



# THE CASCADE CAVER

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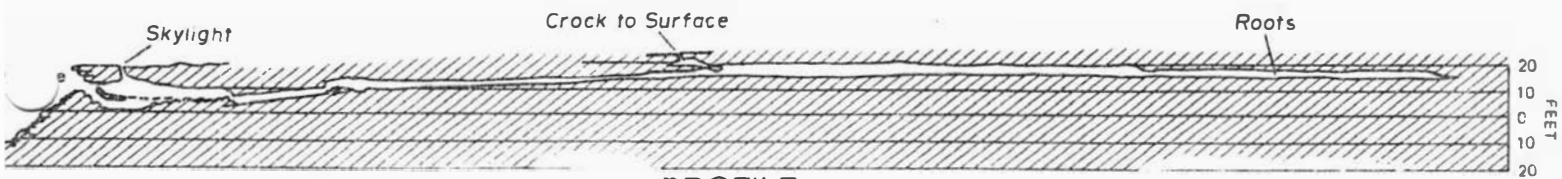
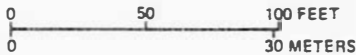
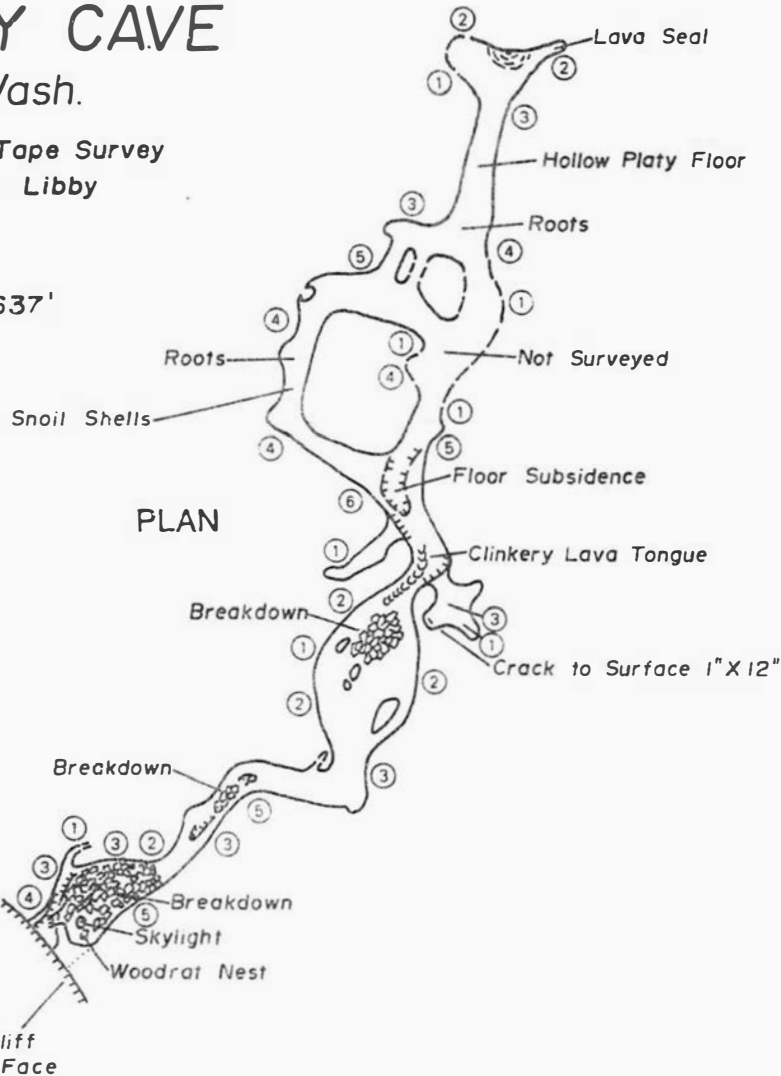
Assistant Editor: Ben Tompkins

## BEAVER BAY CAVE

Cowlitz Co., Wash.

