sag rag

42:3 May-June 2023

Mark Jones on survey in Eleven Pillars Cave, noting home-made portable survey station. 4-26-18

INSIDE: Pillar Time Caves

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Address Change: Beginning Nov 1, 2023 please send material for publication to Dave Smith, 321 Mesa Verde Ct., Chico, CA 95973 or <theotherdavesmith@gmail.com>. Bill has been SAG RAG editor since issue 12(5) in 1993. He and Judy will be moving to Seattle at the end of the year to be closer to family. It's been 30 years (!) Bill, we will miss you!

CAVE CALENDAR 2023

Sept 22-23 Meeting will be **Friday** at 7:30 at Stufflebeams in Trinity Center. Caving at Manzanita Ridge Cave Saturday.

Sun Oct 22 - Sun Oct. 29 Camping at McCloud Bridge Campground., Meeting at 7:30 Sat.

Sat Dec 9 Meeting at 7:30 at Bill and Judy's, with cookies.

Directions to the Sept. Meeting: Bill and Judy Stufflebeam, 67400 State Hwy 299, Lewiston CA 96052. Bill and Judy live in the Odd Fellows Camp right off Hwy 299. Once inside the gate (Steve will request it be left open) stay on Friendship Lane (main road) about 1 mile to Live Oak. Make a right on Live Oak and cross the bridge, then continue straight uphill. House is on your right, # 58, cream with tan and with Nepali prayer flags. (For those who RSVP'd, dinner will be at 6:00 pm Friday.)

PILLAR TIME CAVES By Bill Broeckel

Eleven Pillars Cave. It was April 26, 2018. We were on a one day vacation from a nearby CRF (Cave Research Foundation) expedition. After finishing our first objective, the miserable Piglet Caves, Mark Jones and I were casting about looking for something else to do. We started checking some low entrances surrounding a sink hole. In one of them we noticed right away that the clean, wide, 3-ft high passages were divided by frequent clusters of pillars. Immediately we set a datum, and started in with survey. It only took a few shots to surpass Piglet Caves' total length of 83-ft.

South we encountered lower passages, a near-miss pillar, and a cluster of three confirmed pillars. As we moved farther away from the sink hole, the passages would soon get too low to easily continue. Meanwhile, a 4-ft high entrance overlooked the deepest part of the sink hole, just outside the cave. This entrance would prove to be the tallest spot in the whole cave.

Heading north, we found more low passages. We also found two more entrances and eight more pillars, bringing the total number of pillars in the cave to eleven. The pillars

Eleven Pillars Cave Entrances. 5-8-18

petered out, as did the passage heights. However, air was moving downward, from the north. Did we mention the cave was grabby? It was grabby. Mark had enough. I continued on, hoping to "finish" the job on solo survey guestimates. As you might suspect, this was less than acceptable. However, I was able to return later with another unsuspecting cave survey person (my poor wife) to check on some details and shore up some odd shots. In the end, Eleven Pillars Cave had 516-ft in length, 6-ft in depth, and four entrances all lined up neatly in a row along the western margin of the cave, two of them directly in the side of the oft mentioned sink hole. And of course, the cave also had the grand total of eleven pillars, coming in a variety of shapes and sizes.

Twenty-Two Pillars Cave While I was thrashing around trying to finish up Eleven Pillars, Mark went over to the other side of the sink hole, prospecting for more caves. Sure enough, he reported on another cave over there, similar to Eleven Pillars, but even longer and with even more pillars! However, by now we were done for the day, and needed to check-in back at the RC (Research Center). So it was a good day in the greater lava lands, where progress is progress in the volcanic crawlways of Siskiyou County.

