sag rag 25:4 July-August 2006

East entrance Golden Gate Bridge (Bridge 48)
Siskiyou County 10-25-05

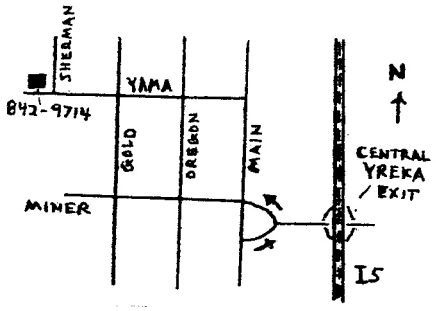
BRIDGES OF SISKIYOU COUNTY

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 or <jbroeckel@snowcrest.net>. For more on SAG, check the web site at <http://www.caves.org/grotto/sag>.

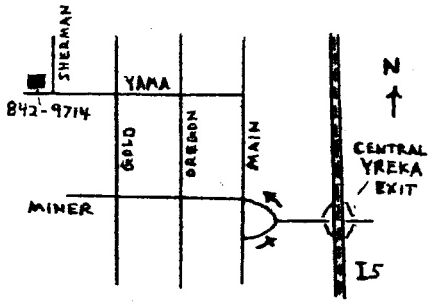
CAVERS CALENDAR 2006

Sept. 8	SAG meeting 7:30 pm at Melanie Jackson's in Yreka (530) 842-9714.
Oct. 6-8	Annual CRF Meeting at Lava Beds, Bill Devereaux (503) 363-3831.
Oct. 6-9	KMCTF Columbus Day Speleocamp Jim Wolff (530) 964-3123.
Oct. 13	SAG meeting 7:30 pm at Melanie Jackson's in Yreka (530) 842-9714.
Oct. 14-15	Crystal Cave Restoration, Joel Despain (joel_despain@nps.gov).
Oct. 21-22	Crystal Cave Restoration, Joel Despain (joel_despain@nps.gov).
Nov. 11-13	CRF Expedition to Lava Beds, Bill Devereaux (503) 363-3831.

MAPS TO THE MEETINGS



SEPTEMBER – YREKA



OCTOBER – YREKA

SAG RAG SUMMARY By Bighorn Broeckel

Greetings fellow Speleonauts. I keep bragging about the thousand caves in Siskiyou County, or at least in "the Shasta Area". Well, in, this issue we're working on making good on that claim, definitely moving in that direction anyway. One thing we will need to agree on is that natural bridges are caves, and so we have an article attempting to establish that idea. Later on Liz Wolff brings us "The Bridges of Siskiyou County", a nice article about some of these natural bridges illustrated with her usual excellent maps. The thing is, it turns out that some of these bridges, which themselves are actually also caves, these bridges might have more caves and passages hidden underneath them.

Going under simple bridges may be less than satisfying in terms of cave adventure. But this cave that goes clearly underpassing Under Takers Bridge is a fun caving through trip with a choice of two deep levels to traverse. It turns out that Ray Miller and Liz Wolff surveyed this 10 years ago and Liz still had the notes ready at hand like it was yesterday. Then this Lava Plug Pit is the next push along in the current wave of bridging trips. Both Under Takers and Lava Plug have nice skylights in the bridge portions. The pit inside Lava Plug Pit is barely climbable, and leads down to an icy cold lower level with air flow.

Here we see examples of bridge inspections leading to new cave descriptions. Just like that, Siskiyou County gets eight more caves mapped: Golden Gate Bridge (48'), Pick Axe Cave (431'+), Bay Bridge (40'), San Mateo Bridge (51'), Dumbarton Bridge (30'), Under Takers Bridge (68'), Under Takers Bridge Cave (415'), and Lava Plug Pit (305'). Yes, we did go with a Bay Area theme on some of those bridge names. Wolff snuck in Pick Axe Cave with the plus sign on the length. I believe this is the first ever map of this cave, and that plus sign means we expect more out of this one. SAG is showing some age now. Instead of regular cave trips, we've been having bridge parties.