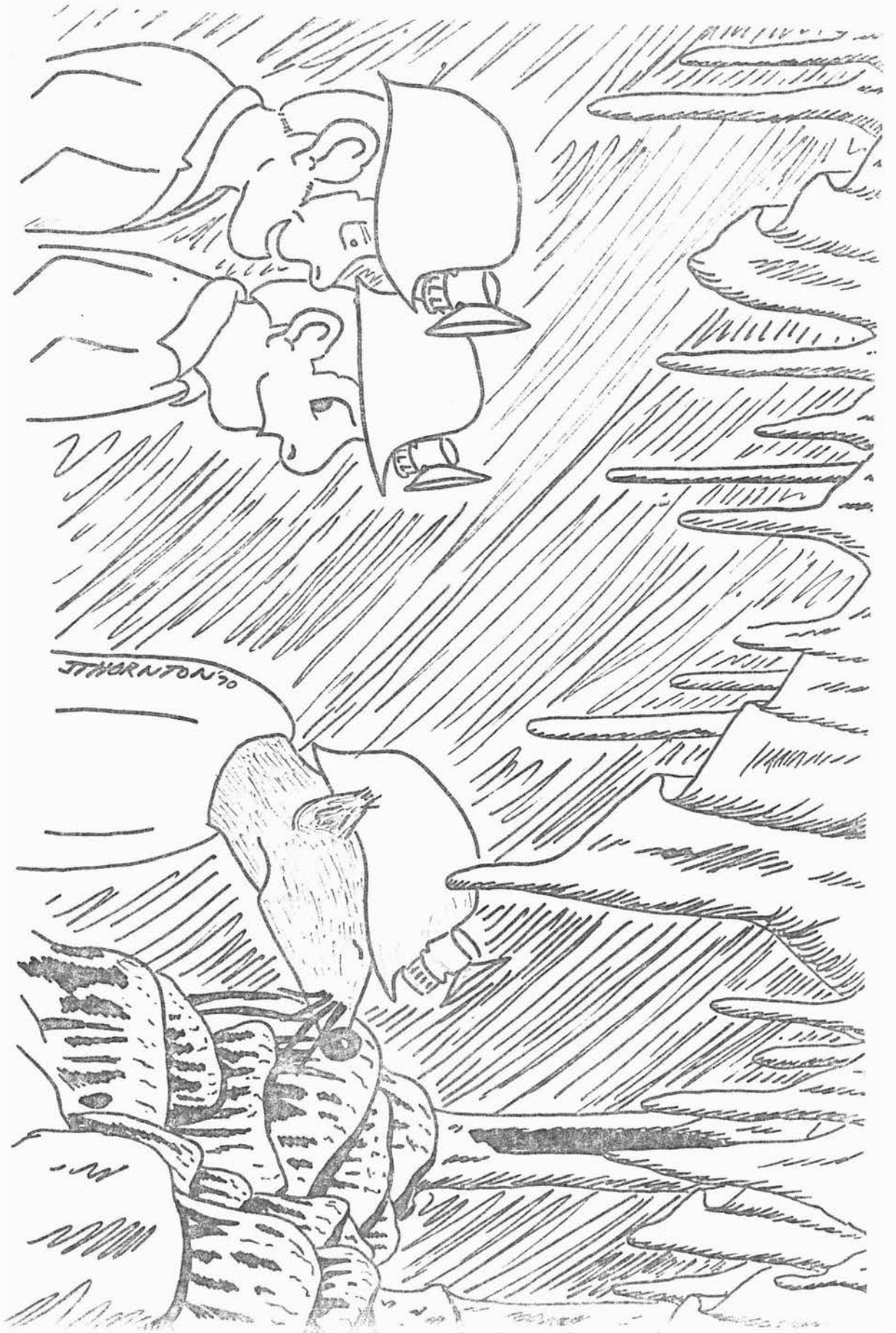
Suunto Compass and Tape Survey  
10/24/77 by Jim and Libby  
Nieland.

TRAVERSE LENGTH: 637'



PROFILE

He May Be 'Ugly' - But He's Sure Knows His Way Around 'Underground'!



