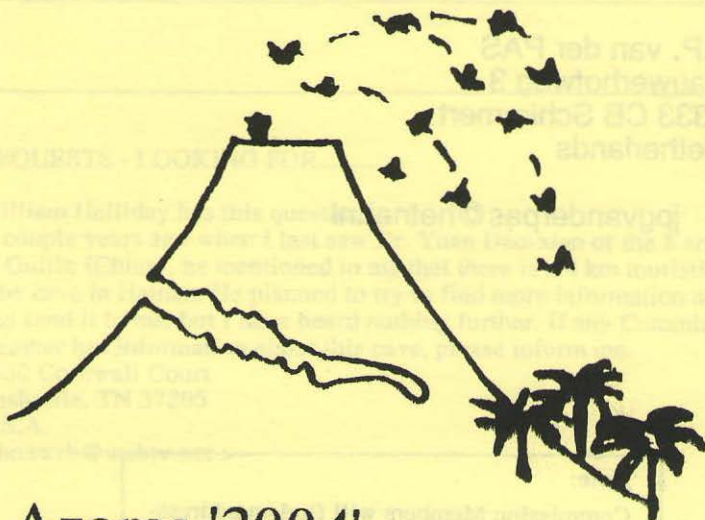


INTERNATIONAL UNION OF SPELEOLOGY  
UNION INTERNATIONALE DE SPÉLÉOLOGIE

## Commission on Volcanic Caves



**Azores '2004'**

12/17+ May

Jan. 2004

U.I.S. is affiliated with UNESCO

# 40

*This Newsletter is sent free to all  
members of the Commission.  
It is not possible to subscribe - but  
will be sent to all interested in  
lava tube caves.  
News and information always appreciated!*

Honorary President  
Dr. W.R. Halliday  
bnawrh@webtv.net

*Chairman & editorial address: a.i.*

J.P. van der PAS  
Vauwerhofweg 3  
6333 CB Schimmert  
Netherlands

jpgvanderpas@hetnet.nl

Note:

Commission Members will find an address-  
list in this issue. Please note this is the  
LATEST update (Jan. 2004). In case you  
kept older ones just replace these with this  
one.

Some misc. notes received -

- From Mr. István Eszterhás (president of the commission on pseudokarst): I myself can not participate in the symposium on the Azores, but George Szentes will be there. He will introduce the 'Digital Inventory of non-karstic Caves of Hungary', which we produced together.
- Oups, an error by the editor (JP van der Pas) just discovered now. In the address-list is still an error at Takanori Ogawa. I don't know how catastrophic this has been. His postcode is 267 - 0066. Excuses.
- Several wishes for 2004 arrived. A beautiful volcano-landscape from Yurii Slezin - our man on Kamchatka.

#### REQUESTS - LOOKING FOR .....

- William Halliday has this question:  
A couple years ago when I last saw Dr. Yuan Dao-xian of the Karst Institute in Guilin (China), he mentioned to me that there is a 4 km touristic lava tube cave in Hainan. He planned to try to find more information about it and send it to me, but I have heard nothing further. If any Commission member has information about this cave, please inform me.  
6530 Cornwall Court  
Nashville, TN 37205  
U.S.A.  
< bnawrh@webtv.net >
- Experienced Dutch cave-diver is looking for unexplored underwater lavatubes, preferable in Europe.  
José de Veer  
< josedeveer@hetnet.nl >
- Editor of this publication is looking for the Proceedings of the 3rd International Symposium on Vulcanospeleology (Bend, Oregon - USA - 1982)  
J.P. van der Pas (see editorial address) or  
< jpgvanderpas@hetnet.nl >

In the previous issue the fantastic exploration of Michael Laumanns in Rwanda was mentioned. This is only a small part of his publication in the German publication 'Mitteilungen Verband deutscher Höhlen- u. Karstforscher - 49(4)'. His request for definition of 'segmentation' has already been answered by Commission member Greg Middleton. More about this definition on page 6.

