



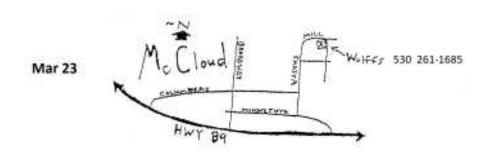
Lava bridge on the Island of Maui. Jan-Feb 2017.

Inside: Kok-Chee-Shuhp-Chee and Ka'eleku Caves

The SAG RAG is published by the Shasta Area Grotto of the National Speleological Society. Grotto meetings are held at different locations on 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 <caverbill@live.com>. For more on SAG, check the web site at http://www.caves.org/grotto/sag>.

CAVER CALENDAR 2018

MAR 23 SAG meeting 7:30 pm at Wolff's in McCloud 530-261-1685.



Map to Meeting

SAG RAG SUMMARY By Bighorn Broeckel

Thanks to Joel Despain again for an excellent review article and cartography project out in Trinity County. This makes four Trinity County caves with over 1,000 feet of passage. Another Natural Bridge article is added on, this one highlighting diverse perspectives on the area. I can think of at least 7 user groups impacting the cave, and all three levels of cave vandalism happening there at once. The climber's story is from the Mountain Project website, search under Natural Bridge/High Rock in Trinity County. Regarding the second featured cave, Wilson Kanakaole's comment was on a Maui Guidebook site under Ka'eleku Cave {Hana Lava Tube}. Quotations in the Ka'eleku article were actually from the main Haleakala National Park brochure, available to all as they enter the park. The burial information, however, was from an on-line newsletter "Coffee Times" reprinting an article written by Betty Fullard-Leo entitled "Sacred Burial Practice of Hawaii". Remember Ernie Coffman's memorial service in Grants Pass this coming Saturday, day after the meeting. Come to the meeting to coordinate with other grotto members and cavers planning to attend. The April meeting is planned for the coast, with details forthcoming. I'm not sure what's coming in the next SAG RAG, so beware of the caving muse up on the ceiling, it might bonk you upside the head. BB

December 8, 2017 Shasta Area Grotto Meeting

The meeting was called to order at 7:42 pm at Wolffs' in McCloud.

Present were: Steve Hobson, Melanie Jackson, Dave Smith, Barbara & Mike Stufflebeam, Doug & Tabitha Viner, Jim & Liz Wolff, and guests John Corbin, Michael Henkin and Jeff McFarland.

Minutes: The minutes of the October meeting were not available.

Treasurer's Report: The treasury has a balance of \$1,014.00.

Website and E-RAG: Both are up to date.

SAG RAG Report: not available.

Correspondence:

Sam Cuenca sent a report on WNS, which is now in Texas. There have been no new cases in Washington State since the first occurrences. Because CA caves are mostly fairly dry, and are warmer than those in the Eastern US, the risks to bats may be less here.

We received a note from Forestry Supplies, which sells some caving gear.

Calendar

Jan 26	SAG meeting 7:30 pm at Melanie's in Yreka. Maze survey at LABE Sat.
Feb 23	SAG meeting 7:30 pm at Steve's in McCloud. Pluto's or Adam's Homestead cleanup Sat.
Mar 23	SAG meeting at Wolffs' in McCloud. Shasta Lake area caving on Sat.
Apr 28	California Cave Life Symposium, CA Academy of Sciences in San Francisco. This is a 6 hour event with panelists, including Joel Despain, Tom Rickman and Bruce Rogers.
Apr 27-28	SAG meeting on the coast, details TBA.
May 25-28	(Memorial Day Weekend) SAG weekend at Lava Beds, projects TBA. SAG meeting Saturday May 26.
May 25-28	(Memorial Day Weekend) KMCTF Marbles weekend.
June 22-24	Hat Creek Campout, SAG meeting Saturday.
June 29–Jul 2	CRF weekend at Lava Beds, KMCTF at the Marbles
July 13	SAG meeting at Viners' in Ashland, possible Oregon Caves trip Sat.
July 20-25	International Volcano Speleological Conference at LABE
July 28-Aug 3	NSS Convention in Helena Montana
Aug 24-26	SAG campout (with OHDG & MLG?) in the Medicine Lake area. SAG meeting Sat.
Aug 30 or 31 to Sept. 3 or 4	Marbles trip with pack mules, details TBA
Sept 21	SAG meeting 7:30 pm at Stufflebeams' in Trinity Center. Preparation for SAG/SAR rescue practice
Oct 13	SAG/SAR cave rescue practice, details TBA
Oct 26	SAG meeting 7:30 pm at Smith's in Chico. Caving near Wilson Lake Sat.

