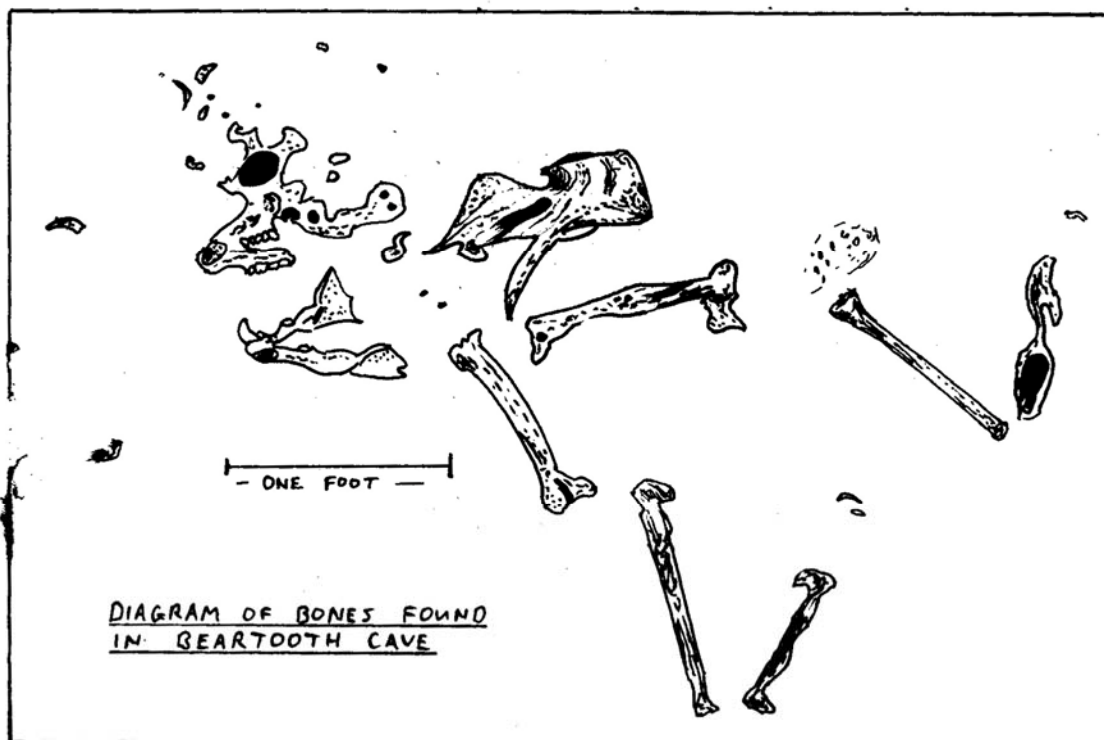


JULY-AUGUST 1994

VOLUME 13 NUMBER 4



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The SAG RAG is published by the Shasta Area Grotto of the National Speleological Society, Grotto meetings are held at different locations the fourth Friday of each month at 7:30 p.m. Meeting locations are announced in the SAG RAG, Membership dues are \$6 dollars per year and include newsletter subscription. Original material not otherwise noted is copyright to the SAG RAG. Such material may be copied with credit given to the author and the SAG RAG. For use outside of the caving community, please seek the permission of the author or editor first. Send material for publication any time to Bighorn Broeckel, 2916 Deer Meadows Road, Yreka, CA 96097. Material intended for the next newsletter is due by the 10th of the even month.

EDITORIAL: Shasta Area Grotto is very happy to present a newly discovered lava tube in Northern California called Beartooth Cave. About 900 feet of passage is accessed by only one small vertical entrance. Arley Kisling discovered the cave. His daughter, Manya Kisling, brings us the feature article. Manya is also an accomplished caver, and thirteen years of age. Cartography of Beartooth Cave is by Liz Wolff.

Ray Miller's "All About Bats" series gets bumped this issue but watch for more good bat articles in future RAGs. Liz Wolff may have a chance to attend a bat seminar or field study with Mark Perkins, the bat specialist of the Pacific Northwest.

Four SAG members converged on Marble Valley August 5-7. Mark Fritzke and I persisted on a miserable little cave near Creature Feature. We partially drained a pool, found a new opening to the cave, and nearly connected to Creature Feature. We also enlarged two new entrances to Creature Feature, which incidentally does have quite a few strange creatures in it.

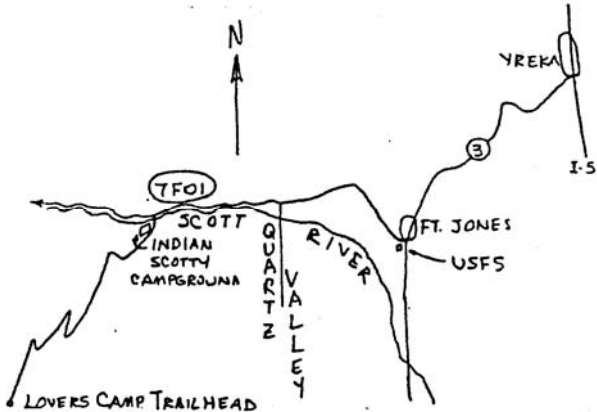
Meanwhile, Jim Wolff, Bill Kenney, and Bill's friend Phil Dyk were working on a cave near Second Thought. Claude Smith and his son came through camp. They are busy this summer on something secret. They did not say very much about it, but I couldn't help but notice that they had vertical gear along. That is about all the Marble gossip I have for this time. There is always a lot more going on up there than I can keep up with.

COVER: once again Judy Broeckel lends an artistic hand and helps with the cover illustration. Rumor has it that some of the bears have been pretty upset about recent discoveries at Beartooth Cave, and are hoping that something can be done.

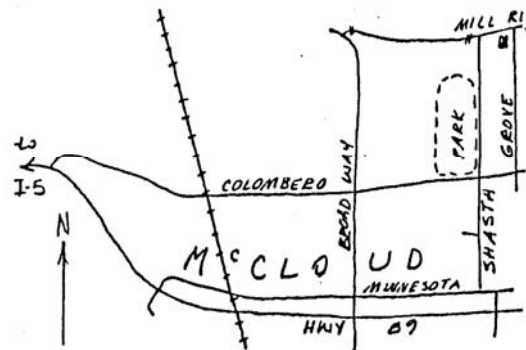
CALENDAR

Sept. 2-?	Labor Day weekend Marble Mountain Speleocamp.
Sept. 9	Friday AM at Hat Creek. USFS invited. Contact B. Broeckel 842-3917
Sept. 9	SAG meeting at Wolff's at 7:30 PM (see map).
Sept. 10	Lake Shasta Caving with Shascade Caving Society. This will be good! Come to the meeting Sept. 9.
Sept. 17-18	Western Regional at Sequoia National Park (see p. 3).
Oct. 7-9	Columbus Day Speleocamp. You better contact KMCTF.
Oct. 14	SAG meeting in Marble Valley at 7:30 PM. Map shows directions to the trailhead at Lover's Camp.
Nov. 4-11	7th International Symposium on Vulcanospeleology Canary Islands. Contact William R. Halliday.
Nov. 11-13	Pathfinder teen caving weekend at Lava Beds N.M.
July 17-21, 1995	NSS Convention in Blacksburg, Virginia.
Aug. 3-9, 1996	NSS Convention in Salida, Colorado.
Aug 6-20, 1997	12th International Congress of Speleology, Switzerland. Contact: Urs Widmer.

MAPS TO UPCOMING SHASTA AREA GROTTO MEETINGS



October 14, 1994
 Meet at grain shed at 7:30 PM
 Allow several hours hiking in.



September 9, 1994
 Meet at Wolff's house 7:30 PM
 No hiking required.

