

SEP-OCT
1991

SAG RAG

Vol. 10
#5



SERGEANT JOHN TALLY EMERGING FROM A SIDE PASSAGE OF SINKING WATERS CAVE

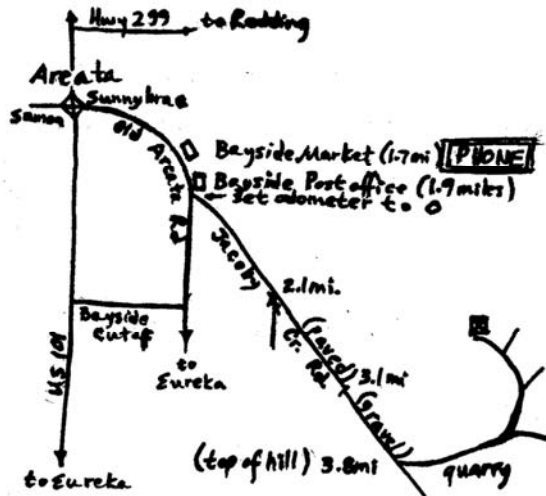
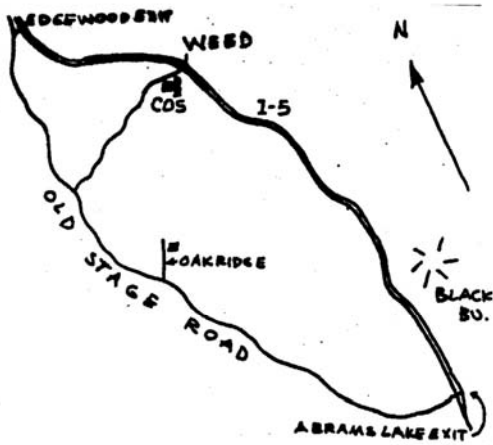
The SAG RAG is published bi-monthly by the Shasta Area Grotto of the National Speleological Society. Typist: Judy Broeckel; Typist's Assistant: Bill Broeckel, 524 Annie Street, Yreka, CA 96097-3015. Newsletter Review Editor: Dick LaForge, 450 Redmond Road, Eureka, CA 95501. Printing: Ray Miller. Grotto Meetings are held the second Friday of each month at 7:30 pm. Meeting locations are announced in the newsletter. Membership dues (including newsletter) are \$6, due January 1, and prorated by quarter. Uncopyrighted material may be copied, with credit given to the author and the SAG RAG.

CALENDAR

Nov. 1-3 Oregon Caves Restoration Project. Contact Wolffs PO Box 865, McCloud, CA 96057 if you plan to participate and/ or to arrange babysitting.

Nov. 8 Grotto Meeting. At home of George and Dorothy Reel. See map below for directions, to Oakridge Road, Weed. 938-4078.

Dec. 14 Grotto meeting and Christmas Potluck. At home of Mark Fritzke and Linda Villatore, 565 Upper Creek Road (See map below). Phone: (707) 822-8566. If lost, call from Bayside Market. Please don't bug the neighbors.



Aug. 3-7, 1992 NSS Convention Salem, Indiana. See announcement on next page. Register now!

CALVIN & HOBBS

by Bill Waterson



Meet the Typist. I want you to know from the start, I feel unqualified to edit the SAG RAG because I am a novice caver and NOT an editor. I do know how to type, however. My caving experience has been primarily in developed caves (such as Oregon Caves) and in a small number of "wild" caves, such as Barnum Cave, Tri-level Ice Cave, and most recently Red Tape Cave at the Western Regional. So how did I get into this? I have enjoyed the opportunity to learn more about Caves and caving through SAG, and I feel that the RAG provides an important link between members in this geographical area. So here I am! When I am not caving, I spend my time as a homemaker, Mom to two preschoolers, part time Family Practice Physician, and actively involved at our local Seventh-day Adventist Church. Please be patient with my inevitable mistakes, but don't be afraid to point them out. How else will I learn? Also I want to thank Liz Wolff for her valuable assistance in getting started. Keep on cavin'! And do send me maps, drawings, articles, columns, tips, and all such stuff. Judy Broeckel, 524 Annie Street, Yreka, CA 96097-3015. In the next issue of the RAG I'll introduce Bill.

September Meeting Minutes by D. Reel.

The September 1991 meeting was held at Wolffs' home. Present: Jim and Liz Wolff, Jim Kottinger, Ray Miller, Niels Smith. Treasurer's report: \$295.43 includes \$24.00 of registration material for Regional.