## LAVATUBE CAVES IN RWANDA

by Michael Laumanns <Michael.Laumanns@bmf.bund.de >

# Virunga 2003

### Summary

During a Swiss-German speleological project to NW Rwanda (Ruhengeri province) 10 km of cave passages were surveyed in 42 caves in June/July 2003. The caves are developed in volcanic rocks exclusively. Important finds were:

- Ubuvumo Gacinyiro, which is a segmented lava tube system comprising the 350 m long Ubuvumo Gacinyiro 1 and the 1.470 m long Ubuvumo Gacinyiro 2 as well as the 73 m long Ubuvumo bwa Musanze 4. The total length of all segments is 1.893 m. The cave system has a huge main tube with many roof collapses and avens.
- Ubuvumo Nyabikuri-Ruri is a non-segmented lava tube with two entrances (roof collapses) and two avens only. It is the longest cave of Rwanda at 3.384 m (depth -144 m).

Ubuwumo Nyabikuri-Ruri exceeds the length of Ubuvumo bwa Musanze, formerly known as the longest cave of Rwanda, by far. This cave was explored by a Belgian team in 1975 and a Spanish team in 1977 to a length of 4.560 m and a depth of -210 m. However, Ubuvumo bwa Musanze is a segmented lava tube with the longest segment being just 1.600 m long (-70 m deep).



## Ubuwumo Gacinyiro 1 + 2, Ubuwumo bwa Musanze 4

Musanze secteur, Kinigi district, Ruhengeri province, Rwanda

Gacinyiro 1: S 01°27,537' / E 029°34,973' / ca. 2193 m asl

Gacinyiro 2: S 01°27,697' / E 029°35,049' / ca. 2159 m asl

Musanze 4: S 01°27,865' / E 029°35,160' / ca. 2138 m asl

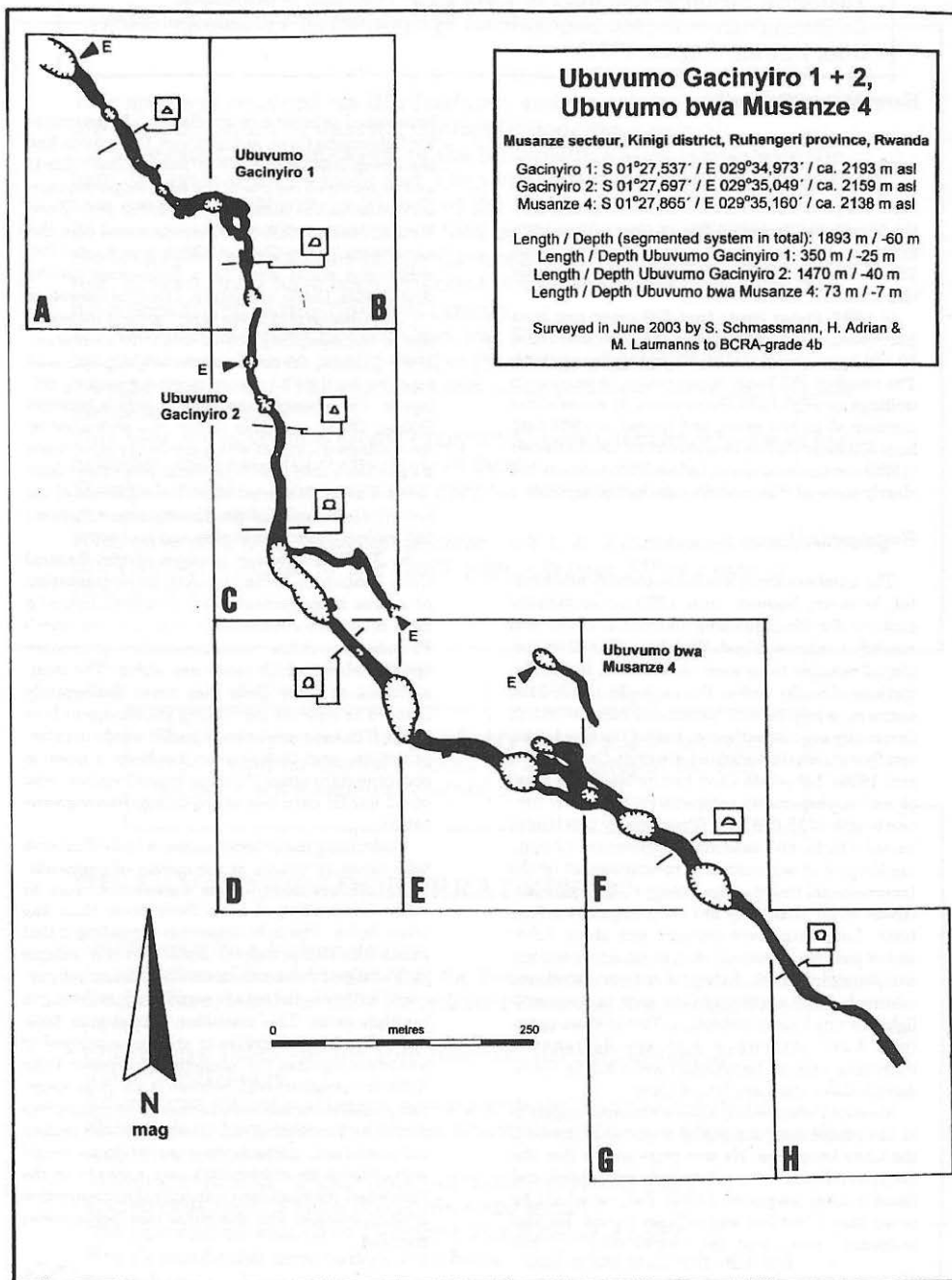
Length / Depth (segmented system in total): 1893 m / -60 m

