



THE CASCADE CAVER

International Journal of
Vulcanospeleology



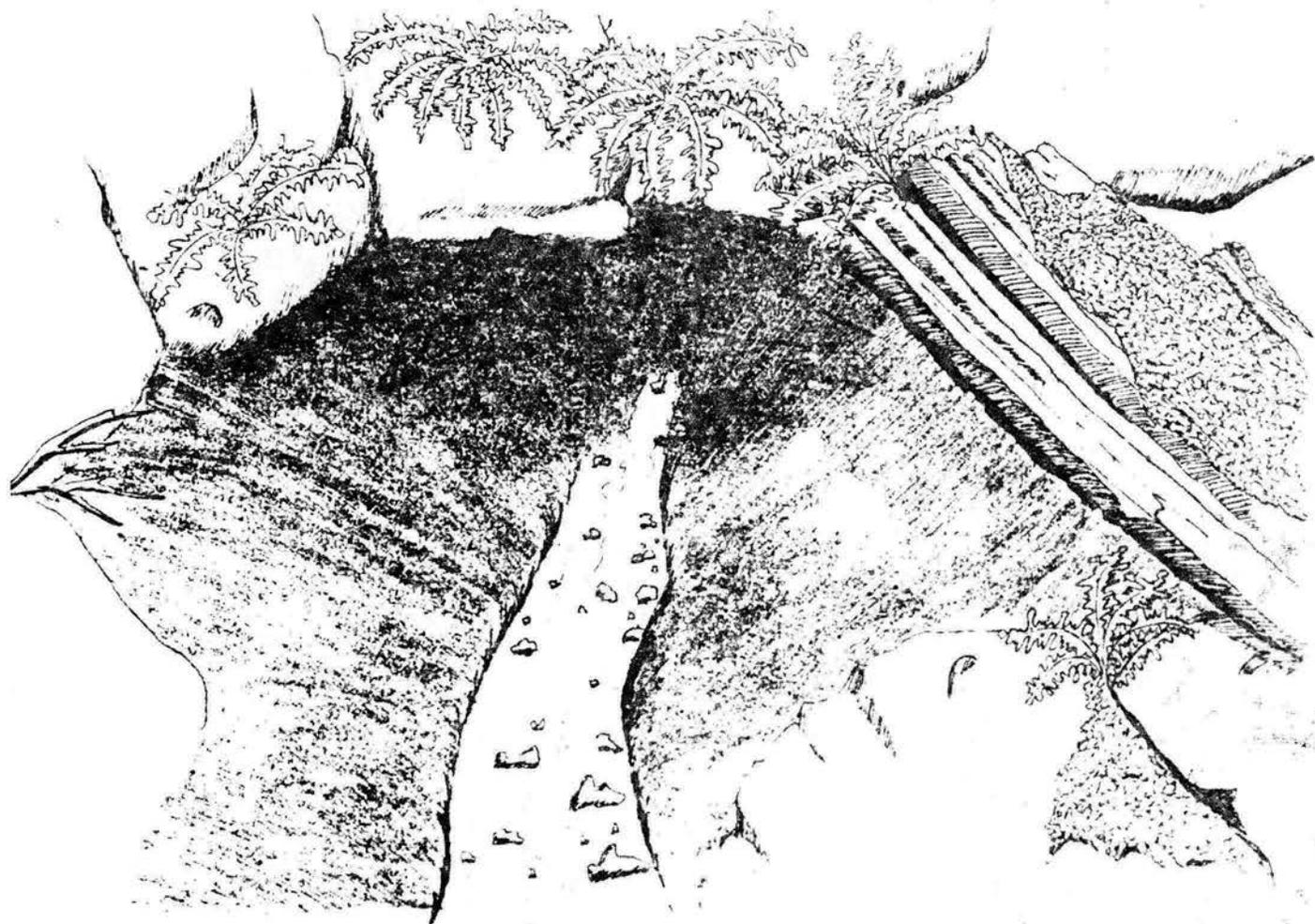
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Editor: Mark Sherman