Old Business: Oregon Caves project: Jim W. moved in favor of Nov. 1-3. Liz seconded, passed.

2. Regional plans discussed.

New Business: Ray wants to inventory caves to catalog exact locations of entrances and directions to caves. Neils appointed Ray in charge of cave files.

October Meetings

Oct 11 Kottingers, Mt. Shasta (Informal meeting) Dorothy and George Reel, Jim and Bea Kottinger, Liz Wolff, Bill and Judy Broeckel. Treasurers' report: Slightly over \$500.00 (exact figure will be announced at the next meeting.)

Oct. 11 Official Meeting at Marble Mountains Speleo-Camp. No official minutes taken, but good caving including a new cave. Steve Knutson was in charge of Speleo-Camp.

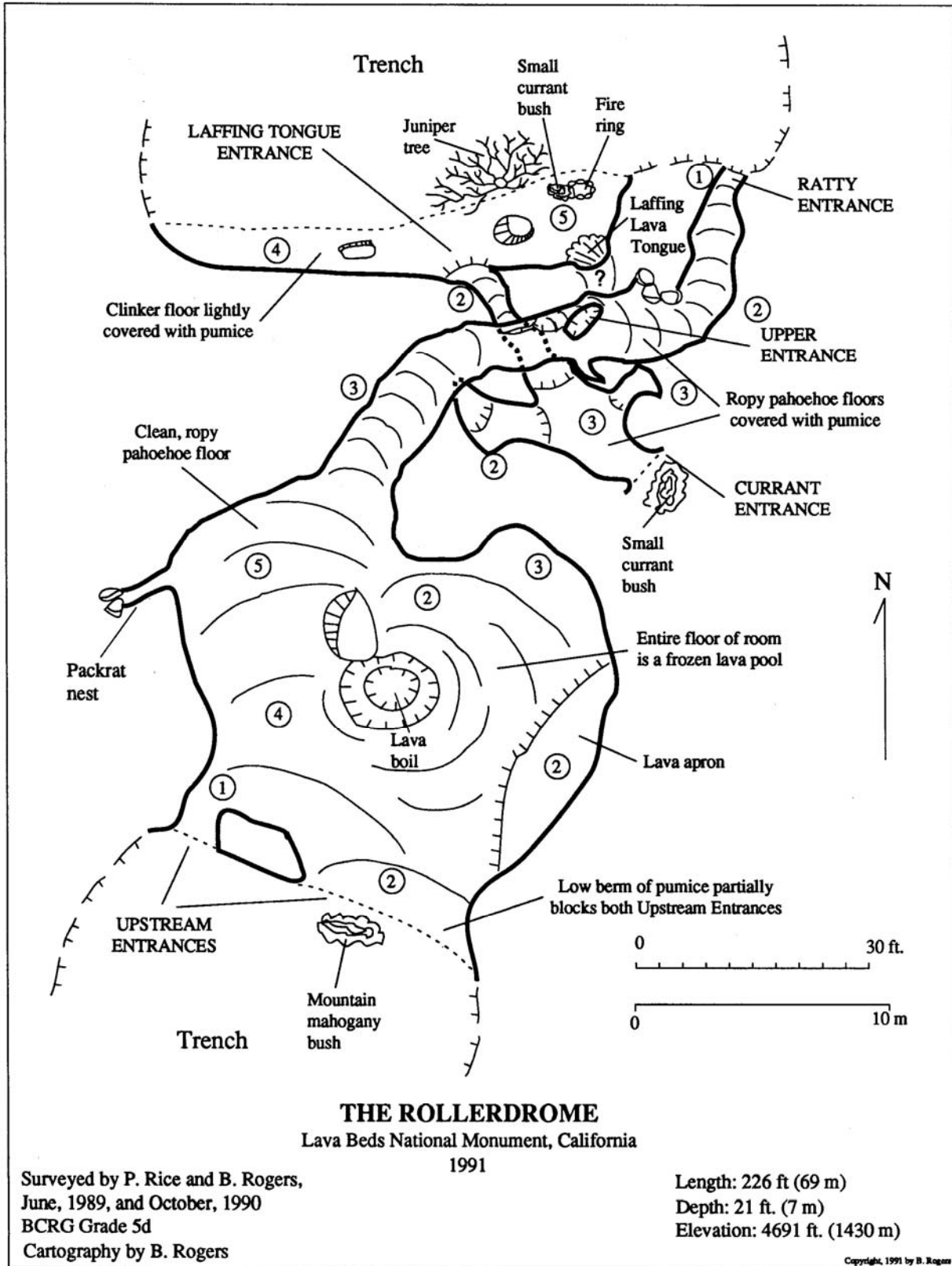
1992 NSS CONVENTION

August 3 - 7
Salem, INDIANA

Mark your calendar now and plan to come to what is guaranteed to be the largest NSS Convention ever! The campground has a private lake, beachfront, barefootin' grass, cabins, lodges, and plenty of camping. Caving will be highly encouraged with a guidebook which will highlight over 80 Indiana Caves.