### GROTTO EVENTS

- SEPT. 18 Grotto Meeting 8:00, 1117 36th Ave. East, Seattle.
- SEPT. 29 Windy Creek Cave, call Mark Sherman (524-8780).
- OCT. 16 Grotto Meeting 8:00, 1117 36th Ave. East, Seattle.
- NOV. 20 Grotto Meeting 8:00, 1117 36th Ave. East, Seattle.
- NOV. 23-25 McLaughlin Canyon Cave, call Ben Tompkins (524-9526).
- DEC. 18 Grotto Meeting 8:00, 1117 36th Ave. East, Seattle.
- FEB. 15-17 Symposium on Cave Management, Science and Technology hosted by the Salt Lake Grotto, in Salt Lake City. For more information call Kirsten Stork (801) 583-1143.
- MAY ?? Survey trip to Bighorn Cave in Wyoming. Contact Bob Brown.

### NEW REGIONAL CHAIRMAN

At this years Regional, held at Papoose Cave, Bob Brown was elected to replace the retiring Phil Whitfield at NWCA Chairman. Two other officers were also elected, Phil Whitfield is Treasurer, and Chuck Jopson of Gem State is the Secretary.

In other Regional business:

It was decided that the Region would donate \$50.00 to the Cave Conservation Act.

Next year's Regional will be held in Eastern Nevada and possibly will be a joint regional with the Western and Rocky Mountain regions.

This month the cover map was drawn by Jim Nieland and the cartoon by done by Jerry Thornton.

## NEW CAVE IN SNOHOMISH COUNTY

By Ben Tompkins

The small hole between the rocks caught Steve Sprague's eye as he was bouncing along in his road grader. A little digging at lunch time exposed a tight path between limestone slabs that had been disturbed when the road was built. The bottom appeared to level out into a large room. Steve, who is part owner of the land east of Arlington, Washington, called on Mark Sherman and I to check it out. We arrived after work on July 30.

The entrance is in the side wall of the road cut, half a meter or so above the road bed itself. The entrance passage slants downward until it is well below the road level. The ceiling is flat and horizontal throughout the cave as if formed at the surface of still water rather than being carved by moving water. The floor is not so flat. It dips into sinks or water-filled cracks in many places and the entire cave is carpeted with 1 to 20 centimeters of black goeey mud. The ceiling height varies from 0.5 to 1.5 meters.