Melanie Jackson adds some convention related cave trip reports, and these serve as a prelude to some convention site articles corning down the pipe. More Grizzly Adams stories are also on the way, as well as some KMCTF material appearing soon in a SAG RAG near you. **BB**

BRIDGES AND CAVES

By Bill "Bighorn" Broeckel

The enjoyment of spatial visualization is an underrated motivation for caving. Many of the various caving activities are exercises in relativity and perspective in terms of space. For those who like to think about shapes and objects and how they relate, caves can become three dimensional playgrounds for the mind and the body.

Even the terminology we use comes into play. Words used to describe different elements and features demand more precision as cavers seek to refine definitions. For example, try to define "cave". Is it the space within the substance, or the substance around the space, or both?

If you include substance in your answer, how much of the substance around the cave is part of the cave? Just the surfaces, the decorations, the linings, the surrounding bedrock, the geological context? Ultimately, I suppose the entire world is part of every cave.

Other questions come to mind. When does one cave end and another start? What makes one cave horizontal and then the other vertical? Aren't all caves both horizontal and vertical? What is the difference between a sinkhole entrance and a skylight?

Many times we end up answering such questions anthropomorphically, in terms of our own bodies. A "cave" must be large enough for a person to enter. In order to connect two caves into one, a person must be able to get through between them. A "vertical" cave re quires special equipment for a person to explore it without falling or risking injury to the body. Caves "continue" when we can keep going underneath the ceiling. Sometimes we measure caves in "feet" or even in body lengths.

Continuing this line of thought, we could answer the question of what is a "bridge" with the following anthropomorphic definition. A bridge is a span underneath which a person can travel through.

But a bridge is not exactly the same as a cave, is it? Usually we would think of the span (substance) as the bridge and maybe the passage underneath (space) might be a cave. But upon reflection, we might come to see that the whole works is both entirely a cave and a bridge at the same time.

Of course we are talking about natural bridges here. If we decide that every natural bridge is also a cave, then every man-made bridge is also a man-made cave.

In the case of linear or serial trenches in lava flows we frequently find spans of rock flush with the general surrounding surface, crossing a trench from one side to the other. Such a span is called a bridge. In multiple cases here in Siskiyou County, we find that roads have been opportunistically built across natural bridges like this.

If there is no hole or passage under the bridge for a person to travel through, then it isn't really an anthropomorphic bridge. It is a causeway or a dam. But if a human-sized hole can be found going through, then indeed we have ourselves a bona fide bridge/cave and the cave describers among us are in business.

In the simplest form of the bridge, the span is longer than it is wide. It just looks like a natural bridge should look. The length of the span would be the shortest distance underneath there between the sides of the trench. However, the length of the underpass would be the distance across the narrowest part of the span. Thus, for many of these caves, width exceeds length. Furthermore in this simple form, bridge and cave are roughly perpendicular to each other.

Another key feature is every bridge/cave has two entrances. There may be a single entrance cave under the edge of the trench. A causeway or dam may even be cavitated. But we really need those two entrances to define a true bridge. Are you with me so far?

Taking this a step further, lets say that each time we have a cave with two entrances, we have a bridge. In fact, any time we have a two entrance cave, we have defined two bridges. The 1st one is the more obvious, the span across the trench, for example. The other is the whole rest of the world, or a slice thereof, a massive ungainly "bridge" much too big to really see, and rarely recognized or appreciated as such. Given the large number of multi-entrance caves in the world, we probably step on these bridges all the time.

If the cave has three or more entrances, then all kinds of bridges start popping up, and the spatial visualizers out there can have a field day working it all out. Hint: if the three entrances are lined up, it changes things.

Caves may also have internal natural bridges. The horizontal ones may be called bridges or levels perhaps. The vertical ones might be called pillars or looping passages. What effect this has on the total number of bridges so defined, I'm not sure.

