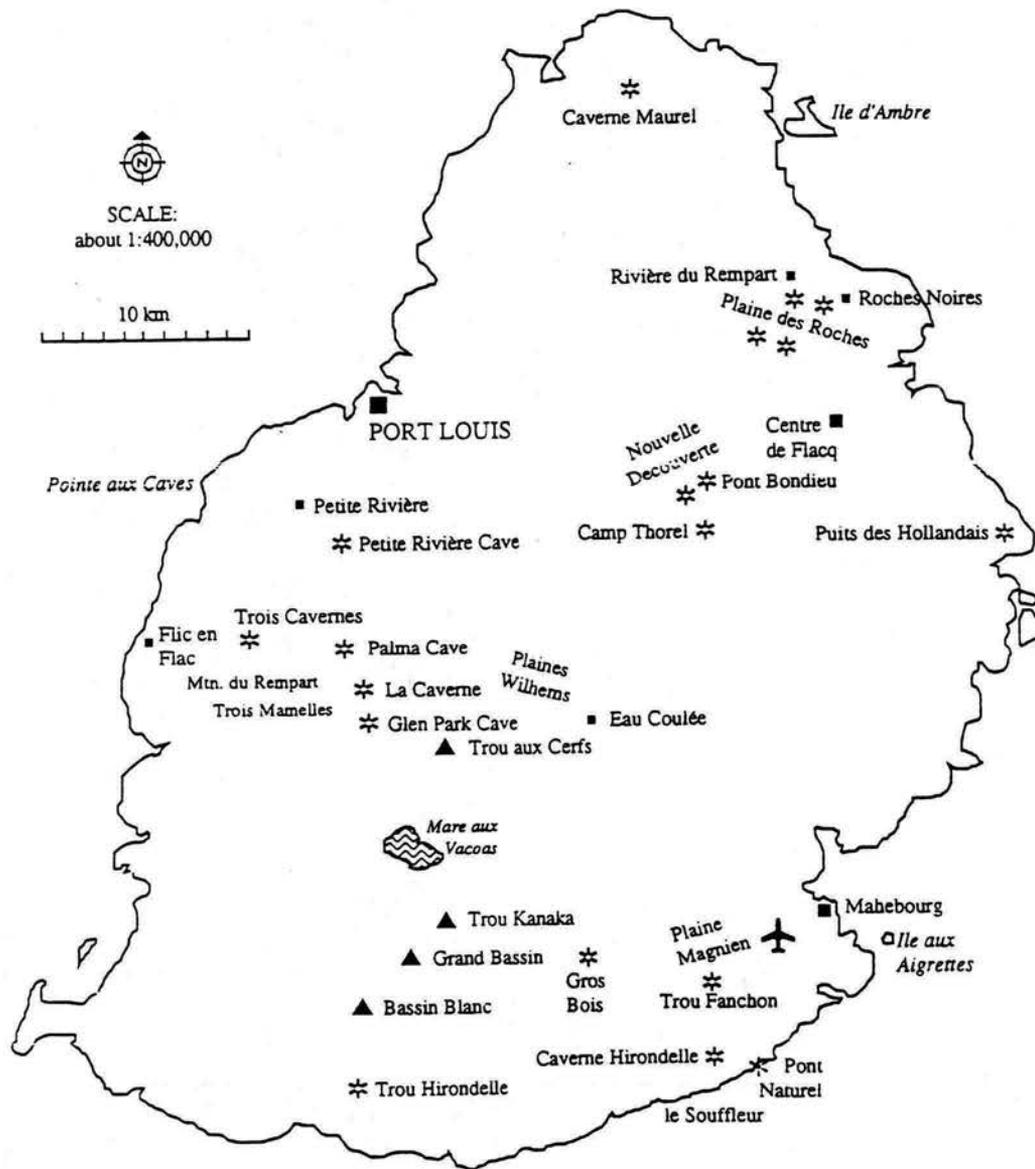


Cascade Caver

Newsletter of the Cascade Grotto of the National Speleological Society

January 1996, Volume 35 No. 1



CAVES OF MAURITIUS

map courtesy G. Middleton

Cascade Caver

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All material to be published, subscription requests, renewals, address changes, and exchange publications should be sent to the Grotto address.

GROTTO MEMBERSHIP

Membership in the Cascade Grotto is \$10.00 per year. Subscription to the *Cascade Caver* is free to regular members. Membership for each additional family member is \$2.00 per year. Subscription to the *Cascade Caver* is \$10.00 per year.

