

Harvey Butchart's Hiking Log

DETAILED HIKING LOGS (May 29, 1966 - December 20, 1966)

North Rim to Olla Vieja Cave and Tower of Ra

[May 29, 1966 to June 2, 1966]

(written by Donald Davis)

Harvey Butchart and I slept at the North Rim campground the night of May 29, 1966 after driving from Flagstaff. The following morning we drove out the fire road to Tiyo Point, and after enjoying the view briefly, retreated some one half mile to park the car about 9:00 a.m. From here we walked about a mile west, crossing several shallow canyons, to the point that leads down to the saddle between Shiva Temple and the North Rim. While descending this point, just east of the ridge and just above the Coconino, I flushed a banded tail pigeon from its nest on a horizontal limb of a juniper about six feet above the ground. The nest held a moderately heavily incubated egg which we photographed. (On our return June 2, 1966, by quiet approach, we were able to get within 10 feet of the incubating pigeon and photograph her on the nest.) Naturalist James Richardson had two reports of pigeons on the North Rim last year, but could not recall any nest record for the Park offhand; however, *Birds of Arizona* (Phillips et al., 1964) lists the species as common in the juniper oak manzanita zone in Arizona. Our nest was about 7200 feet in this zone.

The Coconino is broken down into a steep ridge which leads easily down to the Supai Sandstone forming the broad Shiva Saddle. Harvey showed me a particularly large and striking mesquite pit toward the center of the saddle. Nearby are potholes in sandstone which provide water after storms, but which were dry at this time. There must have been very large Indian camps here at times; I have never seen a place so littered with worked stone chips. In addition to innumerable chert fragments scattered over several acres, we found two scrapers, the bases of two arrowheads, and about three small obsidian flakes which must have been brought from many miles away. Relics of the 1937 Shiva Temple Expedition were also noted; I saw a few tin cans and an olive green wine bottle with a broken neck.

Harvey's route to Dragon Creek starts near the narrow point of the saddle and descends into the bed of the gorge leading northwest from it; this route is surprisingly easy, with no cliffs encountered anywhere. A deer trail may be followed most of the way through the Supai before it dissipates. In the upper Redwall are a few smallish cave openings mostly choked with a semi consolidated yellowish sandy fill; I could not enter those I tried for more than 20 feet. Just below these are potholes with a little stagnant seep water which we did not drink. Where this gorge begins to widen out into the valley of Dragon Creek, I heard sharp whistles of a large rodent from a rocky ridge to the north. It sounded much like a marmot, though perhaps more insistently repetitious than the marmots I have heard in Colorado. Since I understand marmots are considered to be extinct in northern Arizona (*Journal. Mamm.*, May 1956), I tried to get near enough to observe this animal, but could not make a conclusive sighting.

Shortly after we reached the dry section of Dragon Creek, a Golden Eagle flew down canyon not more than 30 feet above the wash bed and 50 feet from us. (Since George Beck and I saw a pair in Phantom Creek in March, it seems likely there is at least one nest somewhere in this general area of the Park.)

Where Dragon Wash enters the Tapeats, we followed a deer trail up to the east to avoid drop offs in the bed. The trail reenters the bed at Dragon Spring, which wells from fractures in the Tapeats and nourishes attractive groves of fairly large cottonwoods, boxelders, and brush, closely enclosed between the dark brown cliffs. The flow of Dragon Creek averaged three to four feet wide and was about comparable to Wall Creek; Crystal Creek was producing much less, more nearly the equivalent of Ribbon Creek. These niggardly flows seem rather surprising in view of the extent of the Hindu Amphitheater. We camped at an old stone fireplace a few yards east of Crystal Creek just below the Crystal Dragon junction, at about 4:00 p.m. Harvey found an unusual soapstone pendant across the creek from camp, and I found an obsidian flake nearby. A major object of this trip was to try to determine the route followed by the R. B. Stanton party when then tried in 1890 to climb to the Canyon rim in this area. To this end, Dock Marston had furnished me with a copy of Stanton's photo labeled 354 486. Comparing this with modern maps, Harvey and I concluded independently that it must have been taken from somewhere above the Redwall on the north end of the Tower of Ra (or the promontory that reaches north from Ra, as Harvey described it); and we suspected from Stanton's notes and book that his descent might have been made at the head of the gorge north of the saddle between Osiris Temple and Ra. On May 31 we left camp around 8:20 a.m. to investigate this gorge. The weather was relatively cool and we easily reached the base of the Redwall, where we were halted for a time by a cliff about 15 feet high across the wash bed. Above this, a few hundred feet north of the gorge head on the Osiris side, the Redwall cliff was just slanting enough and broken enough to suggest something less than an even chance of climbing it without equipment. We finally saw that the lowest cliff could be bypassed by scrambling up a slope on the Ra side and traversing a ledge which reentered the bed above. (We decided that this was probably the cliff where Stanton had to be lowered by a strap. Coming from above they would not have had a clear view of it, and on reaching the drop would be likely not to have noticed the alternate ledge route they had already passed.) However, at this point Harvey decided he would probably not be able to manage the climb above, while I did not want to turn back without studying it as closely as possible. Accordingly, we decided to separate, and he would try to work out the section of Stanton's route closer to the River. After contouring around the ledge to the east (Osiris) side of the gorge, I found that there were good holds and that the climb was a bit less formidable than it had looked from a distance. There were about five short bare rock pitches, but only one, near the middle of the Redwall, was really thought provoking. The climb topped out on a minor point divided from the main mass of Osiris by a draw. Looking across the draw to the east side, I could see a triangular cave entrance several feet high, about 80 feet below the top of the Redwall and located on a minor normal fault striking roughly E W or NE SW and dipping about 80° N., with a few feet downward displacement to the north. I did not think the cave would be sizable, but decided to check it as I felt that such a site was a likely place to find untouched split twig figurines or pottery. This suspicion proved to be prophetic.

After crossing the draw, I reached the opening by scrambling up a low cliff and traversing a brushy ledge to the north. Inside, the cave opened into a chamber about 20 feet wide and high enough in a few places to stand in. About 60 feet from the entrance, in a pocket among breakdown blocks on the floor, I encountered a large prehistoric olla lying on its side, sunk three or four inches in pack rat droppings. It was in one piece although the lower side had a crack extending almost to the base. It was about 14 inches high and 14 inches wide with a ten inch wide mouth, and was coiled and indented grayware (probably Tusayan Corrugated, according to George Gumerman, acting Curator of Anthropology at the Museum of Northern Arizona, to whom I later described it). The olla was empty except for a little debris, but I found

four small corncobs (three with eight rows of kernels, and one with ten) in pack rat nests elsewhere in the cave. This find brings to at least three the number of pots known to have been found in the Grand Canyon, the others being found by Peter Berry below the South Rim in the late 1800's (photo in Burton Holmes Travelogues, 1901, p. 190) and one found by Western Speleological Institute more than 10 years ago (G.C.N.P. archeological site number. 606) in Grapevine Canyon. The Osiris location is easily the least accessible of these sites, being almost midway between the rim where the canyon is nine miles wide, and seemingly approachable by only three ways: from Crystal Creek by the Stanton route; from Phantom Creek by a Redwall climb and a long traverse south of Shiva Temple; or over or around Shiva Temple from the Shiva North Rim Saddle or from Dragon Creek. I marvel that the Indians could have gotten such a delicate item to the cave unbroken, and believe the only way in which it could safely be removed intact would be by landing a helicopter on the Ra Osiris Saddle or on a small Redwall bench nearer the cave, and backpacking the olla, well padded, to the helicopter.

I decided to refer to the cave as Olla Vieja Cave (roughly, Old Jar Caves), as the simpler term Olla Cave had been pre emptied by Western Speleological Institute for their site. The cave is of some interest in itself. It is apparently the longest dry Redwall cave yet found below the North Rim. I explored some 300 to 400 feet or passage. Beyond the olla, the main passage narrows and divides into two crawl ways, rejoins after a few yards, and continues, with a slight left ward bend, for at least 20 feet as a passage too low to enter without excavating pack rat deposits. Back near the entrance, an opening on the right (as one faces the cave) reveals a spacious chamber whose cliff ward side contains stalactites and stalagmites up to a foot long. Some of the stalactites hang from peculiar mammillary bases which are apparently of aerogenic rather than subsaqueous origin. From the inner end of this chamber, two passages continue about SSE, roughly parallel with the cliff face: an open, dust floored broachway to the right; and a narrower, breakdown interrupted passage, at a slightly higher level, to the left. The former ends after about 100 to 150 feet. The latter, after continuing a comparable distance, forks to form two narrow crawl ways which were too difficult for me to enter while alone and with limited time. Though much modified by breakdown, and by accumulations of rat debris and dust, the cave is definitely of solutional origin. Fractures in the ceilings have been irregularly widened, and the passages beyond the stalactite chamber show directionally oriented flutes and scallops, which indicate former flow in the SSE direction (toward the River, but opposed to the slope of the side canyon in which the cave now opens). This is the only dry Redwall cave in which I have seen scalloping.

I left, with the intention of returning the following day to photograph the olla after seeking advice on camera settings from Harvey. I then rounded the head of the gorge between Ra and Osiris and examined three openings in the upper Redwall on the east side of Ra. These all ended in fill after 20 to 40 feet and had no visible artifacts, but the northernmost contained a layer of ash, suggesting that its pack rat guano had burned at one time.

From here it was a simple walk around the Redwall rim to the north end of Ra. I found that a number of vague foreground objects in Stanton's photo were recognizable as sections of the Redwall cliff top, and that I could obtain a view matching his by standing a few yards below the lowest Supai cliff and somewhat to the west of center of the north end of Ra. Relationships of features were definitely altered if I moved as much as 50 feet from the spot I chose to duplicate his photo. Stanton must have used a very wide angle lens; I needed four shots to include the important parts of his picture and would have needed

six if I had covered the lower left and lower right corners. Unfortunately, certain foreground points at the bottom of the picture, which were in my viewfinder, did not quite appear on the negative. I noted with interest that many of the juniper trees in Stanton's scene corresponded with living trees of about the same size. The summit of Dragon Head appears more rounded and broader now than in Stanton's photo; I cannot account for this.

It seems that the Stanton Party camped below this slope on the flat top of the prominent Redwall point extending north from the west side of the north end of Ra. (Harvey decided their climb up the Redwall must have been almost directly below this point, not on the one of those nearer the River.) I would have liked to go look for relics, but decided I should use my time examining the upper parts of Ra as thoroughly as possible. Just above the photo slope was a chimney by which I could climb above the first Supai cliff, but not on up to the point at the north end of the Ra ridge. After scouting traverses a few hundred feet out onto the west side of Ra at two levels, I concluded that this side was almost certainly unclimbable, and walked around the east side one third mile until directly below the saddle between the main and north summits of Ra. I then scrambled easily up to the saddle and ridge. I first went south to the base of the main summit block and walked around it in a clockwise direction. At its east and west corners, I found chimneys where I was able to climb about one fourth of the way up, but had to turn back, as there were problems I did not dare attempt without protection. Even if I had been able to gain the next ledge, the second cliff above might well have proved impassable. Giving up these climbs, I walked the ridge across the small rise of the north summit and out to the point at the extreme north end of the ridge. I saw no cairns or other signs of previous visitation here. As the sun was dropping low, I walked back to the saddle in the center of the Ra ridge and rather than go back to the chimney at the north end (where I had left a cairn in case I needed to relocate it), I descended to the east as far as possible and traversed a ledge in the lower Supai south to the Ra Osiris saddle. From there I went to the Redwall climb and retraced it down with little difficulty, guided by three cairns I had left on the way up. I did not reach camp until darkness had fallen, about an hour after I had agreed to be back, but was in time to forestall Harvey's leaving to organize a rescue.

An anonymous note had been left in our camp during our absence, admonishing us to remove or bury our rubbish. This was evidently from one of Bill Sewrey's party from Phoenix; they had gone in a day before we did from the west side of Crystal Creek. The next day they passed by again, and once more missed us. They were obviously puzzled as to our identities.