1994 WESTERN REGIONAL – SEQUOIA NATIONAL PARK

Date: September 17-18, 1994 Host: Diablo Grotto

Tentative schedule: Buckeye Flat

Friday:

Arrive, Check-in, packets, meal tickets, drop off photo salon and auction items. Dusk: open slides!

Saturday:

Breakfast, speleolympics to include vertical, squeezebox, and survey. Meeting of Western Region Cave Rescue Commission at Rec Hall.

Lunch at Buckeye Flat. Cave conservation symposium at Rec Hall with Keynote (Janet Sowers), CRPA (Joel Despain), Projects (Chuck Sayon), Plants (Christopher Richard), Clean-up (Jim Hildebrand), Bats (Christine Scott), Secrecy (Marianne Russo) Britain (Damien Ivereigh), Access (Mark Fritzke). Business Meeting.

Dinner, cave sign up at Rec Hall, Photo Salon, Auction. Sunday: Breakfast, bag lunch, caving etc.

Sunday: Breakfast, bag lunch, caving, etc.



 REGISTRATION: After August 31 please include \$5/person late fee.
 _____ Adults (x \$25 or \$15 without meals) \$ _____
 _____ Children aged 5-15 (x \$10 or \$5 w/o meals) \$ _____ Vegie? _____
 _____ '94 Western Regional T-Shirts (s-xxl) @\$10 \$ _____
 Please make checks payable to Diablo Grotto Sum \$ _____

Names _____
 Address _____

Mail to: Western Regional, Jim Hildebrand, 2480 Indian Dr. Palo Alto 94303

Shasta Area Grotto Meeting Minutes

July Meeting: Chairman Jim Wolff opened the meeting at 7:54 PM on July 8, 1994 in Ben Sutton's front yard. Present were Bill Broeckel, Bill Fitzpatrick, Melanie Jackson, Jim Kottinger, Neils Smith, Ben Sutton (host), Denise Willey (SAG applicant), Jim & Liz Wolff, and Richard Stewart (visiting). Accounting: \$71 in bills submitted for the SAG RAG and cave register materials. It was moved and passed to pay the bills. Correspondence: KNF biologist Mike Ford sent a letter of appreciation to Ray Miller regarding the April 1994 tour of PLUTO CAVE with bat authority Dr. Dixie Pierson. KNF is pursuing acquisition of the cave by value-for-value land exchange. SAG members have expressed cautions, while at the same time willing to cooperate on this project. Jim K. brought the Pluto Cave letter.

Jim W. brought information sent from Sequoia-Kings Canyon National Park about HURRICANE CRAWL CAVE. This very sensitive cave is limited to low impact scientific trips only, with some areas completely closed. Study trips are planned beginning with photo documentation. Interested cavers willing to help may contact the trip leaders to join trips.

Glow-in-the-dark T-shirts available from Steve Atteberry 1326 School Road, Lake Ozark, Missouri 65049.

Trip Reports: Denise reports on multiple trips with Ray Miller highlighted by three nursery colonies and the return of the Silver-haired bat *Lasionycteris noctivagans* to the upper Sacramento River.

Melanie saw inner rim cave openings from the Crater Lake boat tour, noting that the inner rim is off limits except the boat dock trail. Bill B. found small talus caves near Statue Lake, and Neils Smith and the Wolffs reported on the Texas convention. Lastly, a new pit was opened in ECHOPLEX CAVE.

Future Trips: Bill F. invited SAG to join SOG on a Kangaroo Karst trip. Saturday's outing planned to explore/survey BIG CAVE which is near POPCORN CAVE. Program: Two videos – NATURAL BRIDGE CAVE in Texas from Neils, Jim, & Liz, and OTTER HOLE in Great Britain from Bill F.

August Meeting: Chairman Jim Wolff opened the meeting at 7:53 PM on August 12, 1994 in the home of Jim Kottinger. Present were Don Gipson (visiting), Cheryl and Zane Kenney, Jim Kottinger (host), Neils Smith, Denise Willey, and Jim Wolff. Treasurer's report: \$504.88.

Correspondence: Jim W. brought a copy of a letter from Bob Hammond STNF McCloud District Ranger, to Dr. Dixie Pierson regarding proceeding with an environmental assessment at PLUTO CAVE. Other Business: New SAG member Denise Willey, Liz, and Ray visited Pluto Cave's back room, thought to contain guano. It turned out to be a huge rat nest. JOT DEAN CAVE register is overflowing. Jim W. will replace it with a big one right away. The SAG library swelled 30-50% with the return of materials loaned years ago to Willamette Valley Grotto. See Jim W. for good cave reading. Jim W. also has notes from recent Western Region Cave Rescue meetings. Marble Mountain Speleocamp discussed.

Jim W. told about a rescue at Shasta Caverns. A guide entered the cave alone. After 2-3 hours, a search was initiated. 5 ½ hours after the guide entered the cave, he was found outside and downslope from the natural entrance, dehydrated and disoriented.

Meetings: 9/9 at Wolffs and 10/14 in Marbles. Grotto trips: McCloud Reservoir karst walk on 8/13, and Shasta Lake caving with the Shascade Caving Society after the September meeting. Program: Neils showed slides from the trip to '94 NSS convention in Texas.

BEAR TOOTH CAVE

By Manya Kisling

You know how the old saying goes "curiosity killed the cat"? Well, 6 cavers and 1 little caver and I learned a new saying "curiosity and hunger trapped the bear".

Hi, my name is Manya Kisling. My father Arley Kisling, Jim Wolff, Ben Sutton, and I were looking for caves on the far side of Porcupine Butte lava flow. We had found and mapped a couple of caves and were about to give up but then we started looking for anything. As we walked upflow, my Dad practically fell into a 2x1 foot wide hole!

Nervously he yelled for us to look at what he had found. We all crowded around the hole. We could feel cold air coming out of it.

As we all looked down we knew we could not just climb in. So my Dad stuck his head into the hole.

He could see that it went upflow and downflow, and that it was a ten foot drop. But we knew it had to have another entrance. So we walked upflow and downflow, but found nothing.

After about an hour we walked back to the hole. We stood and thought about what we could do, then Ben remembered that he had some rappel gear in the car. So Ben and Jim went back to the car. A few minutes later they came back. Ben and Arley went down through the 2x1 foot hole.

We did not hear from them for an hour. When they came up they told us about two passages, one going upflow and one going downflow. They told us about a bear skull and all the rest of his bones, but the smallest bones were carried away by the mice. We know that there are mice because of all the little skeletons from mice and rats.

Before we left from the first trip, we marked a bush with yellow tape so we could find it again. It worked well.

A couple weeks later we went back to Beartooth Cave. Arley did not come. We came back to survey and map the cave.

We got in the cave with a cable ladder and a rope. The entrance was beautiful. When I dropped into the hole, I stepped down onto moss covered breakdown. I was in a circular room. The hole in the ceiling gave a beautiful picture of the light pouring onto the green moss covered breakdown.



Jim Wolff and Manya Kisling below the entrance to Beartooth Cave.

We found that the cave was an ice cave, and that there were many more things in the cave than a bear skeleton. There were red roots hanging down with white bugs living in them, and yellow slime on the ceiling. It was dropping off the ceiling and onto the ground and drying.

The cave was mostly walking passage. The cave gets its name from the skeleton of the bear. There was only one large tooth on the bear skull.

I really enjoyed Beartooth Cave. It was really a good adventure.

– Manya Kisling



Manya Kisling entering Beartooth Cave.