Old Business:

Brad Rust does not have the keys to AP back. There may have been unauthorized visits there, which are not allowed.

Ernie Coffman's daughter offered his papers to interested cavers, and they have now been claimed.

New Business:

There may be a Tombstone trip during the winter. A Marbles trip is being planned for the Labor Day holiday.

Nominees for SAG officers for 2018 are: Chair – Liz Wolff, Vice Chair – Doug Viner, Treasurer – Steve Hobson, Secretary – Dave Smith. These will be posted to members, who may also add nominees. The results will be announced in January.

Trip Reports:

John Corbin and Michael Henkin visited Catwalk and Island Ice Caves in the Medicine Lake Highlands, finding some ice and lavacicles.

Jeff McFarland has been caving in the Mojave area.

IN late October Barbara Stufflebeam visited some of the commercial cenotes and caves in the Mayan Riviera south of Playa del Carmen.

Doug Viner, Jim and Liz Wolff and Breanna Kisling surveyed Maze cave at LABE. The survey will be continued at the January meeting.

Dave Smith gps'ed 9 caves in the Wilson Lake area in November, including Tom Rickman's cave #4, and 2 small caves that are new. On Nov 18 he took an MLG trip to Inskip Cave. About 55 pounds of trash, mostly aluminum cans and broken glass, were removed. A lot of small glass fragments, but not much else, remains. MLG may plan another trip in 2018.

The meeting was adjourned at 9:25 pm. David Smith, SAG Secretary

DS

Surveying Scenic Kok-Chee-Shuhp-Chee or the Natural Bridge Cave Complex

Joel Despain

The Project and Cave History

Back in 2012 when we moved to Northern California, as cavers, Heather Veerkamp and I felt the urge to go forth and explore. We knew where the limestone was, the Klamath Mountains, and we knew how to get there. Geologic maps and Google Earth provided more information. Within a year or so of living in Willows we found ourselves along Hayfork Creek where lots of limestone crops out. A small battered Forest Service sign pointed the way to Natural Bridge. We took the turn and soon found a delightful natural bridge with big trees all about, towering limestone cliffs and many smaller caves tucked in and around the bridge. Some of the entrances lay in the cliff face necessitating rope for access. It seemed like a fun, small cave project to map the Bridge and the collection of caves around it.

We also soon realized that the area has a lot of important history. The bridge is an important site for the Wintu Native Americans, and its original name is Kok-Chee-Shuhp-Chee, or in English, Bundle of Hides. It was named for the layered patterns and color in the limestone rock that resemble a bundle of animal skins dropped into the Gulch by a mystical man, according to the Trinity County tourism web page.

Just upstream from the bridge is the site of a terrible massacre. On April 23, 1852 Sheriff William Dixon and dozens of men from Weaverville murdered more than 150 Wintu. The Sheriff was responding to the killing of a local man by another Wintu band. The group of Wintu near Kok-Chee-Shuhp-Chee had nothing to do with the crime. Today nothing marks the site save an impromptu memorial beneath a fir tree. It was, most unfortunately, another chapter in the genocide of northern California's Native Americans in the late 1800s.

Today the Bridge is a developed recreation area in the Shasta Trinity National Forest and many people enjoy a walk through the cool and scenic bridge year around. Some of the facilities at the site are intact and functional, others are dilapidated. As is common in all public locations, graffiti and trash are an issue at the Bridge. Rock climbers have placed large numbers of bolts, hangers and quick draws in some parts of the Bridge marring the ceiling and walls.

We made occasional trips out to the Kok-Chee-Shuhp-Chee every 6 to 9 months slowly mapping sections of the caves. We took our boys out there several times to give them a chance to explore the area, get in a little vertical practice and help with the mapping. In the late summer and fall of 2017, I had a Forest Service intern, Jake Tholin, dedicated to cave work in the national forests of California. Natural Bridge was close to our base in Willows, and so finishing a quality map of these caves was a good choice for a project. Jake and Heather and I made three trips to Kok-Chee-Shuhp-Chee to finish up the maps including rappelling and ascending into the balcony caves above the main Bridge entrances.

