



N° 60
JANUARY 2011



UNION INTERNATIONALE DE SPÉLÉOLOGIE (UIS)
COMMISSION ON VOLCANIC CAVES

NEWSLETTER



U.I.S. COMMISSION ON VOLCANIC CAVES

NEWSLETTER N° 60 - JANUARY 2011

- ❖ Hawai'i Lava Cave Entrance for Sale (*Page 4*)
- ❖ Fourth Argentine Congress of Speleology & First Latin American Congress of Speleology (*Pages 5-6*)
- ❖ The 15th International Symposium on Vulcanospeleology in Amman, Jordan, March 2012 (*Pages 7-12*)
- ❖ Photo gallery (*Pages 13-17*)
- ❖ Book Reviews (*Page 18*)
- ❖ Lunar Lava Cave (*Page 19*)
- ❖ Martian Lava Cave (*Page 20*)
- ❖ Profile: Theofilos Toulkeridis, Ph.D. (*Page 21*)
- ❖ Publications Received by the Commission (*Page 22*)
- ❖ Speleo Calendar (*Page 24*)



<http://www.uis-speleo.org/>



www.vulcanospeleology.org

The Commission on Volcanic Caves Newsletter has been published quarterly since December 22, 1993. The Newsletter is available free of charge to all members of the commission, and to others who are interested in lava caves.

The editors appreciate any news and information about lava caves that you can provide.

U.I.S. COMMISSION ON VOLCANIC CAVES



U.I.S. COMMISSION ON VOLCANIC CAVES

HONORARY CHAIRMAN

William R. Halliday, M.D.
wrhbna@bellsouth.com

CHAIRMAN

Jan-Paul van der Pas
jpgvanderpas@hetnet.nl

WEB MASTER

John Pint
ranchopint@yahoo.com

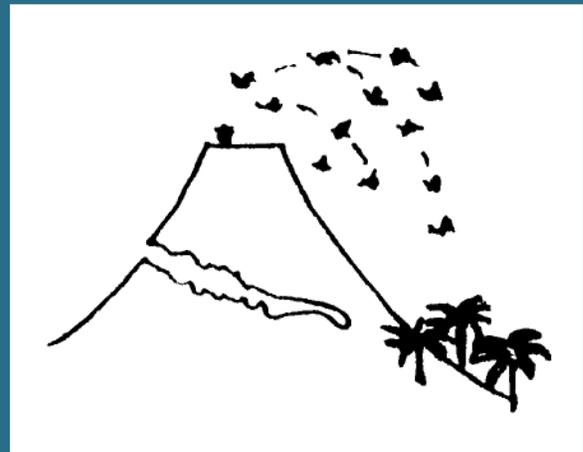
EDITORIAL STAFF

Jan-Paul van der Pas
Vauwerhofweg 3
6333 CN SCHIMMERT
Netherlands
jpgvanderpas@hetnet.nl

Harry Marinakis, M.D.
14 Wexford Way
Bridgeport, WV 26330
USA
harrymarin@gmail.com

MISSION STATEMENT

The U.I.S. Commission on Volcanic Caves encourages exploration and scientific investigation of volcanic caves, and hosts the International Symposium on Vulcanospeleology about every two years.



COVER PHOTO

An active eruption during the 1969-1971 Mauna Ulu eruption of Kilauea Volcano, Hawai'i Volcanoes National Park, Hawai'i. Photo by J.B. Judd, October 21, 1970. Photo is courtesy of the U.S Geological Survey (U.S.G.S).