April-May 1982

RON'S SECRET CAVE, in OSO



COMING EVENTS

- July 17-18 Windy Creek Contact Andrew Foord
- July 20 Grotto Meeting 8:00, 1117 36th Avenue East
- July 24-25 Mapping Deadhorse Cave and Fund raiser for the club. We will be having a barbecue (\$6.00 adults and \$4.00 for kids) so bring something to supplement the meat. Contact Bob Brown at 569-2724 or Chris Burdge at 775-6724.
- Aug. 7-8 Cave Ridge Contact Andrew Foord at 523-6727.
- Aug. 14-15 Meeting at Cougar to identify cave management issues in the Gifford Pinchot National Forest. It is being held at the Yale School. Call Jim Nieland at (206)-231-4298. There is also a Pot-Luck dinner on Saturday night.
- Aug. 21-22 Trip to Monument 48. Contact Bob Brown
- Aug. 28-29 Deadhorse Cave with barbecue and spelio short course. Contract Bob Brown or Chris Burge
- Sept. 3-6 Northwestern Regional Meeting, Vancouver Island B.C. Contract Andrew Foord or Bob Brown
- Sept. 18-19 Barbecue at Concrete. Contact Bob Brown or Chris Burge
- Sept. 25-26 Deadhorse Cave mapping trip.
- Nov. 11-14 Trip to Cody's Cave and others. Stay at Phil Whitfield's
- Nov. 20-28 Trip to Papoose and Nevada caves.

HELPI

I need more articles and trip reports (all of you NSS Convention participants especially). Also if anyone has any drawings or cartoons please send them to me. Thankyou

Last issue I forgot to acknowledge Jim Nieland for the cover drawing and J. Thornton for the cartoon inside (each of whom have drawings included in this issue). Sorry about that. This time the cover was done by Elizabeth Hastings.

RON'S SECRET CAVE, Snohomish County, May 22, 1982

By William R. Halliday M.D.

Late Saturday afternoon May 22, Jim Harp and I joined Ron and Mike Hastings for the first thorough reconnaissance of Ron's Secret Cave, northeast of Arlington. This cave was discovered about 60 years ago by Charley Evans who owns quite a bit of land in the area, and recently rediscovered by Ron Hastings who went a short distance into the cave earlier in May 1982 with Jim. It is only about a half-mile from a well-known road but the trail is so obscure, in dense brush and second-growth timber, it is unsurprising that the cave is so little known. Quite possibly, only five persons have entered it to date.

The cave drains a small karstic or pseudokarstic area consisting of a gently sloping area near the confluence of two ridgelines. Sinking streams, sinks, karstic or pseudokarstic windows and the like are present but observation is obscured by old logging slash. The entrance is a beautiful resurgence with ferns and moss around it. The unnamed cave stream sinks again, almost at once, but soon emerges (from impenetrable rocks) to form the only reliable landmark anywhere near the cave. Two streams unite inside the cave and evidence of floodways is everywhere. Basically the cave consists of narrow, nearly parallel dendritic passages with some upper level floodways. Bedrock and little dripstone are present, as well as tufa. Some of what appears to be tufa, however, actually may be residual impurities in heavily dissolved limestone. A complex fill sequence also is present. A total of about 300 feet of passages was visited, and more may be present. The cave is unusually warm; whether this is due to its low elevation or to a warm spring which deposited the tufa was not clear. The cave merits intensive study by both geologists and biologists and should undergo mapping early this summer. In some ways it resembles VICEG Cave, which also needs mapping as a beginning in speleogenetic studies. VICEG cave appears to be partly solutional and partly a purgatory cave and the speleogenesis of Ron's Secret Cave may be even more complex.

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CAVES IN THE CAYMAN ISLANDS

By Steve Sprague

During a trip the Grand Cayman in the Cayman Islands archipelago, I was reading some tourist literature and to my surprise there were a couple of sentences devoted to the Island's caves. It gave no information on how to get to them, just a few words about hidden treasure and pirates's secret lairs.