The Caves

There are six cave "segments" at Kok-Chee-Shuhp-Chee that we have surveyed

1) The main Natural Bridge is some 190 feet long, 160 feet wide at the northern downstream entrance and 70 feet wide at the southern, insurgence entrance. Ceiling heights range from 40 to 10 feet. The Bridge is a single discrete passage with no side passages save a tiny upper-level crawl at the upstream end.

2) A small cave above the Bridge formed on the western downstream side with many entrances. This small cave was donned "Sky Cave" for this project.

3 and 4) Above both the downstream and upstream entrances to the Bridge are small caves in the cliffs that can be reached on rope by descending from above or ascending from below. These we called the upstream and downstream Balcony Caves. Neither of these caves goes far and passages end in speleothem and rubble chokes.

5 and 6) East of the Bridge and higher are two extensive, mazy caves that are mostly collapsed breakdown with a few areas of intact cave passage, bats and lots of graffiti. The first of these we called Corynorhinus Cave with a single entrance and the eastern-most East Cave with at least four entrances.

The first five of these cave segments all lie under the dripline of the main Natural Bridge creating a cave complex 1365.4 feet long. East Cave is not under the drip line and is not connected It is 382 feet long for a total length of cave passage in the area of 1747.4 feet and 532.7 meters.

Breakdown and sand floors are common in all of the caves. Speleothems are infrequent but a few small areas of flowstone and stalactites do occur including a large rimstone dam along the west wall under the Bridge. The caves are breezy. An entrance is never very far away making the climate of the caves variable with few locations displaying anything approach a steady, stable, deep-cave climate. Most of the caves are quite dry, but the Bridge Gulch stream does flow through Bridge itself. Typical flow for this stream in summer is perhaps 1 cfs or less, but spring floods also clearly inundate the Bridge leaving behind strands of logs and flood debris. Deposits of bat guano are found in the several of the caves in particular Corynorhinus Cave, East Cave and the Balcony caves accessible only be rope.

The area burned in 2015, but immediately around the bridge the forest is intact and lovely with many large Douglas firs and maples and dogwoods that display wonderful fall colors. Much of the limestone is draped in thick layers of brilliant green moss. Above the bridge and the other caves is a different habitat with a dry rocky landscape with only a few gnarled oaks, shrubs and grass protruding from the craggy limestone.

<u>Geomorphology</u>

Three periods of apparent cave development can be seen at Kok-Chee-Shuhp-Chee. Cave passages higher in elevation in a given location form first. As streams erode lower new passages form and upper level passages are abandoned by stream flow.

Oldest and highest is East Cave. This cave is largely breakdown collapse, but an intact bedrock passage is found along the east side and lowest level of the cave. East Cave and Corynorhinus Cave, also dominated by breakdown collapse, lie directly underneath a distinct low-point in the limestone cliffs above the Bridge and the other caves. This "notch" in the cliff line likely developed when the caves collapsed dropping the overlying land surface dozens of feet.

Both East and Corynorhinus extend approximately half way through the limestone ridge. They start on the north side adjacent to the downstream entrance to the Bridge and extend due south parallel to the Bridge for roughly half its extent through the narrow ridge of limestone. Most likely these cave passages at one time before collapsing extended as does the Bridge today through the entire limestone ridge. The truncation of the breakdown cave passages may be due to two phases of collapse that left no single interconnected passage through the ridge parallel to the Bridge.

Found at the same level approximately 40 feet above the main Bridge are the 1) Balcony caves directly above the main Bridge passage, 2) Sky Cave, the western-most cave passage and also the largely collapsed 3) Corynorhinus Cave. Unlike today, cave development when these caves formed was not restricted to a single discrete cave passage, but rather these multiple caves formed simultaneously. These caves are also mazy with multiple passages and entrances. These caves extend more than 250 feet east to west showing that stream flow through the ridge took place across a wide area with no single passage dominating the flow of water. In many caves in the Sierra Nevada and Klamath Mountains mazes are formed when spring floods and sediments overwhelm existing passages encouraging adjacent conduits to form bypassing any impediment to the stream flow. This may also have been the case at Natural Bridge in the distant past.

