powell boat, Maid of the Canyon, ready and I got impatient. I got on the mattress again and decided to see how easy it would be to cross the river. It wasn't a bit easy, and I was far downstream when I landed. I walked up as far as I could with ease and then started to return. This was still harder, and even when I was lying lengthwise on the mattress, I couldn't seem to shorten the gap to the other shore. My arms wore out and I finally had to use my feet with a scissors kick. Finally, I got into an eddy and landed, but I had not given anyone my plan of action and I was almost left stranded when the boats took off to go down to Tanner Creek. I guess I could have followed them down by water rather quickly, but by that time I had about enough water. I concluded that at 30,000 cfs or more, a person on an air mattress had better not count on landing at will.

The trip back up the Tanner Trail was done without undue strain in a little over six hours. Almost the whole afternoon was cloudy which made it quite a bit easier. I did happen to see a couple of claim markers I hadn't noticed before. I got home about 9:00 p.m. to find Roma mad as hops that she had turned down two fine invitations to bridge parties for Saturday night.

P.S. There were some good size fish in the Little Colorado, the first I had noticed. Up near the Sipapu, I saw one school of about 20 ranging from a foot to 18 inches long. There were some more down in the lagoon at the mouth. One rather small one of about eight inches was a catfish, but the rest were something else.

The people I remember from the Marston party: Otis Marston, Rod Sanderson, Larry Sanderson, Bill Beers, Bob Malotte, Buzz Belknap, Ballard Atherton, John E. Doerr (the NPS chief naturalist), William Clawson (a petroleum geologist), Al Nickerson (former Harvard crewman).

\*Disney Studio Men: Russ Haverick, Les Gear (radio man), and a number of Forcier.

Deva Temple

[July 17, 1959 to July 18, 1959]

Friday evening I slept beside the North Kaibab Trail 2.2 miles north of Phantom Ranch. I had visited with Dan Davis until I thought the bottom would be tolerably cool and had reached Bright Angel Campground about 7:30 p.m. After talking to some hikers there and getting my supper over, I walked on but spent some more time talking to George Shake, his brother, and the new manager of Phantom Ranch, Windsor, until about 9:45 p.m. The moon was bright, so I walked until 10:30 a.m. After a cool bath in the creek, I thought I would be all ready for a sound sleep even if it would be a short one. However, for some reason - I could have been excited about the next day - I slept only for two short naps all night. I was up and on the trail by 4:45 a.m. and ate my meal of crackers and raisins as I walked.

It was a little before seven when I filled my gallon can and the one-third gallon canteen to leave the trail. From below, the Redwall didn't look very good but I could get on the shelf formed by the bottom fifth. The place where I left the trail is about a quarter mile north of Ribbon Falls. The access to the shelf is at the farthest west projection of this Redwall promontory. I could see a ravine around on the south side of the promontory which just might be a way up, but I knew I had to go clear to it before I would be sure.

There was a faint deer trail along this lower shelf, so I was encouraged. The ravine was even easier than I had thought it would be. Most of the way up, hands on the rocks were unnecessary. Beforehand, I had expected the Supai rocks to be easier than the Redwall, but this was not so here. I followed a deer trail around the bay to the north and then went up along the rocky ravine that slopes up to the south. The general procedure was to go as high as one could in a ravine and then follow a ledge to the south and look for a break in the immediate wall. There were three places where I had to use cracks and toeholds to go a short way almost straight up. I marked these with rock piles or by putting a rock into the middle of a century plant, but on the way down I missed one of these signs. As a matter of fact, I had found an easier way. If one explored this slope many times, he could probably arrive at a reasonably easy way up. There

were deer tracks at all levels but I feel pretty sure they didn't get through the cliffs at the same place I did, at least not the way I went up. The chief hazard was not the feeling of exposure above sheer cliffs but rather the poor footing on the steep shale slopes that always threatened a slide. If one were ever careless, he could not only take a spill that would scrape the skin, but he might not be able to stop himself from going over a cliff.

After passing about five places which seemed like the only weakness in the successive cliffs, I thought that it would be likely that my luck would give out somewhere. However, on the southwest side of Deva there was a ramp of slide rock from the Coconino above. Everywhere else that I could see, the ascent would have been impossible for my style of scrambling. Then at the very top, along the narrow summit ridge, I noticed what I thought to be the highest point. It was a small block of limestone about 25 feet high with sheer walls. However, it wasn't the highest point. Beyond it was a considerable plateau of the same limestone, but there was a nice ramp up it. The highest part was still farther north and was composed of red soil with a pinyon tree growing on the very highest mound. I built an eight inch rock pile near the pine in the open. There were no signs of any previous ascent, nor were there any deer tracks at the top. There were tracks on the Hermit Shale, and I am sure deer can go to the Summit.

One surprise was how narrow the temple is at the top. I didn't visit the wider southeast end, but from the middle to the north end, the level part on top is only 20 feet wide. One can see how much more difficult it would be to climb Brahma. Maybe the east side would have possibilities. I think that my way up from just north of Ribbon Falls would be easier than the route to the base of Zoroaster. The views of the other towers: Wotan, Brahma, Buddha, and Manu, were really terrific from Deva. There were lots of birds along the way and at the top hummingbirds were perfectly at home zipping by. As I looked down the steep slope where I had to find a way back, I envied them. In fact, I had some misgivings about locating the same breaks in the cliffs I had found from below. I was tempted to make it a real long trip, but surer, by going down into Clear Creek north of Deva, the way I knew for sure. As it turned out, I was temporarily confused a couple times, but I got down without hurrying an hour faster than I went up. On the way back, I saw just about the most perfect swallowtail butterfly I had ever watched. There were quite a few clouds and a several drops of rain. I even had some water to throw out at the end of the trip. It took me ten and a half hours total elapsed time to go from the creek to the top and back.

I walked back to Bright Angel Campground before I started supper at 8:15 p.m. It was one of my longest days on foot. My only regret is that I didn't take any pictures of the route either going up or coming down. I hope the views from the top will show well.

From Pipe Creek past Horn Creek to the North Rim  
[August 20, 1959 to August 23, 1959]

This route was suggested to me by Emery Kolb. He and John Ivens had done it in 1907 after carrying a 100 pound boat down the Bright Angel Trail.

Apparently I had been influenced by the people who cry horror at the mention of an air mattress on the Colorado River, because I didn't push off into the water until I was definitely past Pipe Creek Rapids. I really know that I can bounce right through about anything on the mattress when I ride it crosswise under

my chest. As it was though, I stayed on it lengthwise all the way to Horn Creek Rapids and had difficulty keeping away from only one back eddy. I was interested in studying the south shore especially since I had walked there several times. I noted the sulfide ravine on the north side where I had come down before to cross the river last March. I was wondering whether it would be easy to land above Horn Creek Rapids while keeping far enough away from the bank to stay out of any back eddies. Actually, there was a good factor of safety here and I don't understand what the trouble was for the ranger party unless they couldn't decide which bank to land on. I stayed close to the right side for the last quarter mile.

Again I should have taken to the river without walking as far as I did along the talus. The sand seemed to have changed some and I didn't recognize exactly where we had put our bedrolls last February. The big jutting rock was still the perfect landmark and the river seemed a bit higher than it had been last winter. The rapids were still the most impressive that I have seen on the Colorado River and I got two more pictures.

From the river view, there seemed to be at least two fairly simple walk-ups on the south side at intervals of a few hundred yards below the rapids. I was taken by the big rock island just above the mouth of the first wash on the right below Horn Creek. I should have gone down to the delta of the creek itself, but I thought there might possibly be some barrier as there is at the mouth of Shinumo so I landed at this rock island. The next poor decision was to climb up to the base of the Tapeats quite near the mouth of the creek. I probably would have made better progress staying in the wash. (In March, 1973, I climbed up here from the bed using a rope for my pack.) Then when I got to the base of the Tapeats, after consulting the map, I turned towards Trinity Canyon. After about 20 minutes in this direction, I was stopped cold by an abrupt and absolute end to the ledge. (I later found it was possible using a rope for my pack. When I was going back, instead of trying to work down to the bottom of Trinity which may well be possible, I saw a low, man-made wall which I considered to be a windbreak left by some prospector who spent the night here.