Length / Depth Ubuwumo Gacinyiro 1: 350 m / -25 m

Length / Depth Ubuwumo Gacinyiro 2: 1470 m / -40 m

Length / Depth Ubuwumo bwa Musanze 4: 73 m / -7 m

Surveyed in June 2003 by S. Schmassmann, H. Adrian &  
M. Laumanns to BCRA-grade 4b



Recently a (the) question was raised about length of caves in case of a collapse or interruption. A good article is this part from of a lecture by Mr. Charles V. Larson of the Western Speleological Survey (U.S.A.) : 'Historical Misunderstandings of Lava Beds National Monument, California' (from the 6th International Symposium on Vulcanospeleology, Hilo, Hawaii, August 1991).

## How Many Caves?

No one can say, with reasonable certainty, how many individual caves there are in the Monument. Many surveys have been initiated, but none have been completed. Over 400 cave names appear in the literature, probably 200 of those have been located and explored to some extent, but only about 75 have been described well enough to be positively identified.

In 1934, Fisher wrote that 293 caves had been discovered, about 130 had been explored, and about 50 had been named and developed to some extent. The number 293 became legendary, appearing in writings through 1985. Some accounts rounded the number off to 300 caves, and indeed, a 1934 map bore 303 individual cave symbols. In 1936, Glaeser (1936) documented about 130 additional caves, but clearly some of these overlap the legendary 293.

## Segmentation

The numbers above are not especially meaningful, however, because until 1990 no systematic protocol for distinguishing individual caves was needed or acknowledged. Whether one will be employed remains to be seen. As a result, many distortions of reality thrive. For example, in 1928 the entire cave loop section (about five miles worth of frequently segmented lava tubes) of the Headquarters System was included in Labyrinth Cave. By the mid-1980s, Labyrinth Cave had deflated to a more plausible, respectably competitive, but oddly precise length of 15,666 feet. (Presumably this length varied a little with seasonal temperature.) Applying the rule of segmentation recommended by the International Union of Speleology (UIS) — that collapses wider than they are deep, segment a lava tube — Labyrinth Cave actually has about 3,800 feet of passage. However, its true nature is still not completely resolved. Along its course are several relatively small openings in the roof, that are skylights by any known definition. Two of these openings have stairways and are designated entrances — not to Labyrinth Cave — but to Thunderbolt Cave and Lava Brook Cave.

