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CASCADE CAVE REPORT No. 6

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Report on a Grotto Field Trip to

THESIS CAVE
by Warren Gibson, Chairman

Buried deeply in a mining engineering thesis, written in 1910, is a picture of a limestone quarry showing two cave entrances. The caption of the picture mentions the name of the quarry. On another page of the thesis is a brief description of the quarry. From this description we know:

1. The quarry had been abandoned before 1910.
2. An overhead cableway had been used to transport the limestone across the Stillaguamish River where it was loaded on cars of the now abandoned Monte Cristo Railroad. The limestone was then shipped a mile or so West to the kiln discovered by Peter McLellan and Warren Gibson, and described in Cascade Cave Report No. 5.
3. The quarry was within half a mile of a tunnel on the Monte Cristo Railroad.

After considerable study, Tom Steinburn, our newest member, reached the conclusion that the quarry we sought must be the SE most of three shown on a USED quadrangle map of the Granite Falls area. This one quarry was across the river from the railroad, and about half a mile SE from a tunnel (the quarry had previously been reported to be SW from the tunnel). Tom noted several landmarks on the map which, if they still existed, would place us within a few hundred yards of the quarry. A lake and swamp, and a dirt road having a peculiar bend in it.

Armed thus, Tom and some friends spent a Sunday afternoon nosing around the Granite Falls area, and, to their surprise, found both the lake and swamp, and the road with the odd bend. On the strength of this cheering news it was decided that on April the 12th, 1953, come rain or shine, the Grotto would assemble at Granite Falls and find that quarry with its cave. It rained. A steady, soaking drizzle.

Never-the-less, at the end of a road having a peculiar bend, and near a small lake and swamp, that morning of the twelfth of April, Del Neely and his wife, Tom Steinburn and his wife, and Warren Gibson were seen to don their rain gear, and abandon the warmth of their cars to face the soggy underbrush. We hiked for perhaps half a mile farther on the old road, there impassable to cars, to where it ended abrubtly at the top of a bluff overlooking the deeply entrenched Stillaguamish River. At this point a deep gash, or notch, at the angle of the bluff gave us the false hope that we were standing where the old quarry cableway started its span of the river. This notch, it later developed was the top end of an abandoned log shute. It was decided that the

only way that we could locate the quarry was to seek out positive evidence of the remains of the cableway, and follow where the evidence lead. Del and the two girls elected to comb the flat, brushey floor of the valley from the notch, in a widening fan to the toe of a nearby hill. Tom and Warren were to criss-cross the heavily timbered face of the hill from the valley floor up to about a plus four hundred feet.

To start their search, Tom and Warren went to the point where toe of the hill met the top of the bluff at the River, and were almost immediately rewarded with a real find. An old shive fastened to a long shaft lying against a decayed stump, and a rotted timber with large, rusty spikes futilly trying to perform the duty to which they had been assigned. Here, clearly, were some actual remains of the old cableway. The rest of the party was out of hearing at the time, so Tom and Warren sought further clues alone. Tom located another fallen, spike studded timber. This gave him a rough line which he tried to follow up the hill. Warren, on the other hand, had worked some around mines, and the like, and he was seeking another trail to follow. Cableways, conveyor belts, and tramways leave a similar trail. A path of spilled ore. After some searching, a small, linear pile of limestone chips could vaguely be distinguished in spite of the cover of fallen fir needles and dead ferns. With his nose to the ground, Warren followed this faint trail straight up the hill. Over and under long fallen logs, through brambles of Devil's Club, and patches of water soaked ferns that stood taller than a man.

The last success appeared at hand. Ahead, standing oddly on the face of the hill, was a steeply sided pile of limestone rubble. Puffing like an engine, Warren slithered to the top of the rubble, and stood along a level pathway that lead directly into an ampitheater cut out of the hillside. The quarry. Warren called Tom, who was, at that time, several hundred feet down the hill, and, together, they entered the goal of their quest. Just within the steep walled notch that formed the quarry's entrance, lay one last, rusted evidence of their trail. The huge shive that had formed the upper end of the cableway. To the left, about four feet above the quarry floor, just as the picture in the old mining thesis had shown, was the cave entrance, a hole about two feet in diameter. Beneath this hole, and pointing downward was a second hole which quickly ended in a pool of water. As Tom looked for the bottom of the pool (less than three feet deep). Warren found that he could enter the upper hole.

Scarcely three feet back from the face of the quarry he found a small, circular room about five feet across, and just tall enough to stand in, if he thrust his head into a small, blind hole in the roof of the cave. The floor sloped into a small indentation in the wall of the cave, forming a small anti-chamber which was filled with water.

Feeling somewhat let down, because the cave could be classed only

as a shelter, Tom and Warren called the rest of the party up to the quarry so that they, too, could share in the "discovery". Tom, and Del found a fissure which ran at an angle from the cave to the top of the quarry. They found that, after digging away some of the loose soil that had fallen in, a man could enter the fissure.