The morning of June 1st, Harvey and I started back toward the cave for photography. I thought he could do the Redwall climb, since I considered it a little easier than the one he had done out of Phantom Canyon near the Shiva Isis saddle, but he lacked a few inches of the reach required to make the worst pitch safely, and had to turn back and wait at the cliff base for me. I went on to the cave and made several tries to photograph the olla in situ by carbide light, one of which turned out fairly well (f.3.5 at 1 second). I then removed the olla and corncobs carefully to the entrance, took a shot in the shade and one in the sun, and replaced the artifacts in their original locations. After rejoining Harvey, he and I went around to investigate the gorge which climbs up to the west side of the Shiva Osiris saddle. We established that Stanton could not possibly have descended here, as there is sheer cliff all around its head. On the north facing slope of this gorge is the best growth of grass I have seen in the sub Redwall parts of Grand Canyon.

I am satisfied now that Stanton's party not only did not make the circuitous and difficult climb of Osiris, but probably did not even reach the north summit of Ra. The photo level was probably the highest reached. From there an easy walk around the corner to the east would have shown them the Redwall route down from the Ra Osiris saddle (which looks easier from above than from below), and after having spent a waterless night atop the Redwall, they probably would have headed for this without further cliff climbing digressions. Thus, they probably walked only about a mile along the top of the Redwall, but their climbs up and down it were respectable achievements, and Stanton's notes (though not his book) seemed accurate, although vague. The next morning Harvey noticed a prospect hole in the Hakatai (?) just north of Dragon Creek near the Crystal Creek junction, and I found a box of old dynamite, with the faded stencil Hercules Dynamite, under an overhang 100 feet to the east. I am fairly sure this does not date back to Stanton's time. We made an uneventful hike out and reached the car in mid afternoon. On his separate hike on May 31st, Harvey had determined the spot from which Stanton took his other photograph looking across the River from the Tonto Platform east of the mouth of Crystal, and found the break they probably used to climb to it. Thus, the true route of the Stanton Kane Bislop excursion seems rather well established now.

Meriwitica and Spencer Canyon areas, Western Grand Canyon
[June 4, 1966 to June 8, 1966]
(written by Donald G. Davis)

After our recent trip to the Tower of Ra area, Harvey Butchart intended to join some other men for some air mattress floating down the western part of the Grand Canyon, and I took the opportunity to use his parked car as base camp for a few days of exploring and cave hunting in the region of Meriwitica and Spencer Canyons. I left Flagstaff on my slow motorcycle about 8:00 a.m., an hour or more before Harvey, but we arrived almost simultaneously in Peach Springs before noon, in time for a brief meeting with the others of the party. There were four plus Jim Ervin, who had been in communication with Dock Marston about a river tragedy that Ervin had survived in 1931. Ervin and a partner had begun an ill prepared boat trip from Diamond Creek, and before reaching Bridge Canyon, Ervin had to leave the other man and hike out, at great peril, to Peach Springs. The other was missing when Ervin returned with a rescue party and was never found.

The four floaters left in a station wagon for their starting point at Peach Springs Wash. Harvey had decided to join them downriver by way of Bridge Canyon, and Ervin was to accompany him partway. Harvey and Ervin, in separate cars, and I followed the road leading NW into the Hualapai reservation. Seven miles from the highway the road to Bridge Canyon area leads north marked by a small sign FAA Vortac. (This is a cryptic modern building with a conical white tower, standing in a flat about two miles from the junction.) I led Harvey and Ervin far enough along this road to pass the two confusing forks which are not on maps; then we went back and continued to the head of the Meriwitica Canyon Trail (with a fruitless side trip to the dry willow spring). At 4:00 p.m., Harvey left his car there, with the intention of coming out that way on June 11; then Ervin drove with him back toward Bridge Canyon.

I had information on Spencer and Meriwitica Springs from USGS Water Supply Paper 1576 A, and decided to backpack into this area for two or three days. I started down the trail about 6:00 p.m. The

upper part has been built where the spectacular Meriwitica monocline has broken down the Redwall and lower cliffs, and descends in two long slopes with a switchback to the bed of the monocline controlled tributary, where it abruptly disappears. It looks as if the original intent was to build a wagon road into Meriwitica Canyon, but if so, it was never completed. The rest of the way one follows wash beds or animal trails. Meriwitica Canyon is overrun with wild burros and horses; I saw no more than three burros and six horses at any one time, but all reasonably level areas are trampled and laced with trails, and the ground between the desert shrubs virtually denuded of grass. I reached Meriwitica Spring and its lovely cottonwood grove just before dark, and camped NW of the spring.

This section of the Grand Canyon is of very different aspect from the National Park and less known, but in my opinion it is of equal interest and in some ways even more strange and other worldly. The vegetation is more typically Lower Sonoran, with crucifixion thorn (*Canotia*), creosote bush, Ocotillo, and California barrel cactus prominent. Above the Tonto group the sandstones are absent; the Muav is thicker, a thick Devonian limestone lies between it and the Redwall, and above the Redwall the mesa tops are capped by bedded Pennsylvanian limestone in place of the lower Supai. The twilight scene down the level alluvial floor of Meriwitica Canyon to the 2000 foot limestone wall beyond the spring grove is a very fair prospect, with no hint of the chasm which drops off below the enormous spring produced travertine dam which has held back the alluvium upstream, in much the same way as the lava at Toroweap. The effect is vaguely suggestive of southern Utah.

The spring is not yet depositing travertine where it emerges in a grape hung bower from talus below the Rampart Cave member of the Muav. There it averages about four feet wide and several inches deep, with a fairly rapid flow, but after it has run a few hundred feet, it spreads out over the travertine and sinks. Oddly, it does not reappear at once in the Tapeats bedrock of the gorge below the travertine dam; only a stagnant pool was visible from atop the dam. In view of this isolation of the spring by a cliff and dry canyons from Spencer Creek and the River, I was surprised to find in its waters an abundance of tiny fish up to three inches long. It would be interesting to know if they are a form endemic, perhaps, to this spring only. Also plentiful were small toads which hopped about rustling the dry leaves at night. Mosquitoes, while not abundant, bit persistently and badly impaired my sleep.

There are old ditches, flattened wire fences and old stone ruins SW of the spring, with some kitchen utensils and screw top bottles most of which look no more than perhaps 30 years old. A remnant of the sun purpled whiskey flask is more likely to be 60 or more years old, however. At the south end of the travertine dam fences block the approaches to burro trails which can be followed either north down to the gorge below the dam; or east around contours above the Tapeats toward Spencer Spring, about three miles away by foot. I set out for the latter early on June 5 and was able to keep to passable trails most of the way.

The travertine deposits at Spencer Spring are smaller than at Meriwitica and are restricted to the west side of Spencer Canyon, which they do not block. The deposits form three or four distinct terraces rising some 400 feet above the canyon floor. Water now emerges only on the lowest two and only in small amounts, and sinks before reaching the canyon bed. It does not reappear for a mile down Spencer Canyon, where a larger stream two feet wide rises at the junction with a dry canyon from the east. Cottonwoods begin only below this. Two burros with a baby one were sheltering in the brush at Spencer Spring; they had befouled

the water, and I had to dig a hole among the water plants as high up as possible to get a clean drink. Atop the lowest, broadest travertine terrace is a stone ruin, with some kitchen utensils in a shelter cave behind, and old stone walls (which may have been corrals) toward the cliff edge. I noted with surprise a forlorn survivor of cultivation, a struggling fig plant three feet high, growing from barren decomposed travertine about 50 feet from the ruin. The failure of settlement attempts at Spencer and Meriwitica Springs may be due to the poorness of the soil, which seems to be little more than a thin layer of powdered calcite. The dried remnants of old limestone dams, much the worse for weathering and trampling, attest to the former occurrence of much larger flows of water at both springs.

I could not find any caves in the Rampart Cave member of the Muav above Spencer Spring, though there were a number of short solution tunnels some of which were lined with several inches of calcite crust of subaqueous origin. I spent several hours, however, investigating caves in the lowest travertine cliff. These are apparently of constructional origin, formed by roofing of spaces with canopies of travertine. Delicate networks of fossilized roots and twigs are common in them. The longest I found was toward the north end of the cliff, near the top. It had two entrances and about 150 feet of passage, consisting of a barren outer chamber and two inner chambers heavily decorated with old, flaking drip stone and pool deposits. In pack rat nests it had many small eight to twelve row corncobs and pieces of cane. These were present, in fact, in most of the caves, and in many there were arrangements of stones vaguely suggesting storage cysts. If so, however, they were rifled long ago. I found no potsherds. Another conspicuous cave farther south, in the east facing wall near the top, was accessible from below; it had two openings, was about 80 feet long, and contained several foot wide clusters of *Corynorhinus* (?) bats with many naked babies. In holes on the cliff outside the main entrance were two colonies of honeybees. (I also saw honeybees drinking and working catclaw flowers in Meriwitica Canyon. I have not yet seen them in the National Park section of the Canyon.) Near the cliff base below this cave I found and photographed the skull of a bighorn sheep.

In a north facing shelter cave in the north end of the cliff I made a particularly interesting discovery. A stick about one inch long by two inches wide, with a burned end (apparently an Indian torch, perhaps prehistoric) had been jammed obliquely into a hole in the ceiling, and a hummingbird's nest (presumably Costa's or Black chinned) had been built on the outer end. It contained two large young. My photograph of it unfortunately turned out blank. This curious nest site is similar to two found by Cave Research Associates in the eastern Grand Canyon (Cave notes, v. 3 no 5, Sept. 1961, p. 38).

Returning toward Meriwitica Spring in late afternoon, I enjoyed some striking views down Spencer Canyon, with ocotillos and barrel cacti outlined above the shadowed Tapeats nearby, and great Redwall peaks east of lower Spencer Canyon glowing in the light opposite. On a promontory about one third mile southeast of the Meriwitica travertine dam, above the Tapeats, I found a plastic covered box, about nine inches square, containing electronic parts and labeled U.S. Army Signal Corps, Modulator, Radiosonde: seemingly the payload from a weather balloon. It was too badly weathered to be of any value. I got back to camp in time to scramble up the long talus to the enormous shelter cave in the Muav of the west wall of Meriwitica Canyon opposite the spring. On a ledge on the north side of the cave is the best built cliff dwelling I have seen in the Grand Canyon. In addition, there are remnants of two walls just below the cave, two more about halfway up the talus slope inside, and another where the cave levels off for 20 feet at the top before ending. There were corn husks, cane fragments, and fairly large corncobs strewn about,

and I saw a few bits of blackened, non corrugated pottery. Someone has done a good deal of crude looking digging, and a shovel and broken rake have been left.

I spent the morning of June 6 in leisurely wandering around the Meriwitica Spring grove, observing the interesting wildlife. The evening before, I had seen two kit foxes, so unsuspecting that they would freely go about their business while I followed 50 feet behind, and one of them appeared again. (One of these may be the little coyote seen by Harvey's party.) A remarkable variety of birds inhabit this tiny riparian oasis. I saw a family of Gambel's Quail, a Ladder backed Woodpecker (female); an Ash throated Flycatcher; a Western Wood Peewee; Blue gray Gnatcatchers (very common); a Phainopepla (probably; it was too distant to be certain); a Scott's Oriole (male); two Common Cowbirds; two Cooper's Tanagers (pair, or possibly male with immature); and several house finches. A notable sight as I walked upcanyon on the way out was a Hereford bull which had somehow managed to go wild here.