U.I.S. COMMISSION ON VOLCANIC CAVES

THE CHAIRMAN'S CORNER

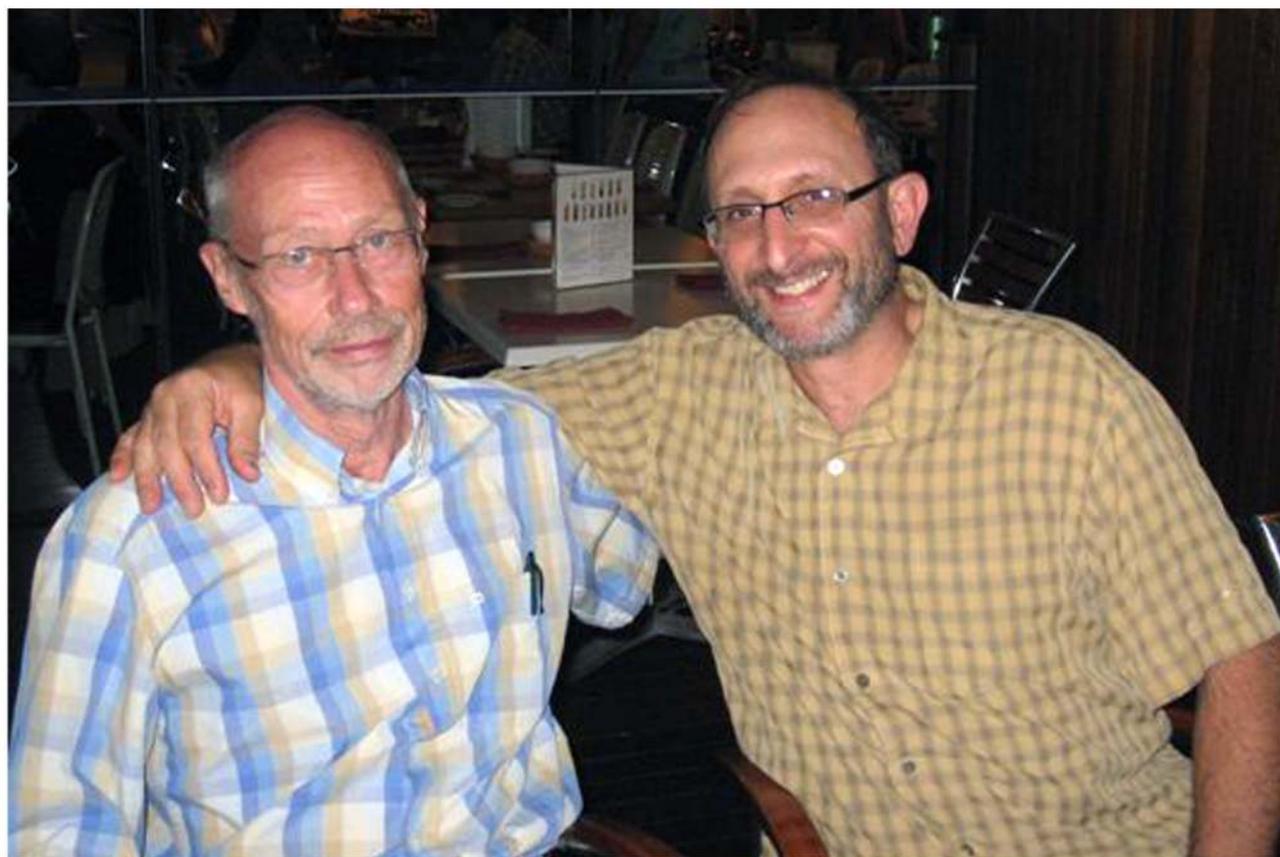


JAN PAUL VAN DER PAS

The Commission has received many favourable reactions on the first digital Newsletter. Harry Marinakis has made this possible, as I have two left hands as far as computers are concerned. Apart from being co-editor, Harry also is the vice-chairman of the commission. I am very pleased with this and thank him for his ideas and support.

At this moment the Commission holds every second year a symposium (see the last page). During these symposia the commission meetings take place.

Photo below: Jan Paul (left, Netherlands) and Harry (U.S.A.) in Cairns, Australia, August 11, 2010.



U.S. COMMISSION ON VOLCANIC CAVES

THE CHAIRMAN'S CORNER CONTINUED

Here the situation since the last symposium, the current situation and the period till the next symposium (locations) are discussed.

The chairman of the commission is Jan-Paul van der Pas, vice-chairman Harry Marinakis, webmaster John Pint and honorary president W.R. "Bill" Halliday.

The latest symposium was in Australia August 2010. This was well attended, some 25 participants from 7 countries. Organizer Greg Middleton.

Next symposium will be in Jordan, March 15-22, 2012. Organized by Professor Dr. Ahmad Al-Malabeh and the Hashemite University and Jordanian Geologists Association.

Some proposals for 2014 are Argentina (this was originally proposed for 2012 to fit in the Argentinean Congress), Galápagos (Equador) and New Mexico (U.S.A.).

However, in Australia it was clear that the world financial crisis starts to be a problem. Several "regular" participants did not show up due to lack of funds.

Proceedings from virtually ALL symposia (since 1972) are on our website. And of course the data of the coming symposium in Jordan 2012.