No amount of further probing could enlarge the fissure into a cave (we will have a cave if we have to dig one). Saddened by another "let-down", the party headed back to the warmth and dryness of their cars. It was no longer raining. It was now snowing!

In retrospect, we feel that the trip was not entirely a lost cause. We had successfully traced a cave rumor to its source, and we had a lot of fun doing it, despite the rain and snow. Surely our perseverance will some day be rewarded with a real, dark, stelagtite filled cave.

GOAT SHELTERS

by Charles H. Harrison

The Goat Shelters are 7/10 mile west of the Barlow Pass guard station on the Mountain Loop Highway of Washington and were explored by Charles Harrison and Stuart Perry on May 30, 1953. Carol and Joan Marston and Winslow Trueblood were in support at the car.

We parked at a turnout on the highway where it most nearly approached the opposite spur of Lewis Peak. Bearing to the right, once across a small creek, we found open patches and later, down logs to help us climb up through the slide maple. On the lower slope the near-bareness of the limbs of the trees made route-finding easy and we had our down logs picked when we hit the better leafed-out brush.

Skirting and climbing left along the base of the rocks we got on a ledge system slanting up and right to the cave mouth guarded by a cedar tree. It is a shaggy dog route -- Class 2, but belay points if you insist. Nailed boots are needed on the brush and adequate on the rock. Our time from car to cave was an hour and a quarter.

The shelter itself consists of an imposing cave-mouth. It is about 30 feet wide, with the fractured but keyed-in lintel some feet above the rising floor. It funnels back for about 12 feet, with space enough above the level of the lintel to accommodate the aforementioned shaggy dog. The rock is igneous; the cave appears to be the result of locally faster weathering. There are goat droppings on the ledge floor, and some seepage of water. A previous exploration is reported (by the Verlot ranger?).

Looking out the cedar is on your right, and the road, curving

slightly, is 350 feet below and 450-500 yards away. It bears 60° true at its nearest point.

We dropped down to the base of the rocks and contoured along and below them about 300 yards, crossing a draw which leads up to the skyline. Beyond this we reached a point from which we could see under a rock overhang 60 feet or so away, and also up to a larger opening visible from the highway. This slope is not too steep and the route should be no more than Class 3. If any obstacle exists, a route up the gully we crossed, and down 50 or 60 feet of rappel from the ridge top to the opening should certainly go. This traverse took 20 minutes.

Return to the car took 30 minutes. The brush was heavier on our route back to the creek, and the most practical way to the upper opening would be that we took, excluding the detour to the lower shelter.