BEAR TOOTH CAVE

SISKIYOU CO, CALIFORNIA

SUUNTO & TAPE SURVEYS BY:

B. BROECKEL M. KISLING

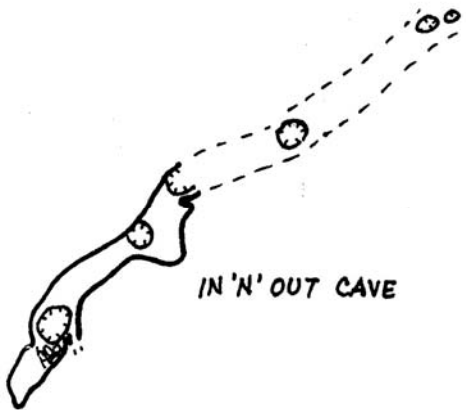
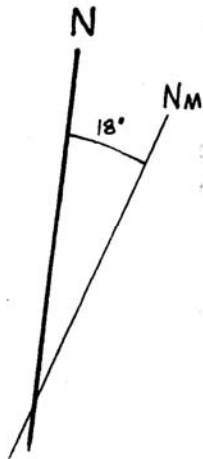
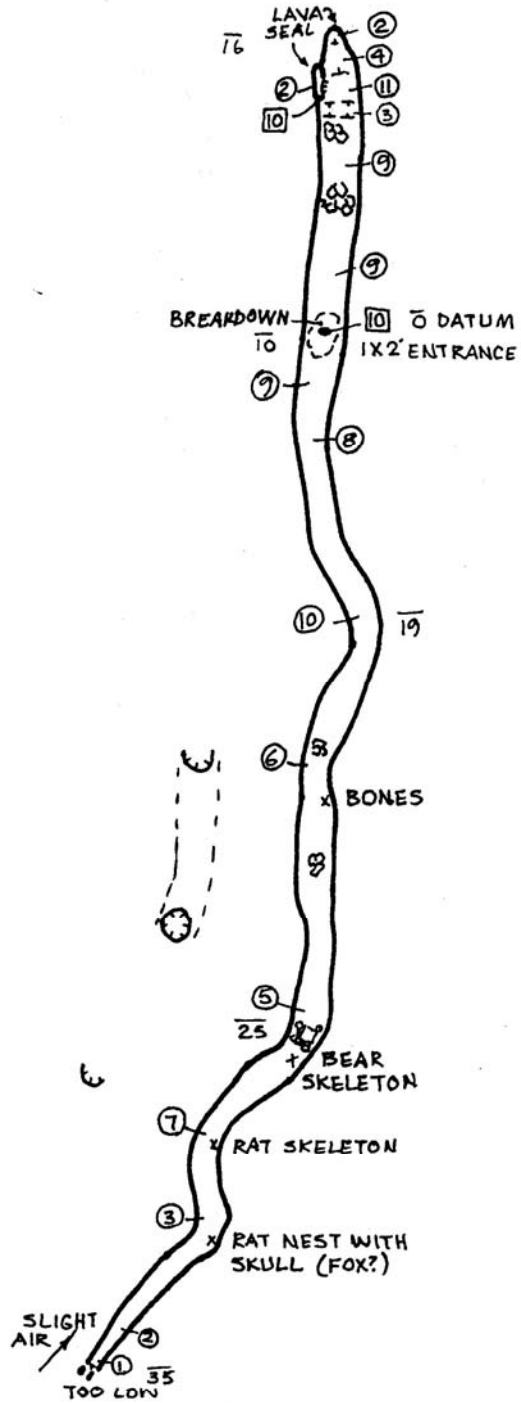
M. JACKSON B. SUTTON

A. KISLING J. WOLFF

L. WOLFF

LENGTH 906' DEPTH 35'

6-4 & 6-11 1994



Map: Bear Tooth Cave, In 'n' Out Cave

WITH N.C.R.I. AT TROUT LAKE

BY
MELANIE JACKSON

I spent my week of vacation in August working with the NCRI (Northwest Caving Research Institute) on the Mount Adams Cave Inventory Project. This was a two week project that took place July 30 to August 14, 1994, just outside of Trout Lake, Washington. This was the first year of this project. It was basically organized and run by Ben Tompkins. This type of project normally utilizes 35-50 people from all over the United States, and sometimes other countries. I don't know if it was the time of year, the place, or the cost (I thought it was very reasonable), or some other reason, but there were only 8-10 people at any time on the project.

We contracted with the Mount Adams Ranger District focusing our work within their boundaries even though "Trout Lake Caving Area" extends beyond into another Ranger District.

The goals for the project included:

- 1) Locate, mark, and inventory 60-70 known caves that have been described in reports or publications.
- 2) Evaluate existing cave maps and re-map caves as necessary.
- 3) Search for new caves and sketch or survey as necessary.

Our base camp was at a Sno-Park (Attkison Group Camp). It had an outhouse and a three sided log shelter with tables and a wood stove surrounded by a paved parking lot and forest. There was no piped water. Water was hauled daily from a nearby campground. There was a tarp shower stall set up to accommodate our Solar Sun-Showers. There were planned menus, but no full time cook. Bob Brown (Forester) did a lot cooking. There was also do it yourself style and occasional meal by committee.

The setting was peaceful. The people all worked together well as a team, were helpful, had great senses of humor, and were just plain fun to be with. They came from Massachusetts, New Jersey, California, Washington, and Canada. They had many varied professional backgrounds, lots of different caving experience, and unique talents. We never lacked for entertainment.

Since we had a very small number of people we used two teams consisting of 3-4 members every day. Ben Tompkins spent many hours each day and night in camp processing a lot of data on a lap top computer and coordinating each day's work with the team leaders.

Some days we located lots of caves, got our GPS readings, placed our monuments, and inventoried the caves. Sometimes the directions were very good and the caves located easily and quickly. At other times a lot of effort was spent tramping around finding or not finding a cave or maybe just being lost for awhile. Most of the caves we looked for we eventually found, but some we are still wondering about. There were also discoveries (i.e. more caves within a large system).

The weather was quite warm and benign all days but one, and there was no rain.

Two of us, Craig Hovey and I, spent one day and most of one night working with the Forest Service Biologists on their station rounds doing follow-up visits and calls to find "spotted owls". The daytime follow-ups yielded no sightings or responses. We got a lot of information, conversation, exercise, and plenty of compass practice. Our line mice got a second day on death row.

In the evening we were getting no responses, but had a spectacular view of the Perseid Meteor Shower on August 11.

At last Gary, one of the Biologist-Hooters got a response. We got in our vehicles and converged on his location. The owl was called in, but even with flashlights when we were below the tree it was perched in, we could not actually see the owl. Craig and I decided to call it a long day and night and arrived back at camp at 1:30 AM on Friday the 12th of August.