GROTTO ADDRESS

Cascade Grotto; P.O. Box 75663; Seattle, WA 98125-0663. This post office box should be used for both the grotto and for the *Cascade Caver*.

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MEETINGS

Regular grotto meetings are held monthly at 7:00pm on the third Friday of each month at the University of Washington, Room 6, in the basement of Johnson Hall. Please see the map on the back cover of this issue.

UPCOMING MEETINGS

January 19	Grotto Meeting	7:00 p.m.
February 16	Grotto Meeting	7:00 p.m.
March 15	Grotto Meeting	7:00 p.m.

UPCOMING TRIPS

February 10	XC Ski & caving trip to Little Red River Cave near Mt. St. Hellens	CONTACT Jim Harp
Mid-February	Cave Ridge (weather permitting)	Scott Davis
March 12	Pre-Vertical Practice	Scott Davis
March 26	Pre-Vertical Practice	Scott Davis
April 6	Naked bungee jump day on Vancouver Is.	Scott Davis
April 13	Red Barn Vertical Practice	Bill Bennett

COVER

This month's cover is a map of the island of Mauritius courtesy of G. Middleton. For more information see the article "Caving in the Republic of Mauritius," by William R. Halliday.

*The hike is hot and long and steep
The sun overhead is blazing bright
But keep in mind, intrepid caver
There's a tunnel at the end of the light.*

1996 GROTTO OFFICERS

The election results are in. For 1996 the officers are: Chair - Paul Ostby; Vice Chair - Tom Strong; Secretary/Treasurer - Bruce Nagata. The office of vice chair was particularly hotly contested this year, but Tom Strong was re-elected by a narrow margin. Congratulations Tom!

CAVING IN THE REPUBLIC OF MAURITIUS

By William R. Halliday

Mauritius is a two-island republic in the Indian Ocean, beyond Madagascar: the island of Mauritius proper and the island of Rodrigues some 300 miles farther east. I visited them both in May 1995 as part of the planning for the 1998 8th International Symposium of Vulcanospeleology which may be in Kenya. Both are volcanic islands with fringing reefs and aeolianite and/or calcarenite plains. Only on Rodrigues are these plains large enough to have significant solution caves.

Australian caver Greg Middleton met me at the Mauritius airport on May 12. 5 minutes from the parking lot he stopped, led me down a trash-strewn gully between two houses, and lo! There was the wide mouth of a lava tube cave: Trou Fanchon. Ceiling height was about 5 feet, with three of it filled by beautiful blue-green clear water from a recent hurricane. Lots of trash, though, in what ought to be a pretty park, or outdoor restaurant. We went on, to get ready for tomorrow's trip to Rodrigues.

For persons flying to Rodrigues for a 2-day weekend, Air Mauritius includes 2 nights at its Cotton Bay Resort plus two meals for US\$1 over the air fare. Unfortunately the hotel is at the far end of the island from the airport and the cave area, which cut into our field time. Greg had spent a weekend there in February 1995 and had mapped most of the show cave (Caverne Patates) and two others nearby but much remained to be done. We didn't finish, and apparently a French expedition did even less in 1991. They seem not to have published anything on Rodrigues. But we did finish mapping Caverne Patates, bringing its length to 1.14 km - longest in the Republic. In the process we found ourselves in some very nice virgin cave with

soda straw stalactites up to 2 m long. But the tourist section was closed by water from the recent hurricane, at least chest-deep. What I saw of it is impressive: up to 50 or 60 feet high and almost as wide.

We expected to find water emerging from a little resurgence cave a little farther down the plain, near the head of a dry stream course, but it had subsided to a point about 10 feet below the entrance. Greg tried to push nearby Caverne Saffran, to connect to the resurgence cave, but it didn't go. We also remapped the back end of 240-meter Caverne Tamarin, about a mile away. It is an impressive single-chamber cavern, unfortunately inhabited by mannerless cows despite two government gates designed to keep them out.

The current tourist map of Rodrigues shows a Caverne Provert and an Anse aux Caves (Bay of Caves) east of Port Mathurin at the north end of the island. We had a look at these. Caverne Provert is a rockshelter in volcanic rock just across a small stream from the Anse aux Anglais beach 2 km east of Port Mathurin. It is about 2 m high, 4 m wide, and 5-6 m long. It contains a small religious shrine. About 1 km farther east, the lava hillsides on the west side of Anse aux Caves were seen to contain the entrances of several shelter caves, looking much like their counterparts in Hawaii, where a few of them "go".