The ledge continued around to the east and north with only some minor ups and downs. When I saw a chance to climb through the Tapeats without going on to the upper end of the short wash, I did this with a little care using both hands. Walking was easy across the flats here and I soon had to decide whether to go down into the arm of Trinity that begins below the middle of Isis Temple or go around it to the right. By this time I realized that water might become a problem before I reached the north rim, so I went down into the arm of Trinity. It was all boulders and sand and had no surface water. My next thought was to look for water in the arm I intended to follow to the top of the Redwall or, failing to find it, I would still have the choice of walking on to the rim in bad shape or going back down Trinity until I came to some. I had seen it from above when I was at the top of the Archean rocks near the river. Neither of these undesirable courses was necessary, however, for there were abundant rain pools in the highest part of the Tapeats Sandstone and even a little higher. It was only 5:00 a.m. but as I was quite tired and didn't know where to expect more water, I stopped for the night. On Friday I was under way by 6:00 a.m. but I didn't reach the top of the Redwall until 8:00 a.m. All of this walking was simple until near the top of the Redwall. Here a 20 foot cliff seemed like a real barrier until one reached it and looked to the left. There was some two-hand climbing here, but it was not bad and I could have gone up an easier place than I did. The best place to climb the Supai seemed to be in the bay on the east side of Shiva Temple rather than farther north. As I reached this draw, I looked down into the ravine through the Redwall, for it is this one

that seemed to connect with the talus below by a ledge that traverses the upper part of the Redwall down into Phantom Canyon. It is still highly doubtful whether this is a feasible route because the ravine at the top seemed bad. I still want to test it however. (Later I found out that it does go.) I didn't look carefully, but I didn't see any rain pools here.

The way up through the Supai was easy scrambling until near the top. I believe I had already turned into the north arm when I gave up at a place over to the right of the wash itself and thought I might be in some real embarrassment, but then I saw that it was all right in the middle at a small fall. Near the very top, there was no chance in the middle nor to the north in the immediate view. Still I could see that the cliff was lower in that direction, so I went along this ledge. Just around the bend, the cliff ended and I was on the top in the Hermit Shale. Emery's water hole was below this highest fall of the Supai. (I later found out that this wasn't Emery's water hole; his is a rainpool on the saddle.) It's on the saddle on high rock. I would guess that it holds more like 20 gallons than 50. I filled my canteen here a little before 10:30 am.

I was not moving as fast with my pack as when I was walking with Allyn back from Shiva, although I was on a deer trail almost all the way to the top. I believe it was something like 1:00 p.m. when I got started away from the point just east of the nose that points towards Shiva Temple. I aimed to cut through the woods to the head of the Transept rather than follow the road. As I had no compass, I mostly walked directly away from the sun whenever it was shining. It seemed to take a long time just to reach the road out to Tiyo Point. I couldn't tell much from the ravines shown on the map because the actual ravines seemed to split into tributaries that I could not identify. Finally it became completely overcast, and when I came to access road W1C, I followed it rather than take a chance on getting lost. For the last hour and a half I was walking in a cold rain. I didn't want to get all my clothes wet, so I wore only my swimming trunks and my shirt. My teeth were chattering before the rain stopped just as I reached the shelter of the shed where they keep the mules. I walked back to the south rim the next day.

#### Original Tanner Trail and Solomon's Temple

[October 3, 1959 to October 4, 1959]

I parked the car at Lipan Point so that a coast would be sure to start it. Anywhere along the rim between Moran Point and Desert View would be satisfactory since I would have to walk that whole stretch either at the beginning or at the end of this trip. It took me about an hour and 20 minutes to reach the point where road E14 leaves the rim to turn east towards Cedar Mountain and I was eating an early lunch when I had reached the present trail along the Supai. The start of the Old Tanner Trail away from the rim is clear for about 100 yards, but the next time I was sure I had it was almost below the Watchtower. It was clear from here to the west arm of Tanner Wash above the Redwall. I checked the possibility of going down the Redwall about where it is tilted up the steepest and a talus below forms a long ramp. An expert could probably chimney climb down but I thought discretion was the better part of valor and went on. Vince Hefti, the Desert View ranger, said that the Redwall can be climbed near the end along the west arm on the south side. There was one rock pile marker that I saw along this whole clear part of the old trail. In the top layers of the Redwall in the main wash was a rather deep pool of water with signs that deer use it for drinking water. It had not been appreciably freshened by the recent rain and I was not tempted to use it for replenishing my quart canteen. I had found enough water on flat rocks so that my canteen was still full.

Along the Supai near the place where the trail descends the Redwall there were some horse tracks. When I got down the Redwall, I went directly down to the bottom of the wash to see where the priest was killed. Evidently Slocum and Veazey had come down into the wash farther upstream, because I did not see their seep. Heftik says there are some seeps up the east arm where the ill-fated party could have gone for water. Where the wash makes the leap straight down through the Tapeats, you have already come through 50 vertical feet, and the bottom of the fall is a good 20 feet above the bottom of the Tapeats, so I suspect the fall is closer to 100 feet high than it is to the 150 feet that some estimated it. It took me seven minutes to backtrack and get to the top of the place where the boys went down. At the bottom they were about four minutes walk and a scramble from the bottom of this fall. It took a bit of climbing up a low fall to reach the bottom of the big one. It was a walk of more than an hour to reach the river.

About a half mile from the river, a set of bighorn horns attached to part of the skull was perched on a small rock in the wash as if someone had started to take it out and had gotten tired of lugging 15 pounds or so.

I crossed the river on my air mattress and determined that the cabin site Dan Davis saw must have been at Basalt Creek delta instead of farther down. On the west side of the sandy area, not more than 100 feet from the shale slope and closer yet to the bank leading down to the river to the west where you'll find what's left of two cabins, probably consisting of wood floors and canvas roofs. One upright post is still standing to support the ridge. There was an elaborate stove built of thin stones and a cast iron laundry stove in the west dwelling. Near the east one there was some sort of grist mill. A base for a forge built of stones was farther east. I noted some small sherds on the sand at Basalt as well as at Unkar. At Unkar in the corresponding region of the sand delta was what seemed to be low walls of an Indian ruin. In one of the standing pools left when the river fell, there were some small fish which were jumping at flies on the water.

For some distance below Unkar, the going along the edge of the river was simple, but then ledges began to appear which tilted up to the west. When I was trying to get down at one place, I decided that it would be much easier if I would drop the pack. I chose a spot where I thought the pack would land without rolling, but after it fell about 15 feet, it bounced and began to roll towards the river. I watched helplessly while it gained speed and finally when I was about sure there was no hope, it hit a big rock, the last obstruction, and stopped. I might have been able to swim for it, because the water next to shore was in a slow backwater. Some of the opening mechanism of the camera was rather badly sprung, but I was able to open it and do a bit of bending to make things right, I hope.

My campsite was at mile 73.7 on the sand. The night was calm with no sand moving, and the views both up and down river were fine with Comanche Point getting the setting sun and Solomon prominent to the west.

I passed the mouth of the wash which heads below Rama and climbed up the west side of the short canyon more directly towards Solomon. I was not sure this was better than going up the bed. There seemed to be some water in the bottom, and the walking might have been easier. At the top I could see a good break in the Tapeats rather directly on the route towards Solomon, and this turned out to be fairly

simple. Solomon looks as if it could be climbed, but the top would give one more to be careful about than Cheops, for instance. I also considered another route over to Asbestos as feasible, along the river until the Bass Limestone starts up. Follow along its top and then the Tapeats can be climbed directly south of Solomon.

The ravine down into Asbestos didn't look promising from above because it was so steep. I wondered whether I had mistaken its identity, but started down anyway. The closest one to the river is right. It leads down with no real difficulty right to the cabin site. Any other ravine would likely lead down into Asbestos above the dead end, dry falls in the cliff far below the Tapeats and Shinumo Quartzite. There was a seep in the right ravine about halfway down, so I knew that if I had to turn back, I wouldn't die of thirst. When I got to the bottom, I checked upstream and found that if one wanted to follow Asbestos higher up than the nearby fall, he would have to go up this same ravine, far above the block and then down again. I later found out this is false and the trail goes up to the west.

This time I looked over the cabin site better than I had before and also renewed my recollection of the polished conglomerate in the bed of Asbestos Wash. The cache of prospector's supplies under the overhang in the creek bed was also interesting. There was the old sleeping bag right where I had seen it before and also a new one folded neatly in the rear of the cave. Four large cans of tomato juice, a can of milk, and a jar of flour were stowed in some cardboard boxes with eating utensils for two lying clean and neatly placed to one side. The trail around to the ferry crossing seemed harder to follow and in worse repair than I had remembered it. I missed it a couple of times. The dark rock was just showing at the place where I crossed. The water was still swift and wavy from a small rapid and there were some boils and swirls. I was spun around once and had to kick fast another time to keep from tipping over. It was easy to go back up along the south bank in the backwater until I could get out without having to climb up away from the edge of the water to go upstream. There was some rainwater in hollows of the Archean rock so I didn't need to fill the canteen with muddy water from the river. The river seemed much redder than it had just the day before.