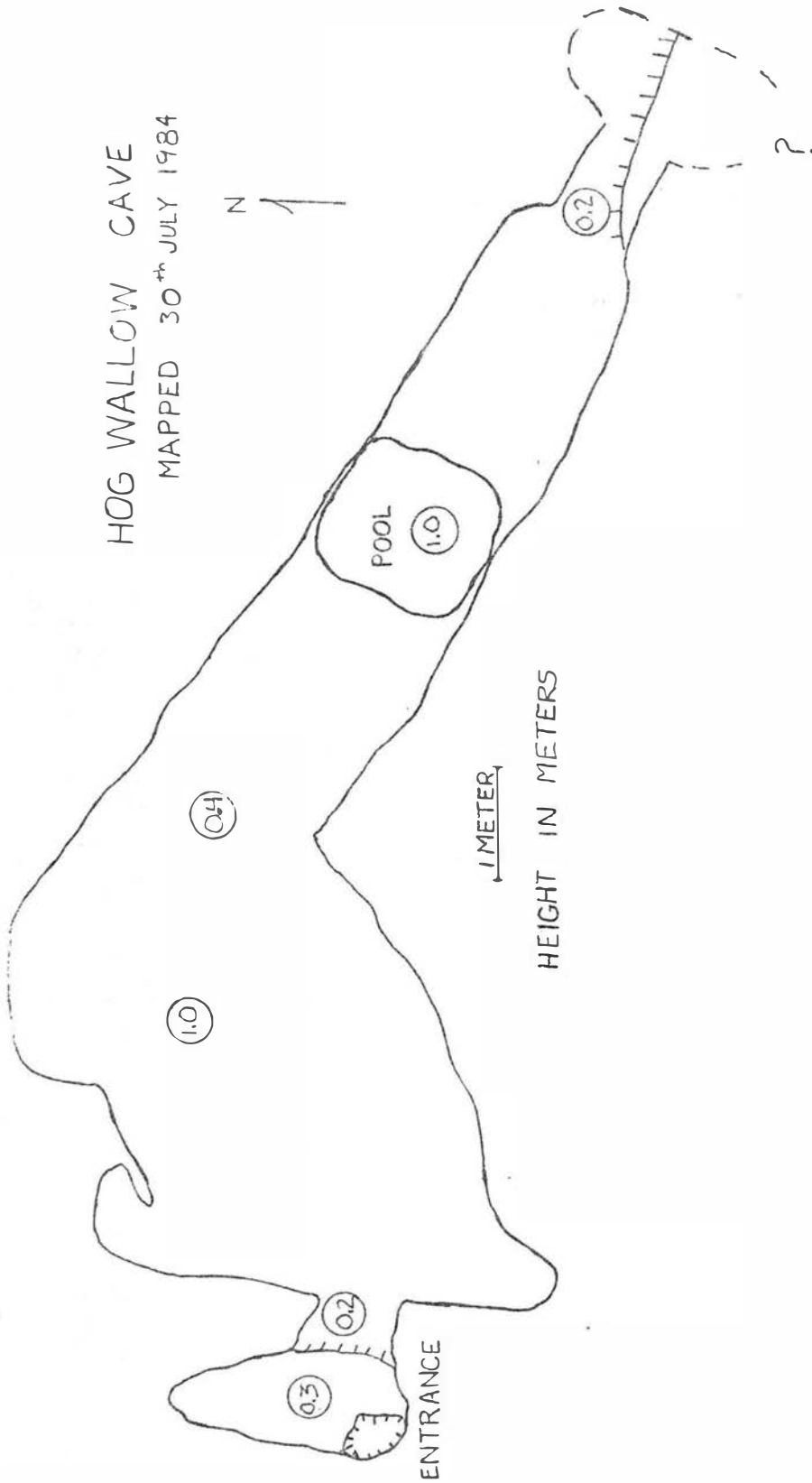
The cave makes a sharp right turn 6 meters or so from the entrance and drops into a pool. This pool is only a meter and a half in diameter but it fills the passage and undercuts the floor in the direction of the entrance. The banks and bottom of the pool are all black mud. The rock around the pool is mostly a sedimentary inclusion that crumbles at the slightest touch. Beyond the pool is a similar chamber that was a pool at one time. Thin vertical blades of the same crumbly material stick down from cracks in the limestone ceiling in this area. The flat ceiling is also broken in this area by phreatic tubes 10 to 20 centimeters in diameter.

At this point we decided to map the cave to reduce any temptation to come back so Mark crawled out to get the tape and compass.

At the end of the dry pool chamber there is a crawl leading upwards into a breakdown room. The crawl was completely blocked by a cascade of red clay and round river stones. The choke looked like it could be cleared so I dug away at it while Mark and Steve were mapping. I finally managed to see part way into the upper chamber by pulling most of the clay down out of the hole and into the neck of my coveralls. It is a breakdown room instead of the dissolved and sculpted limestone of the lower cave. I am fairly sure that the room has no passages to the left but my view to the right was blocked by the remaining clay.

The rest of the cave had been mapped by this time so I measured my end and we wiggled out. The cave needed a name and we all agreed, as we discarded our cave clothes in a plastic garbage bag, that Hog Wallow Cave fit it nicely. It is not a momentous discovery, perhaps, but it was a lot more than we had expected to find in the little hole by the road.

HOG WALLOW CAVE  
MAPPED 30<sup>th</sup> JULY 1984



50 FOOT CAVE FOUND IN THE MAY 18, 1980 PYROCLASTICS AT SPIRIT LAKE:

A Special Report of the Mount St. Helens Caves Conservation Task Force of the National Speleological Society.

William R. Halliday, M.D, Chairman

On July 28, 1984 a Western Speleological Survey field party found the first true cave known to have developed in the May 18, 1980 pyroclastics in the Spirit Lake Pseudokarst of Mount St. Helens, Washington.