The Cayman Islands lie about 300 kilometers southwest of Cuba. They are the peaks of a submerged mountain range that extends westerly from the Sierra Maestra range on the south end of Cuba. The islands are composed solely of limestone that has eroded in many places to form knife edge vanes that can cut tennis choes and rip clothing. After trying to do some exploring in this super karst, and finding no caves big enough for a rat, it became apparent that if I was ever to do any caving I would have to find someone who knew the area. In fairly short order I was able to find a man who very kindly showed me four caves on land he owns near a village named Old Man Bay. The caves I visited were small but were full of formations. The largest cave had about 1,000 feet of passage.

There are supposed to be some caves on the Northwest corner of the island around a town called, believe it or not, Hell. Apparently there is a lot of the exposed karst in the area and the post cards of the topography do look quite hellish. On Grand Cayman there are wave cut caves at Spotts, Bodden Town, and East End. I wasn't able to visit these either but the residents are very friendly and would gladly tell a tourist where to go. There are also caves below sea level but the ones I visited seemed to be only coral formations.

There are no commercial caves on the islands at this time. I did read that this was a future possibility for one of the caves. The man that owned the caves I visited did say that a developer had talked about turning one cave into a tavern. Luckily, that was a few years ago the shylock hasn't been heard from since.

Overall, I found the caves well worth the trouble it took to find them. The formations, while not of picture book quality, were to this Washingtonian very exciting. Most cavers will find the only complaint I have about the Cayman caves strange, the caves were unbearably hot. I could only stand to be underground for five to ten minutes.

TALUS TAKES THE LEAD IN SWEDEN

By William R. Halliday M.D.

Robert Carroll has competition. The Spring 1982 issue of The British Caver reports that another solo talus caver, Alf Siden, has pushed a talus cave in Sweden to a mapped length of 2,570 m with another 500 m to be surveyed. Thus it replaces Lummelundagrotto as the longest in Sweden. The cave, Bodagrottorna, is said to be along the northern Baltic coast. So what's holding back our talus cave mappers?

TRIP REPORT

from: VICEG NEWS, vol. 11 no. 5.

MISCELLANEOUS MAY METALINE MEANDERINGS

By Phil Whitfield

Sunday, May 3, 1981

Long-time N.S.S. cavers John Baz-Dresch and wife Cheri Casper with baby daughter Shannon Baz-Casper (all now living in Post Falls, Idaho) were visiting over Friday night and Saturday, and Craig Hansen and Dave Jones dropped up from Cheney for supper and the night on Saturday. On Sunday morning, with two canoes, we all drove down to Boundary Dam, just south of the 49th on the Pend d'Orielle River. Launching at 9:30, we paddled south up the reservoir through spectacular, limestone canyons hundreds of metres deep, which, rumour had it, were dotted with flooded caves. After lunch at the top of the canyon reaches, we cruised back down stream, Craig, Dave and I stopping to check some obvious but very deceptive cave entrances along the way. The Baz-Dresch-Caspers cut out early but missed little, as none of the holes we probed extended beyond daylight. Returning to the Datsun at 2:30, we noshed in Metaline Falls before returning to our respective homes.

Monday, May 18, 1981

After a Sunday evening of slides and trip report writing at Gardner Cave, Craig Hansen, Dave Jones and I were ready for another canoe recce of the Pend d'Orielle. Launching at 9:00, we soon found that the water level was about 2 m. lower than on our previous trip, revealing several water-level entrances. One, on the right (east) bank, domed up to a high-water airspace, was large enough to turn the canoe in, and actually contained a massive beaver lodge! Farther upstream on the same side was another hole only about 5 m. deep by 2 m. high by 6 m. wide. Around 5 km above Boundary Dam, we found a low, wide, usually submerged cave entrance, about 8 m. inside which was a pool, 1 m. wide and at least 1 m. deep with a tantalizing 30 cm airspace leading to a chamber beyond. Following some muttering and agonizing, I peeled off my clothes and plunged onward with my trusty caving light. A gaspingly cold, waist-deep, 5 m. wide pool in a 2 m. high chamber beyond the duck led leftward into a steeply climbing passageway which tapered down to nothing after only 8 m. However, it was a cave, and we christened it "Bare Cave" in honour of the exploration technique employed. This proved to be the highlight (?) of a very pleasant day, and I returned to Nelson the evening.