I forgot to look for Owen's markers on the sand next to the river. I followed the bed of the wash as far up as I could this time. There were a couple of seeps about 45 minutes walk from the river, but they are so slow that one shouldn't count on them in hot weather. I got more water from a rain pocket in the bedrock and then treated it with tablets since I saw some burro manure in the bottom of the pool. Just above the main tributary which comes from the east, there is a sizable waterfall, not straight down, but too steep for walking up. It can be passed to the east without extra effort. There is a good deal of fracturing along here with a number of places to climb out to the east. Before long, you come to another fall in the Tapeats and you have to get around it by climbing up to the east and go back above the fall along a ledge, but almost immediately there was a moderate sized fall but with no way of surmounting it. I had to retreat along the same ledge. When I climbed out of the wash, I could see that this third fall was the last. The burro trail over into Mineral Canyon went by right above this fall. I was soon on a maze of burro trails and one seemed to be the main trail with a horseshoe lost along it. It seemed to be going farther south before ascending since one has to cross quite a ravine to get to the right place in the Redwall for the climb. I gave up this idea of finding Davis' shortcut down the Redwall since I realized that it was doubtful whether I would make the rim in daylight.

The trail along the talus above the Redwall still seemed hard to follow. One can find some of it, but one mustn't try to find it all the time, or he will waste a lot of time. Just keep going here. There is a good deal of the old trail left paralleling the wash coming down the Supai. As you go upstream, you keep to the east of the bottom for perhaps one-fourth of the way. Then it switches to the west for a shorter distance. After that, I thought it followed the bottom for a short way and you find that it has been along the west side all the time. A little higher, the trail switches away from the west for the last time and follows up the middle between two branches.

On the way through the Coconino, I heard a noise and turned just in time to see two suitcase sized chunks of stone come down a 100 feet or so from me and crash near the trail where I had been just a few minutes before.

Apache Point and Royal Arches Creek  
[October 17, 1959 to October 18, 1959]

I parked the car near the park boundary sign on the Hilltop Road and started up the drainage in the direction of Point Quetzal at 10:00 a.m. Getting to the rim took a bit over 30 minutes. I was a bit surprised to see the telephone line going so close to the rim. Apparently the linesmen were not using a compass because it follows the bends in the rim. There is a trail of sorts approximately following the line. After a few false alarms, I finally got out on Apache Point. The trail seems to go from the east across the end of the point before it starts down on the west side. There was part of an old tin can on the ground just before you start down. The only other sign of civilization was a horseshoe on the trail along the Esplanade where it crosses a ravine, the second just north of Point Quetzal. Of course the trail construction itself is in evidence most of the time until it reaches the Esplanade. Along here there are plenty of burros and deer to show you where to go. There's even so much concentrated traffic along here that there are white scratches on the bare rock. The deer and burros seem to be thicker along here than about anywhere else in the park unless it would be along the Tonto Trail west of Bass Canyon.

The trail down the Kaibab and north around the spires below Apache Point was surprisingly well defined. Even in the white clay slope, it seems much clearer than it should if it were only maintained by the deer. The Indians built well. At least I have never heard of anyone like Hance or Bass working on this. The switchbacks down through the Coconino show quite clearly near the top, but lower they are about gone because of rock slides.

It was clear that I would have to keep moving if I hoped to get to the river by nightfall. After two hours along the Esplanade with plenty of the usual frustrating detours, I was about where I thought I should begin looking for a way through the Supai. When I was about directly west of the long tributary from the east, there was a rather promising break through the top layers of the Supai. When I was nearly halfway down, I was gratified to notice rain pools although it had not rained for 16 days. Apparently, the weather has cooled enough now so that evaporation is not so terrific.

At this level, I could see that the major cliffs were still below. Judging from what I could see across on the other side and to the south, there wasn't a chance to get through the lower cliffs. I filled my gallon canteen as well as the quart one and decided to go back up on the Esplanade and continue around to the

Bass Trail and go out there the next day. I resented having to backtrack to get up on the trail at the foot of the Hermit Shale and I went around one more point. There in the canyon heading where the Esplanade Trail swings from southeast to east, the rocks were pretty well broken and I found no real difficulty getting down to Royal Arch Creek.

I remembered the route down through the Redwall along the creekbed fairly well, although I had the impression that some of the places were harder for me this time. It may have been because I had my pack on my back or it may have been because there was more water in pools at the bottoms of steep descents. The water was not very attractive because, in the larger pools at least, it was covered with a sort of green scum. This may have been pollen from the willows which were in bloom. In fact, the air was perfumed by the inconspicuous green flowers, rather odd I thought for the middle of October. By 6:00 p.m. I had just arrived at another large pool and there was a fine flat rock for my air mattress with plenty of wood at hand, so I decided to call it a day. The night was pleasant again, a little warmer than two weeks ago, but really about right for my bag.

On Sunday morning, I left my gear and started down to see whether I could get to the river. Within minutes I came to the spring. I remembered it as having fine pure water, but this time I detected a slight odor, a bit like sulfur. Just a few yards farther is the last tributary from the west, which looks like a promising way to get out on the bench below the Redwall to the west. One might try for a way down to the river in that direction. (I later found out that you could not do it.) I looked over this bench from a distance on the east side of the creek, and it appears to be impossible to get down the cliff to the edge of the river. (I later found out it would be possible but only with a 20 foot rappel - bring a 30 foot rope to tie around a rock on the ledge, this has also been force climbed by experts.) It's too bad that Allyn and I didn't study this point when we were going to Elves Chasm.

Just a few more minutes and I was thrilled to see a very shapely natural bridge spanning the main creek. It's about 60 feet in span and about the same height from the water up to the ceiling. One can go on beyond the bridge for about 100 yards and then you come to the end. There is a sheer cliff of around 150 feet drop. If there were a real flow in the creek, what a fall would be there. I took time exposures since it was still so early. This is the only bridge known in the Grand Canyon which spans a main canyon with a perpetual flow of water in it.

The trip back was uneventful. At the top of the Redwall, the choice of the right canyon was a bit confusing, but when I finally picked the one I thought I had come down, confirmation was forthcoming in the form of footprints. It took me six hours from the top of the Redwall where the tributary comes in from the east to get out on the rim. My navigation from Point Quetzal was weak and I hit the road a mile southeast of the car.

P.S. The narrow canyon which enters Royal Arch Creek from the west just below the spring has an interesting rock supported about four feet above the creekbed. The rock is nearly spherical and looks as if it could have rolled to its present position about 20 feet in front of a small fall and four feet above the bed.

Old Hance Trail, upper Mineral Canyon, and Red Canyon  
[October 24, 1959]

Reider Peterson went with me while the main gang of the hiking club was going down and up the Kaibab Trail. I fumbled a bit in finding the head of the Old Hance Trail. I should park the car at the turn-off from the highway to the head of the Red Canyon Trail. I should remember by this time that the old trail goes down the ravine which is farthest east next to the cliffs in the Kaibab Limestone. We went east just below the Coconino this time and avoided the bad ravine crossings lower down.

We kept to the bottom of the wash through the Redwall, and I found that you can't see the big cave entrance after you've gone past it. I must not have looked up soon enough. There was running water at the spring near which Hance used to have his cabin a bit upstream from the old corral which is still showing with some of the rock walls in fair shape. The flow in the bed through the Tapeats wasn't much. We went down through the Tapeats and climbed out to the east after we came to the granite.

I got confused and told Reider that we were crossing Mineral Canyon before we had come to it. At the higher level, it seemed as though the trail made a big detour. It took over one and a half hours to go from the plateau where we had just come up from the bottom of Hance Canyon to where we were definitely in Red Canyon. It was really surprising how well the burros have formed a trail along the steep slope down to the bed of the wash on the west side of Red Canyon. There was water along here and it seemed to be staying above ground where I had found the bed dry just three weeks before, down below through the Tapeats. There were some rather good pools higher up in the shale below the Redwall.

We followed the bed until we were quite near the head of the canyon and then turned left. There seemed to be a sort of a deer trail where we went up the Redwall. At one place, for about 20 feet, we had to use our hands, but I believe deer could get up it, especially with a spring. Above this place we turned to the north and got to the top of the Redwall between two tower-like promontories. It was only about one-third as far from here to the beginning of the trail in the Supai valley as it would have been if we had come up the official way. I a.m. in favor of using this route from now on, especially as there is water along it. The bypass of the fall at the top of the Tapeats is a chore, but it's not too long.

The trail through the Supai goes first for quite a way on the east side, then about as far on the west. After a short stretch on the east and another on the west, you are sent up the middle into a slope where there is a peculiar forest. Although the rim, 1000 feet higher, is covered with junipers and pinyons, down here there is a fine stand of ponderosa pines. We got to the highway in semi-starving condition and had to walk to the car along the woods road in the dark.