As I plodded up the upper part of the trail in the afternoon, a human figure appeared briefly on the skyline at the trailhead. I was braced to be upbraided by the Hualapai for trespassing, but it turned out to be Jim Ervin with a startling story to tell. He had hiked three miles down the Hindu Canyon road toward Bridge Canyon with Harvey two nights ago; they had parted at dusk, and Harvey left the road and went toward a saddle that Ervin was so sure would not lead to the river that he drove to Kingman and reported to the Mohave Co.. Sheriff (Floyd L. Cisney) that Harvey was in trouble! On Monday Ervin returned to the Meriwitica trailhead and waited several hours until I came up. He urged me to go with him to Bridge Canyon to search, and in momentary confusion I started off with him; but I soon decided his grounds for concern were not very good, and I didn't know the Bridge Canyon Trail and was unprepared for it, so I sent back to Harvey's car. I advised Ervin to drive back to the edge of Hindu Canyon to see if Harvey had come back that way, and then if he still felt there was real cause for alarm, to return for me by 10:00 a.m. next day. After he left, I still had time to walk out along the Redwall rim east of Meriwitica Canyon for about two miles, to see if I could find a way to cave entrances I had seen from below. I could not enter them, but one recess in the rim contained a pocket of light reddish and whitish sediments resembling the Hindu Canyon fluvial beds of the area farther east. Possibly the apparent scarcity of caves in this area is due to filling by these sediments. Along this canyon rim, about one and a half miles from the car, I found two crumpled wing tanks, some 10 to 15 feet long, which had evidently been jettisoned from an airplane. They were about 300 feet apart and a similar distance back from the cliff edge.

The next day Ervin did not come to my camp, but the sheriff and three special deputies did. They had also had a report from a Peach Springs school teacher about the station wagon left at the bottom of Peach Springs Wash. To my chagrin, the only one of Harvey's companions whose name I could remember was John Harrington, and the only pertinent detail I knew of their plans was that Harvey was due back out Saturday, June 11. This, however, was important, since they said Ervin had told them Harvey was to have been out the past Monday! I explained that Harvey was the recognized champion of Grand Canyon back country hikers, and we all agreed that it would be unwise to mount an all out search until after Saturday, as there were still no solid grounds for believing Harvey lost (though, if he had been, Saturday would probably be too late). I led them on a walk along the rim to see the jettisoned wing tanks, after which they left.

All these visits had cut considerably into my intended cave hunting time, but after the sheriff left I was able to investigate a large opening visible in the Muav at the head of a short tributary of Meriwitica Canyon across from the trailhead. A ledge on the north wall of the tributary canyon led toward the hole, but appeared to be interrupted by unclimbable spots. After dropping into Meriwitica Canyon and climbing laboriously up to the ledge, I found this appearance was not deceptive; I could not get within 200 feet of the cavity. Probably, however, it was only the result of weathering along seeps in a silty zone of the Muav; there were several seeps, enough to wet the rock, above the ledge at the same level. Wasps were drinking at them, and a man might be able to get enough to survive by chipping V shaped undercuts with a rock hammer, if for some reason he could not reach Meriwitica Spring three miles away. On this nearly inaccessible ledge, I saw mountain sheep droppings, tracks, and beds. What they want there mystifies me, but if they wish to escape the presence of the introduced wildlife and their neighings, braying, and bellowings, this is the place.

On the morning of June 8, having eaten most of my food and drunk five of the ten gallons of water in Harvey's truck, I started for Los Angeles. Where the road crossed a Redwall hill two and a half miles south of the Meriwitica Trailhead I stopped to photograph the hill and its typical vegetation of gnarled cliff rose and agave. Fifty feet from the road I flushed a black throated (Desert) Sparrow from a small clump of rabbit brush (?), and found a nest, just above the ground, containing one small young sparrow and an infertile egg.

Before leaving the car, I had found a letter to Harvey from Jorgen Visbak from which I got the names of Homer Morgan and Bill Mooz (or Moose) and some information about the plans of the river party, including the fact that a Mrs. Elinor Lamb from Las Vegas was to have met them June 6 and taken Harrington and Mooz out June 7. I told the sheriff about this as I passed through Kingman. He called the Las Vegas Sheriff to check on an Elinor Lamb who was known to the latter sheriff, but found she was an operator of a western clothing store who was not known to go boating, as far as could be found at the time. He also tried to get through by radio to Temple Bar, but had received no reply by about 4:00 p.m. when I left. I arranged to be notified if they had to resume the search, but Harvey reached his car before the deadline, all unaware of the furor. I decided that Ervin's agitation had probably been conditioned by the fact that the last man he had left alone in that area was never seen again. The effects of remote events can echo even through time in curious ways; because of a 1931 river tragedy, I now have a speaking acquaintance with the sheriff of Mohave County!

Ervin climb area revisited

[July 3, 1966 to July 4, 1966]

Since I had brought back so little in the way of pictures from my visit on June 5th, I felt that I should go back and take more relevant shots. At the car after the climb up Mount Humphrey on Saturday, I was asked some questions by a man who proposed going up and spending the night on top. Since he had several days to do anything he wanted, I invited him to be my companion on the Sunday and Monday trip down Bridge Canyon and around to the east. He thought this over for a short time and agreed. I had suggested that the amount of water to be carried should be two quarts but when he showed up Sunday morning he had only one. He was sure that this would be plenty for himself and his two little dogs since I

had said that we could get from one water source to another in four hours. Since he was quite experienced in the Sierras and had also done a fair amount of desert hiking, I didn't challenge this claim.

We drove my car to the rim of Hindu Canyon and started down on schedule at 9:00 a.m. One of the two little dogs kept right up to us at all times, but the 10 pound black dog was showing symptoms of difficulty in the heat within an hour. She wanted to hang back in any kind of shade. Art had to carry her numerous times, but still we seemed to be making better time than Ervin and I had done. It was only about a quarter of a mile from the ravine where I left the road to where the road turned north to go to the Bridge Canyon Trail and beyond to the viewpoint. I was satisfied that it is no longer safe to take any vehicle other than a four wheel drive beyond the place where I had parked.

A short distance after the road turns to climb out of Hindu, there is a corral and some lumber from a ruined shack. Farther on the road splits. We could tell that the long continuation goes to the west, but I thought that the other branch might go to the beginning of a clear trail up to the head of Bridge Canyon. At the end of this branch there is a shed still standing and for a portion of the way up the ravine beyond, we could follow a trail. Most of the way to the pass we were walking up as we saw fit, but it was the right pass. Williams still had to watch the little black dog to get her away from shade, but we were down at the spring in two and one half hours from the car. As I filled my canteen, I was a little afraid of the wasps, but they didn't sting. The dogs enjoyed getting the cool water out of Art's canteen on their backs.

I had suggested that since Art could see that his one quart had to be supplemented from my two quarts, he might consider staying at the spring while I continued to get the pictures. He was properly impressed by what he had seen of the canyon country and wanted to go on with me. When we had proceeded for about 15 minutes down a clear part of the trail, the little black dog gave unmistakable indications that he was suffering from the heat. This convinced him that he should go to the spring and wait for my return on Monday. I assured him that I would be back before noon and most likely before 9:00 a.m. Before we parted, I should have made sure he knew where this spring was. It never occurred to me that an outdoorsman like him would get confused with the spring only a half a mile away. I had pointed it out as we came down the switchbacks and it would have seemed insulting if I had made him review its location. When I got back at 8:00 a.m. Monday, I learned that he had spent a good part of the afternoon looking for the spring. He apparently had no idea where it might be in the whole upper end of the valley. He remembered that there is an old barb wire fence a hundred yards or so above the spring, but he couldn't find the fence. Finally, after spending as much time resting as walking, he came to the water. It was a good thing for me that he had agreed to go back because my two quarts were about right for my own needs in going over to the spring that Ervin had found, a trip of three and one half hours in the heat. I had to stop for three rest periods. My route was essentially the same as it had been four weeks ago, along the flat to the west of the wash for a short distance and then along the burro trail to the east until I came to a clearly man made portion nearer the ravine. On the return I avoided some of the distance involved in contouring on the burro trail by taking a good chance to drop down to the bed of the wash. At the bottom I saw who had improved the trail. An old sign is still standing. The board is just weather blackened wood, but when I went close, I could make out letters spelling Upper Dam Site. They now show only because the rest of the wood is sand blasted leaving them in slight relief. I suppose the original paint protected the part which is still legible. It seemed to take just about as long to walk the bed of the wash through soft gravel and the boulders as it had to walk the contour path above.

The walk along the rim from Bridge Canyon to 234 Mile Canyon seemed longer this time than it had four weeks ago. Possibly this was because I may have followed the burros out along the lower rim instead of taking the higher man made trail as I had before. I believe I also went farther south to cross 234 Mile Canyon than I had on the first occasion. Likewise, on the present trip, Ervin's route up the Redwall looked less promising than it had earlier. I had considered trying to climb it or see how high I could get, but when the rocks got so hot in the sun that I could just stand to touch them, I soon changed my mind. Rather than take time here, I walked on north to the river to get a view of the boat landing and the climb out of the inner gorge. The water was lower than it had been a month ago and I was a bit unsure of the identity of Ervin's projecting rock. The one I decided must be right was more nearly cubical than projecting out like a pier. I figured that Ervin must have walked out south about a quarter mile from the main rim of 234 Mile Rapid, which seemed to be kicking up higher waves than 234 Mile Rapid itself. I returned to my pack at the spring by 5:45 p.m. and ate my dinner after a cooling soak in the shallow water at the brink of the fall. After eating and drinking all the water I could take, I packed up and spent 45 minutes crossing 232 Mile canyon to spend the night on the other side. There was water in pools in the Archean bed of 234 Mile Canyon even above the place where the water from the spring goes down. There were also numerous burros down there and at least one or two were noisier and more aggressive than any I have ever seen. I could look down and see two or three scrapping for the attention of what I took to be a female. There was no classic fight with two stallions baring their teeth facing each other, but I saw one rearing and driving another away with its front hoofs. The braying was mixed with sounds more like shrieks and whistles than I had never heard before from a burro.

My cotton blanket was just right for a comfortable night, but I was bothered by a few mosquitoes. I packed up and started on as soon as it was light enough to see the trail and when I was approaching Bridge Canyon, I detoured down and back to eat breakfast along the rim with a fine view of the river showing 234 Mile Rapid. I reached Art Williams and his dogs at the spring just as he was finishing breakfast about 7:45 a.m. We took about an hour to reach the pass at the head of the trail, and this time we went up to the west and saw the road as it continues up a valley on its way out to the viewpoint overlooking Separation Canyon. We had to carry the black dog in a knapsack for most of the way up Hindu Canyon and out to the car which we reached in three and three quarters hours after leaving the spring.

One observation concerns the canyon from the north rim that reaches the river opposite Gneiss Canyon. From what I could make out, it might not be hard to climb the Redwall at its upper end. If this is so, it would offer a quicker route to the plateau than would Separation Canyon. However, it is hard to land at its mouth and I am not proposing that it is the true Separation Canyon. (Jorgen and I checked and the Redwall is impossible in this canyon.

Fossil Bay and Redwall rim to Specter
[July 25, 1966 to July 27, 1966]

For several years I had been interested in the possibility of getting from the top of Great Thumb Mesa to the Colorado River. Reilly had first suggested getting through the Redwall in Specter but had later reversed his opinion that it is possible. I had seen this from a plane a couple of times, and especially after

the flight last September had believed that one could go to the rim of the Redwall southwest of Stanton Point and then along the Redwall rim around to Specter and down. In 1961 I had taken several trips to the Esplanade in Fossil Bay after locating the break in the rim a half mile southwest of the head of the main draw.

Just once I drove my 55 Ford up the access road north of the Topocoba Hilltop Road and I had had a \$70 repair bill on the front end. I now left it at the fork where W2A turns north. On previous occasions I was able to walk from there to the break in the rim in four hours and I had even come back south from the same place once in three and one half hours when I thought that a winter storm was about to break. I found that I was slower now and that the interval had dimmed my recollection of the landmarks. I wasted several minutes in going out for a view north along the rim and I thought that I should have reached the place before I had. Just before you reach the place, there is a surveyor's crossbar mounted in a dead juniper at the high point of a ridge several hundred yards west of the rim. Another good landmark is the first steep valley draining to the west and leaving only a narrow ridge which formed the rim above Fossil Bay. Also, the cairn I built is still just east of the trace of a road. I am not surprised that Davis thought the north half of the route to the rim above 140 Mile Canyon not even Jeepable. The old route is overgrown and much less clear than it was five years ago. The horse trail through the junipers and old burn is much easier to follow, but even it doesn't seem as clear as it did when Allyn and I first came this way in 1957.