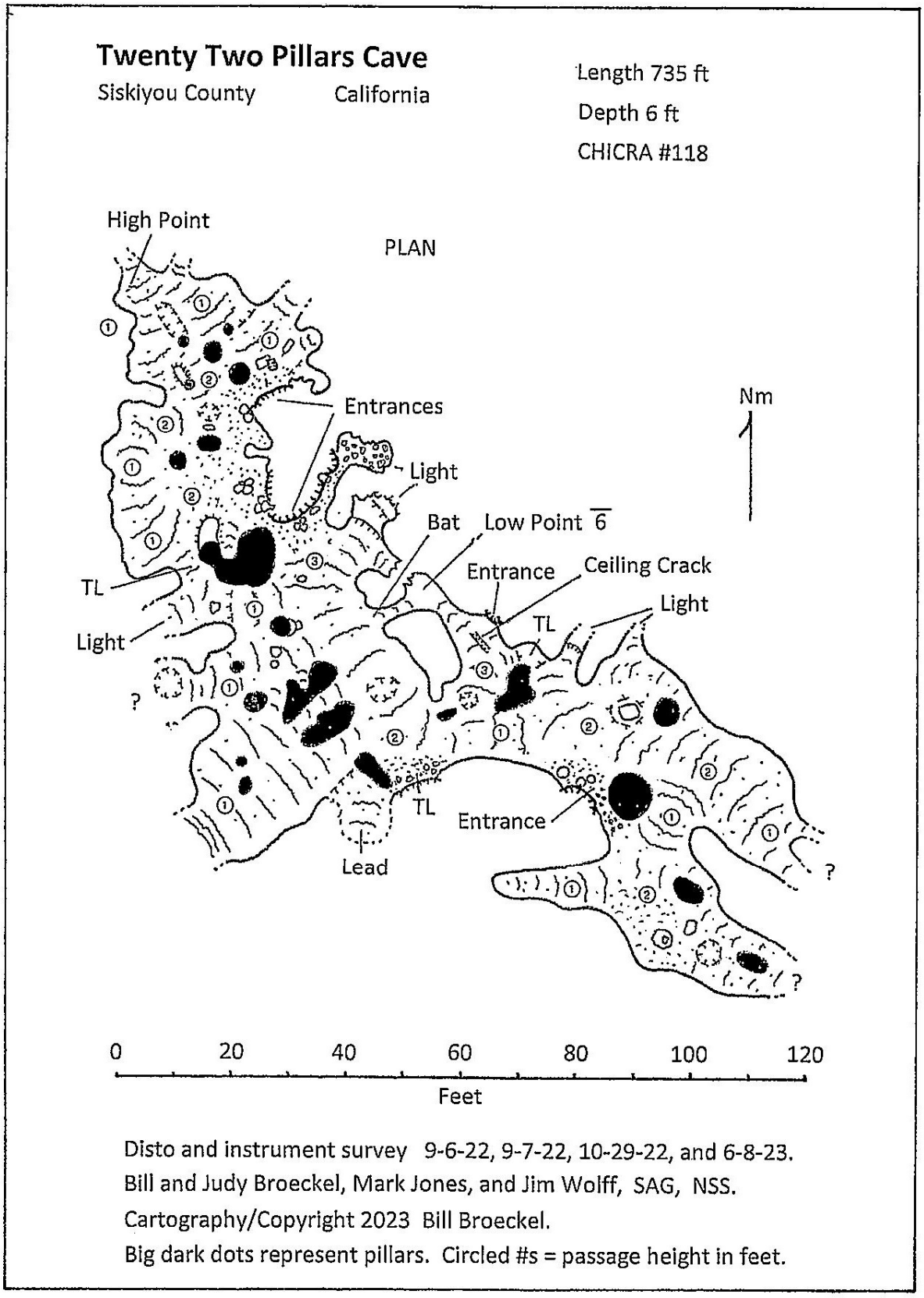
Before we could go back for more, that pesky pandemic put a damper on things. So it was 2022 when Judy and I took on the big one over there. Being old, slow, and lazy bones cavers, we fell into a piece-meal approach, over several visits, surveying 100-ft

or 200-ft at a time. When this was finally wrapped up, we found that Mark had been correct with his pronouncements. Though the cave was more compact, it was also complex, and yielded 735-ft of passage, 219-ft longer than Eleven Pillars. Also, it did have more pillars, two times more. Both caves ended up having four entrances each, some more practical than others.