Newspaper Article Written by Harvey Butchart for the Arizona Republic about the Goldwater Natural Bridge

[sometime in late 1959 or early 1960]

"Newly Discovered Natural Bridge"

Editor, The Arizona Republic

For years, the existence of natural bridges in Grand Canyon National Park was unsuspected. Then Senator Goldwater discovered one from the air in Nankoweap Basin which received publicity in Arizona

Highways and Life magazine. Not only was this the first reported, but it had the mysterious habit of disappearing when in shadow. Until Goldwater went in on foot, its existence was discounted by an eminent geologist who could not believe it would have escaped observation by the official mappers. On the other hand, Melvin McCormick of East Flagstaff says that this bridge was well known to his father and his uncle who spent weeks in the area looking for the lost John D. Lee gold mine. This was 50 years before the recent discovery.

The public is probably not aware that other bridges have been subsequently discovered in the park, also from the air. In 1956, Pat Reilly of North Hollywood, California., found a bridge on an aerial photograph he had taken. It is in the Redwall formation at the head of one branch of 140 Mile Canyon north of Great Thumb Mesa, down and across the Colorado from Thunder River. Reilly and his companions on the trip through the Grand Canyon came up from the river and photographed it from below. Allyn Cureton and I were the first to get down to it from above to take pictures. We found a peculiar, man-made rock pile in an inconspicuous place near it. A commercial flier, Hartman, has discovered two more bridges from the air. I found one of his independently while I was verifying the existence of an Indian trail from Lava Creek below Naji Point and Point Atoko up to the rim of the Walhalla Plateau.

Recently I was exploring a creek with an interesting name, Royal Arch, which is west of the Bass Trail and east of Apache Point about 28 miles west of Grand Canyon Village. I followed an old Indian trail down from Apache Point, along the top of the Supai Formation. The number of burros keep the trail well defined. Using a mixture of luck and experience, I managed to get down through the red cliffs to the beginning of the cliff through the Redwall Limestone. At a number of places both hands were needed to descend the steep drops in the creek bed.

On Sunday morning, I continued downstream hoping to reach the Colorado at Elves Chasm. About a half mile from the river, I was stopped cold by a 150 foot cliff, perfectly sheer. If the spring were only bigger, this stream would make the finest fall in Arizona. I would have been keenly disappointed in not getting to the river except for the fact that I had just discovered about 100 yards upstream from the cliff, a beautiful little natural bridge. Using a rope, I measured the span as about 60 feet and I would estimate the height as the same. By this method I measured Goldwater's bridge as having a span of 147 feet. The park rangers did not know of the bridge, but the prospectors who apparently were everywhere in the 1900's must have told the mappers about it. This one, the only bridge in Grand Canyon known to have a permanent stream under it, should therefore be called Royal Arch.

J. H. Butchart  
Flagstaff

To the Colorado River below Horn Creek, then on to Salt and Epsom Creeks  
[March 12, 1960 to March 13, 1960]

This time I walked quite a distance with a group of the college hikers: Donna Lee Haskell, Martha Shidler, Allyn Cureton, Dave Little, Dick Cowdrey, and the sponsor, Lawrence Abler. We took the Tonto Trail from Indian Gardens and headed for Horn Creek. I had been over the Tonto to Hermit Camp from Indian Gardens twice before, the first time going west when I made the loop to Hermit Rest and back to

Indian Gardens in one long day with the help of a car ride for half the distance along the rim road. The second time Boyd Moore and I had come east camping, I believe, at Salt Creek after first visiting the river to see Hermit Rapids. I believe they must have some maintenance work on the Tonto along here because it seemed to be in better shape than I had remembered.

There was a little water running in the east arm of Horn Creek a bit below where the trail crosses it. I checked down this arm to see whether one could get below the Tapeats here. A big block in the bed made a 30 foot drop right where it joins the main stream and this proved impassible. (However, this climb has been done, I think by Sue Varin.) It was a short walk to the main arm with no problems. The walking is without incident until the place where the first granite shows. Here a large chock-block makes one pause. There are really three ways to pass this. First one can go up and around on a brushy slope to the east, or he can hang down and drop off on the east side of the block, or he can find steps in the granite to the west of the block. Between us, we used all three ways. When one is perhaps 400 feet down in the granite, almost even with the angle formed by the Tapeats from the river as it turns back into Horn, you find another barrier, a fall of perhaps 50 feet. To pass this you need to climb up to the west about 150 feet and come down to the north. This is the place in the streambed that we reached in 1958 by coming down from the base of the Tapeats to the east. The rest of the party went down below this fall and ate their lunch where the water is above ground in the granite bed. By this time it was nearly 1:00 pm so I thought it behooved me to be on my way. My first project was to test the ravine which ends about even with the last waves of Horn Creek Rapids. I had to go clear up to the base of the Tapeats to get over it. Between the beginning of this ravine and Horn Creek, there is a fine pinnacle in the dark Archean rock. If rock climbers get desperate for a risky unclimbed point, I could refer them to this needle. I'm sorry that I didn't get a picture of it. There were no difficulties in the descent over the partly loose slabs to the river.

The day was quite warm down here and I thought that my idea of floating downstream was going to work out. I had thought I would put one mattress on top of another and keep out of the water except for my hands in paddling. When I saw how swift and full of swirls the river were, I decided that I would have to use only one mattress and be prepared to slide off when necessary. As a final precaution, I lay on the mattress in the quiet water next to the rock and tested my reaction to the temperature of the water. In a few minutes, my forearms, which I kept under water, started aching. Since it was obvious that I would have to stay out from shore longer than that, I gave up the idea of going down to Hermit Rapids that day. The dip kept me cool for most of the way back up the ravine. Near the head of this route to the river, I saw an

unmistakable rock pile. Not too far south of here, I began to recognize signs of trail construction near the top of the granite. I could make better time along here than I could in the streambed. It finally came back down into the wash just a bit below the first showing of granite, a few yards below the spot where the chock-block caused our party to split on the way in.

When I gave up the idea of floating downriver, my alternate objective was to try to reproduce an attempt by George James, John Waltenberg (?), and R. M. Bleak (Dad) to reach the river in the next canyon west of Horn. I noted a bay in the Tapeats northeast of Dana Point which they inspected and decided must not lead to the river. Their next premature attempt to descend was down an arm of the unnamed canyon just east of Salt Creek. They checked the rim here although I thought it was obviously not a place to start

down. There are two very simple entries into this canyon only a little further on with plenty of deer and burro signs leading down. I wanted good water for the night, so I kept on to the place where the trail crosses Salt Creek. It was running a nice little flow, and I was able to get a fire going with just time enough to eat most of my supper before it got dark. I had already found a good bunk under a convenient overhang just a few yards up from the trail. There wasn't much headroom, but I knew that my gear and bedding wouldn't be wet with dew in the morning. The air was so still that I could read by candlelight for a while. The temperature was perfect for my bag and I passed one of the most comfortable nights ever. There was just one flaw with camping at this time of year. There were great numbers of ticks out. Numerous times when I had brushed against some bushes, I found them crawling up my clothes. I had to pull a dozen or more off my skin where they were beginning to dig in, and in the morning I found one behind my ear quite fat with blood. Fortunately, I have not heard of any spotted fever in this area. I did wake up enough during the night to crane my neck out from under the rock roof and watch the progress of the lunar eclipse. The sky had been overcast at bedtime and it was also lowering in the morning, but during the eclipse the sky was as clear as everyone could wish.

On Sunday morning I started down Salt Creek itself, although I was quite sure this was not the place where James and his friends had been baffled. In about 25 minutes, I came to a drop in the bed which could be passed by climbing to the east, clear to the base of the Tapeats. A short distance north of here, one could scramble down to the bed again at a much lower level. In fact, I found the highest single fall in the Archean here that I know of. I'm sure it must be at least a third higher than a similar one in Asbestos Canyon. Furthermore, there is a permanent, though small, flow coming down here. The drop is not vertical, but it must be at least 75 degrees with the horizontal. It seemed about as steep as Nevada Falls in Yosemite. I would say that the drop here is 250 feet and it must be a real sight during a storm. Just around the bend from the base of the fall, there was a huge chock-block, but I was able to go down the 30 feet beside it to the right. Only a few yards farther there was another drop in the bed which stopped me completely. I put my pack down here and tried to get by it, but I saw that the least slip on the polished granite would render me helpless to get back, and I decided that the attempt wasn't worth it. Almost certainly there would be more and worse places. (The way was better to the east.) I had to go back up to the base of the Tapeats and I could see that I was still a long way from the river. I decided that the best chance to reach the mouth of Salt would be to follow the base of the Tapeats on the west side of the creek until you were nearly to the river and then try to come down. The going looked rather steep, but I believe it is possible - another project for my backlog. (Actually not, from here to the river is easy. R. Peterson passed this and returned when it was dry in the fall of 1961.)