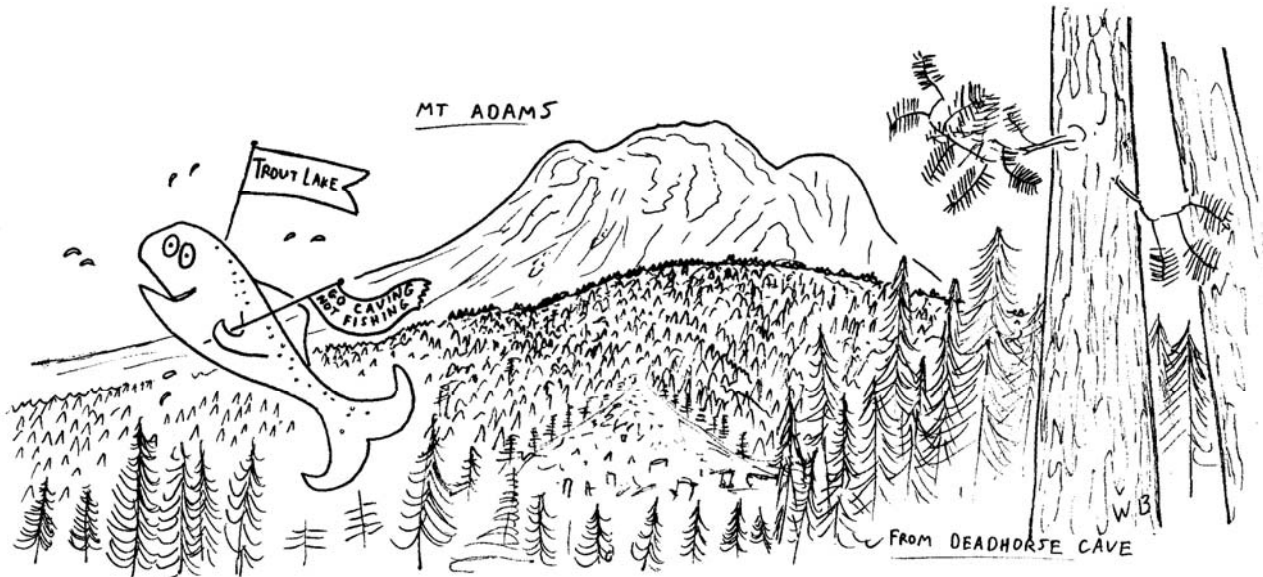
Hopefully next year there will be a lot more people to accomplish a lot more work. We did no survey work, only a few "from memory" sketches. We did locate 58 caves and got GPS readings on most of them. There's plenty more to do next year.

I will miss all the yummy huckleberries that grew everywhere we went. We picked and ate them all day long as we tramped about. No more purple hands for awhile. I won't miss our camp mascots which were hordes of yellow-jackets. They didn't sting anyone, just dive-bombed your food while you tried to eat.

Well gone are the bees, the berries, all the candy bars (3-4 per day) and peanut butter sandwiches until the next project. I really enjoyed our group trip bopping Deadhorse Cave for fun and seeing Langfield Falls. There were lots of interesting anecdotes I could go into about Techno Nine, J&R, Tooth Cave, etc., but just ask me when you see me or better yet, come to the project next year and see and experience for yourself.

To Ben Tompkins, Oliver Studley, Steve Sprague, Craig Hovey, Bob Brown, Richard Walter, April Elsasser, Roland Johnson, Tom and Blythe, the people whom I worked with on this project, a special thanks!

– Melanie Jackson



Our Summer Vacation

Submitted by Jim & Liz Wolff



It was (would be) a sunny morning mid June and 3 SAG cavers (some disgustingly cheerful for 4 am) crept out of bed & hit the road for Texas. We stopped at Caverns of Sonora, an extremely well decorated commercial cave near the town of Sonora Texas, where we met some Southern California Grotto cavers. Five days after leaving Standish (2 of them spent in Phoenix) Jim & Liz Wolff and Neils Smith arrived in Fort Clark Springs, Texas, the site of the 1994 NSS convention during a thunderstorm.

The registration process was expedited by having preregistered. A campsite was then selected and the unloading and setting up of

camp began with the huge shade tarp. It was shortly discovered that the tent poles had been left behind, so the tent was jury-rigged to the shade tarp poles until we could get in to the hardware store.

Morning dawned after a hot and humid night, a pattern that would continue for the rest of our 3 week vacation. We had included bicycles in the packing and they became our mode of transportation to sessions, the swimming pool, and even on a cave trip. In the morning we attended US Exploration sessions and in the afternoon we swam in the spring-fed pool on the convention grounds. That evening was the Howdy Party, a convention tradition. It was held on the movie set for "The Alamo", and was the place that Jim Wolff met Jim Wolff. The other Jim Wolff is a Texan.

Dinner was the first portion of the party, followed by a shootout and costume contest. Next was a re-enactment of the last few days of the battle of the Alamo by about 50 players in authentic costume with black powder rifles, cannon and fireworks. They had done a lot of research into the people on both sides, and read letters and other documents that had been written from the Alamo during that time. This was followed by fireworks, a thunderstorm, a live band and dancing. After returning from the "Alamo" we were joined in camp by Rob Stitt, a Pacific Northwest caver that Jim & Liz have known for many years, to make a little music on recorder and guitar. Other people wandered in, some with instruments, attracted by the music and played cave songs 'til the wee hours.

One day contained the International Exploration sessions, which included Iceland lava tubes, Hungarian and other European caves, and Australian granite caves. Later we toured the photo, newsletter cover, map and symbolic device salons and watched a computer mapping demonstration. It was quite interesting what could be done with the program after human figures (in scale) had been introduced and the cave rotated for any view we wanted to see, including one right down the survey line through the cave passage itself. Walls the actual shape of the cave could be drawn in, floor textures and formations could be accurately portrayed: That evening was a party by the pool with free drinks if one had his/her official convention mug. The water was especially cooling in the evening and we swam to cool off the day as fireflies flitted.

Thursday we were signed up to go to Kickapoo Caverns, so loaded up the bicycles festooned with caving gear to drive 22 miles, and ride 1.2 miles (that most cavers hiked) up to the cave. We spent 2 ½ hours in the cave touring and taking pictures of the fantastic formations – some huge and others contorted helictites. We returned to camp to swim, shower, do laundry, and later to salvage the remains of our camp. A tornado alert was announced and the winds picked up our shade fly, tearing the ropes out, bending poles, and spreading everybody's camping gear around the camp grounds. Jim & Neils managed to retrieve everything and get it packed while I finished up the laundry and watched the winds strip trees of their leaves. We missed the photo salon while this was going on; some people came out of the salon to find their camps blown over.

Friday morning the session we attended was the multi-projector and video salon show. Most multi-projector shows had 3 or 4, but one had 9 projectors. In the afternoon we visited the vendors again and went swimming until time to dress for the banquet. Dinner consisted of "chicken fried steak" (deep-fried breaded hamburger), green beans, mashed potatoes and gravy, rolls, carrot cake, iced tea and wine from local wineries. The usual beach ball was missing, but was represented by a piece of poster board with a beach ball drawn on passed overhead hand to hand. It didn't quite have the fun value of the beach ball, but was the best that could be done.

We left the convention after the banquet to drive to San Antonio. In the morning we toured an airplane exhibit at Lackland AFB, where Neils pointed out the first (perfectly good) airplane he ever jumped out of, and Jim pointed out the one he came home from sea in. Then we visited the Alamo, touring the old fort, museum and other monuments on the grounds. This covered the entire Mexican Revolution, and the historic uses and restorations.

From there we went to Natural Bridge Caverns, a well decorated commercial cave, again meeting up with several California cavers. Then to the Johnson Space Center and mission control for all space shots. We were treated to NASA's 25th anniversary laser light show and tours of the actual training devices for the early astronauts. And a stop on the Gulf Coast completed the eastward leg of our trip.

Headed for Amarillo Texas the sun one evening was a spectacular fiery orb sinking slowly under the horizon, with fantastical lightning streaked cloud shapes looming to the south. At Albuquerque N.M. we rode the tram 2.7 miles in 15 minutes to the top of Sandia Peak, and spent time on the cool breezy summit hiking around. The view was obscured by heavy haze and smoke from the many fires in southern California.

Our next stop was a very brief one at Four Corners for pictures standing in 4 states at once. Later we stopped at the North Rim of the Grand Canyon, during the usual afternoon thunder storm, hiking and taking pictures. It was the only cool green place we visited on the whole trip. Every place else was in the 100+ degree range and 80-90% humidity. We arrived back at Neils' place about 10 pm on a Friday evening nearly 3 weeks after leaving.

MONKEYFACE CAVE by B. Broeckel

The French Creek Karst includes an area with a cluster of cave entrances piercing the sides of limestone ribs. These caves are the remnants of a network of fossil phreatic tubes exposed and highly segmented by subsequent surface erosion. The best segment found so far is Monkeyface Cave.