Jan-Paul van der Pas
Chairman

LAVA CAVE ENTRANCE FOR SALE

Kevin Allred reports in the NSS Newsletter (#28, Fall 2010): An entrance to the John Martin Cave System is up for sale on the Big Island (Hawai'i). It comes with a house and three acres set up for solar. It might be of some interest for a HSS caver to inquire about.

I remember going to this entrance one time. John Martin Cave is known for its red lava. It's a very nice cave not fully explored. Mapped or pushed. At least 7 miles is known and it is one of the longest lava tubes in the world. This PUna District home was built in 2007, and is a one bedroom cottage that runs on solar. \$85,000.

www.hawaiihomsestore.com mls#:230653



U.S. COMMISSION ON VOLCANIC CAVES



Carlos Benedetto (Argentina) on the surface near Doña Otilia lava cave, Argentina

4TH ARGENTINE CONGRESS OF SPELEOLOGY & 1ST LATIN AMERICAN CONGRESS OF SPELEOLOGY

Malargüe, Mendoza - Argentina
April 1-8, 2012

Carlos Benedetto of Argentina reports that the Federación Argentina de Espeleología (Fade) and the Unión Latinoamericana de Espeleología (ULE) will be hosting the fourth Argentine Congress of Speleology and the first Latin American Congress of Speleology in the Patagonian region of Malargüe, Mendoza, Argentina.

The program of the Congress includes visits to lava tubes in region of Payunia, Malargüe, one of the largest and most important basaltic regions on the planet. There may be more than 600 volcanoes in the region.

Much of the volcanic activity in the region is Quaternary.

The main researcher of Payunia is Dr. Eduardo Llambías (University of La Plata, Buenos Aires), who will be giving the first lecture on the first day of the Congress. Valeria Outes may also be present. She is a volcanologist who is living in Bariloche, North Patagonia.

U.I.S. COMMISSION ON VOLCANIC CAVES



UPPER LEFT PHOTO: Mapping Cueva del Borne, Argentina.

LOWER RIGHT PHOTO: Calcareous deposits in Doña Otilia Cave, Argentina.

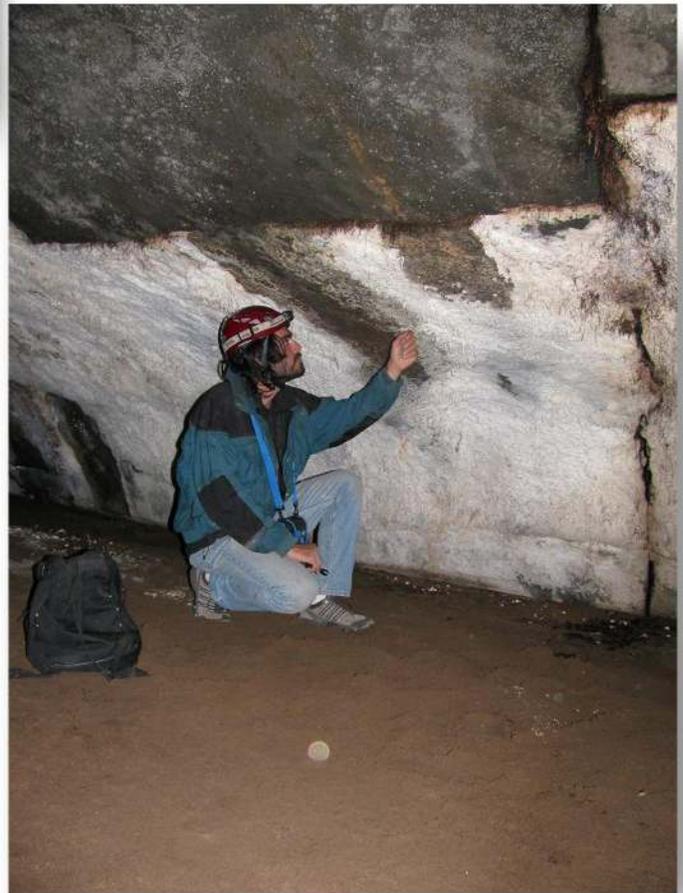
Photos by Carlos Benedetto (Argentina)

More information about the Congress can be found at the web site of the Federación Argentina de Espeleología (Fade):

www.fade.org.ar

The Federación Argentina de Espeleología is preparing more detailed information about fees, hotels, food, etc. This information will be updated on the web site.