The cave is about 50 feet long and has one entrance in the wall of a rapidly eroding gully which is north of and tributary to the large unnamed sink in the southwest corner of the Spirit Lake Pseudokarst. This is the closed depression intersected by the title block in the U.S. Army Corps of Engineers map of the "Spirit Lake Outlet Works" area, published in several spelean publications in recent months. Another (upper) entrance is in a vertically walled collapse sink about 10 feet deep, located along the course of a linearly dendritic partially roofed streamcourse which has developed along subparallel slumped blocks of the pyroclastic flow. This entrance sink may be due to vertical piping; two or three small skylights open into the cave and at one of them extensive upward piping permits explorers to stand erect. The remainder of the cave is a crawlway in a meandering vadose stream canyon enlarged upward by piping. While part of the cave is illuminated by the skylights, two sections of the crawlway are in total darkness. The cave is in the only part of the Spirit Lake Pseudokarst where extensive vertical piping along such linear features is still prominent. Rapid change continues to be the hallmark of the area and the cave almost certainly will be an ephemeral feature. However its very existence is of unusual interest and merited the name Pyroclastic Cave. Its existence and the presence of a natural bridge much larger than any previously observed in the Pseudokarst area (north of Sink 3458) suggest a need for continued close observation to see if still larger ephemeral spelean phenomena will develop later, as certain theories predict.

Considerable "sand flowstone" is present on the walls of portions of the cave which have undergone vertical piping. It also is present in many non-spelean locations in the Spirit Lake Pseudokarst.

Six days later, a conservation grant from the Vancouver Island Cave Exploration Group made it possible to include the co-chairman of the Mount St. Helens Protective Association in an overflight of the spelean portions of the Mount St. Helens National Volcanic Monument. In addition to the Spirit Lake Pseudokarst, recent effects of post-eruptive aggradation on the Cave Basalt Lava Flow on the south side were noted and photographed and the boundary problems along the southeast side of the lava flow were studied: it still is not clear whether part of Ole's Cave and two small but interesting nearby caves were left out of the monument by the arbitrary shift of the boundary here. Powerline Cave definitely is outside the monument and one of its entrances already has been bulldozed as a result. Higher up, the cave entrance at the head of the "beheaded" Dryer Glacier appears to have collapsed before we could get a team to it under government "safety" regulations but hopefully we still will get a team to check it out on the ground later this year. Dust and fumes

in the crater prevented view of the glacial pseudokarst noted there last year.

As of this writing no information is available about whether anyone is studying the hydrology of the Pseudokarst here. As of August 4, there is only a little muddy water in Sink 3458 (more than in previous Augusts, however) but a considerable depth of green nearly clear water is present in adjacent Sink 3446 -- a drastic change from conditions in 1982 and 1983. Contractors for the nearby buried pipeline are vehement that their project is not leaking, which (if true, and it presumably is true) raises some interesting questions about whether the water is coming underground from Spirit Lake, and if so, the significance thereof.

On the July 28 trip, several intermediate-size closed depressions in the pseudokarstic area were visited for the first time by WSS parties and appear to be additional craters of volcanic origin rather than the more common ablation sinks. Small examples of the latter continue to appear, erode and disappear. This year, no ice was visible in the wall of the ablation sink where it was observed last year but the wall was moist and cool and digging probably would have revealed the presence of residual ice. This sink was much larger than in 1983.

Further field work is planned for September 1984, when sinks 3458 and 3446 may be dry.

#### THE SIX ENTRANCE HOKEB HA SYSTEM, TOLEDO DISTRICT, BELIZE

By Tom Miller

Personnel: Tom Miller, John Wyeth

On April 30, 1984, we left Bilmopan, Belize, on a tight time schedule because of the imminent arrival of the members of the second phase of the Chiquibul expedition. We drove to the Blue Creek Rural Development Project only to find our friends there had gone on vacation, not receiving our message.

Tuesday, May 1st, John and I drove around the limestone ridge into which the Rio Blanco sinks and over to the small community of Santa Cruz. It was a national holiday and the school-teacher, Roland, was off work. He gave us lunch, offered us the schoolhouse in which to sleep, and directed us to the shortest path to the sinks of the Rio Blanco.