The active cave passage of the main Bridge is large attesting to stream flow through this tunnel for an extended period of time. Most certainly thousands if not tens of thousands or even hundreds of thousands of years have passed since the main bridge began to form. Some large breakdown lies in the Bridge, but most of the ceiling is intact and shows the original erosion surfaces from the cave's development. JD

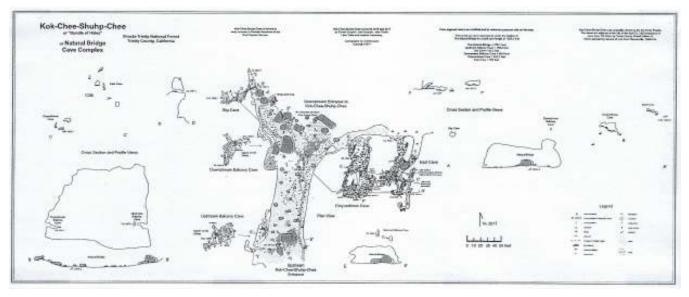
Climbing in Natural Bridge / High Rock

By David J. Jefferson

Given the history (both distant and recent) of this special place, I thought I'd share the following:

Last weekend a friend and I camped and climbed at Natural Bridge after a few days at the Trinity Aretes. I knew about the history of tension between the local Wintu tribe and climbers regarding bolting on the bridge formation, but had understood that climbing on High Rock and the other walls was not frowned upon.

In the morning when my partner and I were gearing up, we heard drumming, singing, and some call and response using ram's horns. Steeped in the dense conifer forest and surrounded by the stunning limestone formations, this created an amazing and surreal atmosphere. We immediately questioned whether we should climb at all that day, but



Map: Kok-Chee-Shuhp-Chee or Natural Bridge Cave Complex

<text>

after some deliberation decided to go ahead, based on our understanding that the tribe was accepting of development on the upper cliffs. We roped up at the Tucked-Away Wall, far from where it sounded like the ceremony was taking place. We consciously tried to keep a low profile while doing a few pitches, wanting to be as respectful as possible.

After some time (i.e., a couple of hours), we saw a group of people on the trail leading to underneath the Natural Bridge. They called up to us, said hello, and told us that climbing was not permitted anywhere in the area. Not wanting to cause trouble, my friend and I apologized and told the group that we would promptly leave. We began to go our separate ways when the group leader called out again, asking that we help them. He invited us back to their camp to talk.

My friend and I packed up our gear and drove over to the camp. It turned out that the leader of the group was a council member on the Wintu Educational & Cultural Council of Northern CA. His name is Dave Hayward, and he and some members of his community were not only performing a culturally important ritual, but also spending the day cleaning graffiti off of Natural Bridge. Dave wanted to enlist our help in removing the bolts from all of the formations in the area.

My friend and I tried to explain all of the nuances of the situation from our perspective, including the fact that climbers are often incensed when people chop bolts they have placed. Dave seemed sympathetic to our sport – indeed, he mentioned that if he were a climber, he'd probably love to get on the rock at Natural Bridge. The group also acknowledged that they don't have any legal right to exclude climbers from the area, as the land is federally owned. However, they also were adamant that the cultural heritage of the area should be respected.

I am personally reluctant to remove hardware that another climber took the time to place. I also have been involved in the development of new crags, and in fact have recently spent several weekends scouting, cleaning, drilling, and setting new lines. So I understand the work involved and the joy of the creative process.

Nevertheless, I also think that the wishes of the Wintu tribe should be respected. There's a lot of rock out there, and most of it is not on sensitive land. If you're not familiar with the 1852 massacre of the entire community except for 5 children, you should read about it:

https://en.wikipedia.org/wiki/Bridge_Gulch_massacre

I ask that if you are or were involved in the development of the Natural Bridge *I* High Rock area, to please send me a personal message so that we may begin a dialogue with the Wintu Educational & Cultural Council. Sep 6, 2016 DJ

Ka'eleku Caverns by Bill Broeckel

Judy and I were lucky to visit the Valley Isle of Maui a year ago (Jan-Feb 2017). Two volcanos dominate the island: Pu'u kukui (5,788 ft), House of the Moon (Halemahina), to the west, and Pu'u'ula'ula (10,023 ft), House of the Sun (Haleakala), to the east. The volcanos are connected to each other by a low flat isthmus, the main valley of Maui. Here the old C&H sugar cane fields are now idle. The island is over-run with tourists who collectively exert tremendous pressure on the various resources, but also bring some wealth and jobs to the local economy.