Carlos has suggested that Argentina be considered for the 16th International Symposium on Vulcanospeleology in 2014.



U.I.S. COMMISSION ON VOLCANIC CAVES



You are invited
to the



15th

INTERNATIONAL SYMPOSIUM ON VULCANOSPELEOLOGY

March 15 - 22, 2012 in Amman, Jordan



Organized by

THE HASHEMITE UNIVERSITY & JORDANIAN GEOLOGISTS ASSOCIATION
Held in the Royal Culture Center
Amman, Jordan

President of the Organizing Committee
Prof. Dr. Ahmad Al-Malabeh
The Hashemite University

U.I.S. COMMISSION ON VOLCANIC CAVES



Proposed Symposium Schedule March 2012



March 14: Arrival at Amman

March 15: 2012: Opening presentations and dinner

March 16: Day excursions

March 17: Presentations

March 18: Presentations, sessions & concluding dinner

March 19-22: Harrat Excursion (if possible, a day in Syria could be included)



Mummified hyena



Basalt desert (Harrat)

Registration & Information

Prof. Dr. Ahmad Al-Malabeh

P.O. Box: 6440

Postal Code: 13115

ZARKA - Jordan

Tel: +962-5-3903333

Fax: +962-5-3823333

E-mail: malabeh.spleo12@yahoo.com

Home page: <http://www.jo-geologists.com>

U.I.S. COMMISSION ON VOLCANIC CAVES



Proposed Field Trips & Tours



There will be three field trips offered during the symposium and one post-symposium field trip as well as general interest tours (a minimum of 10 participants is required for each tour to be run).

Field Trips During the Symposium:

V1: Yarmouk-Decapolis Tunnel (March 16, 2012)

Topics: Aqueduct, Wears, Canals and Underground tunnels

Route: Amman, Irbidi, Al-Tura, Wadi shallah, Hobras and Umm Quis.

Leaders: Prof. Dr. Ahmad Al-Malabeh & Geol. Akram Abu Shanab

Price: € 100 Euro per person

V2: Geo-Eco Tourism (March 16, 2012)

Topics: Old Iron Mines (Saladin), Karst Cave (Bergish), Upper Cretaceous in north Jordan.

Route: Amman, Ajlun, Deer Abu Sa'ied

Leaders: Ahmad Al-Shriedeh.

Price: € 75 Euro per person.

V3: Dead Sea (March 16, 2012)

Topics: Jordan Graben, Dead Sea, Lisan, Saramuj Conglomerate.

Route: Amman, Dead Sea, Ghor Haditha, Ghor Safi.

Leaders: Prof. Dr. Eid Al-Tarazi

Price: € 100 Euro per person.



Proposed Field Trips & Tours



General Interest Tours:

1. Drive to Safawi, visit Qais Volcano and caves (Al Howa, Azzam Cave etc.) and Badia Cave on the way
2. Desert trip Jawa (Bronze Age City) and Al-Fahda Cave
3. Desert Trip Eastern Harrat Rim, K-Cave and Shield Volcano, Kites, Safaitic inscriptions
4. Pressure Ridge Caves and Al-Ahmed Cave and Return to Amman.



The Bronze-age city of Jawa

U.I.S. COMMISSION ON VOLCANIC CAVES



Proposed Field Trips & Tours



The Byzantine ruins of Umm Al-Jamal, called the ***Black Gem of the Desert***, built from basalt.

Post-Symposium Field Trip:

Basaltic Harrat (March 19-22, 2012)

Topics: Lava Caves, Basalt Plateau, Pressure Ridges, Aritayn Scoria Cones, Sirhan Graben.

Route: Amman, Za'atari, Umm El Jimal, Al Hamiddyia, Al Bishriyya, Azraq.

Leaders: Prof. Dr. Ahmad Al-Malabeh

Price: € 150 Euro per person.

U.I.S. COMMISSION ON VOLCANIC CAVES



Other General Interest Tours :

A1: Amman Through History

Topics: Palaeolithic, Roman, Byzantine, Islamic.

Leader: Travel Agency.

Price: € 25 Euro per person.

A2: Jadara

Topics: Old city of Umm Qais.

Leader: Travel Agency.

Price: € 50 Euro per person.

A3: Jarasa

Topics: Roman city of Jarash.

Leader: Travel Agency.

Price: € 50 Euro per person.