I went east around and below the point in the Tapeats which separated Salt from the nameless parallel canyon. I could see water flowing along it and I dumped my canteen, which was a mistake. There were lots of burro signs here, more perhaps than I have seen anywhere else, but when I drank a couple mouthfuls of the water, I almost felt like throwing up. It tasted salty but also rather bitter like Epsom salt. I propose the name Epsom Canyon for this one. Fortunately the weather got cooler and wetter as time passed and I didn't suffer from the lack of water. The minerals in the water had formed a natural cement in many places along the bed and had thus formed a sort of conglomerate travertine from the pebbles. Coarse grass grows profusely right in the sandy bed in many places. The bed is unusual for the steady pitch downwards with no real drop-off until you are within earshot of the roar of the river.

Here, there was another chock-block of Archean rock possibly 20 feet in diameter at the lip of a fall, fully 70 feet high. I felt sure I was at the next to the last bend in the wash before you could see the river. When I was within 30 yards of this barrier, I heard a clatter of falling stones and looked up just in time to get a quick but clear sight of a bighorn ewe. She dashed over a knob of granite to the right of the sheer fall and then I heard her go across a cliff face somewhat broken by small prominences and ledges. When she was across this concave face, she paused at a little angle on the other side about 150 yards from me, and I attempted a picture of the white rump. She crossed this cliff face at a gait which was as fast as a deer's trot. However, when I looked at the sheer drop below and the very poor holds, I decided that discretion was the better part of valor and backed away. Beyond this cliff, there was a simple ravine leading down to the wash at the river level, and I dearly wanted to be over there. I thought that I could reach an approach to it by climbing straight up the rather steep slope to the mouth of Horn Creek. When I had gone to the top of the ridge some 200 feet above without finding a descent into the ravine toward the river, I was anxious to find a less frightening way down. This was possible and I went down into Epsom Creek south of where I had climbed up. The walk back up Epsom was in the nature of an anticlimax. I passed the rather large arm to the east and went out by a deer trail up the more easterly of the two areas where the Tapeats is completely broken down.

If and when I try to get to the river here again, I would go to the base of the Tapeats here and then follow the top of the granite until I was in the ravine which forms a direct line with the last part of the creek where it reaches the river. I looked down from the rim of the Tapeats while I was going back to Indian Gardens and it appeared to be a fairly simple route. A person leaving his boat at the river would invariably choose this as the only feasible route. (I found out later that you could go east below the Tapeats and hit the trail out of Horn.) I was up and on the Tonto Trail by 11:00 a.m. What with dodging rain and sleet by sitting under overhangs below the trail and stopping for food, it was 4:30 p.m. when I finally reached Bright Angel Lodge. From Indian Gardens on, I had the company of a young Englishman in the foreign service who was returning from Japan to England and doing a bit of touring in this country. His last name was Watson, and he was experienced in technical rock climbing as well as being a skier. I can vouch for his walking ability. He had climbed the Battleship before we had met.

#### Principal Observations:

The old trail near the top of the granite on the west side of Horn Creek leading to the escape route from just below the rapid.

Noting that the spring in the nameless canyon just east of Salt Creek really is strong with salts while the spring in Salt Creek is pure water. The cartographers probably used a name obtained from the prospectors and put in on the wrong creek.

The bighorn ewe and its agility over a cliff face that I wouldn't tackle.

Fossil Bay

[April 30, 1960 to May 1, 1960]

When I came to the end of the good road to Topocoba Hilltop, 12 miles west of the village, I thought I would experiment with the road sign which seems to promise that Topocoba is 24 miles starting on the less used track which goes west beside the fence. The ground here is much more nearly level than it is on the road I had used previously, and I could make relatively good time. However, when I came to a chance to turn right, away from the fence, I thought I ought to take it. This led to a wire gate that was a bit hard to close because it had to be pulled so tight. Just beyond, there was a water tank with water in it. Then the road began to wind in the bottom of a ravine until one reached another, larger pond. There were some cabins in this area, but no current inhabitants. With a good many curves and some pretty rough uphill driving, I finally got back to the usual road at the sign pointing to Pasture Wash. From the sign, I learned that I had passed Rock Tank five miles back. The experiment was interesting, but I had wasted time trying it. I came back from the fork between road W2 with W2A in a half hour less time than it took me to get there.

Road W2A going north was interesting in that there were fairly recent tire tracks up it. There were places where the vehicle must have tipped most uncomfortably, and the grades were such that I was satisfied that my old Ford 6 would have stalled completely.

The road north which often comes close to the rim was just as scenic as I had remembered it to be. This time, however, there was the bonus of spring flowers. The recent rains had brought them out in profusion. I could name a few, paint brush, penstemon, and wild phlox. I think I'll begin taking a few slides of flowers and have Mr. Deaver teach me the names. I enjoy them a bit better when I can call them something; such as desert mallow, lupine, or loco.

As I approached Fossil Bay I made frequent detours to study the possible way down. It was about as I had remembered it, but the place where I was rather sure of getting through the Kaibab Limestone seemed a long time in letting me reach it. Then I realized that it was the last place where the Jeep road is close to the rim. The wheel prints were still proceeding along this route, even though there were places where the vehicle had surmounted loose rocks bigger than footballs and had rolled over ledges like the courthouse steps. I decided it must have been a four-wheel drive vehicle.

When I finally started down through the Kaibab, I saw that the Toroweap Formation was going to be the question mark. The Coconino was well covered by talus material in many places along here, but the first of several places I inspected in the Toroweap was out of the question. About 200 yards to the north, I came to the place where I had placed my strongest hopes, and it was possible although two hands were necessary for safety. I could see that the deer went up and down here, and also there were numerous droppings which didn't strike me as just right for deer. Subsequently, I decided that they were left by bighorn sheep. This passage seems to be the only one for miles and later I found out that there is a constructed trail farther north. From a distance below on the Esplanade, it doesn't seem like a foregone conclusion that it is possible, but it appears that everything else is impossible, so it isn't hard to pick the right spot. On the return, however, I felt some relief when I detected my own foot prints and knew for sure that I was approaching the right place.

There was a change in the floral display below the rim. The delicate Mariposa lily was especially attractive. Barrel cactus was also in bloom.

The first thing I did down on the Esplanade was to head straight down the ravine. As I came to the first bedrock, I found rain pools and I know that I didn't have to retrace my steps to survive on the water left in my canteen. From the rim I had concluded that my best hope in getting down to the top of the Redwall was in a shallow bay on the northeast side of Fossil Canyon about the closest to the river. To get there, I had to head three other tributary ravines. In getting across these, I usually compromised by going almost to their heads and then crossing instead of going still higher and really heading them. There were more pools fairly accessible in these ravines, but I can imagine that in the summer heat, it might be a different story. When I got close to the fin of Hermit Shale which projects quite a distance from the base of Stanton Point, I found the walking fine. At the end, I decided to go on east and look down at the river.

When I had followed this course a short time, I was amazed to see a bighorn ram calmly browsing in the stiff false sage which is dominant over the Esplanade as well as on the Tonto Plateau farther east. My camera was now in the pack, so I ducked down behind the brush and got it out. Just after I took the picture, the ram looked me steadily in the eye, showing how the horns sweep down and spread apart. I turned the film and found that I was at the end of the roll. Before I had changed to a new film sitting down in the hollow behind the brush, the ram had moved on. I wish I had skipped trying for more pictures and watched it go. I estimated that the range for my picture was about 75 yards.

As I advanced, I carried my open camera in one hand and my canteen in the other. Once I realized that I was a bit excited by seeing the ram and wondered whether I was proceeding carefully. I wondered whether I had put the exposed film in my pack before I moved on. I stopped immediately and found that I had. Then when I was quite close to the rim of the Middle Granite Gorge, I put down the canteen to take a picture of Steamboat Mountain in the sunset. Almost at once I saw the advantage of going to the very edge for the picture and I walked 50 feet without moving my canteen. When I had the picture, I reached down for the canteen and couldn't find it. I had been wrapped up in my amazement at the dark and narrow river so far below, a view that appealed to me more than the one at Toroweap when the background of Steamboat Mountain is considered. I had no recollection of my movements regarding the canteen. First I considered the possibility that I had put it down a short distance away, but I couldn't see it. Then I tracked myself back through the soft soil for half a mile and then returned to the rim again. By this time I began to consider ways and means to do without it. I figured that the safest way would be to get back across the Esplanade as far as I could before dark and then go out to the car while it was still cool. I did go back for a half hour and found a good water hole. In the night, I decided too make a definite attempt to find it before I departed, and in about five minutes back at the rim I succeeded.