When I left the rim I tried something that I hadn't done since the very first time I went down. I descended rather near the break in the rim to the steep clay slope at the top of the Toroweap outcrop and tried to go horizontally to the north. This was very slow and precarious. On the way back I saw why I had previously given up this route. One should stay high until it is obvious that he has to descend. Down in the clay here there is a fair trail past one bump to the break in the Toroweap which leads to the talus covering the Coconino.

When you get down to where the slope gentles out in the black brush cover, you have to cross two ravines to the left to reach the deep rainpool area. I was gratified that I had drawn a bead on this three and one half foot deep slot in the bedrock which I feel holds water the year around. The recent rains that had broken the drought at Flagstaff seemed not to have done much for this western part of the park. The pothole water was a foot below the overflow point. I found everything as I had remembered it including the little fireplace I had built, but something that was new was the large tin box which had been airdropped to Fletcher in 1963. He had placed it under an overhang in a good slot. I tried opening it with the handle of my spoon, but the lid was rusted tight. It would take a strong screwdriver to pry it open. One thing that has not impressed me forcibly before was the prevalence of mosquitoes. At this time of the year they were bad, especially the second night.

My plan called for the second day of my projected five day trip to be a big one, settling the major question of whether one can walk down the shale in Specter. I was up before five and was on the trail by 5:40 a.m., carrying two gallons of water and food for three days. My timetable called for getting to the point along the Esplanade where I could go down to the Redwall in two hours. It was cold so early, but still I didn't keep up to schedule and I also bungled by overshooting the point close to the rim. It took 40 minutes walking back after I got oriented by looking down at the river and the bed of Fossil Creek.

Getting down to the rim of the Redwall went off better than I had planned, in 50 minutes instead of an hour.

I took some time for a few pictures that might give more light on the possibility that Indians had been able to descend to the bed of Fossil in the semicircular bay opposite the route I had used through the Supai. My conclusion is the same as it was several years ago. As long ago as 800 years, the talus material probably came up to the rim and extended clear to the bottom at a steep but climbable angle. Now there is a break at the top which would require a rope, and the lower slopes of the talus are steepened so that no one could go on down even after using a rope to reach the cone of detritus. I was also able to study the broken rough places in the Redwall a half mile south of the mouth of Fossil. When I passed quickly in the plane, I had thought that the route here should be a real possibility, but my present one sided view made the route look like the chance for success should be more than 10% (it goes, Enfilade Point Route). It would still be worth a try. I also saw where I had come through the Supai on the other side of Fossil Creek. From further study from the Kaibab rim on the return on Wednesday, I saw what I consider to be a much more direct route from the Esplanade down to the possible route through the Redwall south of Fossil Creek.

My original timetable called for three and one half hours spent along the Redwall from Fossil to Specter. I was already about an hour behind schedule, and I seemed to be making poorer progress than I had hoped along here too. I decided to keep going forward until 2:00 p.m. If by then I saw that the rest of the trip down into Specter was sure, I would advance, but if not I would spend the rest of the afternoon heading back, a discouraging thought. It now seemed that this frustrating safety measure would have to be used. Perhaps I was trying to hurry, or it may be that I am getting careless. Anyway, while I was looking for the route two steps ahead, I stumbled. I tried to check the fall by advancing a foot, but that foot caught on something. I fell headlong and my canteen flopped up and caught my full weight on its shallow cylindrical surface. The 25 pound pack added to the impact. The blow came right over the heart. I got my canteen and pack off and rolled back into the shade of a large rock to get over the shock and assess the damage if any. I had cracked a rib in Kanab Creek with a lighter blow, and I had done the same with a heavier impact while skiing. I could move into various positions without too severe pain, and I decided that what I felt was probably just a severe bruise. I went on very carefully and slowly around the angle and down parallel to the river to the next point before the wall developed a hollow. It was probably about a sixth of the way to the ravine in Specter, and it had taken nearly an hour. The pain in my chest was increasing, and by now a sort of secondary shock was making my knees tremble. I took a couple of pictures and decided that I had had enough for one trip.

I noticed one thing before I started back. The slopes on the other side of the Colorado down near the water and up along the shale benches had the clearest system of animal trails that I have seen anywhere. They looked like burro trails but I didn't know that there ever were lots of burros in the area. I recall the somewhat mysterious information in the Escape Routes pamphlet that there is a trail upstream from the mouth of Tapeats Creek for 16 miles. I wonder whether this information came from aerial observation of these game trails.

Before starting up the Supai, I dumped almost a gallon of water. The evening and night at the pothole were marred by too many mosquitoes. I also came away from this trip with itching welts on the

undersides of both forearms although I hadn't noticed any hoptrees. I also picked a tick off while I was eating a snack along the road back to the car.

There seems to be a way down to the Esplanade from the top of Powell Plateau on the west side about a half mile north of Wheeler Point.

After the poor sleep because of the mosquitoes and the discomfort of not being able to take a deep breath, I needed more than the usual four hours to reach the car after taking two hours from the camp to the plateau.

(Later, Gary Stiles helped me up through the Redwall in Fossil. Others have gone up through the Supai near the main bed. Others found that one can get down the Redwall at the head of Fossil and pass the chockstones and a chute to reach the river in Fossil Canyon.)

Tapeats, Deer Creek, and Galloway Canyons
[August 23, 1966 to August 26, 1966]

My previous approach to Specter had failed because I wasn't sure where I could get water. When I carried enough to get me back to the Esplanade in Fossil, I found walking very slow along the rim of the Redwall and got discouraged, especially after a fall that broke a rib. This next attempt would solve the water problem by staying where I could reach the river.

I drove up to Big Saddle Monday evening. In the morning I used the road that goes out to Crazy Jug Point as I had in 1957. The road was much better now and I found that several new branches were a bit confusing. I reached the rim and took the one along the rim to the west. About three miles from where I had slept by the gate across the Crazy Jug Point Road, this road starts downhill into a valley that separates Monument Point from the main plateau. I parked here and went on foot below the Kaibab Limestone and followed a poor deer trail around below Monument Point as I had done in November, 1957, when Don Finicum and Allyn Cureton had stayed above and had come down to meet me near the end of the point. We had walked a dead heat at that time, but I am now convinced that they had an easier time by staying on top as long as possible. Then as we had done in 1957, I went northwest past the point until I came to the talus that covers the Coconino and all but the top few feet of the Toroweap. Below here I found an intermittent trail that led down to the main Thunder River Trail from Little Saddle. By the route I used this time, it took me one and one half hours from the car to the horse trail or Forest Service Trail 123. This is very likely an hour less than it would have taken me to come in from the end of the road at Little Saddle, but I could have done it in at least fifteen minutes less if I had stayed on the plateau across Monument Point and had headed for the small bay in the rim northwest of the place to get through the Toroweap and Coconino. I came up to the plateau here with Norvel Johnson last year and I came out the same way at the end of the trip this year. A deer trail goes down the draw into this bay and then splits. One branch follows a ledge on the cliff which forms the south side of the bay and the other gets down to the northwest and then turns left to the break in the Coconino. Norvel and I used this latter last year, but I got up this time by the former. There is a place where one has to crawl under an overhang to stay on the ledge. I had to put my canteen in the pack and move it along in front of me by one hand while I crawled 15 feet.

While I was walking along under Monument Point, I had a good view of Powell Plateau and I believe I saw where one can get from the rim down to the Esplanade somewhere to the northeast of Newberry Point. With no map along (an unusual oversight), I didn't locate it well. I don't know whether I'll ever be able to set foot in this rather forbidding region, the largest section left on my map with no trail marks.

I also took a good look at a possible route to get down from the north side of Great Thumb Point to the Esplanade. From my distant viewpoint, it looked safe.

The main trail along the Esplanade to Thunder Spring is now fairly well marked with cairns, but there don't seem to be as many signs of use by horse parties as when I first came this way in 1951. I could see footprints of several people in the sand and dust, but they had already come out. This was my fifth trip down here, but it was the first that was solo. The walking is surprisingly level and the rocks are of fantastic shapes. Many times during these four days I thought that the views were superior to any we had seen on the recent vacation trip through South Dakota, Wyoming, and Colorado. I didn't try to hurry, but my total time from the car to Tapeats Creek was four hours, my fastest yet. I believe I could save a quarter of an hour yet by keeping to the top plateau to reach the bay on the west side of Monument Point before starting down.

The creek was not high and after lunch I crossed and proceeded down the trail on the left side. I now had to decide how I would proceed towards Specter Chasm. I felt sure that I could climb up from the river on the south side opposite the mouth of Tapeats, but I had no clear recollection as to the possibilities farther upstream. I figured that I would cross below Tapeats Rapid and then follow the higher levels upriver until I came to water in the bedrock of a side canyon or found a way to climb down and camp by the river. I crossed back over to the right bank of Tapeats Creek a bit too soon and rather than wet my feet again, spent extra time going along the precarious slope above a cliffy promontory. I think I could have seen an Indian ruin on this promontory if I had looked as well for such things as I did when I was returning along the other side on Friday. I reached the river in about one and three quarter hours from the camp sites at the foot of the trail. After a little rest in the hottest part of the day, I walked down to the foot of the rapid and crossed on my mattress.

It was easy to follow the river back upstream for quite a distance, but I made the mistake of climbing up above the cliffs just upstream from the mouth of Tapeats,. This climb was exhausting in the heat, loose material underfoot, and the walking along the side hill contour wasn't much better. I couldn't see from where I walked whether I could get back to the river for water, and there was none on a couple of places showing bedrock. I began to worry about getting shut away from the river with no water for the night. When I came to the first real tributary on the south side of the river, about a half mile upstream from the mouth of Tapeats, I could see a couple of shallow rainpools way down below me in the narrow bed, but the prospect of the long walk uphill to find a way down to them seemed like the last straw. If I had been fresh from a start at the mouth of Tapeats, my decision might have been quite different, but now I turned back and found a way to the beach rather near where I gave up. I floated downriver and across but didn't take a chance of getting caught by the current and taken into Tapeats Rapid. I left the water upriver from the mouth of the creek and walked past the last cliff. Upon further study, I decided that this was needless caution, but when I am alone I try to err on the side of safety. I enjoyed one of my best nights ever on the

sand first with nothing on and then with only a cotton blanket. For a bit on Wednesday I couldn't decide how to plan the rest of my trip. If I went right over to Stone, I couldn't do Galloway justice and get back to camp at Stone the same day, or so I thought, so I aimed at another target of opportunity that I had considered previously, but not for this trip to Deer Creek and back along the river. Booth, Morgan, and Harrington had done it the hard way, up the wrong ledge and over into Bonito Creek. They had made it to the river by using their rope. By now I had given up the idea of getting to Specter and back, so I started for Deer Creek. Walking the riverbank was routine until I came to the mouth of Bonita where a diabase promontory made it necessary to climb up the slope. It was just a bit difficult to find a place to climb down into the bed of Bonita, but there are two. Bonita Rapid was not as long as Tapeats, but the waves were bigger. The next impassive part of the river was a couple of hundred yards before the beginning of Granite Narrows. A big boulder bar extends from the right and directs the current against a low ledge sticking out from the left side. The water piles up against the ledge and forms a big swirl on the upriver side. Some water at this stage flows behind a dark rock island near the left bank. I would surely not want to run through on an air mattress, but there was plenty of beach to walk on the right. The water appeared perfectly smooth in the narrows.