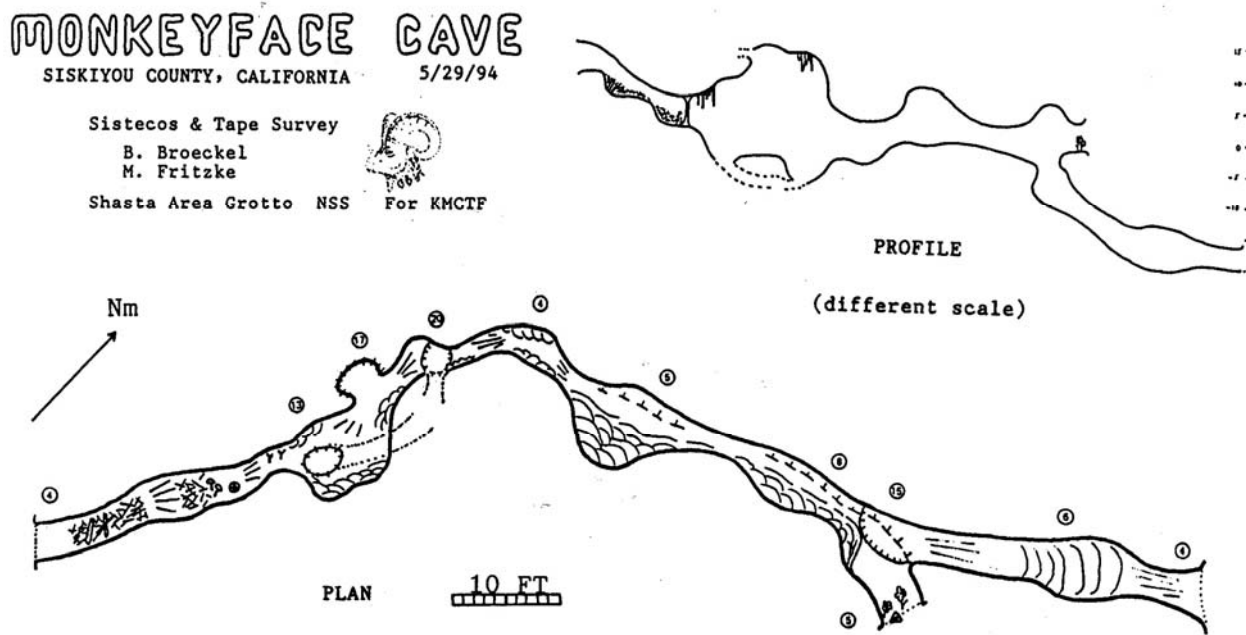
Looking out from the upper entrance, we see fragments of broken flowstone strewn across the gully. These "cave bones" reveal the pathways of cave passages washed away long ago. Just inside, we cross over some packrat midden and a mushroom patch growing in the deep twilight zone. Next we just slide by a column, and then step down into the "Big Room". This is the most decorated part of the cave. The old formations are now quite dry, white, and often encrusted with coralloid. A short lower level passage re-enters the cave at the next shallow pit. It is easier to simply climb over the top. Here we are happy to see some nice draperies.

The cave passage continues as an off-set crevasse, narrow in places, and impinged with more flowstone. All too soon we reach the middle entrance. Monkey flowers bloom here in May. This entrance is more tubular and scenic. From here it is easy to scoot down the dusty, smooth surfaces to reach the lowest entrance, which is also a fine and scenic viewpoint over the canyon of French Creek.

Monkeyface Cave is found on Klamath National Forest land. Mark Fritzke discovered it about five years ago. We surveyed it last May to a length of 143 feet, not counting the lower level, and a depth of 30 feet. We named it for the patches of yellow monkeyflowers growing just within the middle entrance. The genus name is *Mimulus* which is Latin for "mime" or "theater face", hence, Monkeyface Cave.

This survey was part of the 1994 Memorial Day KMCTF Speleocamp rendezvous at French Creek. The cave represented a pleasant diversion from multiple thousands of feet of surface survey over sun baked limestone cliffs and through thickets of poison oak. In fact, Charley Hotz and Jim Hildebrand were still busy with this commendable but sometimes odious task. These Diablo Grotto cavers missed out on Monkeyface Cave, but deserve credit for lots of work on the project.

Linda Villatore was camped on top of the portal ridge, as the official trip guardian "bobcat", and also in charge of quiet contemplation. Juan De La Fuentes was present as well, but hiked out on Friday night. French Creek is part of a pilot program in public land administration and is under consideration as a Research Natural Area. We enjoyed clear weather, but sometimes it rains here. Just ask Mark about it.



Map: Monkeyface Cave

NEWSLETTER REVIEW JULY-AUGUST 1994

By Dick LaForge

Your enthusiastic newsletter review editor has tons of stuff to swipe from other newsletters. It's only right that these fine writings should be more widely spread about the caving community. And there is no other reward for writing them than the notoriety one gains by having them stolen by another editor.

First, said editor must report on a trip to Lechuguilla during the July 4 week, led by Joel Despain and Carol Vesely. Previous trips had experienced breakouts in the Western Borehole and we anticipated really cleaning up. In general, cleaning up was more like mopping up, as all the leads closed off after short distances. Some interesting mazes were mapped around and above the Ruby Chamber in the Far East, but these did not lead into new territory. Mileage for the week was about a mile, about average for a non-breakout expedition.

My first three-day trip was to the Wild West, which is a new area off the Western Borehole. From Deep Seas camp it is an hour of hiking down the borehole, which is never less than 30 ft in diameter, and usually a lot more. Then a long slanting climb many hundreds of feet up into the new area. Eventually we made it to a network of phreatic passages mapped during the previous expedition. These all funneled down into a low area, in which we found a small oval hole with aragonite bushes growing around it. Practicing caving ballet we oozed through and found ourselves in a moderate sized room well decorated in aragonite, meaning bushes several feet high on the floor and sprays on the wall to 6+ inches. We surveyed a large loop, finding the area to be a large room with major central pillars. One side fissure led to a very narrow canyon so full of aragonite that we declined to push it further. Total mapped was about 3-400 feet, if I remember correctly. Even this smallish amount, done in good-sized passage, takes many hours when done to tech standards. In essence, an accurate sketch is made on the spot, with profiles both across the passage and on the line between stations.

One outstanding feature found in this new area is a "planar cluster" about a foot across. These are corraloid clusters hanging from low points in the ceiling, and the coral on the bottom all reaches exactly the same level. In other words they are flat-bottomed. In other words, the growth of the coral somehow coordinates itself so that no one point grows lower than any other. These remarkable features, almost non-existent elsewhere, are quite common in Lechuguilla. The flat lower surface is usually made of rounded coral knobs up to about 1/2 inch across, and the entire flat bottom can be 3 or 4 or more feet across. This one, however, is more unusual as it is made almost completely of rhombohedral calcite crystals up to .75 inches long!

I also want to report on the headlamp using a voltage regulator as described in the last issue of the RAG. To review, it uses 5 D cells to power a HPR55 bulb (.5 Amp halogen). The voltage regulator drops the input voltage to a constant 5.2V which is just right for the bulb. On each of my three-day trips only one battery pack was needed. That is, very bright and constant light for three 16 hour caving days on 5 D cells! To be fair, it was not on for all 16 hours each day, as I also used a helmet-mounted D cell pair to power a dim (PR2) bulb for rest stops, camp, etc. So I got by in great style using 7 D cells for 48 hours of caving. At \$1/cell that comes out to 14.6 cents/hour. I'm happy.