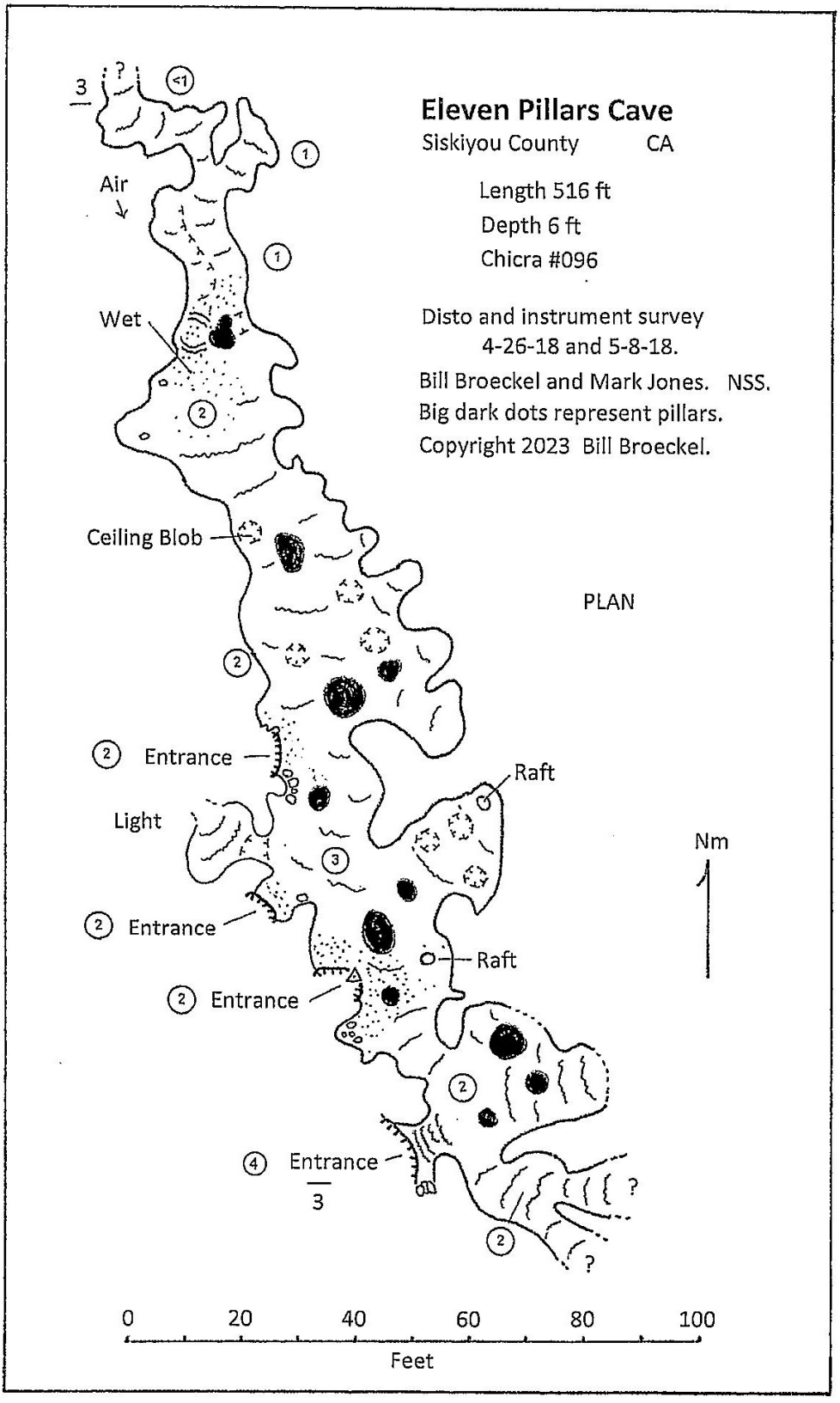
Twenty-Two Pillars Cave "Grand Hall", showing side passages between two pillar-like structures, with ceiling blob above. 9-7-22