Stewart Peck (1976), while a summer employee at the monument, completed a survey of caves in the Cave Loop area. He was quite aware that the Labyrinth Branch was extensively segmented, and listed a total length of 12,845 feet, of which he noted that 1,310 feet was collapse trench. He also (correctly) noted that the longest tube "...not

intersected or broken by a collapse..." was probably Catacombs Cave, at 6,562 feet. Catacombs has since been inflated to 7,475.00 feet (decimal added) and re-surveyed (by one of the most respected cave surveyors in the northwest) to 6,900 feet. Even though Peck's article was published, and is in the monument library (Peck, 1976), a prominent 1990 publication about some Lava Beds caves asserts that Golden Dome, Labyrinth, Hopkins Chocolate ... and Blue Grotto caves [are] "several interconnected but separately named caves." (Waters *et al.*, 1990) In fact, the above caves are all separated from each other by one or more segmenting collapses. For example, the nearest points between Golden Dome and Blue Grotto are separated by four collapses — two of which are two or more times longer than they are deep — and two other short caves. The caves named above are segments of the Labyrinth Branch (of the Headquarters System) but are not interconnected in any real sense.

In 1990 — following passage of the Federal Cave Resources Protection Act, implementation of a cave management plan, and initiation of a cave inventory conducted by the Cave Research Foundation — it has become necessary to be more specific about which caves are which. The management at Lava Beds has never deliberately ignored or rejected increasing knowledge of lava tubes. The monument has specific needs in interpretation, and there never has been a need to accommodate other than the typical visitor, who could hardly care less about things like segmentation.

Underlying the determination of individual lava tube caves, of course, is the matter of segmentation. Indifference to it has contributed more to misunderstanding of Lava Beds caves than any other factor. The only consensus regarding it that exists (the UIS principle), holds that if a collapse sink's largest dimension measured horizontally exceeds its depth, the tube is segmented, resulting in multiple caves. This resolution is so simple, however, that it is vulnerable to artifices employed to join caves together for competitive purposes. I like it for its simplicity and because it provides something tangible to measure. Interestingly, initiatives aimed at broadening this consensus are seldom acknowledged, perhaps because to do so would acknowledge its existence. I look forward to the time when the need for a principle of segmentation is acknowledged and discourse may begin about specifics.



*This note was received via Bill Halliday, and the origin is Claude Koch and the Cascade Grotto (< Cascade Grotto@yahoo.com >):*

..... on another note, the cavers of the Willamette Valley Grotto with the help of cavers from Cascade and Oregon Grottos, have discovered over 60 new caves in the Northern Branch of the Ice Cave Basalt Flow. There were 28 known caves before we started looking for new caves up there. This is the lava flow that contains Goose Cave and Deadhorse Cave, just to name a few. Known caves have been extended in addition to the new caves that have been found in this flow this century.

For instance, Sleeping Beauty Cave was 351 feet long but is now 3707 long! One crawly side passage led to thousands of feet of braided passage. I thought that I would fill you in on this since you were one of the original mappers of the cave.

This year, we have found some exceptional caves that have had walking passages and beautiful formations in them.

Thanks for saving those crawler caves for us since we are the next generation of cave finders!

*(This cave area is in Washington State - USA. It is mentioned in the book of Bill Halliday - Depths of The Earth, page. On page 385 is a map of Deadhorse Cave).*

This is only a short listing of very interesting information to be found on the www about the adventures of the Pint's.  
All on < [www.saudicaves.com](http://www.saudicaves.com) >

## THE LAVA TUBES OF HARRAT KISHB

- Interview with a Volcanologist,
- Lava Fields of Saudi Arabia and the Formation of the Kishb Lava Tubes,
- Gecko Cave, Ideal cave for Dehydrated Dwarves. Saga of the Doomed Caver,
- Chilly Lava Tubes and the 10th International Symposium on Vulcanospeleology,
- Adventures above and below ground with the Speleo Club du Liban,
- First visit to lava tubes in Harrats Khaybar and Ithnayn plus a town that wouldn't stand still,
- Helicopter Rescue at Um Qaradi lava-tube cave (Arabic),
- Speleo saugages, hollow stalagmites and more!
- The fascinating legend of Hibashi Lava Tube: is it true?
- What's inside the new Saudicaves book - and what was left out (ed: lavatubes.....)

## MORE FROM HIBASHI CAVE

Hello! We are back from yet another trip to Hibashi Cave. This was the first time Susy came along. "You HAVE to come, we said... you've never seen wonderful Hibashi cave!"