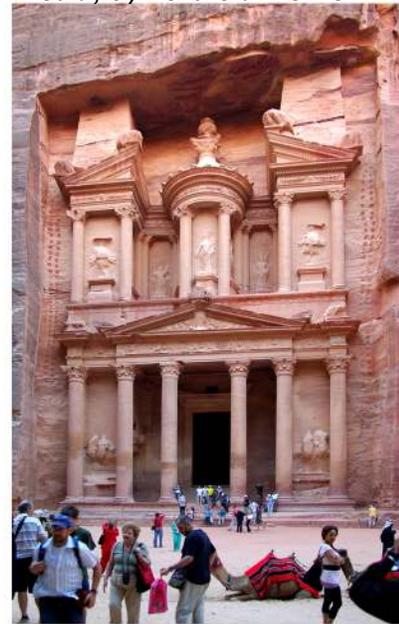
A4: Petra

Topics: Nabataean city of Petra.

Leader: Travel Agency.

Price: € 100 Euro per person (including entrance fees).

Petra, by Berthold Werner



Dates and Deadlines

SEPTEMBER 31, 2011: Submission of abstracts.

DECEMBER 1, 2011: Full manuscript.

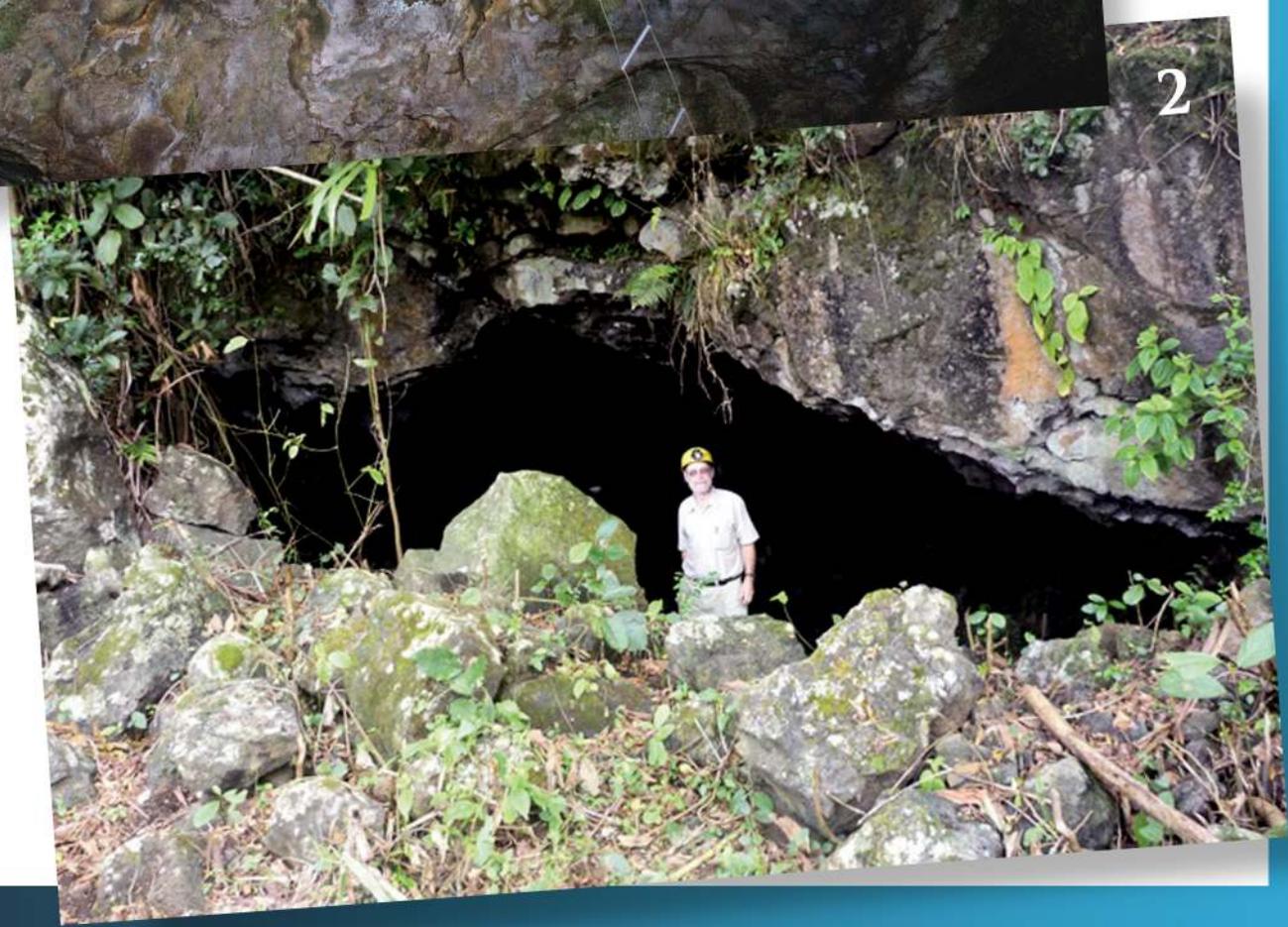
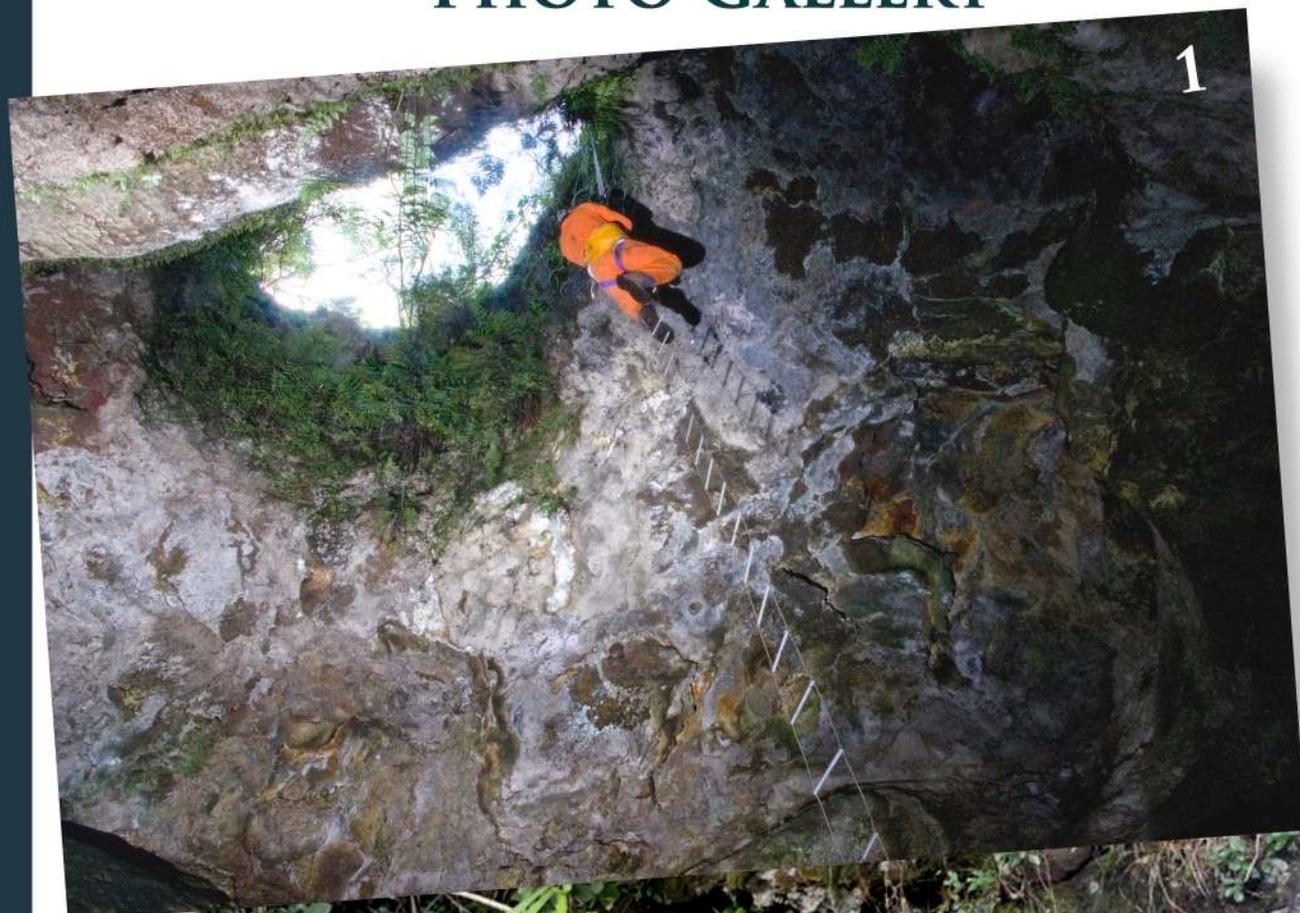
Registration Fees

The symposium fees (€ 300) include registration, a book of abstracts and participation in the scientific activities (€ 200 if paid before December, 31. 2011).