#### Historical Digression:

John and I first visited the area over New Year's, 1979-80 in company with five other cavers from McMaster University, Ontario. My account and the maps of our exploration appear in issue #11 of Caving International. At that time we mapped 1200 meters in Blue Creek Cave, then made a push trip to try to reach the end. Blue Creek was believed to be the resurgence for the sinks of the Rio Blanco, on the other side of a high, long, East-West running limestone ridge.

Deep Lakes up to 700 meters in length foiled us and one member nearly drowned. We returned to Canada, while John, who lived in Belize, made a couple of other attempts to explore the cave.

In May, 1982, I returned with Logan McNatt, a Texas caver. We mapped another kilometer in passage averaging 25-30 meters in width, then teamed up with two local Englishmen (Chris McClintock and Dave ??) to try another push trip. After an estimated five to six kilometers, we were stopped at a deep lake in an immense hallway at least 35 meters high and 25 meters wide. There seemed no way except up and the hall was so high our feeble lamps couldn't tell us if there was passage above. The large stream we had followed came from a circular, foaming tunnel too dangerous to even try and enter. And the wet season was starting: two days after we left, the cave flooded.

We were camped at another cave nearby, and narrowly escaped a flash flood that flushed away our cameras, caving gear, and recently-taken survey notes. Since that time my ears have always been alert for distant rumbles in Belize.

For John and I in 1984, the weather was dry and beautiful and we had an easy walk to the entrance gorge of the sinks of the Rio Blanco. The river, small in the dry season, sinks a kilometer before the cave entrance. McNatt and I had briefly seen it in 1982, finding the whole thing funnelling into and over a pit 15 meters high into deep water below covered with floating logs and debris. This time, John located an easy, walk-in bypass.

Site: Actun Xuch Ha ("Cave of the place where the water goes in")

Time underground: 3 hours

John and I surveyed down a small drop into a large 40-50 meter diameter room lit by daylight from outside. Several paths diverged immediately, one of them a long deep lake. The two higher level dry routes merged, and after a short drop rigged with a cable ladder, brought us back to a union with the main route. The passages were from 5-15 meters wide until this point. Joined, they now made a large tunnel 30 meters wide and 15 meters high. Immediately, it poured over a travertined floor and 13 meters straight down into a deep plunge pool. With some inspired rigging we got our remaining 10 meter ladder to reach to within a meter of the water surface. I descended, skirted the pool to the left and found I could climb back up the enormous tavertine dam forming the far side.

Beyond was a deeper drop: I estimated perhaps twenty meters. Out of gear, we couldn't descend, but it looked very much like the roof of the hallway where we had stopped two years before.

May 2, Wednesday

Time underground: 6 hours

We went back to the cave, several kilometers from the road through the jungle. We had been expecting primarily typical Belizean river cave, and were unprepared for much vertical work. We managed to free the ladder on the first small pitch by rigging some webbing on an exposed traverse, then dropped this ladder down the side of the deep pool with long belays to enable it to reach the bottom. Ladden with rope, ladder, and bolting gear, I was just thinking how heavy it all was when a rumble sounded through the cave. In a flash, I was



back up at the top in less time than I had taken to descend. We returned rapidly to the entrance to check the sky. I climbed up the log and stepped out to look up. Fortunately, I looked down at a rustle in the leaves: a meter away was a coiled, fanged, green snake. John thought my yell and immediate 3 meter leap back into the cave was rather humorous, but he refused to go outside himself. At this point, the omens seemed against us. But after waiting a bit, we convinced ourselves the rumble was due to a British Harrier jet, and decided to go for it.

At the top of the 20 meter drop we faced a problem: we had a 50 meter rope, but no ascending gear. So the rope was tied off as a belay to the ladder. This reached half-way down to a narrow ledge. I descended, then had John lengthen the belay so I could descend a little farther. I was still 5 meters above the lake surface, but close enough that I was almost entirely convinced we were at the farthest point reached on the 1982 push trip. That wasn't quite enough for John, who would have to rappel down to join me, leaving us at the bottom with no prusiking gear. However, I was sure that by standing on my shoulders he could reach the ladder if retreat became necessary.