INDIANA, THE HEARTLAND OF THE KARSTLAND

Register now (until 12/31/91) for only \$60.
Send a check to 1992 NSS Convention, PO Box 2929, Indpls, IN 46206
Please note that ALL fees are completely REFUNDABLE!



Map: Rollerdrome Cave

**THE EARTH SHOOK, THE SKY BURNED,
AND ALL THE BUNNY RABBITS RAN AWAY
Part 10: The Rollerdrome**

By Bruce Rogers, Regular Fellow, and Pat Rice, P. E.

The bright summer sun baked the pahoehoe ropes to medium-well done, forming updrafts that falcons and eagles rode spiraling over the treetops. In the shallow channels and collapsed trenches west of Caldwell Butte billows of scarlet Indian Paintbrush and cadmium yellow Hawk's Beard cascaded down the rocky slopes. Dwarf Purple Monkeyflower and rusty Pussy Paws splashed the burnt white pumice flats with startling mats of color. All in all, it was a wonderful day not to go caving and we did our level best to avoid doing it. However, as nearly all good things have to come to an end, we soon found a beckoning black shadow at the head of the trench that stretched ahead of us. A hasty inspection showed it to be nothing but a wide, shallow grotto several feet high and deep which closed the top of the trench. Sighing a relative sigh of relief, we took advantage of the cool shade to consult our secret map and confirm that, indeed, there was supposed to be a cave right around here, somewhere. Ambling up over the trench lip, we immediately spotted a narrow, moss-trimmed hole in the mound of pahoehoe, slipped in and peered into the shadowed darkness: a low passage wound off into the darkness in both directions.

The crunchy pumice quickly gave way to frothy pahoehoe floor which bit painfully through our knee pads and into our knee caps, hastening our survey of the cave. The downstream section of cave quickly degenerated into a very low crawl leading to another entrance. Turning, we followed the ascending crawl to a low, moderate-sized flat-floored room. A large roof block sat stoically in the middle of the room forming a table-sized pillar to crawl around. Momentarily stopping to wave hello to a 3" long brown and yellow striped centipede, we crawled past the pillar to find a wading pool-sized lava boil in the middle of the now-congealed lava pool. After inspecting a wood rat nest in a collapse grotto in the west wall, we exited the low southwest entrance, completing the survey. Pat commented that the small cave's floor was as flat as a roller rink and The Rollerdrome it became. After a few more cursory notes, we climbed out of the trench and nearly fell into Sneet Cave, but that's another story.

Several months later, we returned to the cave to finish a location map for the Park. Again settling down in the cool shade of the lower grotto, we began to look for signs of Native Americans. A scatter of obsidian flakes and a currant (gooseberry?) bush growing in the center of a long-burnt-out fire ring rewarded our labors. Also we noticed a low crawl leading off from a pile of rubble in the back of the wide grotto. A short, painful crawl led to a series of low chambers connecting to the rest of the overlying cave via an impossibly tight fissure. These new rooms nearly doubled the size of the cave. At the back of the new rooms, another pumice-choked crawl entrance opened out into the southeast side of the lava mound. After negotiating the thicket of clawing, dried gooseberry, it was deemed a less-than-optimum exit.

Rollerdrome Cave is located in the Basaltic Andesite of Valentine Cave. This Holocene lava flow unit is younger (ca. 10,500 yrs) than the Basalt of Mammoth Crater (ca 11,000 yrs), the major cave-containing lava in the monument. A chip of the lava ground down to the thickness of a human hair and peered at through a microscope reveals a mesh of plagioclase feldspar crystals up to a tenth of an inch long scattered in a very fine-grained mass of cream colored plagioclase crystals; dark green clinopyroxene crystals; rounded grains of "Dr. Pepper-green" olivine; and brownish to clear amorphous volcanic glass. Overall, the magma forming this lava was near the basalt-andesite borderline in the world of petrology, meaning that it was a bit more enriched in silica than the Mammoth Crater material.