AN UNUSUAL CAVE IN TRAVERTINE
by W.R. Halliday

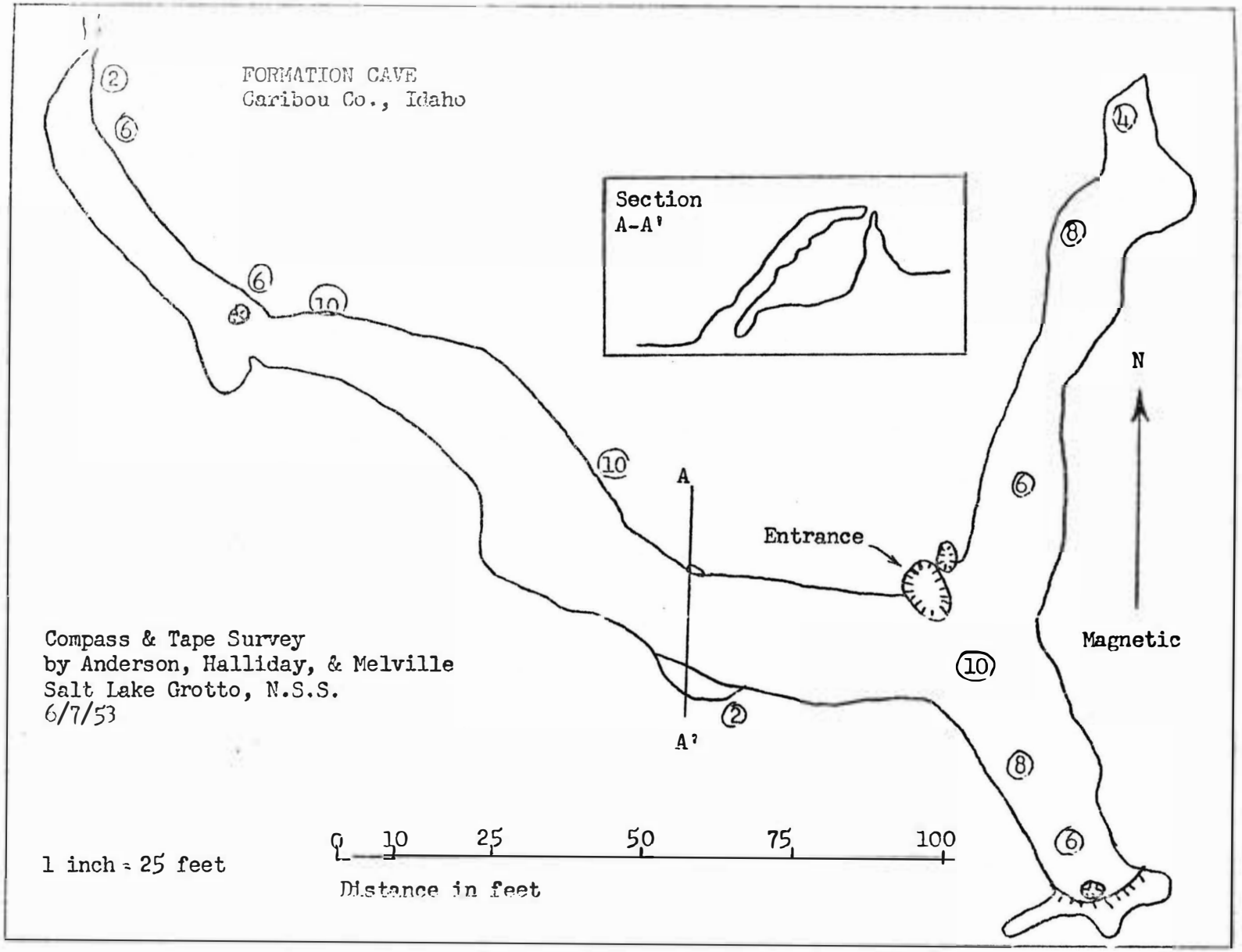
Formation Cave, a few miles northeast of Soda Springs, Idaho, was formerly a noted tourist attraction, and is still indicated, albeit somewhat incorrectly, on many road maps of southeastern Idaho. Remarkable in appearance and occurrance, it seems strange that it has remained so overlooked by speleologists.

The locally-held opinion of the origin of the cave, despite its location at the apex of a group of hot spring terraces, holds it to be the result of vadose solution. The only known speleological mention of the cave (1) was by a writer totally unfamiliar with hot spring terraces, and who therefore totally misdescribed the area. It was with considerable surprise, therefore, that the writer found himself entering the hollow interior of a gour (rimstone terrace), externally identical, except for its large size, to that surrounding any rimstone pool in any limestone cave.

Upon mapping the cave, it became obvious that the course of the cave faithfully followed the outline of the terrace. Since this could be followed for a distance of over 300 feet, it was apparent that this hollow interior was by no means accidental. The question of the mode of origin of the cave then arose.

The crest of the terrace in which Formation Cave is located rises about 6 feet above the lowest point in the now-dry pool which it formerly encompassed, and about 10 feet above its base at its midpoint. As is typical of such terraces, its height from the base line becomes progressively less on each arm until it blends indistinguishably with

(1) Bischoff, E.W. Caves of the Far West. Bull. NSS 4:21, 1942.


FORMATION CAVE
Caribou Co., Idaho
Section
A-A'
Entrance
A
A'
N
Magnetic
Compass & Tape Survey
by Anderson, Halliday, & Melville
Salt Lake Grotto, N.S.S.
6/7/53
1 inch = 25 feet
0 10 25 50 75 100
Distance in feet

adjoining terrace flows of equal height.

The interior of the cave proved of considerable interest, and of aid in deciphering the origin of the cave. The inner wall in all locations takes the form of a steep travertine cascade, levelling out at the floor to form a broad platform. In a few areas, it is possible to slip between the steeply inclined ceiling and the margin of this platform and observe that its edge curves abruptly downward to form another terrace level about 4 feet lower. The outer wall and ceiling are invariably one and the same. Near-vertical at the base, it is of progressively but irregularly arching nature. Throughout the majority of its considerable extent, it approximates a 45 degree angle. In a half-dozen points it lacks contact with the inner wall by distances of a few inches to about a meter. Most of these appear to be natural, though somewhat modified by man.

The morphology of this unusual cave thus strongly suggests that it was formed by a gour which developed at the base of an overflowing hot spring terrace pool, and, during its growth, arched backwards in typical gour fashion to make contact with the pool wall. The leading objection to this belief lies in the fact that some rimstones, 1 to 2 inches in height, show an ill-defined central space. Although vastly different in appearance, until all the processes involved in both these cases are explained, some doubt must remain. Nevertheless, pending further studies, there is every reason to believe that Formation Cave and similar, smaller examples a few dozen yards away, are the result of coalescence of gour and terrace wall in an unusual hot spring travertine deposit.

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