On May 16 we turned to lava tube caves of the island of Mauritius. First was Glen Park Cave, in the town with that name. 380 meters long, it is impressive despite rubbish dumping. A clear, seasonal creek was at high water, permitting pretty photos. Numerous narrow lava strands are present, and some lava dripstone with unusually broad stalagmites. Some minor secondary flowstone and dripstone also are present, and silver-colored lava tube slime. This is a swiftlet cave, where birds nests are collected for soup. Next were two small caves in the town called La Caverne. The first had been modified extensively for production of butter and cheese, with a low dam and -- concrete shelves and steps. During World War 2 this cave was used as a water source. At the other end of a short sinkhole is a larger cave, modified only by a rock wall along one wall and one end. Neither cave is as much as 50 m long, but they are interesting and easily visited. Near the far end of the second cave around the corner from the United Soccer Club is a delightful old-fashioned bakery with delicious free samples.

We went on to Palma Cave, just downhill from the Gerolais Mechanical Services factory in a large collapse sink 145 m long, it is especially important biologically because of a large colony of cave swifts; some nests were intact here. Bats also are present, with piles of guano, cockroaches and other guano biota. The entrance sink is a beautiful isolated jungle in a developed area, and efforts currently are underway to protect this cave. Some lava drip features also are notable.

Driving west, we left the urban central strip and headed into sugar cane plantations toward the coast. Without much difficulty Greg relocated the Trois Cavernes system on a canefield road. The upper cave here is mostly silted in now; formerly it served as a water source and old stone pillars remain from its pipes. Old descriptions tell of rafting for a considerable distance. The middle cave here really is a long natural bridge about 50 m long, easily walked but relatively featureless. The lower cave is longer (113 m) and more interesting because of rock walls built around the bed spaces of runaway slaves. Some cave swifts are present, and copper-colored lava tube slime. It is connected to the middle cave by a crawlway leading around the intervening collapse sink so that the total length here is 163 m.

We went on to an area dug extensively by treasure hunters near the community of Anna, to Anna Cave. It is a duckwalk lava tube cave with one end on a small sea cliff and the other blocked by a treasure hunters' excavation about 100 feet from the cliff. It is a pleasant little cave with a smooth floor and looks like a buried surface tube. Remnants of the tube can be seen from the surface nearby, in some of the excavations.

Our last cave of a memorable day was the longest: Petit Riviere Cave, 665 m long. Supposedly it continues to the coast at Point aux Caves but does not. The point apparently was named for some small sea arches and/or littoral cavelets. Its sinkhole entrance is in a canefield far from habitations and is not easily found when the cane is high. It is a unitary borehole with long straight sections, gentle curves in most of its length, and one short section with a sharp S-curve. Stone steps are present inside the entrance gate, which is open. About 500 feet inside is a rock altar where tires have been burned, leaving much soot on the ceiling. Pentagrams are present on both walls and on

the floor on both sides of the altar, which is encircled in white-paint. The cave starts high and spacious and gradually becomes lower and narrower. Only one short breakdown area is present. The floor varies from mud at upper and lower ends to smooth pahoehoe and cauliflower aa. We observed patches of short primary lava stalactites; a few are vermiform. Ledges are well developed locally. Numerous tectonic cracks are present. At least some formed during the incandescent phase when some ledges were still viscoelastic; whatever mechanism caused the cracks disturbed the levee pattern where the cracks intersected the ledges. Silver lava tube slime is prominent locally. About 30 cave swifts were seen; no nests remain. One white springtail was observed. It was very agile. We also noted some unusual web thread pendants. We looked for glowing larvae but found none.

We spent May 17 farther north. Our first stop was at Escalier volcano or vent upslope-from the community of Ripailles. We peered down a vertical hole about 2 feet in diameter belting out to a depth of perhaps 15 feet. Someone tried to commit suicide here several years ago - unsuccessfully. The rescue must have been formidable. The little dome in which the pit is located seems to be a driblet cone of pahoehoe about 12 m high. Then we went on to Pont Bon Dieu and its caves, bypassing Camp Thorel Cave, one of the longest on the island.

Pont Bon Dieu is a natural bridge spanning an enormous lavatube system of which only a little is now known. It is a famous feature utilized by a good secondary road. The cave (or natural bridge) beneath is 80 m long and perhaps 50 m wide: the widest span I have ever seen in a lava tube cave. Ceiling height is around 15 m, maybe more. On each side are huge collapse sinks with only a little additional cave known. Cave swifts and bats are present, with accumulations of guano. Protection of this cave now is a project of the Department of the Environment. Some trash has been removed and a fence built to reduce further trash dumping.