With John down, we began to pump up the tire inner tubes we had brought for flotation. Then, looping a coil of the rope over a handy log rammed into a rift we dropped our rears 4 meters down into the bullseye formed by the tube.

At this point, I discovered my tube was leaking, with an estimated 5,000 meters to go. After beaching at the end of the lake, the patch kit was nowhere to be found. I was not displeased: this meant that John had to carry the heavy rope through the cave. However, I had to stop for an air refill every hour as the collapsing tube lowered me up to my chest in the water.

We found the water to be lower than either of us had ever seen it. This caused a new problem: pools we had easily crossed before now had climbs at both ends. Should we drop over the upstream end of a lake and be unable to climb out the far end, we would be trapped until the wet season. We were fortunate; only one pool required more than two attempts to climb out, and the remainder of the trip passed uneventfully. We reached the Hokeb Ha exit at dusk (Hokeb Ha means "the place where the water comes out"), then walked the short distance to Chris and Dave's houses for a beer and dinner.

May 3, Thursday

Time underground: 1 hour

After a pleasant walk over the ridge through the gorge carved by the ancient Rio Blanco, John and I de-rigged Xuch Ha, and prepared to return to Belmopan for Phase 2 of the Chiquibul Expedition.

Editor's Note: The following article is taken from a series of handouts brought back from the Cave Rescue Seminar at this years Regional.

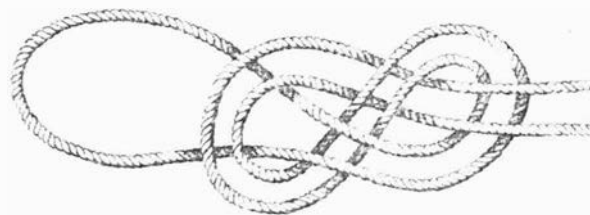
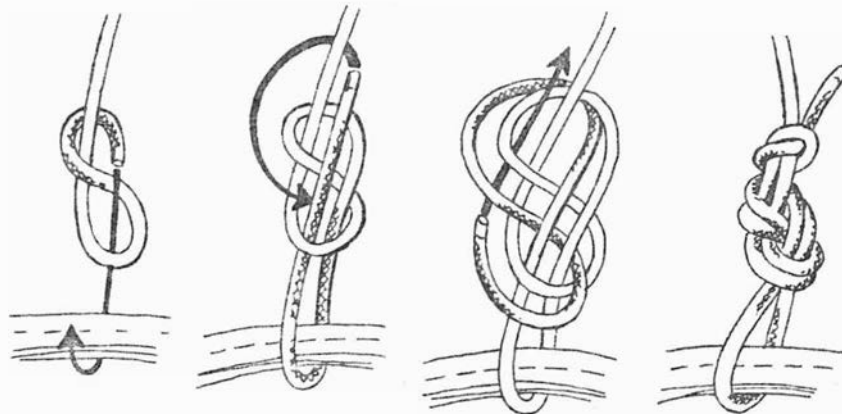
### Knots

Every caver or rescue worker owes it to himself, as well as the rest of his party to be experienced in knot work, whether or not he is a trip leader. Although there are many varied kinds of knots, four are all that a caver or rescue worker really needs to know.

They are: FIGURE-8, GRAPEVINE or DOUBLE FISHERMANS, PRUSIK, and the WATER KNOT. Using these four basic knots will cut down on indicisiveness when time is of the essence. These four knots offer all of the features of a good knot .... strength, security, versatility, ease of tying, and ease of checking.

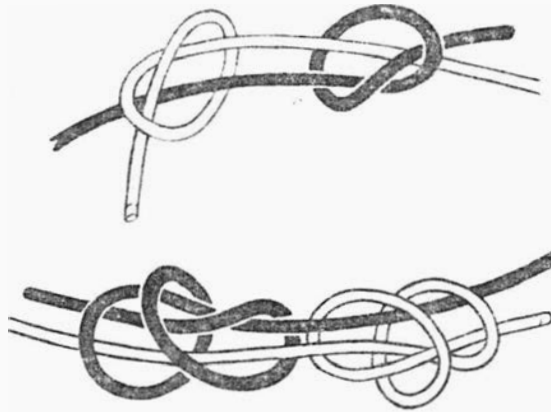
#### FIGURE-8:

This knot can be used for anchoring a rope, joining two ropes, or tying into a rope. It is a strong knot, and easy to tie. If tied incorrectly, however, it can be 10% weaker. Tied properly, the standing part of the rope must take the long route on the first bend. This puts less strain on the critical part of the knot.