The trench containing the cave is a western distributary off of the Valentine Distributary of the Valentine flow. It departs from the main trench near the saddle between little Caldwell and Caldwell Buttes. This western channel became roofed over during its last stages of development. Where the flowing lava stream slowed considerably, a crust of lava formed on its surface, cooled, and formed a relatively thick roof. After the ceiling of the main tube cooled, a short surface tube formed at the east flank of the trench, made a spiral to the east and north, then poured back into the main cave. The only portion of the initial tube which is still preserved is the downstream Laffing Lava Tongue Entrance and surrounding grotto. The low, pumice-choked passages leading from the Currant Entrance to the grotto are the remnants of the smaller surface tube. This portion of the cave was evidently used by Native Americans. A scattering of partially worked obsidian flakes and a somewhat discombobulated fire ring can be found under the overhang with its pleasant view down the trench. A small currant bush grows in the fire-ring's center, implying some antiquity.

As the lava continued to pour down this distributary, it built a low ridge of basaltic andesite. The surface overflows were interlayered with beds of volcanic bombs and cinders violently thrown from vents higher on the volcano's flanks. The tube's main passage was lower than the grotto and allowed the grotto to be preserved as a high shelf. When the eruption began to wane, a several foot high open space between the flow's surface and the roof of the uppermost tube glowed with a red heat hot enough to melt steel allowing rivulets of lava to slowly dribble down the upper tube walls. Eventually the tube's interior cooled enough to form a lower skin over the sluggishly moving lava stream. A subsequent pulse of lava broke through this intermediate crust at the lava boil in The Rollerdrome, then drained back down into the cooling, lava-filled tube. Again the flow of magma slowed and the pooled lava's surface cooled, thus preserving the lava boil. The frothy flow continued down the passage, partially draining the pool and allowing its floor to sag nearly two feet. Several very small pulses of the now slightly de-gassed lava flowed into the upper passage as small frothy, pahoehoe cascades. The lava flowing along this upper tube floor found a small crack and cascaded into the lower portion of the tube forming the Laffing Tongue of Lava in the wide grotto. Another pulse exited Ratty Entrance along the low, eastern continuation of the upper tube. In a final gasp, a short lobe of lava found a narrow crack in the wall of the upper tube, spilled in opposite the discovery entrance and froze in a frothy cascade.

A final chapter of "stress adjustment" took place when the lava finally stopped flowing down the distributary and cooled. With a resounding series of rumbles, much of the tube sagged and collapsed. This formed the series of shallow sinks which can be followed upstream from the Tionesta-Lava Beds Road. The surviving segments of the tube include The Rollerdrome, Sneet Cave, Pumice Railway Cave, and a host of other small caves in the vicinity. Subsequent minor collapse of adjacent portions of the tube as well as a few blocks within the cave's passages and a major episode of in-washing of white surface pumice finished off the active life of this little cave.

Life in this dry cave is sparse. Both black crustose lichen and inch-thick mats of brownish green moss are present around several of the entrances, especially Upper Entrance. Brilliant pink Dwarf Purple Monkey flowers grow in late spring in the pumice at the entrances, currant bushes fortify the Currant Entrance, and a healthy Mountain Mahogany grows just outside the Upstream Entrances. A tall juniper tree stands sentinel outside the Laffing Tongue Entrance. On the more lively side of the indigenous flora and fauna, a single three-inch long brown and yellow centipede similar to those commonly seen in the caves of the Mother Lode and spider webs reveal occupation by nearly invisible invertebrates. The extreme aridity of the cave, however, is evidently too much for most common cave critters. A decayed wood rat nest is located in the grotto in the west wall of the main room. Rabbit and packrat scat is sparsely present throughout this same room. "Wrappers" – moth wings – and scattered guano hint at the summer presence of Townsend's Big-eared Bat, Plecotus townsendi. Later in time, bands of Native Americans

took advantage of the grotto's shelter and enjoyed the view to the north. Among the "litter" left behind were the above-mentioned scattered flakes of obsidian and the fire-ring. It appears that few if any gringos have explored the cave as contemporary trash is conspicuously absent from the passages and surrounding landscape.

While one might do better to look elsewhere for a length or new depth record, the little cave has several features worthy of a visit: the frothy pahoehoe bathtub ring and especially the lava pool and boil are among the better examples in the Monument. Combine these features with the park-like setting in the adjacent wooded trench, add some late spring weather for wild flowers and you have the makings for an enjoyable cave trip.