Stanchions Cave and No Pillars Cave. OK, wait, there's some more. Of course we were hoping to connect the two big caves, and have a monster crawlway cave over 1,000-ft long and featuring 33 pillars. Sadly, this appears to be unlikely. But we did come up with two other very small; separate caves in the gaps near the sink hole, and between the two bigger caves. Thus, the sink hole is almost completely surrounded by caves.

It is likely that Stanchions could actually be connected to Twenty-Two Pillars Cave by moving a bunch of rocks. This would add slightly to the total length of the longest of these Pillar Time Caves. But no obvious potential connection was seen over to Eleven Pillars Cave. Stanchions itself was a bit of a stretch, combining a nice bridge feature to a short bit of lava tube by utilizing a narrow overhang. The pillar-like structures holding up the bridge suggested the cave name "Stanchions".



Map: Twenty Two Pillars Cave



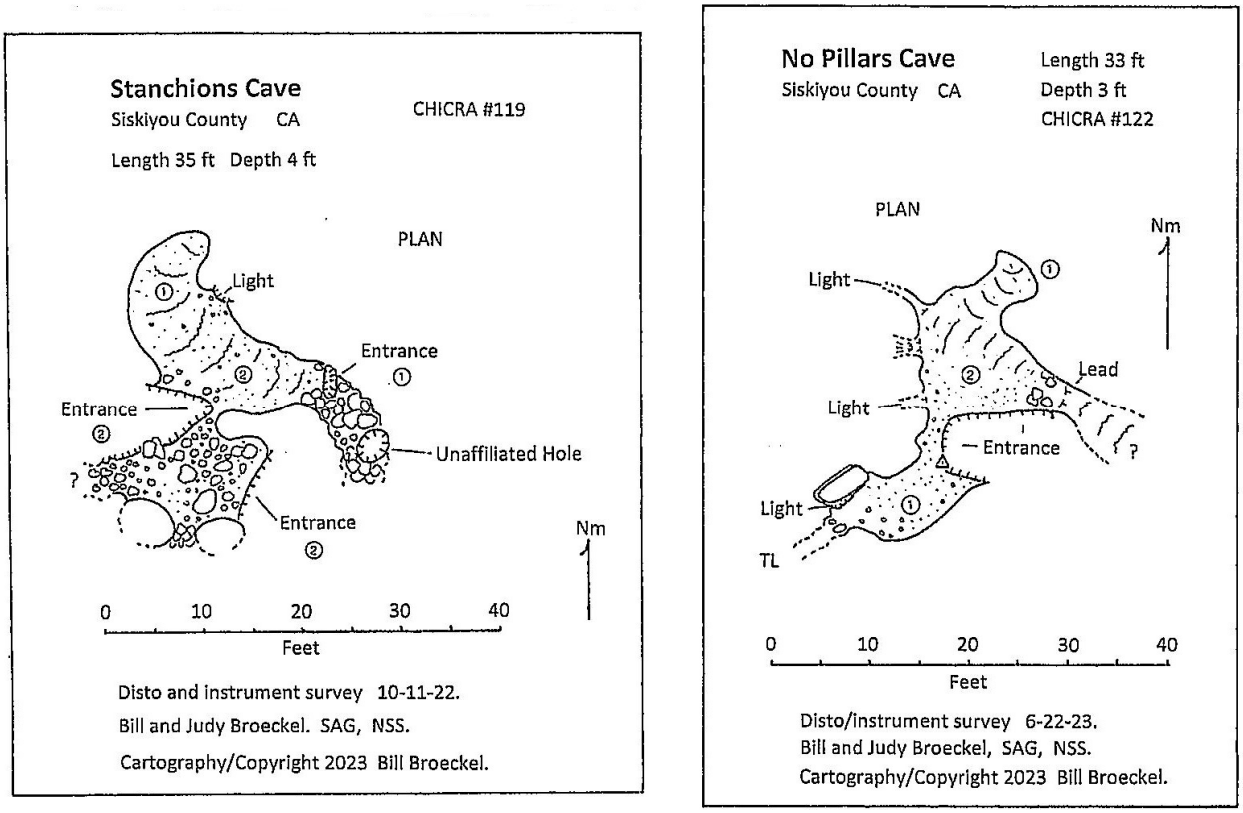
Map: Eleven Pillars Cave

Stanchions Cave Bridge. 10-11-22

No Pillars Cave has a lead that could, in theory, connect to Eleven Pillars Cave. But the hook-up to Twenty-Two Pillars is just flat-out too low to go. So both of these little caves end up depicted on the composite map as separate entities by use of a finer line to more clearly delineate them from their over-bearing neighbor caves with all the real pillars. Meanwhile, Siskiyou County gets credited with four more caves added to its surveyed caves list.

So what is going on here anyway? Now don't get too excited about Pillar Time Caves. The sprawling composite map with all those black dots (pillars) might appear compelling. But remember, the vast majority of these passages are between 1-ft and 2-ft high, or less. Having said that, if someone still would like to see it, here is a suggestion. Consider a through trip of Twenty-Two Pillars Cave. Start at the entrance nearest the largest pillar in the north part of the cave; and head along what we jokingly referred to as the "Grand Hall". This goes about 50-ft with multiple leads off to the sides. Continue over a hump and veer left to reach the entrance near the largest pillar in the south half of the cave. Both entrances involved in this through trip are reasonable, and it all amounts to a good introduction to Pillar Time Caves.

As portrayed on the composite map, the central sink hole serves as the single main factor that unifies all four caves into a close relationship. All passages are sloped or