We landed on the isthmus, and rode south across the valley, passing the rusting sugar factory. We checked into our free digs in Kihei, Maui's "other coastline resort" on the gentle southern shores. Our caving adventure was very modest, visiting the commercial Ka'eleku Caverns (AKA "Hana Lava Tube") 2,852 meters in length. Apparently, this is the largest and longest cave on the island. About 1/3 mile has been prepared for visiting tourists. The cave itself is a member of the NSS, owned and operated by long-term caver Chuck Thorne. Bob Richards led an expedition to map Ka'eleku in the 1990s with a long list of lucky helpers including Thorne, Dave Bunnell, Elizabeth Rousseau, and many other cavers. In return for cave survey services, the expedition enjoyed complimentary accommodations. Judy and I had the Evans family to thank for free lodging, and we didn't have to survey anything. But there was a small fee to enter the cave.

To reach the cave, we needed to travel east on a narrow, winding route called "The Road to Hana". An adventure in itself, the scenic highway was so timeconsuming that we arrived at the cave just an hour or two before closing time. Bright rechargeable LED lights were issued to each customer, and a stairway led down into the cave. The show passage was similar in scale and extent to the larger intact loop caves at Lava Beds. However, the surfaces were quite damp and dark, so that the really bright lights were helpful. The experience was selfguided along a developed trail that included interpretive signs. The content was mostly educational, but reading through to the end would often be rewarded with a good joke.

The "Fall-out Shelter" signs were interesting, and more recently I wondered if anybody showed up during that false alarm air-raid warning in Hawaii ("This is not a drill!"). After we safely returned to the surface, we met Chuck Thorne. When he figured out we were cavers, he took us back into his office and showed us an awesome photo of a "rappelling planarian". These remarkable organisms, up to 20 inches long, with hammerhead shark heads, slide down threads from the ceiling to prey upon hapless cave worms. We were glad we found out about the predacious planarians <u>after</u> our cave tour, you know, being sort of like cave worms ourselves.

Anyway, we were feeling fine about our tourist cave trip, so I was quite surprised to come across the following comment about Hana Lava Tube from Wilson Kanakaole –

"To the responsibles of Kaeleku Cave: It is with great concern as a lineal descendant of Chief Pi'ilani Hale that I address this comment. That exploitation

of sacred caverns and resources are being violated. We as family members take this matter seriously. It is to my knowledge that you and the responsibles really don't know the background of the history and the area that you are exploiting. You have my email address. I was a member of the burial council of East Maui, and you are encroaching family burial sites. I look forward to talking and meeting with you.

Cultural Practitioner and Lineal Descendant of Pi'ilani, Wilson Kanakaole".

Now being a caver I was naturally wondering about what other Maui Caves might be like. In the course of our days and walks, I could see good places to look for caves. On one stretch there were very extensive ancient Hawaiian ruins on a good lava flow, over-grown with jungle and inhabited by wild goats. Luckily we ran into a park ranger who gave us some good guidelines for visiting that area. We refrained from all but the most casual ridgewalking, enjoying wave surges washing through combo sea caves/lava tubes and blow holes. We knew nothing about the Maui jungle and what to watch out for. Also, we figured out that Maui in general has a love/hate relationship with tourism, and enduring questions about history and the effects of foreign invasions. We came across the concept of Kapu, that there are places closed to public access for sacred and cultural reasons. But I still had some questions about Wilson Kanakaole's comment: for example, what is a responsible, what is a practitioner, and how do ancient things relate to modern times?

The whole concept of commercialized caves has its drawbacks, but also serves some good and useful purposes. Chuck Thorne's rendition at Ka'eleku combined features and management decisions, in ways that I personally liked and found impressive. But I still wanted to understand more about where Wilson Kanakaole was coming from. Some insights were gained upon visiting Haleakala National Park, with the following explanation. It all starts with Kumulipo.

"The Kumulipo is an ancient, sacred oral tradition. It has multiple life applications for all kanaka maoli (Native Hawaiians), and indeed, for all people. This Kumulipo chant describes the interrelationships between people and resources, both spiritual and physical. Spiritual relationships with all resources come first. From Na Akua (the deities) come the resources, and the people are its stewards. In the Kumulipo, all resources are explained and inventoried so that proper care is applied through kuleana (responsibility)" ... "The National Park Service has accepted this kuleana".