First night we camped in Harrat Buqum lava field where we saw numerous shooting stars, including one that seemed to be advertising Blue Cross Insurance. While putting up our tent we discovered a big camel spider watching us. We started taking pictures of it and it remained perfectly still. I ran off to get another camera and it calmly waited for my return. I think it was charmed by everything Susy was saying to it (in Spanish!). Supposedly, camel spiders have the biggest fangs of any living creature (in relation to its size). So I guess those huge black things you see are indeed its fangs!

When we reached the cave, all of us (except Susy) were beaming. "Hibashi cave is like home to us!" we told her. However, Susy seemed to see things with different eyes. She noticed the dead sheep parts scattered all over the entrance pit. Her eyes grew wide when we spread out our tarps and blankets on the thick layer of sheep and goat droppings that covers all the cave in the "twilight zone." Then I took her on a little tour... with great clouds of fine dust rising into the air all around us.. not exactly the ideal place for a tourist cave

We experimented a bit with some backlit photos, trying to take advantage of the very dust that had previously ruined most of our pictures. We were inspired by Chris Howes, who wrote THE book on cave photography, trying to replace the spray in his British pothole pix with the dust of our ancient lava tubes. OK, our first attempts aren't so great, but we have only just begun!

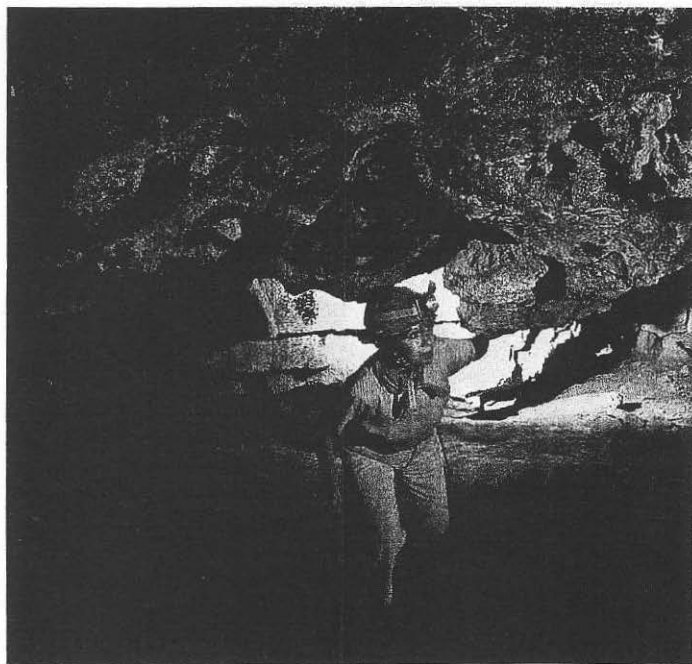
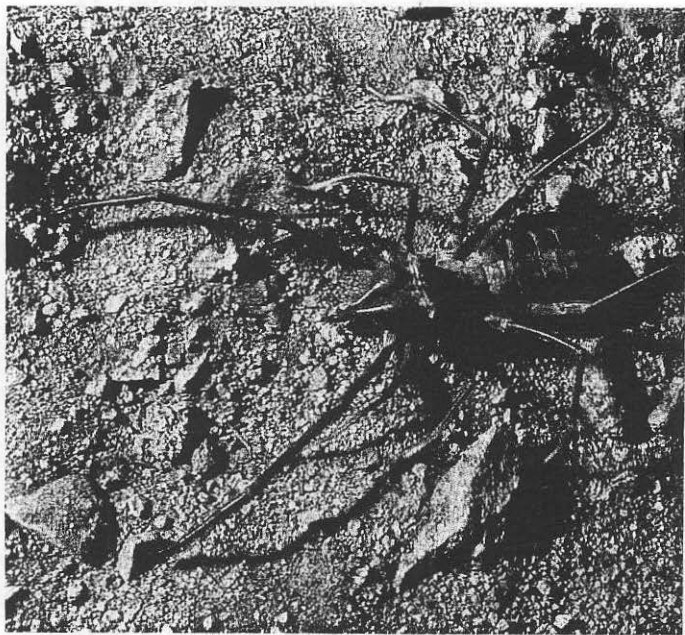
One strange phenomenon of this cave is the "stickytite," a soft stalactite that we suspect may grow with the help of bats. On this trip, we found a bright orange stalactite growing in a spot where bats had obviously been hanging for a long time. We are assuming bat urine is the cause of this "formation" which we are calling a "pipitite."