Maps: Stanchions Cave, No Pillars Cave

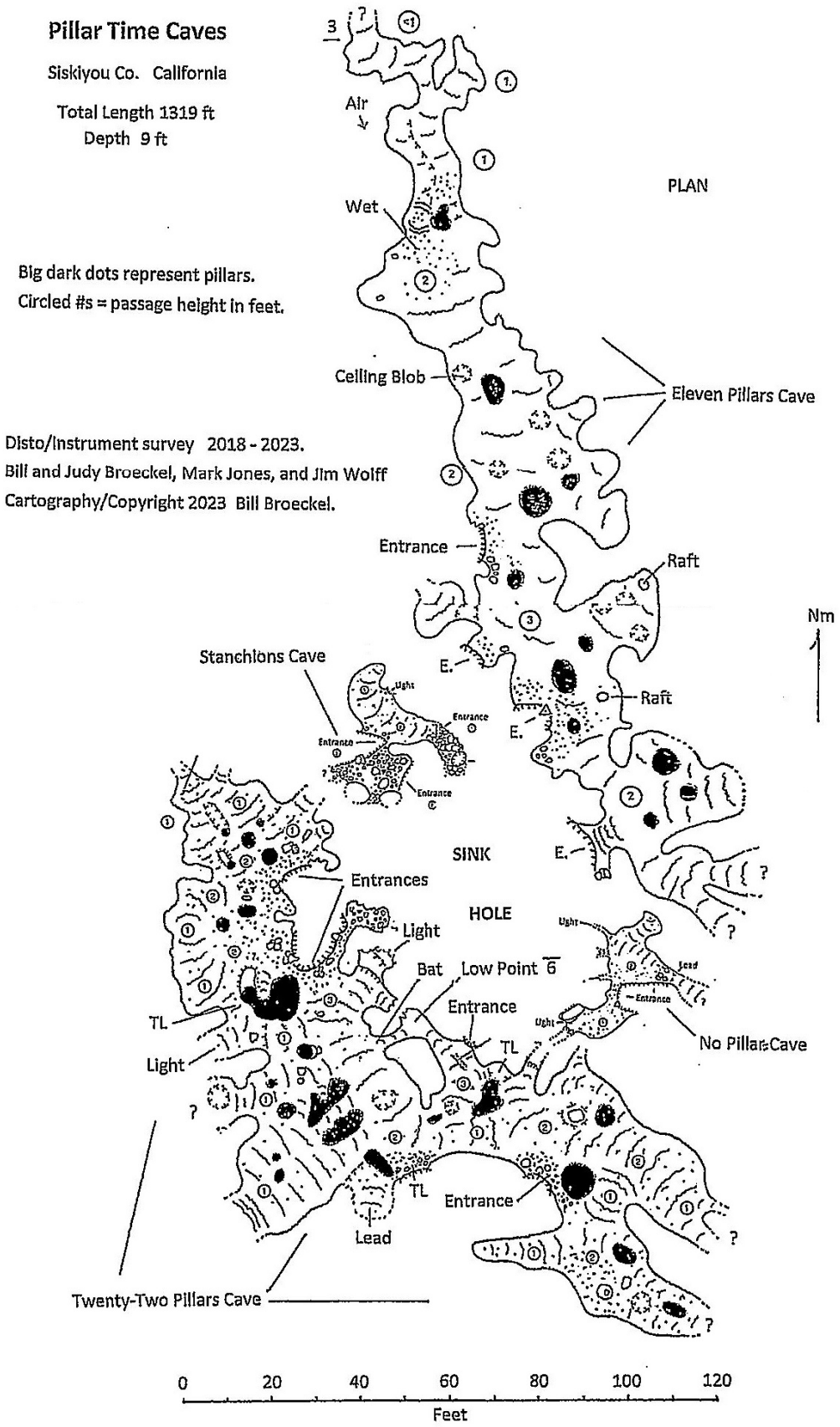
otherwise guided into the central sink. It's like a black hole. The deepest point at the bottom of the sink is actually a good cold air lead, and likely represents a drainage point for all four of the surrounding caves.

I would suggest the following scenario. There was a pool of cooling lava in this area. Something shifted down below, and drained out what was left of the fluid lava, leaving behind a virtual flat land of crawlspace, and all those 33 pillars. Note that most of the breakdown involved here is found in or near the sink hole.

So what is up with all the pillars? One problem we had was in deciding what things were pillars or not pillars. Ideally a pillar is round, you can go all the way around it, it’s not too big or irregular, and especially it needs to connect with both floor and ceiling. If it is way thin, it might be called a column. Since the cave was generally low, we allowed some pillars nobody wanted to go around, if we could shine lights through the lowest parts. Others were disqualified if they were too big and wall-like, or completely fused to a wall. Also, variations on the pillar theme can have effects on the course of the survey, such as a skinny pillar that may be an interesting feature, but doesn't demand a loop of survey shots to go around it. Likewise a pillar with a very low or narrow passage behind it does not require such a loop of survey. The basic take-away: it was a pillar if we thought it was a pillar.

Twenty-Two Pillars Cave “Grand Hall”. 9-7-22

The real question posed at Pillar Time is why are there so many pillars? Do pools of lava solidify unevenly as they cool? What variables influence the process? Possibilities include chemistry, temperature, time, lava flow rate, air flow, altitude, depth, pressure, slope, magnetism, current, whirl-pooling, pulsation, lunar phases, sun spots,… Maybe experiments could be done with real lava pools, and a way to pull a plug out from under it. I don't know. All I can say is that I have crawled around some of these pillars, wondering what in the world is going on. **BB**



Map: Pillar Time Caves

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