With no need for haste, I now wandered around the edge of the Esplanade above the mouth of Fossil Creek and inspected the chances for getting down the Supai Formation another time. The hardest part of the route in the rounded shallow bay near the mouth is right near the top. I'm sure I could have proceeded by tip-toeing along a narrow ledge, but I saw a route that is perhaps safer farther to the west. The Redwall didn't look a bit inviting from the top of the Supai, but I can't call the Indians liars until I have been down to the inner slit.

The only sign of previous human use of this area was about the largest mesquite pit that I have ever seen. Without digging, I didn't see any charcoal, and besides, I couldn't see any firewood growing at all nearby, but that doesn't seem to be much of a difficulty.

On the return, I kept a bit higher and was usually farther up the ravines when I crossed them. It didn't seem to take so long to return, and up on the rim road I made rather good progress and reached the car by 4:45 p.m. There was only one small tick as I was getting to the top.

#### Fossil Bay

[May 14, 1960 to May 15, 1960]

This time the main objective was to go to the bottom of the Supai to see whether one could get down the Redwall. Allyn Cureton and Dave Little went along. Another difference this time was that I took our '55 Ford because I wanted to drive out along road W2A and I thought the '50 would never be able to pull the rough spots up the first ravine. It was tough on the 160-hp motor, and I am sure that the 95 horses couldn't have made it. There were some wicked bumps and often rocks would be against the underside of the car. Allyn looked under to see whether we might be losing oil several times, and I still don't see why we didn't ruin the tires. It took us about 45 minutes to drive 6.3 miles. Several times the boys got out to lighten the car to help it bang up some rocky ledges. It is really a road for a four-wheel drive vehicle. When we finally parked, there was a rocky place just ahead that we never would have been able to surmount. On the return, I noticed that Pat had parked just short of us, probably before he saw our car. In fact, I had parked .3 miles south at first, and then had gone back to get the car. We must have walked about four miles from the car before we came to the place to leave the rim. I lost my reputation as a guide by announcing that we had come to the right place about three times before we were really there, but of course there was no question about its identity when we actually started down. Later as I looked at the map, I became convinced that there is a wash not shown on the map more important than one which is. We went down to the north of the first big tributary coming in from the right, but this is not shown at all on the map. The first blue line coming in from the right is relatively minor, and it is to the north of our route down.

On the talus at the bottom of the Hermit, we headed to the left to get the shortest way past the canyons coming from the head of Fossil and the further one on the left. As we crossed the main branch, we noted some water still standing in potholes, but we saw no more clear to our campsite at the top of the Redwall. We didn't follow the ravines down as far as we could have, but there was none left where I had camped two weeks earlier. Then I had a pocket eight inches deep provided with a small frog and not a single mosquito. On the return, we stopped for lunch at a place in the main arm where the walls are beginning to get high enough to make climbing out a bit hard. One pothole here was three and a half feet deep ten days after our most recent storm in Flagstaff, so I rather think it can be regarded as a permanent source. As Dave and I rested and ate lunch on the return, Allyn went up the main arm to see what appeared to be a spring at the bottom of the Coconino. It was a dripping spring all right, and considerably below the top of the shale, there was a pool about an inch and a half deep. Here he found a shovel and a pick with the name J. Wright on the handle. (I had fondly imagined that we might be the first whites to visit the profitless locality.)

In skirting the tributary canyons, we kept pretty well up without getting onto the higher ridges of talus. In two of these canyons, we dropped down and crossed when it meant only about 50 feet down and then up again. I was guiding quite well through here and often came across my own tracks from two weeks ago. We did not see the mesquite pit I had seen before without noting its location. It was lower than our present route. We could cross from the main arm where we found water to my former campsite located on the central blue line of the last tributary going into Fossil Canyon in about one hour and 45 minutes. After that I goofed in my guiding. I kept too far to the left and we saw the rim above the river almost at the mouth of Fossil Creek before I realized why we were taking so long to reach the bay where I knew we could get down. When we swung around and headed a little north of west, we still came to the rim of Fossil too far to the south and had to follow my former route reaching the bay I knew was possible from the south. I led the boys down the route I had studied before even though it meant crossing a rather bad, narrow ledge. We handed our packs across this spot. We noted a better place to go up on the return, a place that I had seen before, about in the middle of the bay. It seemed like a long way down to the bottom of the Supai, but the footing was never bad.

There was no water left on the gulch along the top of the Redwall. We took about 20 minutes to go along the top of the Redwall to the next tributary to the north. We were really beginning to worry about the water situation although we could have made it back to the last water we had seen, right at the foot of the first slope off the rim. I had started down with two full gallons. There was another gallon and a half in the party, but we would have been distinctly in trouble in that heat with no more. Fortunately, there were two potholes in the Redwall still holding water, and we dropped our packs in a hurry. Dave had wanted to camp on top of the Esplanade so that he wouldn't have to tackle the 850 foot of Supai in the morning. I had said I didn't think we should split the party, and that if he couldn't make it down with us, I was willing to go back with him to camp by the water near the start of the trip. That persuaded him to go on down. Now he elected to stay by the packs and get an early supper while Allyn and I went on along the top of the Redwall to see whether it's possible to go down if you begin in the main bed. We found more water, and cleaner, in the next canyon to the north. There were pools along the bed of the main gorge and even a trickle over the falls, which incidentally make it possible to descend the main bed. After seeing that there is no way through the Redwall here (I found out later that one could go down here), we went up the main arm at the foot of the Supai. We went as far as some fine cottonwoods, but there was no surface water, however, there was a spring up higher. Since it was getting late and we had a strenuous day, we went on back to camp. I had felt weak from heat and exertion in the afternoon, but now Allyn seemed to give out. He lay on his back without trying to fix up a meal until it was pretty dark.

I found that I had goofed badly. I was without my usual Lipton's soup and can of sardines for supper. Dave saved me by giving me a can of vegetable beef soup he had brought. I lugged wheat chex and peanuts out of the canyon the next day, but I would have been very unhappy without that vegetable beef for supper. The sky was quite overcast, so Dave and I slept under a good sheltering rock 30 yards away from the streambed. I was too hot in my bag and I thrashed around most of the night. The tiny mosquitoes were thick here too. We didn't notice any bites, but the humming was a bother. I pulled a couple of ticks off at this campsite also.

One thing that I noticed as Allyn and I followed the top of the Redwall north was another mesquite pit. On the way down the Supai we had also seen a partly burned juniper limb.

The return was fairly pleasant. We got to the top of the Supai before the sun reached us and proceeded to the edge of the cliffs giving the view of the Middle Granite Gorge, where we took several pictures. Allyn waited a half hour here for better lighting while I returned to the packs and read my Time magazine. We made the trip back to the rim without undue strain. I almost stepped on a bull snake and wouldn't have known a thing about it except that Dave said "Look out!" after I was already by it.

It's not quite honest to say that we have ruled out the possibility of getting down the Redwall in Fossil Bay. (Since then, several hikers have gone down Fossil Bay all the way to the Colorado River. There is an alcove directly opposite from where we came down the Supai which has a peculiar pinnacle made of consolidated talus material. It stands away from the wall near the top and the lower slopes of this pinnacle are too steep to descend. The best possibility would be to come down between the talus or breccia needle and the wall on the north side of the it. I should try this before I say no one could get down here. It also appears that there is a possibility of coming down the Supai on this west side of the gorge. (I later found out that the best way down the Redwall is down the bed with a bypass of the vertical fall on the left about 40 yards away. The chockstones and chutes are easy going down.)

\*No bighorn sheep seen, but there were some very fresh droppings.

Esplanade from Apache Point to Great Thumb Point  
[June 4, 1960 to June 7, 1960]

I mustn't forget the sinkhole near the end of Apache Point rather close to the east rim which showed smoke stains on the ceiling where there is a shallow cave.

In retrospect, I wish I had gone through with this whole project, but at the time it didn't seem attractive. I left the car in good time, at 9:15 a.m. and at last used a compass to go more or less directly to Apache Point. It was a good thing to have along for the day was quite overcast and I couldn't steer by the sun. I was about an hour ahead of my schedule when I found Royal Arch and ate lunch down on the Esplanade. At this time I didn't feel that there was any hurry since I had two gallons of water. I went out on a point and took a picture that I hope pans out. It should show Elves Chasm right at the river. From this point I also noted that one can go down the Supai where the trail first comes down the Coconino and then follow the top of the Redwall to where it begins and thus reach Royal Arch more easily than the way I did it last fall. I'm pretty sure that the detours along the top of the Redwall are not as extensive as they are up on the Esplanade.