But enough of this already. Maybe we can come to some sort of conclusion. Many readers will already know intuitively where we are going with this ramble. You see, all these bridges we come across along the various lava trenches of Siskiyou County, well, actually they all count as caves. They usually don't get dark inside, they usually don't go vary far, but they are caves none-the-less, all helping Siskiyou County fulfill its momentary-in-geology 1,000 cave destiny. **BB**

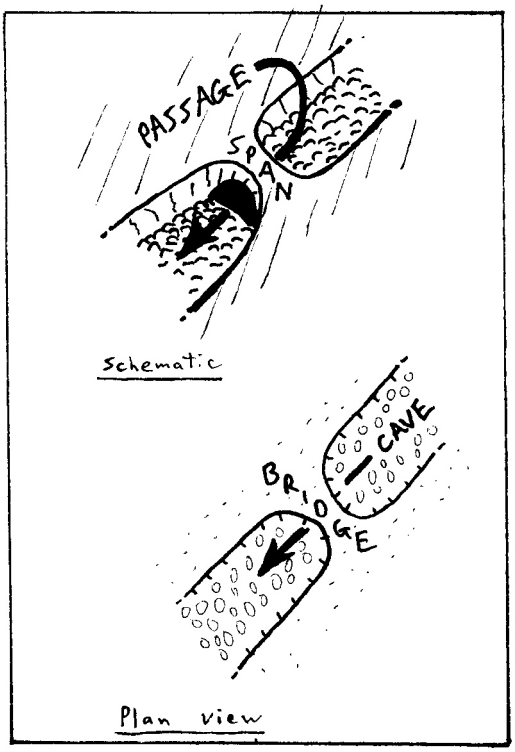
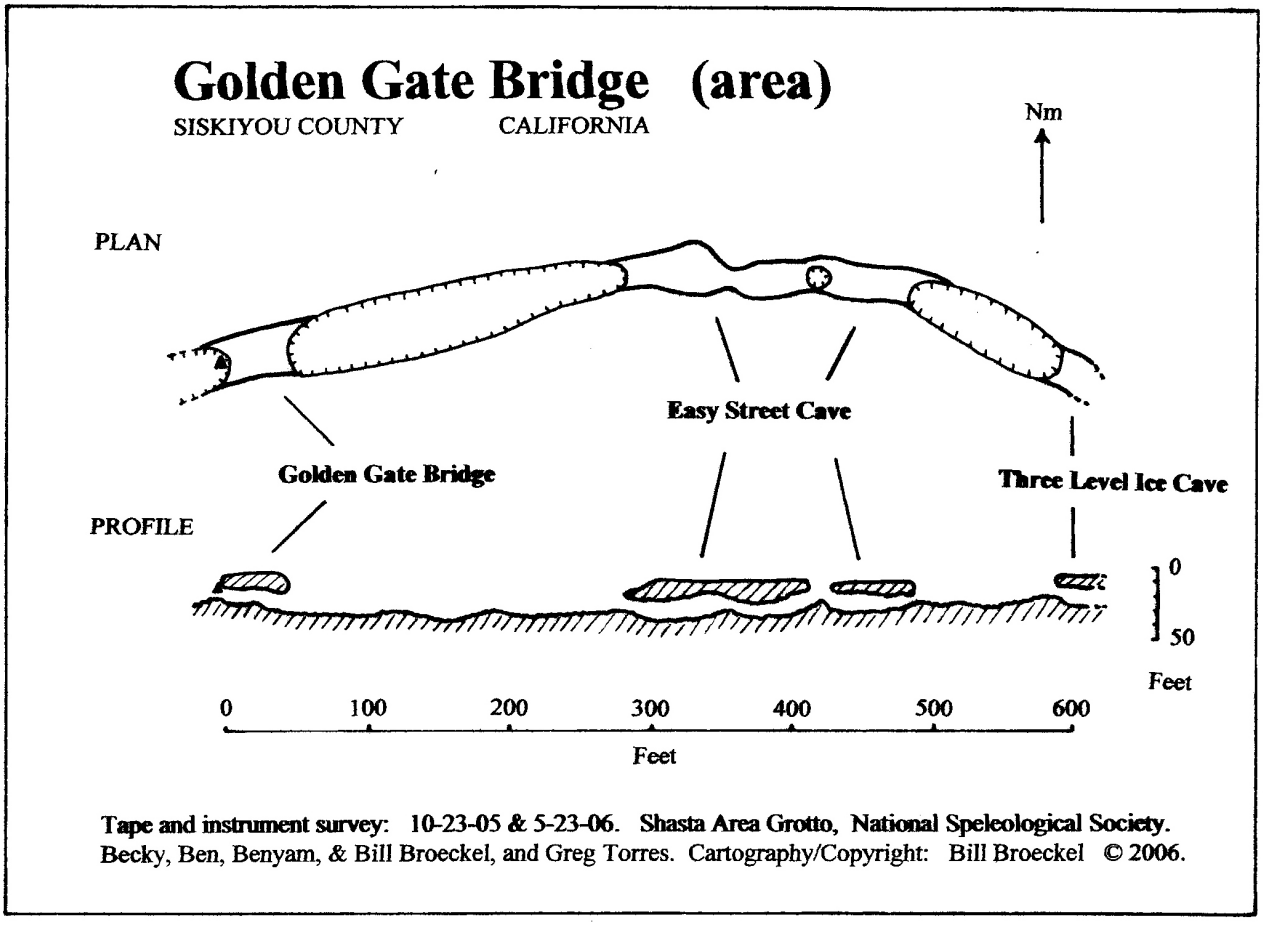