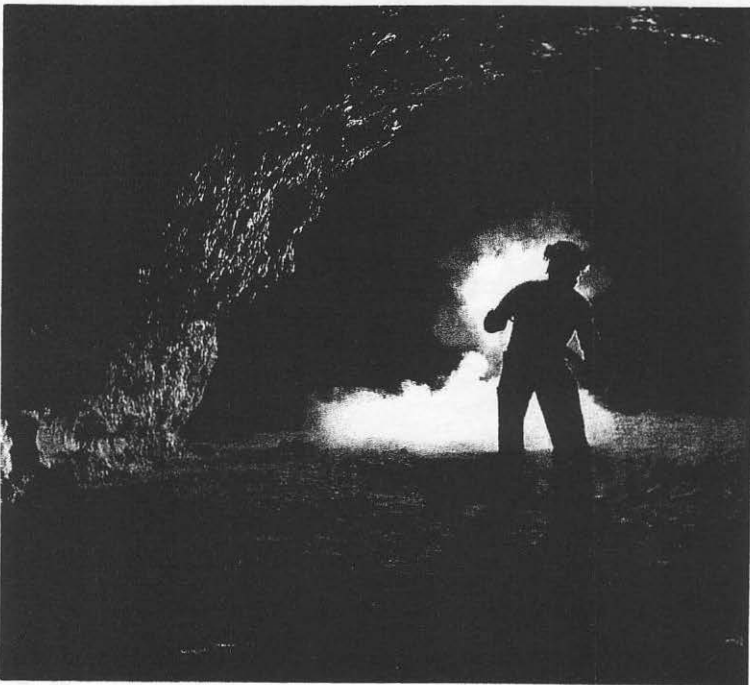
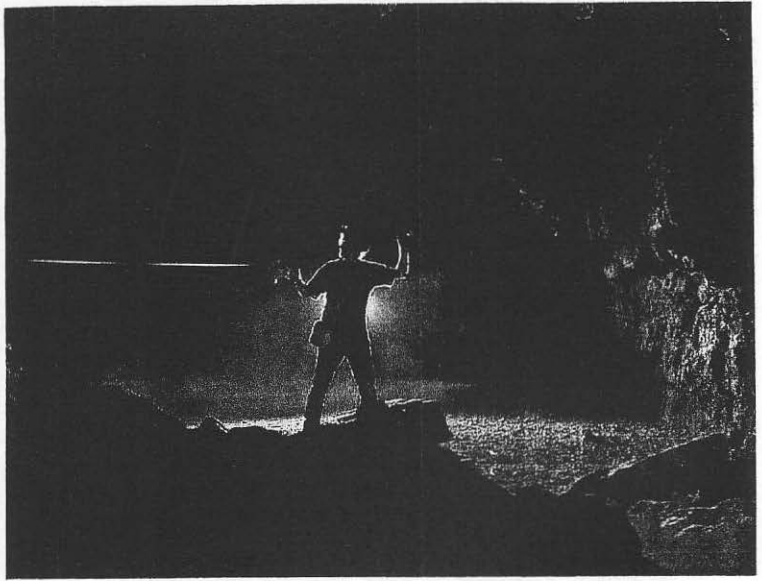
We hope the pictures come through!