Saturday, May 30, 1981

In 1921, while guide-outfitting in Banff Park, Cecil Smith was the first white man to see the entrance of Castleguard Cave. Now 81 and retired in Salmo, Cecil remains lively and interested in current caving developments. With this in mind, I arranged a trip with him and his wife to Gardner Cave and Boundary Dam. We took one of Craig Hansen's regular guided tours, did the very interesting dam tour and lunched in Metaline Falls. An enjoyable excursion with a most delightful old-timer.

CONTRIBUTIONS TO CARIBBEAN SPELEOLOGY -- Barbados in 1981

By William R. Halliday M.D.

Harrison's Cave finally was opened to tourism on November 27, 1981. The Gurnees were among those present for the celebration. The Barbados government issued a set of four stamps to honor the event, with the official first day covers dated December 1, 1981 showing a map of the cave and surface features superimposed. The highest value stamp has a face value of B\$2.50 (US\$1.25) so that the set is quite expensive.

Richard Goddard of Barbados reports that, earlier in the year, he mapped the route from the natural entrance in Harrison's Gully to the Crystal Pool, to be used as an emergency exit "should the need arise".

Also in 1981, he and others mapped about 5,400 feet of passage in Bowmanston Cave in St. John Parish, Barbados, at a depth of about 300 feet below the surface. Water from this cave, pumped to the surface, is a major water supply for this subtropical karstic island which is essentially free of surface streams. Probably this cave now ranks as longer than Harrison's Cave, as a result of this mapping, but the matter has not been clarified. Total length of Cole's Cave, visited in the past by members of both the Cascade and Oregon grottos, also needs to be clarified.

BILEMOT CAVE IN CHEJU ISLAND, KOREA

Exploration and Survey in the Longest Single Lava Tube

By Takanori Ogawa

Translated by Masataka Izumi, Nobuaki Nagai, and Yoshiharu Nakamura,
edited by William R. Halliday

From: Kagaku Asahi (Monthly Journal of Science) Nov. 11, 1981 pp. 20-22.

The Bilemot Cave in Cheju Island of Korea was first explored by members of a local mountaineering club in 1971. They explored 7,800 m but did not map it and did not investigate it scientifically. Subsequently, entry was forbidden for a decade. Finally, in the Spring of 1981, the Korean Culture Official Report Section permitted entry. Subsequently there was a joint investigation by a team headed by Dr. Takanori Ogawa and Prof. Hong Shi Hwan with members of the Association of Japanese Cavers and the Korean Speleological Society. They studied and measured Bilemot Cave from July 3 to July 10, 1981. 64 speleologists participated. The studies involved much arduous work. For example, mapping proceeded around the clock. Finally it was found that Bilemot Cave was 11,749 meters long and was the longest single lava tube cave in the world. Its structure was very complicated. Entrance of the cave is very tight, and in the entrance area is much collapse.

At first I was doubtful that the cave was very long, but when I proceeded about 400 m, I realized that it was a wonderful cave. The main route was only 2,917 m long, but it had 59 side passages, and their total length was 8,832 m. A side passage at survey point 29 was called "Maze Cave". Here the side passage had so many branches that it was as if a thread had become entangled. At first, exploration teams were unable to make meaningful sketches of this area. Only three days later did this team come to understand its structure. It had not only crossings at the same level but also connections between a second and a third level. One spiral passage connected to a lower level.

The cave contains considerable water and mud. At the lower end of the Main Route there is a stream of water and a small pond. One survey team had to crawl in mud and water in a passage only 30 cm high. In this area they mapped only 300 m in two days.

I didn't know that Bilemot Cave was the world's longest lava tube cave until I totalled the survey data. But it was clear that it was a wonderful cave anyway. It is in a stream of lava from the Mt. Hanra volcano, contemporaneous with the Hyouzenri flow. On the geological map of Cheju Island, both of these lava flows are shown as the same one. But observations in this cave and in Manjang Cave in the Hyouzenri flow show that conditions in the two flows and their caves were very different. In the Bilemot Cave flow, the lava was lower in temperature and more viscous than in the Hyouzenri flow. In the area is a kipuka which was not covered by lava flows of the middle eruptions of Mt. Hanra. I think that as the Bilemot Cave lava flow was influenced by the original topography, the lava flow axes became complicated and crossed and stagnated and soon formed tongues reflecting the topography. There are many breast-shaped stalactites in this cave, and ropy lava from the surface was rolled in and is visible in the ceiling of the cave with three tree casts visible. It is very difficult to explain the spiral passage in "Maze Cave" by the usual lava speleogenetic theories.