Around on the west side of Apache Point, I noted three things. One was that there is a distinct possibility for a man to climb down through the Coconino. (I later found out that it was quite easy.) Talus material covers the Toroweap and there is only a short stretch in the Coconino that might be impossible. I didn't go up and check this, but I did take a total of an hour and a half to go up to the base of the Coconino at two different places. One I wanted to see how much of a cave there was (it wasn't much) and again I wanted to know whether a lot of green indicated a dripping spring (it didn't.). Several times I made short detours to look into ravines for rain pockets. The only water I saw all afternoon has me guessing. Judging by the manure and two burros that I saw, the burros are thick along here. Right up where their trail crosses the

bare rocks were three pools. The two deeper ones had loads of manure in and out of the dark fluid, which looked as much like urine as real water. The shallow pool was only an inch deep and right in the sun. I didn't try it, but I thought it was a promise of more along the way. The only other water I found all the way to the head of Fossil was in a little shallow pocket about one-third of the way from Forster to Fossil. It was protected from the sun, but it tasted rather bitter. I also can't explain how it had escaped evaporation when better pockets were dry.

Heading Forster Canyon was interesting. The burros had made a trail for me until then, but at the head of Forster the clay and shale bank becomes quite steep. My impression was that the inclination was about 45 degrees. Perhaps this discourages the burros from going any farther. Whether this is the reason or not, none of them do. I followed bighorn footprints when I crossed here. It had been sprinkling some in the late afternoon but the clay had not softened. The slope continues this steep for some distance beyond the head, and I was wondering where I was going to sleep. I found a clean smooth rock bed of a ravine which was also quite level for a few yards just above the rim of the gorge. I gave the question a bit of thought as to what I would do if it began raining hard, but rather than go on when I might get caught by darkness in a worse place, I camped there.

After supper and breakfast, I had only two more quarts of water, and the map made it appear that I had come only halfway or less from Apache Point to the sure water at the head of Fossil. I was sufficiently concerned about the situation to get going by 5:00 a.m. I was torn between the ideas of keeping up the best pace possible and going into a serious search for water. The short ravines along here don't have the same sort of beds as Olo and Matkatamiba, and I finally decided to concentrate on speed. I was afraid that food might make me thirstier so I held off eating. In late forenoon, I felt rather weak and even considered leaving my pack to pick up after I had gone for water. Apparently, I was exaggerating my difficulty because I reached the permanent rain pocket at the main branch of Fossil by 12:30 p.m. with my pack on my back. Although my concern was to cover distance as fast as possible, luck was with me and about two-thirds of the way from Forster to Fossil I found two shovels and an axe under an overhang and a frying pan out in the weather. On the rock wall behind was scratched the date 1943 and initials, I. D. Upon consulting the map, I would correct that statement by calling it four-fifths of the way from the head of Forster to the head of Fossil. About halfway from the old camp to the water in the main branch of Fossil, down in one of the ravines, I ran onto a fine mature bighorn ram. I would have missed him except for hearing him leave. Before he had gone very far, however, he was curious and looked me over carefully before he decided to leave for good. I knew I couldn't get the camera out of the pack in time, so I just stood and enjoyed the fine view from about 60 yards.

Sunday afternoon I lay around in the shade and caught up on some reading. After 5:00 a.m. I went up to the dripping spring at the very head of Fossil Canyon at the bottom of the Coconino and noted the animal trails up there. I missed seeing the lower pool where Allyn had seen the pick belonging to J. Wright. It started to rain before I got very far down from here and I spent no time in protracted search. This new rain made it unnecessary for me to dip again into the deep rain pocket which is the permanent water supply here where the main branch cuts down into the Supai. It was most welcome when I was getting desperate, but even a cupful looked green and the surface was pretty thick with bugs.

The sky instead of clearing as it had the night before, became more threatening as the night passed. About midnight, I retired to a prepared position under a good overhang and up from the streambed. There was a little shower, but that was all. I had carried two cotton blankets instead of a regular sleeping bag so that I wouldn't repeat the mistake of trying to sleep while too warm, but this time the difficulty was in keeping warm enough. I did make out quite well, however.

For some reason, I didn't have the old fight and determination and elected to work out of this station as a base camp instead of packing the whole load. I was also leery of trying to go from the Esplanade at 140 Mile Canyon clear to the car south of Apache Point in one day, and I didn't relish the thought of a cold night on the plateau above. On Monday I followed the Esplanade towards Great Thumb Point. To shorten the trip, this time I went up and over the long ridge of shale which projects from below Stanton Point. I looked rather carefully at the rim along Specter Chasm, and I couldn't even see a way to start down the Supai, let alone get down the Redwall at the bottom. Progress was easier without the 30 pound pack I had been carrying the first day, or rather 40 pounds with the gallon canteen I had in my hand. I could keep up quite a steady pace, but the going was tedious as it seems to be everywhere along the Esplanade. You are forever having to decide whether to climb ridges or walk the much longer contours. I noted that bighorn sheep seem to prefer the climbing whereas burros set the trail along the contours. A person with a pack is more like a burro while one without can make like a bighorn. I did whichever seemed handy at the time. I had started from the main branch of Fossil at 6:00 a.m. and by 11:30 a.m. I had gone a bit farther than the point with the bench mark on top just before you get to Great Thumb. Here the slope gets as steep as it is at the head of Forster and presumably it is just as steep for a long way between Great Thumb and Tahuta. I want to come in from the other side and close this gap some time, but I certainly won't count on finding any water anywhere along here. Also we can forget about the isolated mile of trail shown on the map near Specter. I crossed its location repeatedly and saw nothing unusual, just short stretches where bighorn had made a path.

My plan called for a real investigation of the last possibility of getting to the river down the Redwall in Fossil. However, I began to get homesick and also to think of McKee's predicament if he had been alone. I had plenty of food, but a clincher was the short supply of tp. The upshot was that I started home Tuesday morning, but I did have one more thrill, three bighorn sheep high above me on the way out.

Sinking Ship and Mesa Eremita  
[July 15, 1960 to July 17, 1960]

Marshall Scholing finally caught up with me after I had given up trying to find him. We went out to the base of the Sinking Ship with the idea of walking completely around it and trying to find a good, safe way to the top. At different times we had both been along the east side, and we found the metate still just where we had noticed it before. He showed me where he and Dean Bruner had gone up a minor turret before you reach the farthest north part. We climbed here this time and tried finding a way up to the main top. I have seen lots of pictures of people going up just as risky a place, but we gave up when there were perfectly good steps, but the blocks would have forced us to lean out and trust to friction holds. The rest of the trip around was interesting, especially since it was about sundown. There was a very well established deer trail along the west base which made for pleasant walking. We noted a crack on the west side which might lead to the top. However, there wasn't time to explore this possibility.

I showed some of my slides to the Hunts until about 11:00 p.m. and then Marshall and I drove out to Hermit Rest. We spread our bedrolls on top of a concrete platform which Marshall suggested was intended to help dudes mount their mules. It was warm weather all night. That was the reason I had changed my plan from going down Fossil to see whether I could descend the Redwall. It will surely rain sometime, and also it will be cooler in the fall. I'm beginning to lose confidence in my resistance to heat.

We started down the Hermit Trail at 6:40 a.m. Now that I've become conscious of bighorn sheep around the canyon, I'm practically sure I can tell the difference between deer droppings and bighorn droppings. If this is so, there are bighorn signs less than a mile from the head of the trail. We made a left detour along the Waldron Trail to let me get a picture of the peculiar fireplace which seems to go with a cabin that was never built. It took us just under two hours to reach Dripping Springs.

Marshall was surprised to see how much trail construction still shows where the Boucher Trail goes up the Coconino to the north. When we came out above the Coconino, we left the trail and followed the talus below the Kaibab around to the north. Most of the way along here there's a well established deer trail. Still the walking isn't easy, because the deer go up and down and also under projecting limbs. Marshall had to get back to the village by 4:00 p.m. so he left me when we were getting a view that almost took in Point Sublime.

He had been kidding me about the futility of hoping that we were the first white men to be following any route in the canyon. I told him that we would not see any old tin cans along our deer trail. I was correct about this, but just beyond where he left me, I found a weather beaten piece of cardboard with peculiar holes near the ends. Finally it dawned on me that this is what the military fliers use as a reel for the tinfoil they drop to simulating radar defense. We have found the tinfoil in all sorts of unlikely places.