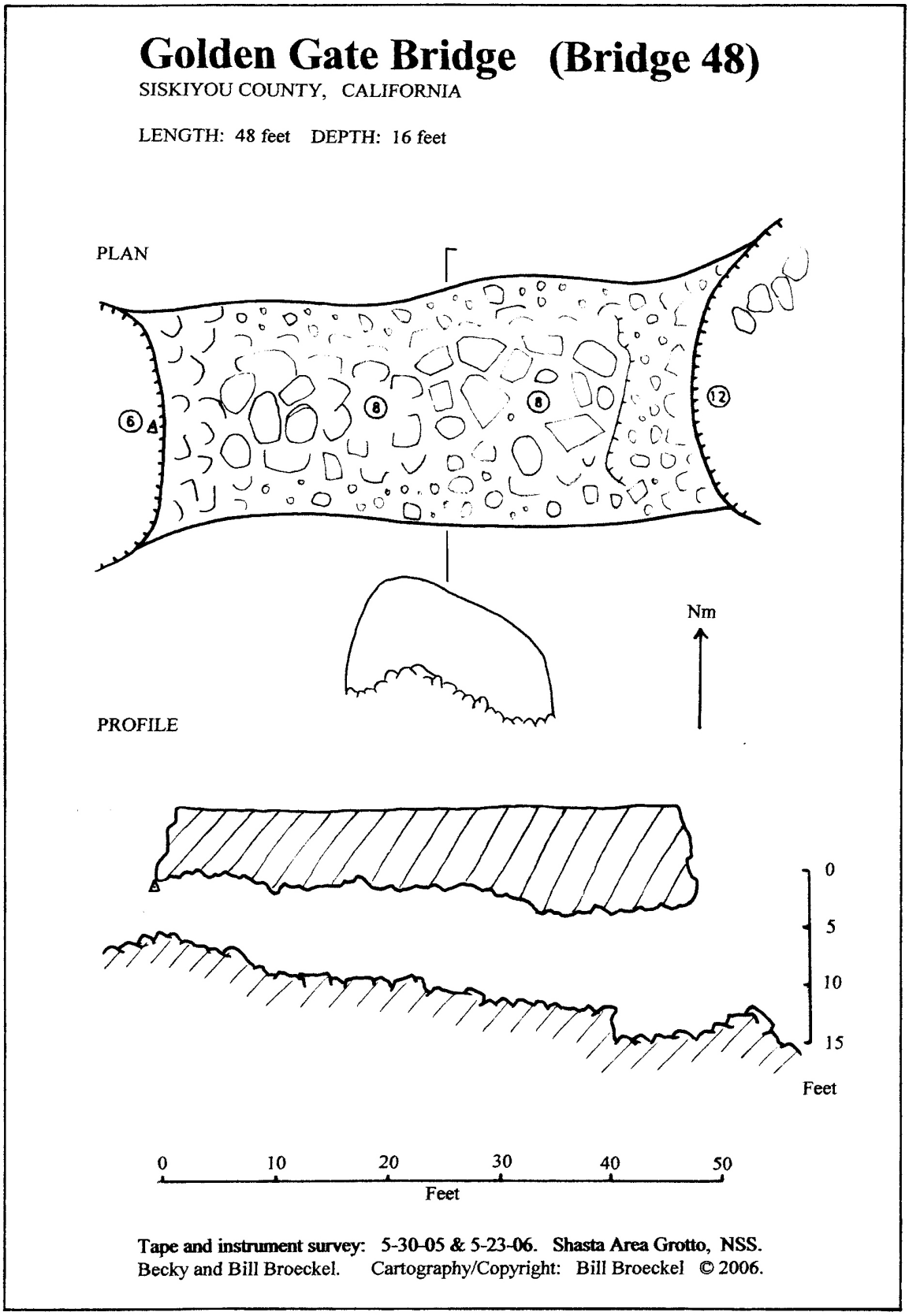
fig. 1

GOLDEN GATE BRIDGE By Bill "Bighorn" Broeckel

When I first saw this bridge some years ago, I thought the lighter colored rock represented fresh frost-fracture breakdown, with less subsequent weathering and varnish. Now my latest theory is that these yellow, gold, and even red rocks indicate localized variation in the original chemistry of the basalt (see cover photo). The span of the bridge across the trench is about 20 feet. The width of the bridge, which is also the length of the cave passage under the bridge, is 48 feet. The bridge is named for the interesting colors, though it did temporarily go by the unimaginative name of "Bridge 48", for its "width" in feet. It was so noted in a recent newsletter (Broeckel, Bill 2006. Easy Street Cave. SAG RAG 25:1, Jan-Feb 2006, p.10.). Golden Gate Bridge is located just upflow from Easy Street Cave, which in turn is found just upflow from Three Level Ice Cave (fig. 2). Further detail is found on the recently completed cave map (fig. 3). The photo on the cover of this SAG RAG shows the colorful east entrance to this Golden Gate. Sometimes people ask us if we find gold in the caves. Well, I guess sometimes we do. **BB**



Map: Easy Street Cave, Golden Gate Bridge, Three Level Ice Cave
fig. 2



Map: Golden Gate Bridge (Bridge 48)
fig. 3

The Bridges of Siskiyou County

By Liz Wolff

Tuesday **June 6, 2006**

One of the drawbacks of finding caves is naming them. After several years of exploration and mapping, all the bridges down-flow from Three Level Ice Cave have been designated The Bridges of Siskiyou County – but you won't find Clint Eastwood rambling around out there.

Tuesday the 6th, Bill Broeckel and Liz Wolff met in McCloud and drove out to the end a previous survey south of Pick Axe Cave in the Giant Crater lava flow. The cave he wanted to survey was unnamed but had a climbable pit into a lower level.