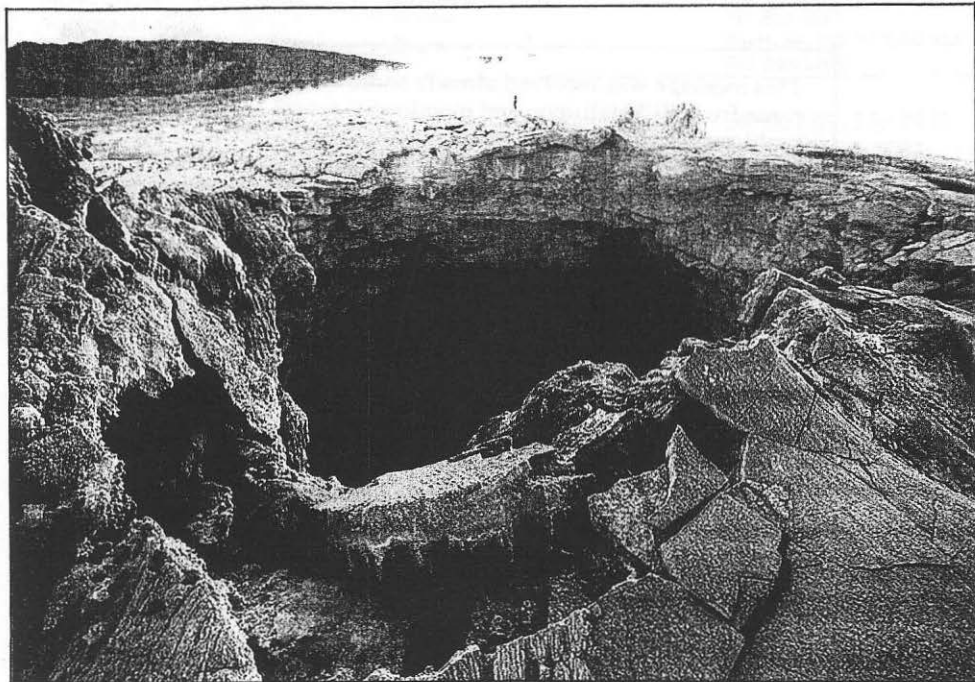
John and Susy











## VULCANIC FEATURE FROM ERITREA

Here a fascinating picture - sent by John Pint with the text:  
Tomorrow (24/11/2003) we are off to Eritrea. Searching the web I find  
fantastic lava, a lava lake, etc. at Erta Ale. Our visit will be far too short to  
check out this area, but would like to return. Note lava stalactites in picture.  
John and Susy.

However - the answer from Paolo Forti (Italy) - states this is not a lava  
cave. He writes: 'The stalactites in the picture are not of lava but they  
consist of different salts like epsomite, mirabilite etc. which are deposited  
by fumarole vents'.

Well, it is an interesting hole, it is clearly volcanic. Maybe more on the  
symposium on the Azores?

(All info: [www.saudicaves.com](http://www.saudicaves.com) and < [ThePints@saudicaves.com](mailto:ThePints@saudicaves.com) >)



This message was received already some time ago. It came from Bill Halliday, and mentions several problems on Hawaii. This is not a geological problem (segmentation) but a political one. Just for your attention.

At least one proposal to amend last year's Hawaii Cave Act will be presented to the Hawaii state legislature in mid-January 2003. Ole is working with the Mayor and others in government of Hawaii County, seeking agreement on wording which would eliminate problems caused by ill-considered last-minute introduction of what became its subsection 7.

This subsection prohibits any person from entering any part of any non-commercial cave in Hawaii (other than on Federal lands) without written permission of all the owners of every part of the cave.

In the extreme but very important case of Kazumura Cave (of which Ole owns a segment, as does my daughter Marcia), there are more than 4,000 owners. Many are overseas, and some do not understand English.

Penalties in another section are as much as \$11,000 for violating any provision of the law.

There are no exceptions for public health, or for public works, or public safety, or for scientific study, nor for cave mapping to determine who the owners are, nor for visitors to Kaumana Cave, Waianapanapa Caves or others previously open to the public in state and county parks.

As soon as a Bill number is assigned to the amendment to be proposed by Hawaii County, we will need many, many e-mails directed toward two state senators in key positions:

Sen. Colleen Hanabusa [senhanabusa@Capitol.hawaii.gov](mailto:senhanabusa@Capitol.hawaii.gov)





United States  
Department of  
Agriculture

Forest  
Service

Pacific  
Northwest  
Region

333 SW First Avenue (97204)  
PO Box 3623  
Portland, OR 97208-3623  
503-808-2468

File Code: 2670/2880/2350/2650

Date: December 19, 2003

Dr. William Halliday  
Honorary President  
Commission on Volcanic Cave of the International  
Union of Speleology  
6530 Cornwall Court  
Nashville, TN 37205

This letter is in response to your May 28, 2003 letter concerning Mowich Cave.