Hazards of SouthWest Caving Dept: Doug Strait was also at the July 4 Lech expedition. On a 5-day trip to the Far East he got VERY ill and made it back to the

surface only with great difficulty and suffering and help from his friends. He said to me afterwards, "I once had to crawl for 5 (?) miles on alpine karst with a broken ankle, and this was far worse." He writes that he had to be hospitalized in Carlsbad after the expedition, for pneumonia. After that he found that he also had HISTOPLASMOSIS, which probably led to the pneumonia. He writes, "I got the Histo from Emerald Sink Cave in Texas. 6 of the 12 cavers who went there during the NSS convention got Histo."

Real Life Dept.: Recently I learned that my Dad has liver cancer and will last X years with X being a small number. That has prompted my brother and I to visit him in Montana at the end of September. That, plus a living room addition project that is underway at my place, will keep me from caving as much as I would like this year.

Let's get on with the newsletters, of which there are plenty. There are a bunch of articles about the 1994 Convention. For example, there is "A Cave A Day in Bracketville," by Lisa DeLucia, in The Explorer, Aug. 1994 (S Cal Grotto). She gives a good account of the convention activities and the caves that she visited in the area. Of course, some of you went to the convention also, and if you also wrote accounts of your experiences the Editor may leave Lisa's out.

There were also plenty of opportunities before and after the convention to go caving in Mexico, and many did. From The Valley Caver, September 1994, we have a pair of articles by "Donaldo" and Sandy Dunn, about GRUTAS DEL PALMITOS and GRUTAS DE GARCIA. There are more interesting caving stories in this issue, in fact The Valley Caver takes the prize for its great number of good articles. Go check it out at the SAG library at Wolffs'.

Cave Rescue News: I have a Western Region Cave Rescue Update from Joel Despain. It reports on discussions and actions at three meetings: 11/3/93, 2/19/94, and 5/7/94. The group is called the "Western Region Cave Rescue Commission". There will be another meeting at the Western Regional at Sequoia Park on September 17. One important development is that Bill Mayer has been appointed NCRC Western Region Coordinator. "Bill is an NCRC instructor, has SAR and OES connections, was originally trained by Tom Patterson of Joshua Tree NM, has been an NSS member since 1983, and is a former member of the SoCal Grotto. His primary interest in cave rescue is cave conservation. Cavers should do cave rescues because they are more concerned about protecting caves than other rescue people, and are better trained to do so." (from the Update). Interested persons can get the Update from me, not from the SAG library.

There are lots more great articles, I wish you all could spend hours reading them as I get to do. I will give Bill Broeckel, your editor, the following articles and he will print what he has room for.

The Speleograph, May 94, has an article by Bill Halliday entitled ALLREDS MORE THAN DOUBLE THE LENGTH OF KAZAMURA CAVE, for those of you who want to keep up with the longest lava tube known on the largest mountain on earth. The cave has 19.55 miles of mapped length, more than twice that of the runner-up. Its vertical extent is 2080 ft, but its depth below the surface is never more than about 60 ft.

The Underground Express. in addition to a very snappy cover drawn by Larry King in somewhat Stalinesque style (you gotta see it), has a very interesting article by Bill Holmes about THE OREGON IRON MINE and recent explorations into parts of it he could get into. This points out that cavers are excited not just by caves but

also by any hole in the ground, especially one of unknown extent and condition. Perhaps we should be called "Holers". Winter 1994 issue.

This philosophical (or more properly Etymological) question leads to an article that gives the answer. It is: CAVER BEHAVIOR – AN EXPLANATION, by Warren Hoimann, SFBC Newsletter, June 1994. Bill, do print this one. Though it fails to live up to its name, and only explains the origin of the word "Spelunker" and why we avoid using it, avoidance is part of the point of the article, so it sort of excuses itself. Also at the end we note it was written in 1980. Just goes to show the staying power of great research.

We close with another poem on the subject of cave conservation:

**A CAVERN YOU PRIZE
By Perry Noya**

**A cavern you prize should be hid from all eyes,
Buried completely, beneath earthwork disguise.
No trace must show of the chambers below,
Lest vandals soon enter and stomp every flow.
And never reveal what you've carefully concealed,
For the only cave saved is the one that stays sealed!**

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From The Valley Caver, September 1994, pages 14-15

GRUTAS DE GARCIA

By Sandy Dunn

The Mother Lode Grotto Speleo-Research team has discovered a new vertical system in use deep in Canyon de Garcia, Mexico. Move over Frog and Rope Walker, enter Funicular.

Two thousand feet beyond the ticket booth for Grutas de Garcia, lies the cavern itself. The first hundred feet above ground are horizontal, while the last few hundred are vertical. Some 2000 feet of rail connect the two stations. A funicular, or twin train cars on rails are counter-weighted and powered by a 30 horsepower electric motor at the cave. The funiculars run from the ticket booth of the cave mouth, their tracks bulging at midway to allow the two cars to pass.

Ticket prices varied, adult \$3.30 if you walk up, \$6.60 to rest your buns on the funicular. The cave manager, Eligio E. De La Garza Pena, was a chubby and enthusiastic salesman for his cave. He spoke excellent English, shared some posters with us from the Congress of Speleology which took place in this vicinity some years ago. With typical Mexican exaggeration he assured us that Grutas de Garcia was one of the world's most beautiful caves. We said we had already had seen the world's prettiest caves. He said, "don't be so sure." Skeptics and optimists boarded the funicular.

Our vertical ascending system consisted of two cables providing a minimum of two points of contact at anytime. Seats in the funicular were tilted back to a point intended to be horizontal at the top, upon arrival we are still leaning back!

A huge cave entrance greets us. The floor is massive and has slippery concrete that looked like it was used for dances. A snack bar occupied one end and was great for buying cold beer! A small door opposite the snack bar beckoned us.

Once inside the door the magnificence of the cave was overwhelming. The lighting was superb, and the cave was truly of the scale and beauty of Carlsbad, or any other world class cavern. Formations flooded the cave, not just measly 30 footers, but some over 100 feet high. Although the cave isn't growing, its beauty remains.

A large alcove in a high wall, surrounded by draperies is aptly named the Theater (El Teatro). Perhaps Marianne's Sapos de Mariachis could play here. [Aside: Marianne bought several of stuffed, shellacked frogs playing Mariachi instruments in Mexico. Ask to see the complete set.]

Another highlight was the Mano del Muerte (hand from the dead) which is aptly named. A coffin formation lay nearby.

One huge room had a 300 foot tall ceiling, and -- hold onto your seat harness vertical cavers -- a sky light entrance! Many of us drooled over the possibilities. The finishing touch was done in a style not likely to be replicated outside of Mexico. A 30 foot column was fully decorated with Christmas lights and had Christmas music! Feliz Navidad con Cuevas. Everyone took pictures, but not for the same reasons, the Mexicans oohed, we snickered.

We had a great time and learned of another entire portion of the cave that only has tours on certain days of the week, and another entrance balcony to the outside world on a high cliff will soon be available -- more than enough reason to return.

After descending safely on the funicular, we spoke to Eligio asking him where we could camp in the Grutas park. He offered us camping in his parking lot, our own personal night watchman, use of a huge swimming pool and bathrooms, and

three fluffy guard dogs. Talk about hospitality. The pool was a great way to cool off, the scenery and the stars were spectacular. We even got to watch the bats drink water from the pool while we were swimming. No Hay Dos Mexicanos!*

* Borrowed from a Budweiser advertisement, "There aren't two Mexicanos!"

GRUTAS DEL PALMITOS

by Donald Dunn

It was just another humongous Mexican cave. Nine sweaty cavers inhaled as we crammed into Dale's van to ride the last five kilometers to the cueva. The afternoon sun pushed the thermometer well over the century mark. A bottle was passed around, not with alcoholic coolant such as that leaking from the van, but rather one with water and a spray top, the *new Spritzke Alpine Cooler*. Any overheated caver was shot on the spot.



The Cantankerous Caver at Garcia.