On Maui, original native named land divisions are drawn down from the two major sun and moon volcanos like spokes on a wheel, and extend far out into the sea. The Kapu zones are in the high forests and mountain top areas, and in the deep sea beyond sight of land. These zones are inhabited by Na Akua (deities), but may be entered by kanaka maoli who are experts and have reverence and ancestral knowledge. "The kupa'aina (lineal descendants) have kuleana derived from this sense of place. Some kapu are based upon Hawaiian calendar seasons. Upon entering these areas, it is important to know that a malihini (visitor), much like the kupa'aina, has kuleana to that place."

"Hawaiians believe in the concept of kuleana (responsibility). Kuleana is passed on to us by our kupuna (ancestors). Our duty is to perpetuate this kuleana and our obligation to pass it on to the future. Once one recognizes kuleana, actions are taken to fulfill that commitment. The kia'i (guardian) with kuleana invokes attention, respect, care, and kuleana for all things spiritual and physical ... Therefore, as you enter this sacred place, this kuleana is now placed upon you."

So, from these quotations from a Park brochure created by kanaka maoli (native Hawaiians), we see that the kuleana concept applies to many different groups of people, in fact all people. This then would be some common ground, the idea of shared responsibility, extending even to the casual tourist. I still had some questions about the human burials, however, and had to read a little further afield to find some information.

Various Hawaiian burial practices included cave burials on Maui and on every other Hawaiian Island as well. Leading families would have secret burial caves kept hidden and guarded. This was a natural and preferred method. Mana (spiritual strength) was stored in the very bones of the loved ones, and was valuable to family lines on spiritual and physical levels connected to and corresponding to the geographical zones mentioned previously. Literally set in the bedrock, these served as anchor points of courage in a crazy world. Unfortunately, during modern times many burial caves have been disturbed and looted. Subsequently, Native Hawaiian Councils have formed to help protect and return what may remain of the ancient cave burials. In this way, respect (lokahi) and spiritual meaning (mana) may be restored to the family lines, as these things are made right (pono).

O.K., so at least now I can look back at Wilson Kanakaole's comment with a little more understanding, and share some kuleana with my fellow cavers. Cave responsibly and remember, "Maui no ka oi" (Maui is the best).



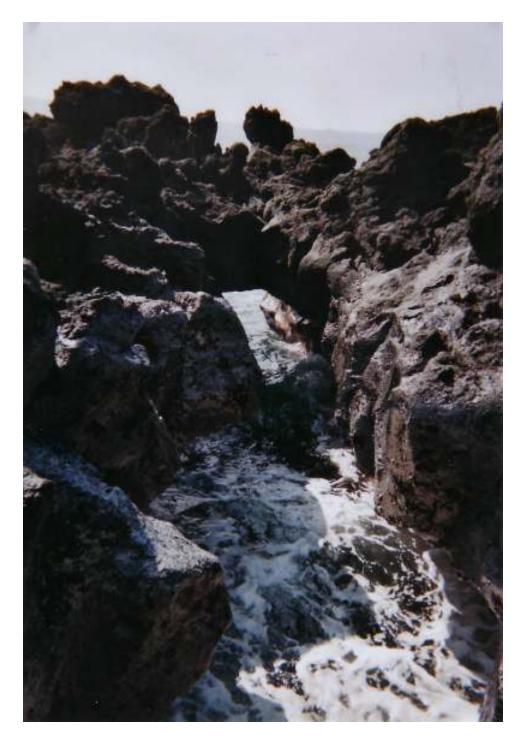
Author inside Ka'eleku Caverns Jan-Feb 2017. Photo by Judy Broeckel.



Judy Broeckel at the Ka'eleku entrance (shaped like Maui) Jan-Feb 2017.



Judy along the Ka'eleku Caverns tour trail Jan-Feb 2017.



Another lava bridge on the coast of Maui Jan-Feb 2017.

STAMP



Ferny tour entrance to Ka'eleku Caverns Jan-Feb 2017.

THE MISSION STATEMENT OF THE SHASTA AREA GROTTO

The Shasta Area Grotto is a conservation organization devoted To the protection and study of caves and their contents.

Shasta Area Grotto is an Internal Organization of the National Speleological Society.

SAG RAG 2916 Deer Mdws Rd Yreka CA 96097

TABLE OF CONTENTS

TO:

- Page 1 COVER PHOTO: Maui Lava Bridge
- Page 2 Calendar and Summary
- Page 3 Dec 2017 Meeting Minutes Dave Smith
- Page 4 Kok-Chee-Shuhp-Chee J. Despain
- Page 6 Natural Bridge D. Jefferson
- Page 9 Ka'eleku B. Broeckel