About 1 km uphill from Pont Bon Dieu but perhaps not part of its system is Pont Bon Dieu Jardin Cave, 392 meters long but not as spacious as the cave beneath the bridge. It is entered through a steep walled collapse trench: A climbing rope is useful. An unusual variety of features is present including what

looks like a yellow waxy moonmilk (I have seen similar material in one cave on Hualalai volcano, HI). Part of the cave is a 3-dimensional braided complex. Red lava flows, "railroad tracks". SiO₂ dripstone and lava tube slime with gold and orange colored surfaces are present.

We drove on toward the east coast and the extensive Plaine des Roches lava tube system. This lava plain received its name because of the scant vegetation on a flow of smooth black pahoehoe. The cave system is the remnant of the feeder tube for this flow. We visited perhaps half the known caves in the system which is at least three miles long. First were the Cremation Ground Caves, just upslope from the center of the town of Plaine des Roches. Here there are three large chambers, mostly in twilight and mostly floored with breakdown. Wall patterns are attractive, but a terrible trash accumulation mars the lowest cave. A thin lava span crosses a pseudokarstic window here. It was photographed extensively.

Downslope from the town is a series of caves, most of which are listed by number instead of name. First was "PR 1811, which we renamed Cockroach Cave, however. It has a big arching breakdown passage with a seasonal stream with pools and springs. Bats and cave swifts are present, with lots of guano and cockroaches, but we saw no swift nests. The cave is 520 m long. Considerable secondary dripstone is present, probably SiO₂. Much of its upper walls are unglazed and are vesicular. This is the longest cave known in the Plaine des Roches System, and perhaps the most interesting.

We skipped Princess Margaret Cave and Bat Cave, going on to Cave PR12-13, then to Cave 9-10-11 (Greg has given each entrance a number). PR 10 was the most interesting, with a 3-dimensional labyrinth leading to a seasonal pond in another entrance, and a house visible just beyond. Many fine lava features are present, including a drained lava pond with multiple "bathtub rings." Cave swifts are present, and some roots. On the edge of a crack where roots emerged I found an unusual small white insect, but it retreated before I could get a detailed look.

Fountain Road follows the cave system toward the coast. At one point we parked and walked about 50 feet to Washing Cave, where local people do their

laundry. Greg remarked that on previous visits, it had been full of water, but this time an air space was present despite the recent hurricane, and it may be mappable. We didn't try, however. He knows another water hole further toward the coast.

Dusk was approaching, but we wanted to have a look at Puits des Hollandais, a cenote-like structure inland from Pointe Quatre Cocos. First, however, we traced the Plaine des Roches System to the ocean where a resurgence ripples the sea water at the head of a sinuous inlet which is a trench segment. This is near a conspicuous lime kiln at the head of the bay at Bras de Mer des Fregates. At least one nearby pond also may be part of the tube system.

Puits des Hollandais is a round, water filled pit about 30 feet in diameter. Greg told me that a diver had descended (obliquely) about 30 meters in a bell-shaped chamber estimated at 50 m wide. The diver had described what sounded like a halocline. This pit is located on the seaward side of the Palmar-Lenferma road, about 100 feet off the road. On the other side of the road is a pond which may be in a trench, although none has been identified of this area. Clearly, a study of this area should have a high priority.

On the following day we visited the new national park in the south; Greg's special project for about 3 years. There are no caves known in this part of the island, but in the Black River Captive Breeding Center at Grande Riviere Noire we had a chance to admire a captive breeding colony of big, beautiful Rodrigues fruit bats as well as pink pigeons, kestrels and other endangered Mauritian birds: a fitting final day of a remarkable week.

Greg's contract was in its final days. Already he had listed some 50 caves, and mapped most of them in his 3 years on the island. Subsequently he wrote that he had located Camp Thorel Cave and found it very impressive in terms of complexity of passages and lava flow formations and dripstone. In mapping one of the unnamed caves in the Plaine des Roches System he and a friend had found a wonderful stream passage, "with fountains of water pouring in from the sides" and a metre of water across the entire passage. Tree roots and dripstone also were impressive. Also he finally had learned the location of Eau Coulee,

mentioned in old references. There's a lot to be done yet on Mauritius.