It would be interesting to know what the other party did here. I first followed up the ramp formed by the lowest ledge. About ten minutes walk up here I could see that the ledge ended completely, but before I reached this place, I found several Indian ruins. There was even a mano on a metate here, and to prove I was not the discoverer, there was a piece of galvanized wire holding a plastic ribbon. After retracting to the beginning of the narrows, I avoided the next ramp up and climbed to the spacious slope still higher. On the return, I found that the second ramp connects with this slope and makes it unnecessary to go as high as I did. Walking was easy to the saddle where I went up and down into Deer Creek Valley. On the descent I came on a couple of ruins and then remembered that Euler had told me they were here. I reached the creek in just less than three hours after leaving the mouth of Tapeats and I returned in about 15 minutes less time although I made the mistake of staying too high too long after going up at the mouth of Bonita. At the beginning of Granite Narrows, I saw driftwood higher above the water than just about anywhere else along the Colorado River. It was hard for me to believe that the water had ever been this high, about 60 feet above the present level.

After a two hour break, I started for Stone Creek. I had looked over the climbing route up above the mouth of Tapeats to the east, but I dismissed it as too tough for me with my pack. Another bit of climbing that I flunked was to follow the ledge above the last gorge at Deer Creek on the left where Morgan, Booth, and Harrington had come last year. Although I had only my canteen at the time, I decided that those three are better rock climbers or are greater fools than I, probably some combination of those two categories. Now on the way to Stone, I labored back up the talus on the usual trail to Thunder Spring from the river until I could cross above the final gorge. This detour isn't really too long. I had remembered a clearer deer trail along the bluff from the mouth of Tapeats to the mouth of Stone than I found this time. Perhaps when we went along there in early June the deer had been using it recently, but now in late August they had been on the plateau above for a long time. Actual deer tracks in this low area were few and old looking. Before stopping for the evening, I moved upstream and camped near the slope where the trail starts climbing away from the creek to the east. The night was surprisingly cool and after getting under my blanket early, I found myself putting on some long johns and my regular clothes before the night was over.

The next morning I was up with the first light and was heading away from camp about 6:40 a.m. with almost one and one half gallons of water and my lunch. I had just left the creekbed and was walking at the edge of a patch of cane when I had my closest encounter with a rattler. My eyes were a few feet ahead of my feet when I heard the buzz and saw that my forward foot was about six inches from the head of the four and one half foot snake. It was not coiled and had only enough slack in the neck to strike about four inches, but I wasted no time in withdrawing. This shook me quite a bit since I thought how serious it would be to go through with even a non fatal bite so far from help.

The trail up to the ridge separating Stone from Galloway was about the clearest and easier to follow of this area. One can see human planning behind it with deer use for maintenance. With the various ruins in Stone, this is easy to believe. For a clincher, I found pot sherds at the edge of a red rock ramp about 100 feet above the bed of Galloway just south of the Tapeats narrows. Something contrary to Euler's report obtained when he flew over Galloway by chopper was the presence of a small amount of running water about a half mile down the bed to the west from where the old trail entered the bed. I didn't need it, but I could see the sky reflected in the small pools and there was water obviously running over two three foot ledges.

The narrows through the Tapeats could have been avoided by keeping to the higher level, but side sill walking is always slower unless the bed is impossible. For a few moments, I thought I was licked as I went up into the narrows. A chockstone blocked the way where the rather smooth walls were just too far apart for chimney climbing. However, after putting my canteen and pack with the lunch up behind the chockstone, I was able to wriggle up too on the third attempt. There were two other places where I had to use my hands, but they were easy compared to the first spot.

About where the two upper arms came together, I got a view of the upper part of the north branch and saw why Reilly had thought it a walk up from his aerial view. However, when I had climbed up the rather sharply rising bed to the upper three fourths of the Redwall, I found an 80 foot cliff barring the way. I studied this climb for a break to the south, but I decided that this would be for the experts with hardware. Another flaw with its being an old Indian route to the rim is that the Supai seems to offer no route at all near. It would be clearly easier for a man to walk back from Stone to Tapeats and then out. With the present trail system, I am sure that I could do this in a long day. After returning from Galloway, I camped in Tapeats and reached the car the next day.

A few more comments might be in order. There is a feasible route for climbing from the left bank of the Colorado River below Deubendorf Rapids. If one went up 800 or 900 feet he could find a fairly level bench on which to walk to Specter. I had about dismissed this route as a ridiculously hard way to go from a car to Specter, but I have now changed my mind. It would be less than an eight hour walk from where I parked to the mouth of Stone using the best way off the rim. From the mouth of Tapeats to the mouth of Stone shouldn't take more than two hours. I could even camp on the left bank across from Stone the first day and be able to walk to Specter or past if necessary to reach water. To check out the route up Specter and the other route I have been thinking of upstream from the mouth of Fossil would take another day, so one would have to devote five days to the effort. Five or six days together would be enough if one were to start down the Bass Trail. If one were sure he could make it along the Redwall rim from Fossil to Specter

and then down Specter to water, this would be the fastest, especially if he had a four wheel drive and could camp with water at the rim above Fossil Bay. If he had to start where I leave my car on the Topocoba Road, parts of four days would be necessary, or five if one wanted to check the place south of Fossil. All in all, I rather favor going back and trying it again with the Tapeats Stone route.

I had a rough night sleeping where I did in Tapeats after ten and one half hours of actual walking on Thursday. I found a good level place where there were no obvious ant hills, and yet in the night I was overrun with tiny red ants. I had thought that ants don't work at night, but I was bitten two or three times and they crawled over me until I was finally cool enough to get under the blanket. They were into my food in such numbers that I got most of my bites in the morning when I was trying to shake them off my gear. What I saw too late was a neat sandy ledge under an overhang right beside the creek where the rushing water kept it locally cool all day and night.

Even on short sleep rations, I was able to enjoy the walk to the car as much as any I have ever had. First I relocated three ruins in Tapeats Valley. Cairns and diggings show that many have seen them too, but I had missed them on all but one of my previous trips, and then I had seen only the most obvious. In Surprise Valley, I cut across instead of following the trail down and around the two great lumps of limestone that have slipped from the north wall. About the middle of this cutoff, I found a large mesal pit. I also noted where the trail along the Esplanade cuts right through two more mesal pits. There was a haze in the air which brought out the various headlands in the direction of Supai and beyond. I have never seen the Esplanade appearing to greater advantage.

Upper Crystal Creek
[September 24, 1966]

My plan was to get an early start by sleeping near the takeoff point and go down into Crystal, out to the river along the Tonto, and come back up to the rim out of Tuna where I had done it last year about the same time. I had studied my two slides of the possible route down into Flint Creek, one taken from the air but not at the best place, and the other taken from the rim of Galahad Point mostly to show Gawain Abyss. The more I studied them, the less likely it seemed that there is a ropeless descent of the Redwall about two miles north of the Tuna Flint Saddle (I have done this without a pack). The aerial view looked promising if a ramp extended around a corner and continued up but the view from Galahad showed no continuation. In order not to lead one or two students on a frustrating trip or perhaps tempt them to attempt a dangerous rock climb, I switched the goal to filling in the route from Crystal around into Tuna.

At the last minute, Norvel Johnson had to count himself out but a new student, Chuck Johnson, came along. He had gone up Sunset faster than I could and he had taken a long solo tour of the attractions of Utah last summer, so I figured that he had the necessary strength and ambition. We left home at 3:30 a.m., ate at 6:00 at Cliff Dwellers, and after another stop at Jacob's Lake reached Point Sublime by 9:30 p.m. There must have been quite a rain that day. Water was in big puddles over the road, and at one place we had to swing a dead tree off the road to get past. After a couple of hours on the ground, we moved into the car a little after midnight when there was a brief shower. I finished the night with about two more hours of sleep in the car.

We waited until it was light enough for me to show Chuck the proposed route along the Tonto on the east side of Tuna and he had time to take in the early morning view. We drove back to the fire road that cuts across the Basin to Park Headquarters and parked about a half mile from the junction. It was much cooler back in the woods than it had been on Point Sublime. We passed the place where I had left the rim last year. A little farther on we came close to the rim again and got a look at the lay of the land. The place where I had come out last year was still ahead. After skirting the first little valley, we went down between the first towers of Kaibab Limestone. The deer trail we found led us east and then we went down mostly using deer trails just west of the spire that I passed to the east last fall. We got into some bad brush and thorns at times, but we made fair time and found no problems in passing through the Supai. It was easy to reach the end of the valley on the Redwall rim that is about two thirds or a mile south of the 15' parallel on the East half map. We knew that we should turn south along the rim to try the descent. I had thought, from a distant view, that the route might be down the end of the promontory just east of the next ravine, but after looking the place over, we saw that it would be much easier to go down the bed of the ravine. There was no difficulty here. Quite a fault passes through this ravine with the Redwall to the east a good many feet higher than that to the west. I am a little surprised that Maxon's map of the Bright Angel Quad doesn't hint at this.

At the bottom of this scramble down the Redwall, I suddenly became aware that my left foot was giving me fits. There were pains all through it, but it seemed more like a fallen arch than a sprained ankle. I taped the instep well and it seemed to be getting along fairly well until we stopped for lunch two hours later. When I tried to walk on it again, the pain was intense until I had used it a while. We had reached by noon a place about three fourths of a mile north of the junction of Crystal and the arm that comes south from the end of the Dragon. I had been weakened by the pain in my foot and I could see that my project to go out to the river and turn up into Tuna that night was out. It seems to me now that even when able bodied, I should expect to take two and one half days for that whole traverse.

The permanent flow in Crystal starts in a grove of giant cottonwoods about east of the name Grama Point on the old east half map. A tiny flow of muddy water coming down spoiled the clear water.

Aerials Shiva, Osiris, Ra, Flint, and Specter
[October 20, 1966]

Bill Martin was happy to pilot me on another scouting expedition. I had resolved to shoot only at preselected spots, but broke this resolution by potting away at Crater Lake, northwest of Kendrick Park and also at Red Mountain. At my request we stayed about even with the base of the Coconino Sandstone most of the time that we were over the Canyon. I believe that distance above the Redwall and out from the Supai is better on the whole.

We flew into Phantom Creek enough east to let me get a shot of the possible Redwall passage west of Sturdevant Point. Then I switched to the other side of the two seater Cessna 182 for a shot down to the place Clubb climbed the Redwall on the north side of the east promontory from the base of Isis. I will believe his word that they climbed here, but I will say that I would never have considered it as a way to the top of the cliff (expert climbers say this is impossible). I wonder whether they even saw my route at the west end of the valley.

Next we passed over the Shiva Isis Saddle and I got a look at the Supai south of the saddle. A first impression would make one think it much easier than where the Clubbs came up the Redwall, but I didn't really pick a route. As we sailed past the south side of Shiva, I confirmed several men's opinion that deer could walk up the Coconino along the southwest shoulder and probably go on to the top after proceeding east along the base of the Kaibab Limestone.

Having the entire back to myself let me slide over to look down on Davis' route up the final Supai cliff of Osiris. I could see blocks that would have to be surmounted and I didn't have time to spot any chimney. I would agree that he made a remarkable ascent. Around the curve of the cliff to the east where he suggested I check before giving up, I spotted a much more likely way up. There seemed to be a pattern of blocks with fissures behind them which seemed inviting to me. I definitely would like to try this one some time.

The place I had concluded S H K went up from the Tonto to the rim of the Redwall on the north side of the promontory thrusting north from Ra looked even better from the air than it had from below. My impression from the air was that it seemed easier than the route down just north and east of the Ra Osiris Saddle. Of course an attempt at climbing might cause me to revise this estimate. I couldn't feel sure that I had spotted the narrow wall connecting an offshoot with the main rim, but I saw a suggestion of this feature.

After doubling back for more pictures of the crucial climb area, we went on south around Confucius and Mencius and up the west arm of Tuna over the Tuna Flint Saddle. There are definitely two distinct ways to get through the Coconino west of Point Sublime, but the one I have used is the one farther south, rather near the end of the ridge.