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From The Valley Caver, (continued)

We hadn't come to this runner-up location from hell by accident. No, this was a conscious, premeditated, coolly calculated fiasco. 320 kilometers from any water that was safe to drink, we were in search of anything on the map that mentioned "Grutas", "Cuevas", "Cavernas" or "Sotanos". Two border crossings, an air conditioner failure, a van rolled and totalled -- but in other-wise driveable condition -- wasn't going to stop this hardcore caving party.

The last rental car was abandoned outside of Bustamante, not enough clearance. We tortured the van in first gear driving up perhaps 300 meters (900 feet) vertically, on a steep dirt road. Bodies bounced into each other -- no shocks on the rear wheels. The owner of this van was a friend of Cowan's, which of course explains the missing shocks. Marianne Russo was sweating on husband Jerry, whose body bumped Paul Greaves, while Kathy elbowed Sandy and I, and Dale and Dave just lucked out with front seats. And don't let me forget our editor, sweaty Bill Papke, no longer a stranger to caving. Like parched dogs, our tongues hung out, my nose pressed against the window as I whined desiring to lay down in the shade of the Palmitos on the mountain side.

Palmitos, or palm trees grew out of the weathered Karst in this canyon. In the old days, roofs were thatched from the Palmito, whose quest by a farmer lead to the discovery of the very cave we sought out.

When the van stopped we exploded out of it, drenched, grumpy, but ready to dive into a mild 70 degree climate. We were surprised to find a local gentleman, Rojillio, who charged a fee and offered guide service. (Had we read our convention guide book we would have known about this). Fortunately our official grotto interpreter was available to discuss the matter. Sandy Dunn handled the details, Dave knew the cave so we declined guide service -- a mistake -- and began our adventure. The gate to the cave would be locked at 4 PM unless we made arrangements, which we did, to lock it ourselves when we came out.

Explore the cave we did. A photo-expedition ensued with next years convention's photo salon to be decided on the spot. Kodak doubled their profits today. In a few hours we were exhausted, just waiting for Paul and Dave to return from some side passage. When they didn't we went looking for them. Seems they had crossed the Paso del Muerte "Pass of Death". Oh no! Fear not gentle reader, everything in Mexico is named this way. Before leaving Mexico we saw the Mano del Muerte "Hand of Death", and soon we were naming everything we found. The restaurant of death "Cafe del Muerte", a trail "Paseo del Muerte".

Dave and Paul had managed to add some tremendous length to the cave. By following Kathy to where she had last seen them, we were treated to 30 meter high ceilings, formations as large as Carlsbad, and a room 2100 feet long! A small alcove contained helectites ripe for a photo-salon win. We hadn't seen one tenth of the cave and had been delighted.

Later while looking over a map we missed not one, but two rooms of 2100 feet!

Anyone for a trip to Mexican caves later this year?

From The Speleograph, May 1994, page 59.

May, 1994

ALLREDS MORE THAN DOUBLE THE LENGTH OF KAZAMURA CAVE, HAWAII: A short history of Kazamura Cave and its new extensions.

—William R. Halliday, Chairman Hawaii Speleological Survey.

The earliest history of Kazamura Cave is obscure, specifically including the reason for its name. It first came to the attention of cavers because of its designation as a civil defense fallout shelter in the '50s. In the early '70s Frank Howarth and Fred Stone reported its length as more than 10 km (6 miles), and it was considered the longest lava tube cave in the world. In early 1979 a British expedition headed by Chris Wood mapped it in detail, finding a total of 11,713 m (7.28 miles). A 1983 Japanese expedition headed by Takanori Ogawa added a length of 140 m (460 feet), as published in *The Cascade Caver* and elsewhere, but this was not noted in *Underground Atlas* (1986) nor in *Great Caves of the World* (1989).

Other lava tubes of comparable length came to light in Korea (Bilemot and Manjang caves on Cheju Island), and Kenya (Leviathan Cave). Questions of segmentation and actual lengths of individual caves arose. These still are not entirely settled, and by seeming general consent these usually have been spoken of as the four longest lava tube caves. In late 1979 I checked what was then known of Kazamura CAve for possible segmentation. I found that it looked like it was segmented; near its midpoint, visitors emerge into broad daylight for more than 100 feet (30 m). However, it is possible to remain beneath an overhang along one side of this collapse sink, which qualifies it as all one cave.

In 1986 *Underground Atlas* made an interesting statement: "Kazamura Cave has 11.7 km of passage ... separated by just one choke from a downflow extension which is nearly as long again." The source of this statement is not clear. In 1994 it turned out to be true, but until this year all written and oral communications known to me indicated a gap of more than 8000 feet between Kazamura Cave and Upper Paradise Park Cave. This was much more than the similar gap below Keala Cave, headed in the same direction.

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From The Speleograph, (continued)

Because it had been studied so extensively, organized caving gave little attention to Kazamura Cave between 1979 and very late 1993. Most visits to it were by unaffiliated local cavers, who are plentiful in the subdivision beneath which it extends. Then in November 1993 Kevin and Carlene Allred and their family returned to Hawaii for a winter of caving: their first visit since 1979. After some initial work in Moku Cave (their discovery), Epperson's Cave, and some others in lower Hawaiian Acres Subdivision, they learned of a cave mauka the upper end of Kazamura. Mauka, the new cave went and went and went, toward Sexton's Cave (which was not yet known). Makai, their mapping showed that

it pinched out at about the location of the upper end of Kazamura.

Kevin tried to force his way through the upper end of Kazamura, but was no more successful than those who had preceded him. His mapping was so convincing, however, that he returned to the makai end of the new cave ("Upper Kazamura"), while Mike Shambaugh went to the upper end of the old cave. Soon they heard each other scrambling. When they yelled, "it was as if they were right next to each other," Kevin later recalled. And they were. Soon they saw each others' lights, and Kevin got through with anticlimactic ease.

The significance of this breakthrough refocused the entire Hawaii Speleological Survey winter field season to Kazamura and nearby caves, especially others that might connect to it. Through January the Allreds surveyed 29,842.5 feet (9096 m or 5.64 miles) in Upper Kazamura, with a variety of companions of whom Mike Shambaugh was the most frequent. That made the total for Kazamura 20,809 m or 68,252 feet (12.926 miles). The mauka end was a plug of intrusive black pahoehoe and aa lava like that subsequently found at the lower end of Sexton's Cave (see elsewhere in this issue). Hammering on the wall of Sexton's Cave could be heard faintly in Kazamura, and vice versa.

Meanwhile, makai possibilities were not being neglected. The Doc Bellou System was being checked especially, but as related elsewhere in this issue, it yielded no connection to Kazamura. Of vital importance, however, was the discovery of a puka not far mauka the gates at the mauka end of Upper Paradise Park Cave. On January 19, mapping began extending that cave mauka, toward the breakdown choke at the lower end of Kazamura.

Soon the Allreds realized they had gone mauka past that breakdown choke, in a big upper level with lots of breakdown. On February 4, Kevin and Mike Shambaugh "moved about three tons" of tricky, unstable breakdown and made the lower connection, adding 31,623.5 feet (5.98 miles or 9639 meters) to the cave. And they found that the collapse sinks supposedly separating Upper, Middle, and Lower Paradise Park caves do not segment the cave. "I had to work hard to stay under the overhang, however," Kevin smiled later.

But the Allreds were not through. Some uncertainties remained about "Old Kazamura," so the Allreds resurveyed that too—again with Mike Shambaugh most often joining the team. One finding was that both the British and Japanese expeditions had surveyed the old 140 m "addition," but the British map had it in the wrong place, so the 1983 Japanese team naturally thought they had a new passage. And the 1994 team found additional passage bringing the length of "Old Kazamura" to 41,817 feet (7.91 miles or 12,746 meters).