CHILLIWACK VALLEY, B.C., CANADA

by Dick Garnick

There are those times when one comes in contact with a government office or bureaucrat. Fortunately they are not all like the Internal Revenue Service or some elected representatives of the people. Some government offices, bureaucrats and government employees do work for the good of the service they are trusted with. The B.C. Forest service office in Chilliwack B.C and the cavers of the Chilliwack Valley are developing one of those good relationships.

Several years ago, my son Mark, my girl friend Sally and I were on our way to check out some limestone in the Chilliwack Valley B.C. We were walking up a road that I had been up probably 30 times before. At a small gully that crossed the road there was a new wash out. I noticed a 10 foot deep section of road had washed out but could not see where the road fill had disappeared to. The road had collapsed into a hole about 10 by 20 feet. I dropped grapefruit-sized rocks that echoed as they searched out the bottom of the deep hole.

The next weekend Mark, Rob and Mike Lewis, Larry McTigue and I returned to find out the extent of our find. After rigging the pit with a one hundred foot rope, I rappelled to the bottom of a room near 60 feet high, 15 feet wide and extending 30 feet under the road. There is an upper passage near the beginning of the rappel that goes up under the road (with the ceiling to road surface being about 3 to 8 feet thick). We continued down another 20 vertical feet to another 25 foot blind pit. This is where most of the road fill found a temporary place to stop.

The summer of 1993 there was a sudden gating of the road into the area. This could only lead to one thing, logging and heavy equipment. I contacted Phil Whitfield in Kamloops B.C., who works for the B.C. government parks. I explained the potential danger of heavy equipment driving over the cave. Phil contacted

a friend of his at the Chilliwack Ministry of Forest Office.

I eventually came into contact with Ruben Medeiros, acting recreation officer for the Chilliwack forest area. I explained the potential danger of heavy equipment driving over the cave and the possibility of the loss of the equipment and even worse, a life. Ruben sent some maps of the area with roads and areas to be logged. Fortunately the area of logging would not need the use of the road. I was given the name of the logging company, contacted them, and they gave me a key to the road. They stated they would like to see the cave some day also.

This contact with the Ministry of Forest Office in Chilliwack has helped the cavers of the valley. Because of early contacts providing information of potential danger, we have developed a very good working relation up to this time.

Unlike on Vancouver Island, the Chilliwack Valley has a different type of logging operation, fewer and smaller caves. Because of the supposed lack of caves in the area there were no forest office policies, knowledge, or actions dealing with caves or caving in the area.

Ruben, the Recreation officer, is now in the process of learning how to deal with the karst, caves and cavers. We have the opportunity to help guide and shape the knowledge and management of the karst and caves of the Chilliwack.

A new working relationship is being pushed forward by the new discovery of the Iron Curtain Cave by Rob Wall. This cave is a unique cave for the area in size and formations. The cave is in the process of being gated so as to protect it, and the cavers who enter.

There is the potential of rock falls, high water and the damage to the formations that has presented the need for one of those disgusting but necessary gates. Materials are being provided by the BC Forest Office and the labor will be provided by the cavers.

Because of the working relationship between the Chilliwack Ministry of Forest Office and the cavers of the area, this will be one cave that will be protected

Cascade Grotto Membership List as of December 15,1995

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Chevalier	Eugene	?	95	
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Erickson	Ron	884-3863	95	
Faxon	UW Library	(800) 289-7740	94	
Fogdall	Steve	527-4741	95	
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Gerend	Don & Jason	392-1412 or 547-7593	94	dgerend@medio.net
Green	John	362-0062	95	
Halliday	Bill	(615) 352-9204	life	
Harp	Jim	745-1010	96	
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James	Richard	?	95	
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Kilroy	Tom & Sandy	760-0947	95	
Kiver	Eugene	(509) 235-6448	95	

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Strong	Tom	938-3957	95	
Thatcher	Steve	?	95	
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Walter	Richard	(604) 428-2495	95	
Whitfield	Phil	(604) 372-5079	life	pwhitfield@galaxy.gov.bc.ca
Wilson	Jeff	775-3162	95	
Zak	Dan	483-1947	95	

and managed by a plan. Some government offices and officials do work for good. Thanks Ruben!

A DAY OF SCOUTING NEAR CONCRETE

by Mike Fraley

On the weekend of September 23, 1995, Larry McTigue and I went up to the Concrete area to check out some new logging roads and some sinks I had found the weekend before.