DICK'S NEWSLETTER REVIEW

Once again your trusty newsletter scammer is late because he is getting ready for a cave trip, to the Marbles this time. His whole family is going, including his mom, who is 74. Then his family will hold age records at both ends, having gotten son Evan up there on his #1 birthday.

So what's new in the world of caving these past months? Just mentioning a few items, the Cal Caver Vol. 41 #1 (Spring) has the notes from Ann Bosted's logbook of the rescue of Emily Davis Mobley from Lechuguilla Cave this spring. I almost recommended reprinting Bill Farr's article on diving the upper end of the Lilburn Cave stream, from the Cal Caver Vol. 40 #4. But you all get the Cal Caver, don't you. So I will also not ask the Rag to reprint the review of Selected Caves and Lava Tube Systems in and near Lava Beds National Monument, California which is USGS Bulletin #1673. Reviewer Russ Harder says it is worth the \$16 asked. You folks who claim Lava Beds NM in your grotto territory should be especially interested.

For adventure, I'm hoping the Rag can print that article about going to Cheve in Mexico that I recommended last time and there wasn't room for. In any case, the Rag just has to reprint the KMCTF (Klamath Mts. Conservation Task Force) report for 1989-1990, from the Underground Express Vol. 11, #1. The KMCTF reports have come out more or less regularly ever since the start of the Marble Mountains project in 1972, and document all the activities there. This report reveals the great number of new caves that have been discovered there in the past two years, many by newcomers to the area. Some of them are quite large. This area continues to be exciting and productive, even though the growth rate of Bigfoot itself has slowed down some.

That's all for now. Happy Caving!

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From Underground Express, Vol. 11, No. 1

Report compiled, January 1991
by Steve Knutson, Director
Marble Valley Project,
Klamath Mountains Conservation Task Force

Klamath Mountains Conservation Task Force

Bulletin #12

Marble Valley Project 1989, 1990

This report will update Klamath Mountains Conservation Task Force (KMCTF) cave inventory work in Marble Valley, Marble Mountain Wilderness, through the 1990 summer caving season.

1989 In 1989 the biggest effort in terms of man hours was the computerization of most of the project survey data, using Doug Dotson's SMAPS ver. 4.2. This revealed a total of 12.17 miles of mapped passage in Bigfoot Cave and a total of 21.5 miles of mapped cave in the valley, 20 miles of which is in the Bigfoot Cave hydrologic system, plus about 15 miles of surface traverse. This computerization directly resulted in a number of computer line plots which greatly aided the 1" to 50' re-plot of Bigfoot Cave, allowing its completion in time for display at the NSS convention in Yreka in July, 1990.

There was also activity as usual in the caves. Rainy Cave grew to 4,400 feet in length and just adjacent to the lower entrance a new cave was discovered by Derek Hoyle. When the loose rocks were removed from the nearly hidden entrance a pit was revealed that dropped 130' to an intersection with a horizontal passage, with strong air flow. Before the end of the season this cave, named Half-Dollar Hole in honor of its original tiny entrance, had yielded a total of 1,400' of passage. Stairstep Cave was re-mapped to over 700' by the addition of several hundred feet of new passage. A complex in the

upper Discovery Passage of Bigfoot Cave yielded over 1,200' and work continued elsewhere in the cave.

The computerization revealed lost survey data for the 1975 trip into Streamway Cave, the '74 trip into Dry Stream Cave and a complex adjacent to the Chthulu Room in Bigfoot. These would have to be re-mapped. This was begun late in the season when Bernie Dunn and Knutson re-mapped the traverse from the Dry Stream upper to lower entrances.

Two digs are in progress in the area between Bigfoot and Sinking Stream caves and in this area Mark Fritzke discovered a hole which quickly led to a very tight squeeze. He managed to get through this and found a pit which turned out to be the dome at the back of Sinking Stream. The interesting part of the discovery was that this new entrance did not account for most of the air flow coming from the lower entrance of that cave.

Video work was done in 1989 for the first time ever in Marble Valley with Derek Hoyle and Bob Richardson taping in several caves as well as the surface. In the course of some of this we discovered that the ice deposit in Snowcone Pit had partly melted, presumably as a result of the recent drought years, and new passage was accessible bringing the total for the cave to 380'.

Ought-Not-To-Stop Drop was discovered by Rich Sundquist near RP#3 and cavers from the Mother Lode Grotto mapped this vertical

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From Underground Express, (continued)

cave to a depth of 165', observing a very interesting collection of large animal bones on several ledges during their decent.