The Regional Office staff and the Toketee District staff met on July 29, 2003 to discuss the information provided by you and Forest Service policies regarding cave closures. The Staffs agreed that several internal follow-up actions were needed before the Forest Service can respond to your request. Those actions are now underway and we will respond to your request as soon as possible.

Thank you for your interest in Mowich Cave.

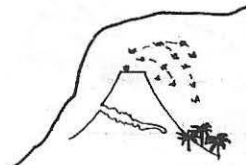
*for* CALVIN N. JOYNER  
Director, Natural Resources

Here another letter concerning the quest of Bill Halliday to get into Mowich cave. How difficult is it to say 'yes or no'? In this case it took half a year just to consider this - without a definite answer.

cc: Grant Gunderson, Sarah Madsen, Pat Ormsbee, Jim Nieland, Jeff Bohler, Daryl Gusey, John L Ouimet



Caring for the Land and Serving People



Well, not 1 April yet, but who is the first??

During the U.I.S. congress in Brazil (2001) Prof. Paolo Forti held a speech about speleology during the next century (2001 - 2100).

Some items very clear, the - 2000 meter caves would be extended, and caving materials improved.

Much more interesting were the remarks about caves in non-limestone. As most people will know, U.I.S. has commissions (three of the many) about pseudo-karst, glacier-karst and lavatube-caves.

Certainly the commissions on ice and lava were mentioned. And the fact these would be much more important in the future, since there are not many vulcano- and glaciospeleologists.

The chairman of our commission, and Adolfo Eraso, chairman of the glacier-cave commission, were sitting together during this speech and we looked at each other. The planet Mars was also mentioned, and both of us were wondering: whose commission would have the first caver on Mars. Adolfo for investigating the ice, or we for our tubes?

John Pint seems to have a suggestion, see next page.



## OLD FARTS IN SPACE

NASA is considering sending human beings to Mars. However, critics point out that it is cheaper and more practical to send robots. Robots require no food and there is no need to bring them back. – CNN

Commenting on the above announcement, a representative of FOF (Fit Old Farts) declared that the biggest obstacle to sending men and women into space has been overcome.

According to spokesman John Pint, “The critics of NASA’s new program have made the erroneous assumption that sending people into space requires their return to earth. In reality, there is a large -- but all too often ignored -- segment of our population who figure this planet can’t last much longer under the idiots who are presently running it and these individuals are ready and willing to pack up and move somewhere else. I am referring, of course to the healthier and more reflective members of a group often referred to as old farts.”

Mr. Pint went on to say that FOF has a select membership of individuals who would be delighted to take a one-way trip to Mars, Jupiter “or any other destination we can get to before we croak.” A second quality possessed by all members of FOF is fitness. “We go in for sports like racquetball and hobbies like cave exploring,” commented Pint. “This is why some people refer to us as ‘crazy old farts.’”

A NASA spokesman was recently contacted regarding the possibility of recruiting people like Pint for voyages to outer space. “Actually, we are looking into the possibilities of sending chronologically disadvantaged people on a one-way trip they should never forget,” said the speaker. “However, that is precisely the problem. Most of those Fit Old Farts will probably develop Alzheimers before they get halfway to Jupiter and won’t even remember their own names, much less what they’re doing out there.”



**SOME NOTES ON THE 8th INTERNATIONAL SYMPOSIUM ON  
PSEUDOKARST**

26 - 29 May 2004

Organized by the Commission for Pseudokarst (UIS)  
Slovak Caves Administration (SCA)  
Slovak Speleological Society (SSS)

at: Teplý Vrch - Slovakia

info: E-mail < gaal@ssj.sk >

place of symposium will be the Environmental Education Center of the  
S.E.V. at Teplý Vrch, near Rimavska Sobota, E-mail < trnavska@sazp.sk >.

Registration fee about 30 Euro.

Hotels 21 - 40 Euro.

Hostel rooms 8 - 27 Euro.

Breakfast/lunch/supper 2 - 5 - 4 Euro.

Special excursion into basalt caves of the northern Hungary or Slovak Karst  
around 15 Euro.

The opening of the symposium will be May, 26 at 9.30.

May, 27 will be an all day excursion with also a visit to Ragáč (volcanic  
exhalation caves).