We drove up Jackman Creek road to get to the newer logging roads and followed them to their end. We spent most of the day hiking and driving this area. Near an area that has been recently clear cut, the road cuts through limestone. I had noticed this the weekend before when I was up checking this area out. About 50 feet down the road from this roadcut were two sinkholes which were right next to the road. Just up the hill from there, I discovered two other sinkholes. These four sinks were all oriented in a straight line. When Larry and I were there, I noticed a fifth sink that I didn't notice before, making five sinks, about 20 feet apart, all along the same line of sight. Larry wasn't very impressed with my find, however he did take a GPS reading at this location. For obvious reasons, I really like the name given to this spot, Larry wrote it down as "Mike Fraley's Five Sinks". I remember finding at least one more sink on a spur road that day.

The last thing we planned on checking was a stream that contained limestone that we noticed on the way up. We parked, got our usual GPS reading, and then started up the streambed. As we walked, the limestone chunks began getting larger and larger, until they were bigger than you could move. Larry and I, seeing this, steadily began walking faster and faster, in an attempt to be the first to find a cave if there was one. We found several springs coming out of the hill side, so Larry started digging. I wasn't interested, so I continued walking and climbing up what was now solid limestone bedrock.

I passed several interesting fissures in the limestone, which I could spend a day investigating alone, but I continued on in hopes of finding a large cave entrance. I was not let down. After quite a bit of walking, I

found a spot in the narrowing stream "gorge" where four sizeable springs came out of one side, and an outcropping of limestone on the other side with an obvious indentation near its base which was full of sediment. On the ceiling of this indentation, I noticed some broken stalactites and some limestone pendants. I got very excited about this, since I might have found my first cave.

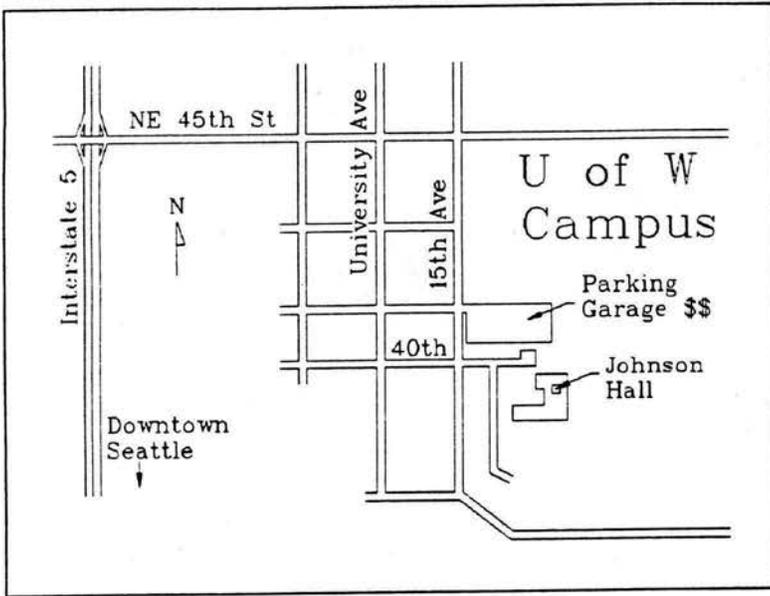
When I went back down the hill to get some tools, Larry had removed what looked like about two or three pounds of dirt before the spring he was digging on started coming out of rock. I told him what I had found, so we got our stuff and headed up the hill. When we reached the spot, Larry took a look around, and just as expected, started digging. The only problem, he started digging on the springs, not the cave. He did discover that the one trickle of water he dug on was running over the top of the limestone, not out of it.

I was already busy digging on the cave, and having a hard time about it. The stuff blocking up the entrance is more comparable to cement than dirt. After a while, Larry took a nap and I just kept digging. We didn't make much progress that day. We ran out of time, daylight and energy. One interesting fact, was that both Larry and I, when digging on this cave, dug out limestone rocks of about 20 or 30 pounds which had speleothems on them, almost like the cave ceiling in some part of the entrance had broken up and fallen into the mud.

If we ever break into anything here, from the size of the entrance, it could very easily be a large walking cave! We didn't make a serious attempt to give this cave a name. I kind of like "Humongous limestone boulder creek cave", but I think that sounds a little too corny. I plan to go back there this summer and better explore this new area, since we only scratched to surface when we were there. If anyone is interested in going alone, let me know.

NEWTON CAVE

Bob Gulden keeps the long and deep cave lists for the NSS. He now lists Newton Cave at -600 ft. deep, ranking it as the 34th deepest cave in the US.



The Cascade Grotto meets at 7:00 pm on the third Friday of each month in room 006 in the basement of Johnson Hall on the University of Washington campus.

We look forward to seeing you at one of our meetings

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