Seven major lava stalagmites were discovered. Why were they formed? One thought can be considered: An occurrence stopped the flow of lava. The biggest lava ball is 7 m in diameter (5.2 m at the narrowest point). Secondary SiO₂ deposits are so common in the cave as to be characteristic. One SiO₂ column 28 cm high is the first known in the world. Also the cave contains "spouted lines" made when gas pushed in a side wall or ceiling. These are 5 cm in diameter, and have a round tip. This is very rare and a very important item in the study of the effects of volcanic gases.

ST. PAUL'S SUBTERRANEAN PARK UNDERGROUND RIVER

Palawan Island, Republic of the Philippines

By Rosevilla Pedrez

St. Paul's Subterranean National Park is a 3,901 hectare area, with limestone and marble cliffs towering thousands of feet above the surrounding landscape. Below is a beach of pure white sand stretching more than 200 feet with cool crystal clear waters that teem with fish. A shallow stream meanders behind the beach, leading to the river's mouth.

St. Paul's is unique among Philippine National Parks because of its dome-like underground river. The river stretches eight kilometers and flows in a westerly direction emptying into the South China Sea. The Cave's mouth measures 10 feet high and 15 feet wide, allowing only small boats with outriggers to negotiate into the cave's interior. Carbide or kerosene lamps are used to explore the pitch-dark inner recesses of the cave.

The limestone caves and cliffs (Karst topography) empty into the underground river forming stalactites, and crypts and corridors that branch off on both sides of the cave. Between the tall and stately, pillar-like stalactites a series of steps rise from the water leading to a temple within. The caverns stretch away in an almost perfect rectangle with multi-colored walls and ceiling. A huge stalactite glitters like a chandelier hanging from a ceiling of a huge ballroom giving way into a great chamber resplendent with colors and decorations likened to a stage set for a scene of some grand opera. In the crevices of the rock formations live thousands of birds and bats.

It is of interest to note that no one has yet reached the river's end.

The park is located in St. Paul's Bay and is reached after a 1 1/2 hour jeepney ride from Puerto Princesa City to Barrio Bahile, followed by a two-hour pumpboat ride. Activities that may be enjoyed in the park area are boating the underground river, picnicking and camping on the white sandy beach, spelunking, mountain climbing and hiking.

ROPE CARE

Courtesy of Pigeon Mountain Industries

- DO Pad your rope at all points of contact that might abrade your rope.
- DO Avoid sharp bends and sharp objects whenever possible.
- DO Wash your rope often with clean, cold water. Dirt will cause wear on your rope and rappelling equipment.
- DO Inspect your rope for damage each time you rig it and again as you coil it up. If the sheath becomes cut or worn through to the inner core, cut the rope at that point and inspect for damage elsewhere.
- DON'T Mistreat your rope. Walking or standing on ropes can damage them.
- DON'T Store your rope in sunlight. Ultraviolet radiation will shorten the life of any nylon product.
- DON'T Allow chemicals to come in contact with your rope. Some strong chemicals may weaken or severely damage the nylon. Avoid products, including markers, containing benzene, phenol (pine oil cleaners), carbon tetrachloride, formaldehyde, and gasoline. Ether and alcohol based markers do not appear to damage nylon.
- DON'T Overload your rope. Never use it to tow cars, lift or pull heavy objects. Overloading can cause hidden damage without actually breaking the rope.
- WARNING! Serious injury or death may result from the improper use of this equipment. It has been designed and manufactured for use by experienced personnel only.

Do not attempt to use this equipment without proper training.