The day before it had reached 100 degrees in Grand Canyon Village, and it was that warm again where I was hiking. I was carrying two gallons of water, and between the load and the heat, I wasn't doing very well. About 2:30 p.m. two-thirds of the way from Yuma Point to Cocopa Point, I put my pack down because I knew I should camp at least that close to Dripping Springs if I expected to get back to it the next day before I ran out of water. I walked around under Cocopa Point about a third of the way from the point to the end of the bay. Up ahead, it looked quite possible to come down through the Kaibab Limestone. If I had carried my pack with me, I would have proceeded here and trusted that I could climb out and return to the spring across the plateau. As it was, I returned and carried my pack to the projecting terrace just below Yuma Point. It was already 6:00 p.m. so I called it a day. This is one of the few places along this entire route where the ground is flat for several yards and the view swung clear from Powell Saddle to Hermit Basin. I could make out Hermit Rest very easily, but I assumed that no one could see my small cooking fire. I got a new impression that Isis Temple has quite a flat terrace around it, and the Coconino projects quite far south from Wotan's Throne. Likewise, Vishnu Temple doesn't seem quite so steep from this direction.

After a fairly comfortable night, and with most of my water gone, I made better time and reached the Boucher Trail in an hour and 25 minutes. It was still only 7:05 a.m. and I had had enough water left to take me across Mesa Eremita to investigate the possibility of a way down. The places I had been counting

on didn't seem too good, but to the west where the rim rises higher, there's a grass covered slope up nearly to the top of the Kaibab. When I got over there, it was even better than it looked. There is a clear and simple deer trail down here. I had been telling Marshall that I would probably sleep on the saddle between Diana Temple and the rim, but even if I had kept on going, I would have been only about one-third of the way there by dark. If I use this break in the rim at the head of Boucher Creek, I will have only half as far to go to reach the Saddle by Diana Temple. The next time I try this, I'll go out by the road along the park boundary and swing over to the rim without having to drop down and then climb out of Hermit Basin.

I got back to Dripping Springs before 10:00 a.m. and had a leisurely lunch. It was so comfortable in the shade near the cold water. There was a greater concentration of birds around here than I had seen anywhere else in the Park: swallows, doves, a flicker, and a couple that I think were grossbeaks. When I left, the contrast was pretty bad until it finally clouded over just about the time I was climbing from the basin up to the rim. You won't have to be in very good shape to match me. It took me 45 minutes to go up the last mile, the slowest time ever for me.

Diana Temple  
[July 30, 1960]

907 W. Summit  
Flagstaff, Arizona  
July 30, 1960

Dear Pat,

Frank Wright was at the Museum last Sunday and I had a chance to meet him. I guess it wasn't very tactful but, in the short time I had with Roma and some others waiting for me, I broached the subject of looking up Little Nankoweap Canyon for the Goldwater Bridge. He said he knew that you didn't go up the main arm, but he didn't know about the north branch. He said that they went up until they were sure that the formation was wrong for a bridge. That took the forenoon. After lunch, the others were for giving up, but he went up Big Nankoweap Canyon by himself until he saw that he wouldn't have time to reach the Redwall. Either Goldwater wasn't very clear with his directions, or they didn't listen carefully. I believe though that it wasn't sabotage on Frank's part. I a.m. willing to give him credit for really wanting to locate the bridge. He seemed to be surprised that I thought a boat party should be able to get to the bridge and back in one day.

You must have heard from Dock directly about the loss of one boat. He finally wrote me at greater length than is usual for him and said that the Wee Yellow was rather severely damaged at Deubendorf Rapid, but that they were able to patch it up. It was in the lower part of Grapevine Rapid that it got swamped and perhaps broken up. I have already replied to Dock's letter and have asked about the usual sink-proofing and also whether the occupants of the boat got a scare. He's a bit short on his reporting of mishaps. He did mention that on the way downstream, a boy suffered a compound fracture at Vulcan and was flown out by helicopter - no details as to how it happened

I showed Bob your letter and he took down your address. When he read your other letter, he asked what the difference is between windows, arches, and bridges; so I believe you answered his question without knowing that he had asked it. You are right that windows are not too rare. Of course the best known example is at Cape Royal. The next best known is undoubtedly the one you see from the South Kaibab Trail as you are going up the Bright Angel Shale before you get to the white switchbacks. One that not many people know about is right near the top of the northwest ridge approach to the plateau north of Cheops Pyramid. I suppose I have it in one of my logs, but since Clubb told me just how to climb that, I never tried to tell anyone. It would be hard to see from a plane because it is triangular about 15 feet each way.

The radio address about Dinosaur was interesting. I also enjoyed the book, This is Dinosaur, It would take a lot of proof before I would believe that a short mountain stream had worked back and cut through the Unitas and then had started draining the whole basin north of there, but in general the article was well done. Apparently no controversy in science is ever completely over. Only a few years ago, perhaps 10, some geologist came out with a study of Meteor Crater that claimed it was a steam eruption instead of an impact crater.

You must have noticed the big play that the Polaris Missile and Lockheed got in this week's time. Congratulations!

I got the itch to try my shorter approach to Diana Temple and went up there Friday afternoon. After an evening of chess with Marshall Scholing, I drove out there, a bit over seven miles along the park boundary road, measuring from the turn-off at the Abyss between Mohave and Pima Points. While I was going through the forest by guess using the sunrise for direction, I was wishing I had brought my compass. I thought I should hit the rim within 20 minutes. It took 35, but I was within 200 yards of the place I had found. I was able to keep on some sort of deer trail about 90% of the time but the deer duck under brush and low limbs as well as going up and down constantly, so that one still can't make good time. Of course you have to watch your step constantly. (Which reminds me. My friend Marshall Scholing tells me on the word of a new ranger, Higgins, that Davis broke his leg on the Grandview Trail, presumably this spring sometime. I would like to get a bit more dope on that, because I thought I had looked up Dan so often that I would have known about it.) I noted one thing about the location of the deer trail down the Kaibab. It's not at the very head of Boucher Canyon but rather to the east about a fourth of a mile. The walking along this talus was slow but interesting. I saw bighorn sheep droppings as well as the ever present deer sign, and at one place I noted a very distinct bighorn hoof print. One thing that seemed pretty unusual to me was some copper ore near the bottom of the Kaibab Limestone. I don't know enough about mining to know whether that is really rare. The ore didn't seem to be very rich, but there had been no signs of digging and mining around there, so maybe I really a.m. getting to places where no white man has been before. There were no old tin cans anywhere along my route yesterday. I had the pleasure of watching three deer show their heels to me over terrain that seemed dangerous at anything faster than a slow walk. It took a bit more than two hours for me to get from the rim down and along over to the saddle south of Diana. Merrel Clubb told me that he and Kit Wing had tried to climb Diana, but that they couldn't locate a way to get down the Kaibab cliff. He must not have worked on the problem very long, because the break I used was within an hour's walk along the rim east of Diana. You would have to go a lot farther to the west to find a similar break, or that is the way it looked from the top of Diana. [I

found out later that this wasn't true. There's a break just beyond Jicarilla Point and much closer by a rope route just west (Clement and Tadge).] On a hunch I went along the west side of Diana and was pleased to note that the deer trail was just as good along there as it had been below the main rim. The last part of the west side began to raise hopes that I would be able to make it to the top. Before that, I had decided that the objective was to walk completely around Diana with very little expectation of making the top. However, when the deer trail began climbing in earnest, I did too. When it got to within 50 feet of the top, it cut back to the south, around a couple bends and then to the top with no difficulty at all. I almost had a let down feeling to find it so easy, but as far as I can tell, I was the first one up it. I built three cairns, one where the trail topped out and one at either end in plain sight. It took me an even half hour to walk through the tangles of juniper from the north end to the south. Merrel had picked out the north end as the place to go up. It would be possible too if one would use a good crack for the last 20 feet. The trail tops out about three-fourths of the way from the south end to the north, on the west side.

There were some fascinating things to be seen from the top, especially a couple of caves near the upper end of the Redwall in Slate Canyon. There were also some caves near the top of the Redwall in Topaz Canyon, but these looked a bit difficult to reach. The ones in Slate Canyon looked like something the prehistoric Indians would have liked. Thus, my backlog of projects lengthens as fast as I chalk one off. There were no signs of Indian occupation on top of Diana that I could see in my rather sketchy look-see. I did look at an overhang or two just below the rim.

I was warmer and more weary on the return and reached the car a little before 6:00 p.m. On the return, I got to the road from the rim 10 minutes sooner than it took in the morning, but I didn't know which way to walk to the car. Just a bit west was a gate that I hadn't passed the night before, so I knew I should walk east. That gate presumably means that a fence goes from there north to the rim. It would be a good landmark to follow if I ever repeat this trip. Our paper has carried articles about the two men who recently swam down the Colorado to Phantom Ranch in five days. I have enough clippings to part with some. You might try the telephone to get a bit more information from them. I would be interested in hearing what shape their bundles were, and whether they wore life jackets at all times. Apparently they weren't too tactful with the rangers, but I rather agree with them that a modification of their method might prove quite safe and practical. Of course my suggested modification would be to get out and walk around the rapids, and do the swimming with an air mattress under you.

Sincerely,  
Harvey Butchart