All of the above was discussed in a slide presentation given at the NSS convention in Yreka, July 1990.

1990 In July, 1990 the National Speleological Society annual convention was held in Yreka, California and the KMCTF participated with a Marble Valley Project slide presentation and a display of maps of Marble Valley caves, as well as conducting field trips into those caves on the pre- and post-convention weekends. Bob Richardsdon showed a Marble Valley video edited from last summer's taping by he and Derek Hoyle. The only work done in Marble Valley before the convention was a re-map of the complex near the Chthulu Room by Knutson, Jim Wolff and Mark Fritzke, bringing the length of Bigfoot Cave to 12.25 miles.

The first constructive caving done after the convention was actually done as part of the post-convention field trips. Stash Cave was discovered by Roger Jones and mapped by he, Jon Hollman and Art Pettit on 7/15, Hollman and Dave Garcia on 7/17 and Cynthia Ream and Rich Sundquist on 7/18, for a total of some 750'. Mooncloud Cave, near Trail Junction, was discovered by Fritzke and Richardson and mapped on 7/16, with Bill Bussey, to 253'.

The big cave discovery of the season went to Claude Smith's breakthrough in Apogee Cave, which had remained at 500' for 14 years. Claude had worked occasionally for 2 years moving breakdown at the back of the cave. In early August, 1990 he

had given up and was moving his tools to the entrance when he happened to check an alcove at the bottom of a shallow pit, where Walker and Fritzke had dug briefly a couple of years previously. Air flow was felt and he dug--four hours later he broke through into a stand-up chamber but his desire to explore was thwarted by a deep pit at the far end of the room. On 8/12 he returned with Mark Fritzke and Bill Mederas. They rigged and descended the pit, some 80', to a large passage; along which they mapped for 1,000' to a breakdown blockage. The rest of us agreed not to push the cave without the discoverer, who was not able to return until September.

Caving continued even so and on 8/18 Knutson, Fritzke and Bob Richardson mapped 2 new caves, RP#6 and Icehole, to lengths of 305' and 223' respectively.

Speleocamp in September saw numerous activities including re-mapping in Dry Stream Cave (9/1) by Cynthia Ream, Adrian Fields, Jeff Hawkins and Jeff Sparks. The same day saw Knutson, Jim Wolff and Ted Zerr doing leads near Rainy Dome in that cave. The next day Knutson and Ream mapped Red Spirit Cave near RP#6 to 350'. Derek Hoyle led mapping in Half-Dollar Hole that brought it to over 2,000' in length but yielded no connection to nearby Sunbeam or Rainy caves.

On Sept. 8 two survey teams, Knutson/Smith and Richardson/Fritzke, were active in Apogee Cave, getting 1,000' between them, the latter team stopping at a drop-off into a large room.

September 3rd also saw an air trace, the first ever attempted in Marble Valley caves, that established an air flow connection

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From Underground Express, Vol. 11, No. 1

between the bottom of Bigfoot and both Big Dig and Mooncloud Cave. The organizer of the trace was Mark Fritzke who utilized skunk scent released at a predetermined time at the bottom of Bigfoot by Dick LaForge and Rich Sundquist. On the surface Fritzke coordinated the detection volunteers at blowing sites below Bigfoot. It was surprising to us that the air did not trace to Blowhard or Sinking Stream Cave but this may be explained by the discovery by cavers at the bottom of Bigfoot that there are 2 separate air flows exiting at different places; only one was utilized for the test. Further tests should follow.

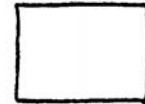
In October we returned to Apogee. The survey teams of Knutson, Cynthia Ream and Mark Harder, on the 6th, and Knutson, Rich Sundquist and Derek Hoyle, on the 8th, got over 1,000' surveyed each. This brought the total for the cave to over

5,400', a ten-fold increase. Apogee so far is a very complex cave consisting mainly of a very sinuous, multi-leveled passage with the sinuosity offset and out-of-phase, making part of the cave very confusing.

Preliminary maps of Red Spirit, RP#6 and Icehole caves are included. Maps of Apogee, Half-Dollar Hole and Stash caves, as well as an update of Corkscrew Cave, are in preparation.

Another development in 1990 was the beginning of geomorphological work by Professor Jerry Davis of San Francisco State University. He already reports observing stream-rounded cobbles at the cliff entrance of Upstairs-Downstairs Cave that he says would require many kilometers of stream tumbling to produce. This would seem to indicate a rather great age for this cave and nearby Apogee, at least.

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To:

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