VULCANOSPELEOLOGICAL ABSTRACTS

by Rod Crawford

Brigham, William T., 1909. The volcanoes of Kilauea and Mauna Loa, on the island of Hawaii. Bernice P. Bishop Museum, Honolulu, Memoirs. 2 (4): 1-222, plates XLI-LXVII.

pp. 92-3, mentions a cave adjacent to Halemaumau caldera on Kilauea, into which lava had recently poured.

pp. 97, 99. Barely mentions other caves, and burials in some.

pp. 29-32. Brigham vandalized numerous lava speleothems from the above-mentioned cave at Halemaumau; Kaumana cave; and others. Most of these are probably still deposited at the Bishop Museum; museum numbers are shown and the specimens are illustrated in several photographs. He came to the bizarre conclusion that the tubular lava stalactites and accretionary lava stalagmites were depositonal in origin, formed of water-dissolved minerals such as calcite, silica, and gypsum, and that they grow perceptibly from day to day!

Brigham, William T., 1868. Notes on the volcanic phenomena of the Hawaiian Islands, with a description of the modern eruptions. Boston Society of Natural History, Memoirs, 1 (3): 341-472, plates XI-XV.

An island-by-island account, rather like a cross between a geological paper and a travel book. Periodic brief mentions of lava tubes, as follows:

Kauai: "Caves of Haena" (small) on the coast two miles beyond the Wainiha River; several in relatively recent lava near Koloa at SE end of the island.

Niihau: "large caves and channels" containing breadfruit trees and sugar cane, at the SE end of the island.

Oahu. Mentions caves in the Manoa Valley, the valley of Palolo (some of "considerable extent"), and along the north-west end of the island.

Maui: "Caves are of frequent occurrence near the top" of Haleakala.

Molokai: "Moanui Valley contains several large caves in the side ridges."

Hawaii: a number of references, not here enumerated.

He gives no special discussion of caves, but in his brief mentions he usually explains them as bubbles. He gives the first statement of his absurd theory of the origin of lava speleothems, stated more fully in 1909. Plate 15, a plan of the craters of Kilauea, shows the location of several caves including the one from which he removed speleothems.

Daly, Reginald A., 1925. The geology of Ascension Island. Proceedings of the American Academy of Arts and Sciences, n.s. 60 (1): 1-80, plates 1-21.

pp. 20-21: "Contrasting with flows of the kind thus described [aa] are a number of others in Ascension, which show a prolongation of liquid flow after the chilled surface-shell had become laterally anchored. Lava tunnels of the familiar sort were thus formed, though not in great number or of large size. In most instances their roofs have collapsed, except for short distances. One of the roofed relics, about 20 meters long, 3 meters wide, and 1-2 meters high, was found just below a small driblet cone at the western foot of the Dark Slope cone. This tunnel plunges downward at the unusually high angle of 30 degrees. Other lava tunnels, along the shore, are the loci of spouting horns which are quite spectacular during times of heavy surf. Locally the tunnel streams of hot, fluent lava have worn pronounced channels or gutters, reaching as much as a meter in depth, in the older rocks..."

This is the first reference I have seen to caves on Ascension Island.

MORE ON THE QUINCY CAVE RUMOR

By Rod Crawford

An article on treasure hunting by Ron Sanford in the Tacoma News Tribune Sunday Magazine, December 6, 1965 (pp.6,27) includes a photograph of a cave entrance with the following caption: "Saddles found in this cave, near Quincy in Grant County, provided a clue to the hiding place of \$85,000 in gold, buried in 1876 by John Welch when he and his party were threatened by Indians living along the Columbia River. The gold is still being sought." There is no further mention in the text of this particular story. The photograph shows a typical basalt rockshelter, probably no more extensive than most such, but it might be interesting to check out. This is by no means the first time this rumor has turned up. A previous newspaper article (Seattle Times, September 6, 1964) gives many more details on the story, and was reprinted in the Cascade Caver, September 1964. Another mention is in the February 1966 issue. The earlier article places the "cave" in a large box canyon in the Ancient Lake area. Although the article states that the area was flooded by Wanapum Dam, it is implied that the cave remained unsubmerged. With the photograph it should not be too difficult to find, and there is supposed to be a large fortune in gold buried nearby.

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