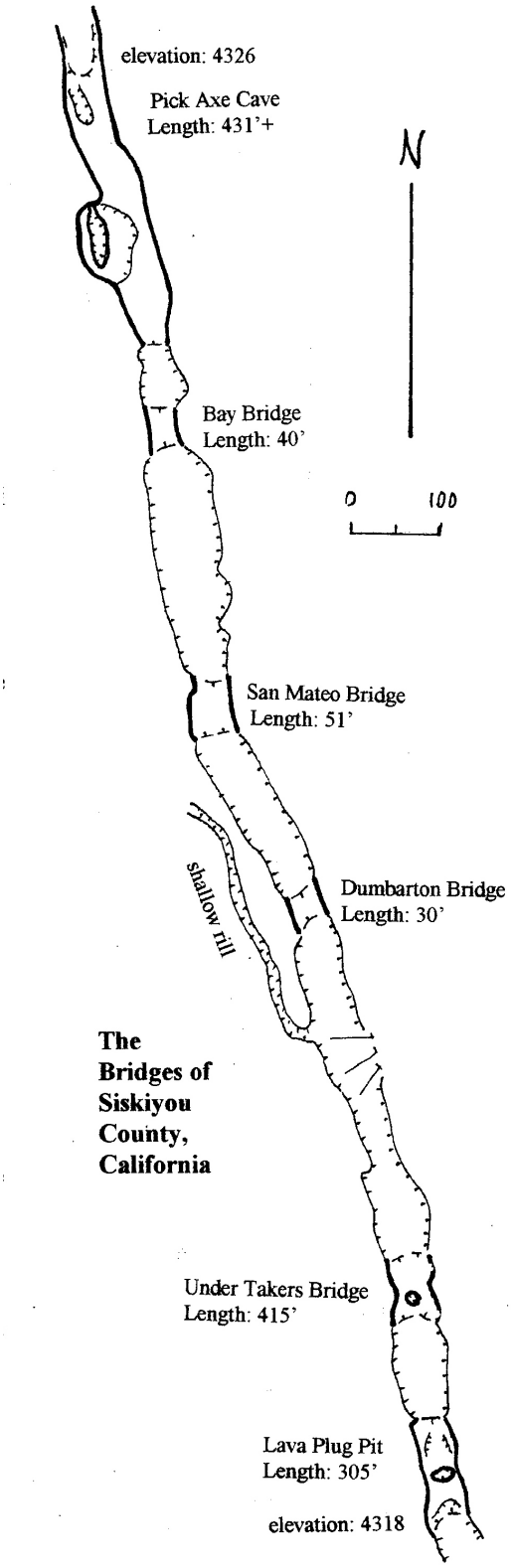
Locating the proper bridge in the trench, the survey was begun at a station set by Liz and Ray Miller in 1996, outside a cave that had never acquired a name, but had been designated the '4-level cave'. Two shots got us into the new cave, now called Lava Plug Pit. Lichens and mosses cover the sunlit rocks in the entrances, while a rotting log lies across the northern entrance to the cave. The ceiling of the bridge looks like columnar basalt around a skylight, a bit unusual inside a tube. The west side of the passage has a sloping ledge of original floor. With the exception of the ledge side, breakdown surrounds the 9 feet deep, 12x8 foot, over hung pit. This cave is breakdown floored as are all the bridges.

The southern end of the lower level was finished in one shot through ice 'mites and onto a short ledge atop an intrusive lava plug. The two northern leads took two shots each to finish. The right lead is up through breakdown, with the right wall of solid rock. It ends in breakdown fill. The left lead is down through breakdown into a little room with a couple of subhuman leads, one upward (probably into the upper right passage), and one nearly straight down into the unknown through unstable looking boulders. Otherwise the left lead ends with a near lava seal that was taking cold air. The left wall of this passage is of solid rock. The wall between these two passages is of breakdown. Total survey was 305'.

Hiking back to the car we discussed possible names for the caves. Lava Plug Pit was chosen for the new survey, but naming the previous survey was a little tougher. The name Under Takers Bridge was finally settled on, for the lower level which bypasses the bridge altogether.

Under Takers Bridge was mapped in 1996 by Ray Miller and Liz Wolff. It is, again, breakdown throughout. Entrance to the lower levels is through small vertical spaces between boulders in either sinkhole, rather than inside the bridge, which is lit by a skylight. Between Pick Axe Cave (431 +) and Lava Plug Pit (305) are Bay Bridge at 40', San Mateo Bridge at 51', Dumbarton Bridge at 30', and Under Takers Bridge at 68' with a total length of 415'.

LW



Map: Bay Bridge, Dumbarton Bridge, Lava Plug Pit, Pick Axe Cave, San Mateo Bridge, Under Takers Bridge