Before we reached the saddle, I noted something that substantiates Clubb's report that Lawes and MacRae went off Grama Point when they led the parachutists up to the road. There may be a route through the Redwall down from the ridge going to Confucius into Tuna. I believe I saw it southwest of the word Creek in the name Tuna Creek on the east half map. At least I feel that this spot is worth checking (not a Redwall break, ravine on west side).

My impression of the route northwest from the Tuna Flint Saddle is that one can get down the Supai about anywhere and that it would be easier walking along at the level of the saddle until one is nearing the hoped for break in the Redwall. I looked hard at the broken area without being able to make up my mind. In the first pass, I almost concluded that it is hopeless without some rope. We climbed clear around most of Sagittarius Ridge to come back and let me look again. On the way back from Specter, Bill took me over the area once more and this time I became almost sure that I can walk down into Flint.

I had been thinking of getting Bill to fly me over Powell Saddle and give me a look into upper Crazy Jug Canyon, but I decided that I will be along there during Thanksgiving and that I might not prove anything from the air anyway. We headed over the Esplanade south of Wheeler Point. I watched for a way to get down from the rim on the west side of Powell Plateau and I took a picture of a dubious place west of Newberry Point. I am afraid I didn't make the best use of the time on this trip. I didn't feel quite as alert as

I had last year. From our altitude, I got just a glimpse of the top of Thunder Fall, fragmentary but still a thrill. I could have looked directly below at Bedrock Canyon, but I remember Stone and Galloway better as we wheeled to pass over Specter. We were higher this year and I got a better look at the top of the Redwall ravine. I don't believe the difficulty at the top is a chockstone, but I couldn't be sure what it is like even though we circled and passed it again. There may be a short vertical drop in the wall to a plunge pool before the bed becomes easy to follow on down. I must study it from the ground. Next we flew the plane south of the mouth of Fossil where I suspect a Redwall descent is possible. I feel that the probability of success here is greater than in Flint or Specter. I saw how to connect the picture I took last year. The ravine through the lower part is south of where I figured one should come off the rim. The sure approach would be to come down the Bass Trail and over here with plenty of places to camp by water, but this would take five good hiking days all together.

There was so much to see that I am afraid I went into a sort of daze as soon as I had taken the last picture. Still I felt that the trip had been most worth while. The high points were the easier route up Osiris, the Stanton, Hislop, and Kane ascent area, the Flint Creek Redwall descent, Specter, and the Redwall break south of Fossil. They all make me hopeful that I will have the time and health to take them on.

Old Hance Trail and Tse An Bide
[November 5, 1966]

A year or more ago, I had reviewed the location of the head of the Old Trail in connection with the new parking viewpoint. Reaching the trailhead is far easier than it used to be before the new rim road was built. There is a paved picnic area on the east slope of the hill about four and one half miles east of Grandview Point and between one quarter and one half mile east of this is a viewpoint parking at the south end of a bay. It is just east of a fault that has left quite a tower in the rim a bit west of the parking. There are several forested ravines cutting into the rim along here, and the Old Trail is in the one farthest to the east. The rim is higher and unbroken from here around to the head of the New Hance Trail.

One thing was different. When one has gone down from the road along the slope for 50 yards or so, one comes to a sign announcing that he was on the Old Hance Trail, that it was not maintained and that permission was needed before a trip. We could follow some trail construction indicating switchbacks for 200 yards farther, but beyond that we just walked down the rockslide. That rolling rocks are quite numerous is shown by the fact that the relatively new park sign giving the name of the trail has already been hit by quite a rock which broke the lower edge of the heavy board. Near the top of the Coconino it seems expedient to get out of the ravine you have been in and move to one farther west. It comes back and joins the first one near the lower edge of the Coconino. From past experience with this trail, I thought that one should cross several rather bare ravines to a juniper covered slope to the east. Norvel Johnson had gotten ahead of me at the very first. He chose the route I prefer to the bottom of the Coconino. When he went on down the main ravine, I spoke to him and to my other student companion, Chuck Johnson, about going over to the forested slope to the east. Without arguing the point, they simply proceeded down the ravine while I followed my judgment. They got far below me while I was making the traverse to the wooded slope, but when I came to the Redwall, I had to wait for them for about ten minutes. Even when they were within shouting distance, they continued to make poor decisions. I had to yell that they were

headed for another impossible fall near the very bottom. We got together near the rock with a large cairn at the place where the trail drops off into the wash on the east side of the slope.

There is a bit of water polished Redwall in the bed of the ravine that seemed different this time. As I had remembered it, one could take a run and get to the top, just a few feet of smooth rock. Now it seemed to be too high for this. Perhaps a recent flood has deepened the approach. I thought that it was impossible the first time I came up this way and I had climbed the weathered limestone to the south to get past. To go up here, we had to use this system again.

A few yards to the north one comes to the place where you leave the bed and go either up through a notch or to the left around a bump of rock on the shelf. I had seen clear trail construction around to the left, but Dan Davis had built a cairn indicating that the best route was up and down to the trail on the other side. We took the liberty of destroying his cairn and building a bigger one at the right place. This is where I missed the trail on my second passage (my first trip down) and had followed the bed down to a dry fall where Jack Morrow and I had succeeded by finding a precarious bypass.

It took about 15 minutes to walk from here down the bed of the east arm of Hance Canyon to the point directly below the cave. The cave mouth was still hidden by the lower ledges when I announced that we should think about starting up. It had taken an even two hours to go from the car to this place, but this could be shortened by familiarity with the best route. Chuck and I put our canteens and other gear down before starting for the base of the cave. The lowest ledge is easily reached by going up a talus to the north. Then you follow this level to the south until you come to a ravine through the rock with many good holds. The best place is around a corner when you are coming from the north. This about the steepest and hardest part of the climb is where Bruce Faure turned back in 1957. Norvel and Chuck consistently showed their climbing skill and strength by choosing slightly harder places to go up than I did. You follow this higher ledge for several hundred yards until you are actually south of the cave mouth. There is very little more climbing to get into the cave. We found deer trail signs even up here, but I don't remember any in the cave itself. I was beginning to think that the deer may use this for shelter during storms. When Allyn and I were here in 1957, there were no human footprints noticeable, although Art Lange had been through it. This time we saw numerous human footprints. It is quite a cave, unusual for the large outer room with the abrupt tapering to a corridor 200 feet back. I knew from Donald Davis that the passageway leading to the top of the Redwall cliff goes slightly north at first and then turns south as it rises. I was carrying a candle for light, and when the cave corridor became really low and narrow, there was quite a draft. I had to protect the flame to keep the candle from blowing out. Most of the time one could walk upright and admire the decorated surface of the walls and ceiling. It is a dusty cave and the bosses of travertine are all covered with orange dust. There seem to be no stalactites, but the big bulges covered with littler snowball effects which are themselves pocked with tiny pimples are everywhere. Although we passed through the whole cave in 40 minutes, I managed to see something I had never witnessed before in my very limited exposure to caves, some gypsum flowers that diverged from one spot in the wall and spread out like narrow strips of bacon. They were thin and translucent and didn't seem to catch the dust that covered everything else.

At a few places we had to flatten out on our stomachs and wriggle under a low ceiling. Norvel found the way past some rocks that almost stopped us. We had to do a few contortions where it was hard to find

something to brace against with your head sticking out a couple feet above one floor and your feet two or three feet above the other. However, we had the draft of air to tell us that this was the right route. There were a few side chambers, but I don't think there is any chance to get lost in this cave. The upward grade is quite uniform except at the very end when you are getting daylight again. Then you have to shinny up a steep pitch of flowstone.

Fortunately for me there are a couple of good spots for fingers to grip.

You walk out standing up in an archway that faces south in a deep niche below the rim of the cliff. There are a couple of ways to walk away and get up above the top rim of Redwall and it is an easy 25 minute walk from here back to the Old Trail where it comes down into the wash. A deer trail guided me down at the same place where Norvel, Barton French, and I had descended in 1965. One way to locate this upper entrance to Tse An Bide is that the one niche is near the south side of a sort of squarish sunken area. This break goes quite far back into the Supai. It is a little hard to identify Coronado Butte from below, but the upper entrance is definitely south of the towers of this butte.

I followed the Redwall rim south to the Old Trail and returned to pick up my pack in less time than it would have taken to go back through the cave and climb down to it. Norvel and Chuck went back through the cave to retrieve Norvel's canteen that he had left towards the lower end. Then Norvel came back up through the cave and went to the Old Trail along the Redwall rim while Chuck went on down to meet me at his pack. We had a late lunch together back where the Old Trail first starts down the Redwall. While I was finishing, Norvel poked around and found a way down into the wash to the west. Here he discovered quite a cache of tools and a hole in the limestone where some oldtimer had been prospecting. We walked up to the car from here in less than two hours.

Boucher, Slate, and Hermit Canyons

[November 11, 1966 to November 13, 1966]

Snow and rain a few days before the three day weekend made me change my plan from the north rim to the south, especially since I could do all the necessary driving on pavement.

After checking in at the Old Park Headquarters, Reider Peterson, Chuck Johnson, and I were ready to head down the Hermit Trail by 8:40 a.m. The day was rather gloomy but the weather got progressively better and Saturday and Sunday were as fine as a fall day ever is. The Boucher Trail doesn't deserve to be wiped off the map. We could stay on it more of the time than we could the Hance or Red Canyon Trail. Someone has gone along it fairly recently and placed quite a few cairns so that it is easier to find than it used to be. The other three times I had been along it, I had missed the trail just below where it starts down the Supai, but this time we looked ahead and saw that it keeps rather high, just below the top cliff, until it gets over into the main arm of Travertine Canyon. We kept on it almost all the way down to the Redwall, but near the bottom it swings to the east and I thought we should short cut. This was a mistake because we got into some rough going. The trail crosses the wash right at the rim.

We ate an early lunch where the trail starts down the Redwall into the east arm of Boucher. While I stayed by the packs and read Time magazine, the other two climbed White's Butte. When we subtracted

this half hour from our overall elapsed time, we found that we had come from the car to Boucher Camp in exactly the same time (5 hours and 10 minutes) that I had used on my first trip down. We went down to see the rapid and by the time we were back from the river, it was 4:00 p.m. Now I wished that I had gone up Boucher to see the upper gorge and had let the others go to the river without me. I felt fairly sure that I wouldn't see all that was interesting in the available time, but I started up the bed anyway. Reider and Chuck elected to stick around camp.

Although I had told the others I would be back by 5:00 p.m., the canyon got so interesting as I approached the Redwall, that I told myself that they wouldn't worry if I were a few minutes late in getting back and I continued on until 4:45 (later R. Fletcher found the Redwall passage up Boucher and Bob Packard the route through the Supai) I had passed the main source of water at the upper end of the Tapeats narrows. There was more water flowing at the base of the Redwall. I was able to reach a place where the whole bed is an exposed horseshoe of gray limestone with a 15 foot drop with lots of small ledges that make the climb easy. I could see the Redwall gorge getting narrow ahead when I had to turn back. By running whenever the bed was smooth on the return, I got back in only 25 minutes. There was time enough to cook the soup by daylight. About the time that some of the stars were showing, we heard distant voices and could shout to the four Sierra Club hikers who had come from Phoenix to see the Boucher Trail. Soon we could see their flashlights, still well above the Tapeats Formation and not coming downhill very fast. Finally I borrowed Reider's flashlight and went up the trail to meet them. There was enough light for me to find the trail and follow it without using the light on the way up. I met the party just as they were ready to start down the Tapeats, but they were happy to be reassured that they were indeed on the trail. When we got down to the vicinity of the camp, my having seen the rough area by daylight really paid off.

The ground was still quite wet from the recent storm, and when I had been asleep an hour or two, I woke up with rather cold knees where they stuck off the short air mattress. I could have put my extra clothing under them on top of the plastic sheet, but I choose to pick up everything and move into the mine shaft. Finding it was a bit difficult with no light but the stars, but I kept to it rather directly and slept fine except that some sort of rat began making a lot of noise near my toes inside the shaft. I moved out on the platform at the entrance and the rat must have left. When I moved back in, there was no further noise.