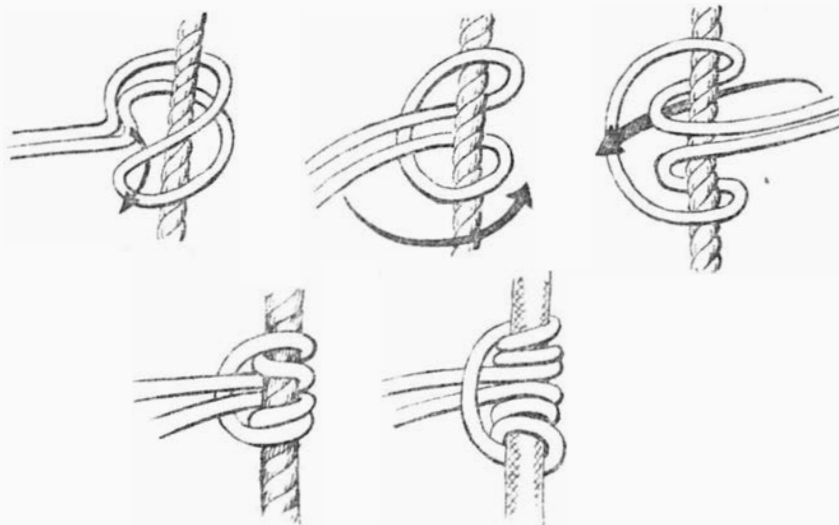
**GRAPEVINE or DOUBLE FISHERMAN:**

This can be used to join the ends of two ropes together or to form a loop in a single rope (e.g. prusik line). The key things to look for are the two X's on one side of the knot and four coils on the other side. Also, the ends of the rope should protrude on opposite ends of the knot.



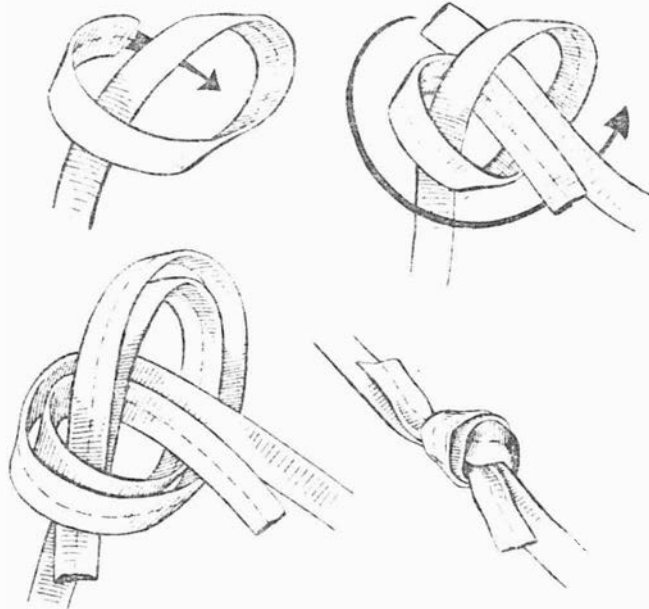
**PRUSIK KNOT:**

The prusik knot is used prusiking, tightening a rope, attaching yourself or gear to the rope, and myriad of other uses. Generally used in the 4-coil form, the 6-coil form offers more strength but is harder to release.



WATERKNOT:

This is used in webbing only, to attach two pieces of webbing together, or to form a loop in a single piece. The key thing to look for is that the webbing stays flat throughout and has no kinks or twists.



One final thing: ALWAYS remember to check and recheck your own knots and the knots of other people before using them.

The above drawings were taken from Mountaineering: The Freedom of the Hills.

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12/84

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Grotto Meeting: SEPTEMBER 18 at 8:00