Thus the present length of Kazamura Cave is 103,265 feet (19.55 miles or 31.457 km: more than twice the length of any other known lava tube cave. As for depth, the greatest depth of the entire cave is about 60 feet below the surface. Because all lava tubes extend up- and

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downhill, within about 100 feet of the surface, this is the way lava tube cave depths should be recorded, not end-to-end vertical range. The end-to-end difference merely reflects unitary length and, to a lesser degree, slope steepness.

For those who keep records on vertical ranges of cave, based on topographic maps the highest point in the cave is at about 2210 feet a.s.l. (674 m), and the lowest point at about 130 feet (39.6 m), for a total range of about 634 m. (2080 feet).

All these new figures are subject to change as Kevin and Carlene refine their enormous mass of data. And also as Kevin and Mike Shambaugh work on the lava plug currently separating Kazamura and Sexton's Cave.

And after these are connected, will Olaa Cave be the next addition to Kazamura Cave? Or Keala Cave? Or Doc Bellou?

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From SFBC Newsletter, June 1994, Vol. 37, No. 6

CAVER BEHAVIOR - - AN EXPLANATION
by Warren E. Hoemann

Many people have noticed that cavers do not refer to themselves as "spelunkers". The avoidance of that term, except in the pejorative, falls in line with other idiosyncrasies of cavers.

Perhaps these idiosyncrasies are symptomatic of an underlying condition -- indeed, cavers are themselves symptomatic of underlying conditions. Truly there seems innate in cavers an embryonic urge (some would call it a congenital defect) which, upon exposure to limestone or concentrations of calcite greater than two parts per million, develops almost cancerously into an overwhelming drive, manifesting itself in such behavior as squirming through slimy holes, traipsing along precipitous ledges, and plummeting into black voids.

Scientists of every discipline have attempted to explain these tendencies. X-rays of cavers' heads have shown nothing. Psychiatrists discovered cavers have active subconsciouses, but could go no deeper. The theory that caving was compensation for underdeveloped sinus cavities was quickly abandoned. Some credence was given by cavers themselves to the "subliminal repression" school of behavioral psychology until it was learned that "subliminal" does not mean "below limestone".

My own research has yielded an etymological explanation of the etiological exasperation...you know, the flustered "Why am I here?" muttered sotto voce after the eighth hour in mud-soaked crawlways...which plagues our kind. I refer specifically to the work of Dr. Alfred Klungher in establishing the study of motomorphology, the structural and casual relationship between words and actions. Dr. Klungher, professor of Onomastics for the Columbia School of Correspondence, best-selling author of "Sexual Fantasies and Tomato Can Labels", and holder of a poetic license from the F. C. C., posits that words are first formed in dynamic description of action, and, more importantly, forever after carry the impact of the prototypical action and cause that action to be repeated by the users of the world.

Pioneering efforts in this area were made

by Hans Ahlf, a disciple of Dr. Klungher, who noted that ducks "quack", obviously a word of onomatopoeic origin, satisfying the first criterion of Dr. Klungher's theory. Hans next took a random sampling of ducks and determined that those which "quacked" also exhibits all the characteristics of ducks! Proof positive, or, as Hans put it in a slight malapropism, "Ergo sum kumquat". Dr.

Klungher beamed, "When people say 'quack' they'll think of me!"

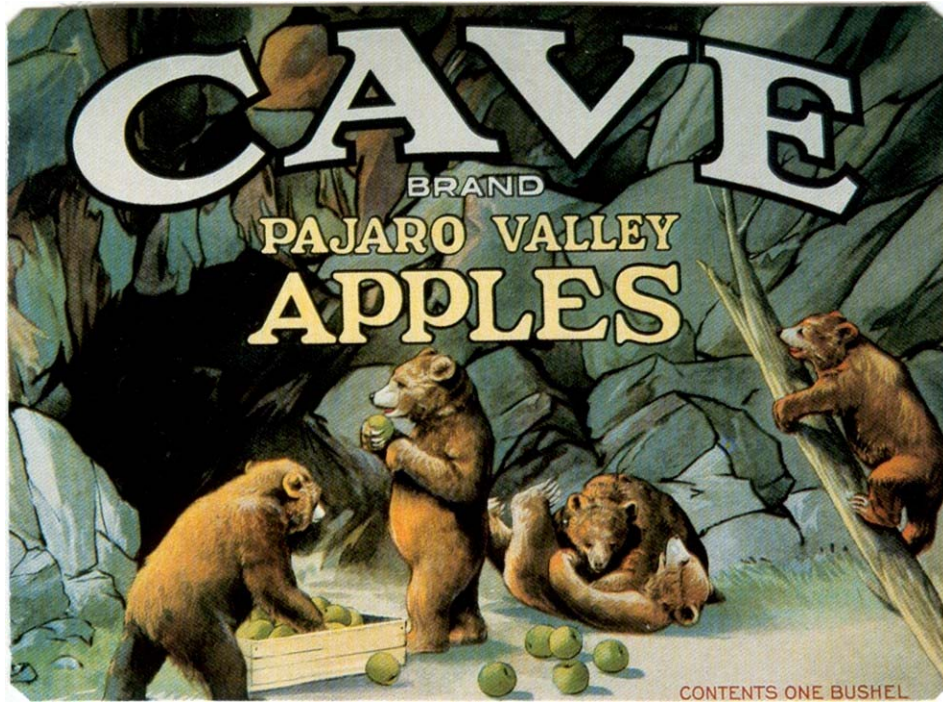
Motomorphologists may be a bit too ambitious in declaring that a carpenter's dog barks "roof, roof", but I think they hit the nail of the head when it comes to cavers. We've all learned by now that our word "spelunk" comes from the Greek "spelunx", meaning "cave". But what lies behind "spelunx"? asked the motomorphologists. Examination of ancient manuscripts and studies in the field, including a three-day Melina Mecouri film festival in Athens, revealed that, in accordance with theory, "spelunx" is onomatopoeic, just as much as "splash" or "bang".

Scrolls dating back to at least May 12, 494 B.C. were discovered amid pottery shards and roach clips in the paneled rec room of a Greek Shepherd. These scrolls provided the answer. Admittedly, some scholars doubt the authenticity of the writings, probably because of the holes for ring binders, the ouzo stains and the disturbing reference to "Mr. Coffee", but the contents are so significant, motomorphologically, that nettlesome questions of authorship must be set aside.

We now know that the Greek word "spelunx" was first used in 516 B.C. on a Friday (quite possibly a three-day weekend) by a shepherd named Melvin from the obscure, but little known village of Chutzpah. Melvin and his partner (alas, unnamed) were tending their flocks on the Astraka Plateau when the partner wandered onto a gaping hole. Calling excitedly to Melvin, the other shepherd posed on a ledge above the pit to have his picture taken. "Belatedly, both realized the camera had not yet been invented. Turning to climb down from his perch, the partner slipped and plunged headlong into the void. By reflex, Melvin counted the seconds and after an estimated 1240' free fall, he heard the twin sounds of the partner and his shepherd's staff hitting bottom. As Melvin described it in a low, descending whistle, "s-s-s-s-s-s-s-splunx".

Thus the origin of the word "spelunx". And the explanation of caver behavior, especially in the avoidance of the term "spelunker", follows from Dr. Klungher's theory. If words cause repetition of the prototypical action, then cavers' unavoidable association with words of the "spelunx" family causes the extreme behavioral tendencies noted above. Only the subconscious avoidance of the word, "spelunker", like an unarticulated taboo, has saved cavers from the fate of Melvin's partner.

The above, is from a March 1980 SFBC newsletter.



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STAMP

TO:



Entrance to Beartooth Cave



Bones found in Beartooth Cave.

Remove Staple For Inspection