Reider elected to go up Boucher Creek Saturday morning while Chuck and I were exploring lower Slate. We stayed rather close to the rim as we approached the mouth of Crystal. I noticed that there is a break in the Tapeats rim about a quarter of a mile east of the mouth, a short distance east of the point on which I stood while trying to duplicate Stanton's picture taken south across the river. The Stanton Party might have noticed this from below. The sure way to connect with this route through the Tapeats would be to start up the schist near the mouth of Crystal and go east along the base of the Tapeats. Perhaps Stanton, Hislop, and Kane did this since this break would have been more obvious from below than the place a short walk up from the mouth into Crystal Creek before starting up.

Another observation was that the supposed break in the Tapeats on the west side of Crystal near the mouth didn't seem as sure from across the river as it did from across Crystal. I can't count on getting up there until I have actually done it (others have used it and I did it in October, 1977).

After we turned into the route away from the river paralleling Slate, we had to walk back around one big bay. At the next cut into the rim, I suggested that we should look closer for a possible descent. Almost immediately we hit a trail that had a number of signs of being a man made trail, rocks rolled aside and regular switchbacks. It went down below the Tapeats and then worked upstream into Slate before going to the bottom. Near the end there was a place that would stop a mule but formerly there may have been some walls that held a trail possibly for stock. Beginning at the bottom of this trail and going halfway to the river, water was flowing on the surface. We conjectured that the trail was for the purpose of reaching the water. It was an easy walk down to the river. From my previous viewpoints, I had never seen a streambed going clear to the river, but there is one right to river level. The rapid starts well above this stream mouth and there is very little slack water at the mouth. If one were to try to stop at Slate, he would have to steer a boat between the wall and a rock with only a few inches of water going over it at the present stage. After an abrupt drop of about a foot, he would have to get into the quiet water that is about 20 yards long by 20 feet wide.

The whole rapid is broad with many rocks not very deeply submerged. There was one big rock wall above water towards the lower end south of the middle of the river. If Tadge, Clement, and Russell got their boat caught on one of the rocks in Crystal Rapid, it is hard to see how they could have made it to shore and still harder to see how they expected to get a rope to it to pull it off. If the rock was the one only 20 feet from the wall just above where the water goes slack for 20 yards, reaching shore would not be hard, but getting back to the boat against the current would be pretty hopeless. Maybe their mishap occurred much lower in the rapid.

When we went up the bed of Slate, we purposely passed by the place we had come down in order to test the place that I had seen on my picture from the other side of the river. The bed of Slate is remarkably straight, but it makes one prominent jog to the west. As you walk upstream and turn west, you face an impassable fall in a sort of dike of brown igneous rock which contrasts sharply with the shiny gray schist just to the west. We found it fairly easy to climb up south just east of this fall. The route could be negotiated by a deer or wild burro, and we could have gone down into the creek bed above the fall. It would be interesting to see whether one could get through the Tapeats straight upstream to the Tonto Trail. It was easy to walk on up to the Tapeats where we went out.

By two we were back at Boucher Camp and in 20 minutes we were on our way over to Hermit Camp along the Tonto. This was only my third trip across and I was impressed again with the ruggedness of some of the terrain close to Travertine Canyon. The trail goes out close to the rim and gives a fine view of Hermit Rapid. We camped on the east side of the creek below the south part of Hermit Camp where the Tonto Trail crosses. I slept under an overhang and was very warm, but we were all bothered by mice. On the way out on Sunday, Reider, Chuck, and I stopped our hike long enough to climb Lookout Point. I hadn't remembered what a sharp little point it has. Of course, there was a cairn on top.

My present thinking about Clement, Tadge, and Russell is that they lodged their boat on a rock at the lower end of Crystal Rapid rather close to the left bank and climbed up some distance west of the mouth of the Creek. They probably followed the bed of the stream until they came to the barrier fall. On the Tonto Trail, Russell went back and east to the Boucher Trail while the others went straight up Slate.

From west of Crazy Jug Point to south of Fire Point
[November 23, 1966 to November 25, 1966]

The original plan was to use five days and carry through four projects: (1) check the descent into Crazy Jug Canyon, (2) cover the route between Monument and Crazy Jug Points over to the place where I had been in Saddle Canyon, (3) climb Cogswell Butte, and (4) check a possible descent route to the river west of Deer Creek. Doug Shough and I accomplished the first two, but we both got a bit tired of the cold nights before we had done the last two. We saw that the fourth would be out of the question in the four days anyway.

Starting at 5:00 a.m., we were able to park at Big Saddle Camp by 9:30 even though we had to go the long way around because the cutoff from Jacob Lake to Ryan was closed by construction. We left the car at the deer camp rather than take it out on the rim road because we didn't know which way we would be returning. I led Doug off the rim a bit too soon, a mistake which was apparent when we had no direct route through the Coconino Formation. However, we could see a way to the west. When we reached it, we found the trail that I had been over in 1957. It was now marked with more cairns and even had some plastic ribbons tied to limbs as identification. We lost it on the lower slope, probably because it goes west toward Bridger's Knoll. After heading lower and somewhat to the east, we finally came on a clear trail along the lower part of the Esplanade. (A way to locate the trail from the rim is to remember that it is a short distance west of the only hogback between Bridger's Knoll and the knolls south of Crazy Jug Point.) Progress eastward along the trail was easy. At first it lay between the pinyon juniper forest and the bare rocks. Quite soon we saw several large rain pools on the flat rocks, and we quit worrying about the water supply. As a matter of fact, these were the first and the last of their kind we saw on the whole trip. As we rounded the outliers from Crazy Jug Point, the main trail went to the northeast, but a spur seemed to be leading southeast into the lower bed of the canyon. We were able to follow a draw down until there was only one good drop down to the talus that led to the Redwall rim. We were able to bypass this drop by turning to the north around a point and scrambling down with no serious obstacles. We could have gone on down to the bed here, but the bottom seemed quite a bit higher before it went into a slot through the Redwall east of the fault zone than it was where it emerged. We went farther south and got down into the bed with only one switch from the bed of a wash to a parallel fault ravine to the right. From here we could make easy progress down the bed, through two impressive narrows, for about 15 minutes, but here the cleft narrowed to a width of eight or ten feet then there was a sudden drop of 50 feet with sheer walls on both sides. A little above this final impasse we had walked under a ball shaped limestone block about ten feet in diameter that was jammed just above our heads. When we got back to the place we had reached the bed, we decided to continue up the bed and see what the narrows above would be like. I strongly suspected that we would be stopped by a fall, but although there were a couple of scrambles up beside big blocks, we soon came out into the upper stretch where one side was Supai talus. Above this we entered the uppermost narrows where the creek cuts through solid Redwall to the east, and here we were stopped almost immediately by a fall. It wasn't too hard to back down and climb the fault ravine a few yards to the west. We could go down a similar ravine into the bed above, and from here on the Supai talus formed the west slope into the bed. Just before 4:00 p.m., we came to a running stream that entered by a series of falls from the east. We had seen just a few standing pools lower in the Redwall so we thought it would be a good thing to camp here where there was some fairly level ground just above the junction, and lots of

firewood. After eating we had a cheerful campfire that held live coals all night. My down bag seemed warm enough but I had my old trouble of night time perspiration and feeling clammy in spots.

Doug and I were both up before the stars went out and were ready to hike at 7:20 a.m. We continued up the main arm of Crazy Jug Canyon until a Supai cliff loomed ahead and to the right. We saw that we could go up to the west and around at a high level, but we took a deer trail that doubled back to the south and found some breaks in the cliff. Not long after we headed down the other side of this promontory we ran into horse tracks that appeared to be quite recent. They were a real help in finding the best way although now and then we could pick out an old trail that wasn't the same as their choice of route. However, most of the time they kept to the old route and improved it by breaking brush where it was overgrown. Something that surprised me was the prevalence of running water in this area. Before we left the main arm of Crazy Jug Canyon there was water running in the bed, and in the next two areas we also found running water. Thus we weren't too surprised to find a good stream in Timp Canyon. Here we missed the horse tracks for a short distance and crossed a little lower than the horses. Where we crossed there was a good stream that made a pleasant noise as it came down some small falls. On the return late in the afternoon, we followed the horses and were shocked to find no water at all where we had counted on using it for camping. We soon saw that the spring begins just a few yards to the south (downstream). Stina Canyon was dry except for a fairly good dripping spring off a ledge just upstream from where the trail crossed. The trail crosses Timp just above the highest bare ledge of Supai, but in Stina there is a high cliff on the south side above where the trail gets across. The horses followed a path through the oaks paralleling the bed to the west before starting to climb on the south side.

About eleven we met the pack train coming back from a four day trip. It was rather obvious that they were deer hunting in the National Park and most probably on Powell Plateau where fine bucks are often seen. We chatted with them for a few minutes but stayed carefully away from the subject of why they were there and where they had been. We saw no dead deer, but they could have been concealed under the canvas of the pack mules. They all had guns. A couple of the men in the string of four riders behind the guide expressed surprise that anyone would consider walking clear out in those wilds. By 8:45 a.m., we came to a place about one half mile northwest of Powell Spring where we figured we could get down into the bed of Saddle Canyon. This guess was correct. We had wasted a little time on a similar inspection of the short side canyon south of Stina, but this time I scrambled down into the bed where I had been twice before and thus filled in one of the three gaps I needed to cover to establish a continuous route from Saddle Mountain at the northeast boundary of the park to the west boundary beyond Thunder Spring, all of this route being north of the Colorado and below the rim.

Doug and I had talked a little of going up on the rim and walking the hunters and loggers roads back to Big Saddle, but we finally decided to see how the poachers on horseback could have come down into this area. We camped near Timp in weather that filled some of the water in the canteens and then got another 7:20 a.m. start on Friday morning. As we came along to Crazy Jug Canyon, we decided that they must have followed the high trail that goes around above the ledges where we had come up by the deer trail. We were so sure of this that we continued along a trail that seemed to be heading this way even though we could no longer see any tracks. When we realized our mistake, we were so high that we tried to cut through to the east to pick up the tracks. This wasn't easy because of the brush that was growing in a nearby area for a good many yards. Then we were about ready to go clear back to where we had last seen

the tracks, we came on their tracks again. It was the best trail we had been on at any time of this trip. Clear switchbacks led up to a rather narrow slot in the Coconino. Above here, it continued to climb through about half of the Kaibab and then it leveled off to the west where it passed a concrete horse tank where the pipe no longer carries water. It went up at the end by a gentle slope to the lowest part of Big Saddle, this dip formed by a graben type movement. This is, next to the Butte Fault near the west edge of the park, about the most impressive disturbance in Grand Canyon National Park. The same fault is apparent in Saddle Canyon and formed Powell Saddle. Under an overhang of the limestone just before the trail levels out, I saw a pictograph of a type I had never seen before. It is about 15 feet up from the trail on the west side. There were fire blackened stones on the ledge and a split figure of bones, but I saw no pottery or walls. This good trail is reached by turning off the road to Crazy Jug Point a hundred yards from where it goes through a gate away from the South Big Saddle Point Road. Leave the rim at the farthest north point of the Crazy Jug Canyon bay. We conjectured that this trail was built by ranchers to pasture horses down on the Esplanade. We saw fresh tracks of a single cow on our trip.

Horseshoe Mesa and Hance Canyon [December 4, 1966]

George Billingsley, Bruce Mitchell, and I set out with three objectives climb the butte on Horseshoe Mesa, find the old inscriptions in Hance Canyon, and climb the Redwall west of the junction of the two arms of Hance Creek. We accomplished all three, leaving the car at Grandview Point and getting back to it between 3:15 and 3:30 p.m.

There was a little snow on the trail near the top. The weather had been bad the day before and more rain fell all the next day, but we had a spectacular view as we started down with the sun breaking through low clouds. The rest of the day was overcast, but no rain fell.