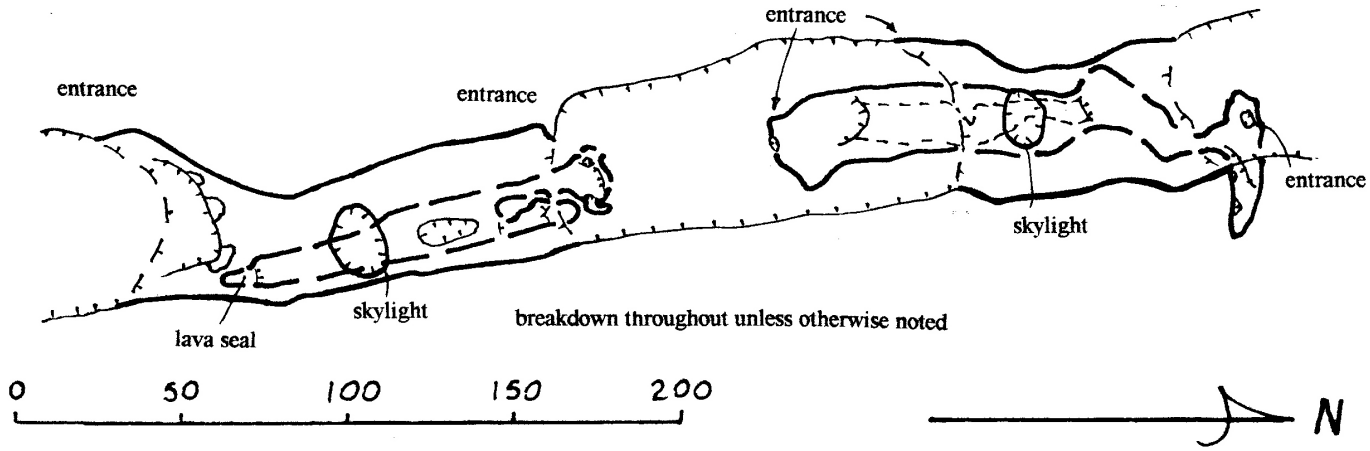
Bridges of Siskiyou County

Lava Plug Pit
Siskiyou County, California
Length: 305 Depth: 42

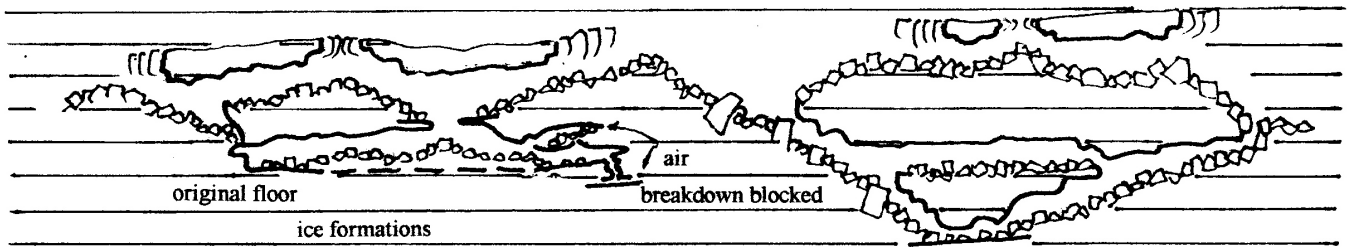
suuntos & tape survey by
B Broeckel L Wolff
06-06-2006

Under Takers Bridge
Siskiyou County, California
Length: 414 Depth: 67

suuntos & tape survey by
R Miller L Wolff
04-13-1996



Map: Lava Plug Pit, Under Takers Bridge



Dumbarton Bridge, viewed from the south. 5-23-06

View of the ceiling in the upper level of Lava Plug Pit, with lining peeled off and revealing cross sections of columnar basalt. 6-6-06

TRIP REPORT
FROM 2006 NSS CONVENTION

IRON GOAT TRAIN TUNNEL

OK it wasn't a caving trip, but it was almost like caving. August 8th I went to the Steven's Pass Historic District in the state of Washington where I took a hike on the Iron Goat Trail at the Old Cascade Tunnel.

The story of the Iron Goat began over 100 years ago when the last spike of the Great Northern Railway was driven. It marked the crossing of the Cascades at Steven's Pass which helped open the Pacific Northwest to settlement and trade with the rest of the world.

The Cascade Tunnel was completed in 1900 and was approximately 2.6 miles long. As rail traffic increased a "new" Cascade Tunnel was completed in 1929. It is an 8 mile tunnel still in use today. The opening of the new tunnel made the old grade obsolete and it was abandoned completely. There are no tracks in the Old Cascade Tunnel now. It is fairly smooth and level walking. There are areas of what appears as river rock or just dirt. A lot of water seeps in the tunnel from the roof and runs along the sides of the passage or empties from a couple of wall drains. You can't see from one end to the other as it is blocked by walls in two different places that close off the entire opening except for an open doorway that you can-walk through. You see several small alcoves on the one side of the tunnel which were places that workers could safely stand when a train came through.

Seven NSS cavers from different areas of the country went on a through trip and back. We ate lunch at the far end and then returned.