I had been noticing more and more signs that parts of the trail were about to slide out. Now the place that had me worried has gone and still one can step by on the bedrock. The places where the trail is held by logs are also due to go out some day, but they may last another 20 years. We noticed three bench marks, the one shown on the east half map, another about 1200 feet below the rim and another about at the top of the Coconino.

We paused a few times for the view on the way down, but we got to the mine area in 70 minutes. I was surprised to note how fast we could come up, about 90 minutes. As we passed an open vertical shaft, George informed me that one can enter the horizontal shaft near the head of the trail off the east side of the neck and come over into the bottom of this vertical shaft. On my second trip to Horseshoe Mesa, I had gone into this horizontal shaft until it was getting completely dark and stopped just before I stepped into a partially covered hole.

In the open ground between the mine shacks and the base of the butte, George found an obsidian arrowhead, broken however. This seemed a little remarkable in view of the number of men that must have been on this plateau for quite some time.

As we approached the butte, we could see that the top 30 feet of cliffs would give us trouble. As we went up to the likeliest place on the south side, well over to the west end, we found a few foot prints. Someone had had the same idea as ours not too long before. George started up while I went around below the top cliff to the north side. I thought there should be an easier and safer route. A little after I got stopped at the end of my ledge, George and Bruce were looking down at me. I went back to their route and got up to the hard part, about halfway to the top. Several stones had been pushed together for a step in the angle. Bruce came down without help and then made a step for me with his hands. I got up to a safe place to sit, but I still had some trouble getting out of a crevice to a step from which I could go on up. We found at least three badly constructed cairns on the top at different places.

George found another way to get down, over at the eastern end into a notch. The holds are rather high for the distance one has to reach to find a place for the feet. I came down here too, but both Bruce and George supported and guided my feet for the last 10 inches.

It was now only 10:30 a.m. so we proceeded to the bed of Hance Canyon. George had been down to Horseshoe Mesa three times in the past few months, but he hadn't been into the long shaft down below on the way to the spring. This time we were able to find the old trail all the way down and over the hills almost to the Tonto. Fortunately, there will still be some trail maintenance by burros if they don't bring in any more aerial riflemen. We heard some braying over in Cottonwood Canyon, and there were also some fairly fresh signs in Hance.

According to Reider Peterson and Betty Emery, the old inscriptions are downstream from the broken wall where one can climb down from the Tonto Trail. As I had heard from Davis, they are near where the Tonto crosses the wash. I had the impression that he had said they are under an overhang on the east side. The Peterson Party were sure that they had seen the names scratched in the clay under an overhang on the west side. I led George and Bruce downstream and we searched the west wall. Around the bend to the right about 300 yards below where we reached the bed (where the clear water starts) George pointed to a pile of rocks in a horizontal crack about four feet above the bed. When we took the pile apart, we found a can of carbide and a sheet of paper in a small glass jar. It stated that this was cache #1 of the Western Speleological Institute, left in 1953. We turned and went back upstream when we came to the highest Archean rock.

I was beginning to get rather discouraged when we had passed most of the outcrops of Tapeats and had gone by considerable stretches of nothing but talus coming down on the west. Still ahead we could see one more overhanging small cliff about 30 feet high on the west. When we reached it, there were the names, some carved deeply and neatly, but most were just scratched on in a hurry. The dates ranged from 1885 to 1891. I didn't recognize any of the men except possibly Boucher. In fact the first initial was L, the middle was D, but I don't know whether that clinches the identity of Louis Boucher or throws him out. I took quite a few pictures and I hope I estimated the light all right.

We ate lunch by these names and when we were through about 12:20, we had to decide whether there was time to try the Redwall climb if our deadline for reaching the car was 4:00 p.m. We took a chance and went on to the supposed break around the angle to the southwest. The first part of the way up was obvious. There was no choice but to go over to a fracture zone against a sheer cliff to the right. We went

up a slope of 45 degrees over blocks of broken material. George, the geology student, called our attention to the tilted strata and the seams where the solid rock had been thrust past similar strata below. This single track led to a more level region that was still very rough with crags. One had several choices of route above this place. We could have crossed to the south and gone up a ravine where the slope was sure, but instead we turned to the north and went up more directly in the direction we needed to follow. Here, there was one bad spot where we had to get past a chockstone. I had to have one of the boys hand my Kelty pack up after I had negotiated the hardest place. The rest was easy.

Above the Redwall, we could have kept to the level walking around the point, but since we were already rather high, we went up through the low Supai through a notch formed by a fault. On this saddle there is a cairn of undetermined age. On the other side of this pass we went down to the Redwall again and proceeded across to the trail. Along here we came to another very tall cairn for its width, about three feet high by one rock wide. These cairns made me wonder whether their builders had used the Redwall route we had just come up.

The day had been cool and the walking was all pleasant. We felt gratified that all three goals had been accomplished.

Horn and Salt Creeks

[December 19, 1966 to December 20, 1966]

Dock had sent me a copy of a plate from a USGS publication showing a trail down Horn below the Tonto Trail which turned the angle at the base of the Tapeats above the river and went west. It was shown staying high until it dropped fast by small switchbacks to the river opposite the mouth of the short canyon just east of Trinity. I had been along much of this trail down Horn. It is in the bed just below the Tonto and then goes up to a remarkably smooth grassy area on the east side. At the lower end of this, it crosses to the west of the bed and stays up rather close to the base of the Tapeats. I had thought that this led to the steep ravine which goes down to the river at the lower end of Horn Creek Rapid. I was eager to see first hand what the USGS people had noticed to the west of Horn.

A committee meeting for the math staff kept me from starting before 10:30 a.m. Monday morning. At the checking station, I was told that all trails were closed because of the recent flood, but at the District Ranger's Office they told me that only the Bright Angel Trail to Indian Gardens and Plateau Point were open. Fortunately, this was exactly what I needed.

On the way to the trailhead, I caught up with a hiker with a backpack. He was Joe Maxwell and he told me that he had had a hard time getting a permit for a solo hike. He had used my name as a precedent, but they had told him that Harvey Butchart was a special case. They had allowed him three days instead of the six he had asked for. He seemed quite impressed to meet me in the flesh when I told him my name. We had a good visit as we walked down to Indian Gardens and then turned west. He planned to take his three days to look down the side canyons and then come up the Hermit Trail.

I left Maxwell when I came to the ravine that cuts through the Tapeats about a half mile east of Horn. It is the one with the inscription H B Mar 4 06 which I had seen from above and had later photographed. It is

on the right on a horizontal ledge. This time I passed it without seeing it. There was quite a little water in small pools in the bed, and even a little water was flowing. The route below the Tapeats over to Horn is marked with several cairns and in one place there is a crude rock wall as if some benighted prospector had built himself a windbreak. Allyn Cureton came across here from the Bright Angel Trail and said the walking was all right the whole way. I hadn't been here since 1959 and my memory of details was getting vague. The lone ponderosa pine is still alive although I had thought it might be dying before. To prove that I wasn't mistaking it for some more warm weather liking tree, this time I took a picture. Just east of the tree is a ravine in the granite that makes one drop down a little and use his hands for a safe passage. Since I was here before, I have learned the difference between deer and bighorn droppings. The bighorn signs outnumber the deer signs all through this area of cliffs and crags in the inner gorge. I found very fresh signs especially along the craggy ridge east of Salt Creek.

My recollection of the best descent into Horn was very uncertain. I did remember that it was south of a spur, but I couldn't remember whether it was next to the spur or one of the next two. I chose the middle one of the three and got down, but it seemed harder than I had remembered it. When I climbed up the west side and looked back, I could see that the next ravine south was out but the one next to the spur seemed rather easy, the best route providing one could reach the part that was in full view.

There was a little water running in Horn and on Tuesday I found some right where the Tonto Trail crosses.

Along the west side of Horn just below the Tapeats, the trail is still good enough to speed one's progress although once in a while one can lose it. It drops in crossing the shallow bay west of Horn and then goes up to the base of the Tapeats to continue for a quarter of a mile. When it passes a ridge which brings a view of the canyon from the north, which Kolb and Ivans pioneered as a route to the north rim, one could easily go down a not too steep ravine to the river. Since the map shows it continuing horizontally before descending, I did likewise. When I started down, I found no vestige of a trail all the way to the beach and my route was rather close to the switchbacks shown on the map. After spending the night at the most sandy beach I started up even a bit west of where I had come down. There was still no trail. I did this with the thought that I would continue along the base of the Tapeats into the nameless creek east of Salt, the one I had called Epsom from the taste of the spring in its bottom. If I had contoured about two thirds of the way up from the river, this would have been a good idea, but when I saw that I would have to lose a lot of height to cross a smooth walled ravine, I decided to backtrack into Horn. At the turn around, I noticed a well built cairn two or three feet high. Evidently this region has been prospected.

An oddity at the campsite along the river was a big but phlegmatic mosquito. He knew what was expected of mosquitoes, but he didn't survive in his struggle for existence. There were no more. Frost in the shade hadn't melted all day on the Tonto Plateau. In the inner gorge I found no frost, and it didn't freeze during the night either.

It would have paid me to drop down and climb back to the base of the Tapeats because it took one and a half hours to walk back to the head of Horn and get up to the Tonto Trail. I could have continued around into Epsom and across it into Salt more quickly than to do what I did. I left all my gear except for my lunch and canteen just off the trail and got around to where I could get down into Epsom in one and a

quarter hours. Previously I had entered Epsom at the eastern of two possible entries. This time I went down just east of the promontory that separates it from Salt and stayed high on a burro trail that leads to the ridge of schist and granite that separates lower Salt from Epsom.

Reider Peterson had gone down Salt to the river just a few weeks before, staying pretty much in the bed. He had done as I had in 1960 and had bypassed the two upper obstructions including the fall that I called 250' in my log at that time. As an example of why it pays to write logs immediately, I had told him that the 250' fall had stopped me. On rereading my log, I note that it was actually the second small obstruction below the big fall, a place where I took off my pack and tried chimney climbing against the gray water polished granite. There was flowing water here in 1960 while Reider found it dry at Thanksgiving, 1966. He wriggled down this hardest place and easily went to the river. Now I figured that with his example for a spur, I could easily go down the way he had, but I thought it would be more interesting to find another route. With this ambition I followed the narrow, serrated ridge of black rock that separates Salt from Epsom. I could see an easy way down if I could reach the deep notch at the north end of the ridge. The route along this ridge is on the east side. When I came to the north end, I was convinced that I could not get down there, but I had a fair view of a ravine into Salt at the south end of the ridge. It ended at a precipice about one quarter of the way to the bed, but there was a ledge to the north which led to a broken area that I thought had possibilities. It worked out as I had hoped and was safe if one were constantly alert to test every hold. I should have built a few cairns because it is easy to forget. After going north below the top ravine, you get a little lower and start working south and down to a talus. It was an easy ten minutes walk to the river from here. From a distance there appears to be an easy walk down from the west from the top of the granite right near the river. This doesn't seem so good as you walk through the narrow gateway to the river. I didn't see where to reach the easy scramble to the base of the Tapeats.

On the return, I decided to go back along the bed and see what Reider had done. The lowest obstruction could be bypassed by a deer trail on the west. The next two are minor and can be climbed in the bed or to the east. The next was evidently where I had turned back in 1960, fairly smooth gray granite with some water flowing over the best place to stand. I gave a spring and made it up to some steps halfway to the top. I could have chimney climbed up if I hadn't been wearing the Kelty, but as it was I jumped down and returned to the route I had used on the descent. I went up a couple of places that I had avoided on the descent because I could see that the hand and toe holds were conveniently close together. It was 3:23 p.m. when I reached the Tonto Trail and an even 6:00 p.m. when I got to Indian Gardens. After eating I continued to the rim by 9:15 p.m. It was a long day since I had been walking since 7:20 a.m. except for two half hour meal breaks. I regard it as being very rewarding since I had seen two places new to me. As an added bonus, the moonlight hike up from Indian Gardens was one of great beauty.