We stopped on the way back at Index, WA, where there is a station/store that has a museum of Harry and the Henderson's from the movie of the same name and a great view of the surrounding mountains.

Melanie Jackson

TRIP REPORT
FROM 2006 NSS CONVENTION

SENGER'S TALUS CAVE

On Friday August 11th Wayne Cedidla, Matt Leissring, Heather McDonald, and Melanie Jackson went to the Talus Cave which are located fairly close to the convention site. Wayne, Matt, and Heather are from the Mother Lode Grotto.

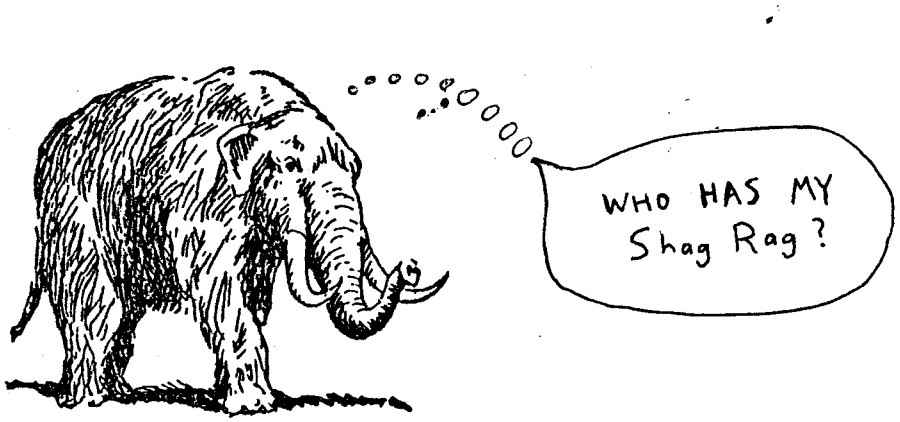
It was a cool, damp, and lightly misting 1.5 mile hike to the cave. The cave is developed in talus at the foot of a cliff between 200 to 300 feet high near one of the summits of Chuckanut Mountain. The rock is Darrington Phyllite and is pre-Jurassic in age. Phyllite is a metasedimentary rock intermediate in grade between slate and schist. There are many entrances, but the cave still gets completely dark. The cave is a Townsend's Bat hibernaculum. Few bats use it in the summer, but one of those flew by Wayne's face immediately after we entered by shimming down a tree trunk.

A very talented artistic person has labeled three of the entrances with murals depicting ice age scenes. I personally only saw one of wooly mastodons. We were not there very long and did not see all of the cave passage or even get to the lower lake level. There is a small lake at that point. We went in big passage, small passage, and crawly passage and saw some cave slime and roots.

There were several people in the area from some local teens to some other cavers probably from the convention, but it was not crowded. We did a fair amount of picture taking in our group. Mine didn't turn out that well, but I hope Matt and Heather's did.

The cave is at 1680 foot elevation and crosses a few ridges on the way making some parts of the trail fairly steep. It was worth the time and effort and then I could say that I did go caving at least once while at the convention.

Melanie Jackson



MASTODON

Excerpt from "The Legend of Grizzly Adams" By Richard Dillon

"Grizzly (Adams) discovered a bear's den on the headwaters of the Merced River. He invited his white companion, Saxon, to join him in killing the adult animal, or animals, in order to capture the cubs which were bound to be hidden inside the cave. His comrades begged off, wanting no part of an attack on grizzlies 'in their own castle.' This was satisfactory with Adams, in any case, since he still preferred to hunt alone. He collected together three or four days' provisions, cleaned his pistol and rifle, sharpened his knives and, packing his blankets and food on a mule, headed for the cavern. The hunter found the bear's lair in a narrow ravine between two hills covered with thickets of thorny chaparral and occasional junipers and scrub pine or cedar. He had no trouble finding the den about 50 feet above the stream bed."

Dillon, Richard 1966. The Legend of Grizzly Adams. Tower Publications, NY. Page 67-68.

Notes: Speaking of bear dens in Yosemite, here is a story from the legend of Grizzly Adams, in the setting of California in the 1850s, when grizzly bears still roamed the Golden State. In the next issue of the Sag Rag, Grizzly Adams gets mauled by the mother bear.

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