U.S. COMMISSION ON VOLCANIC CAVES

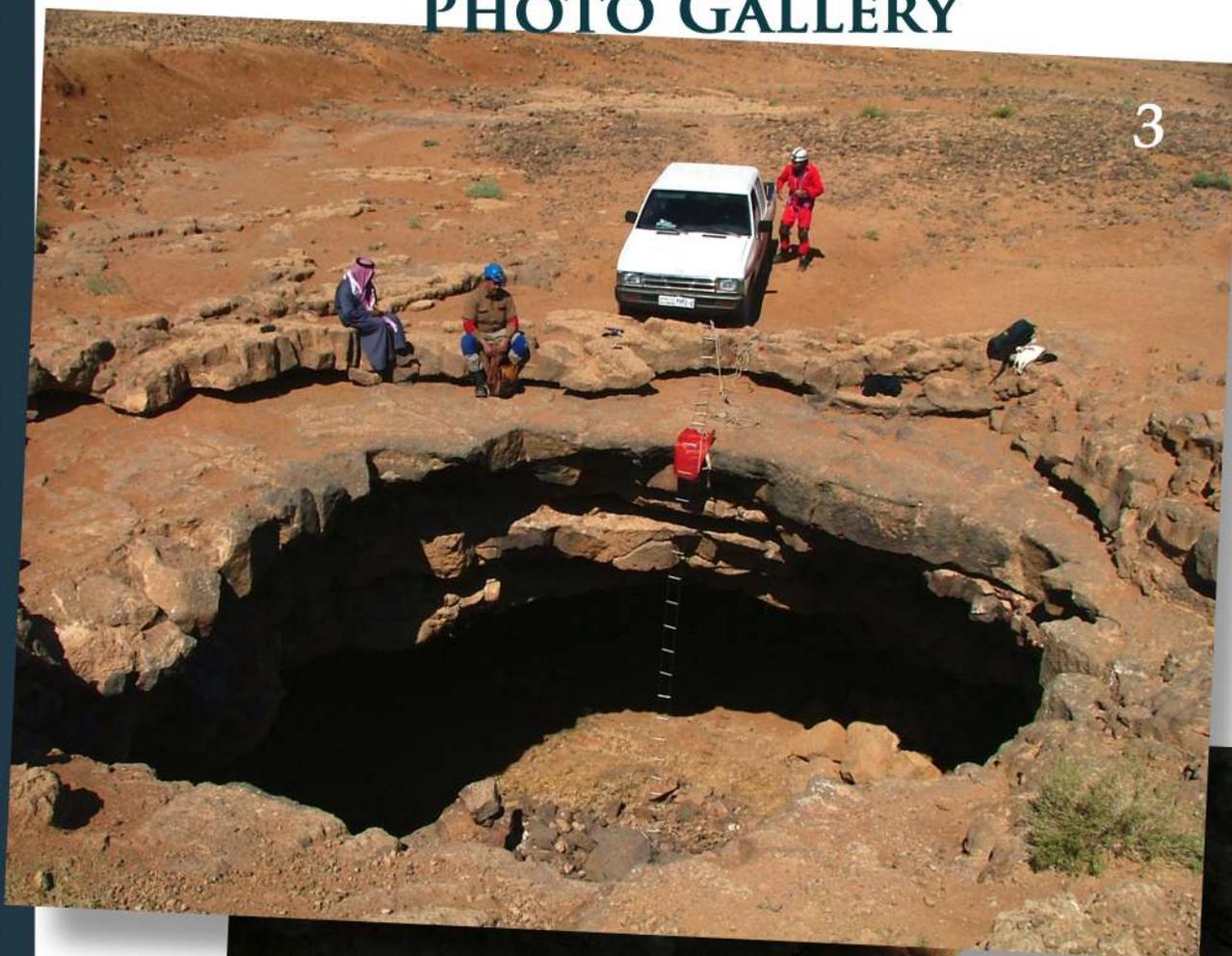
PHOTO GALLERY





U.I.S. COMMISSION ON VOLCANIC CAVES

PHOTO GALLERY

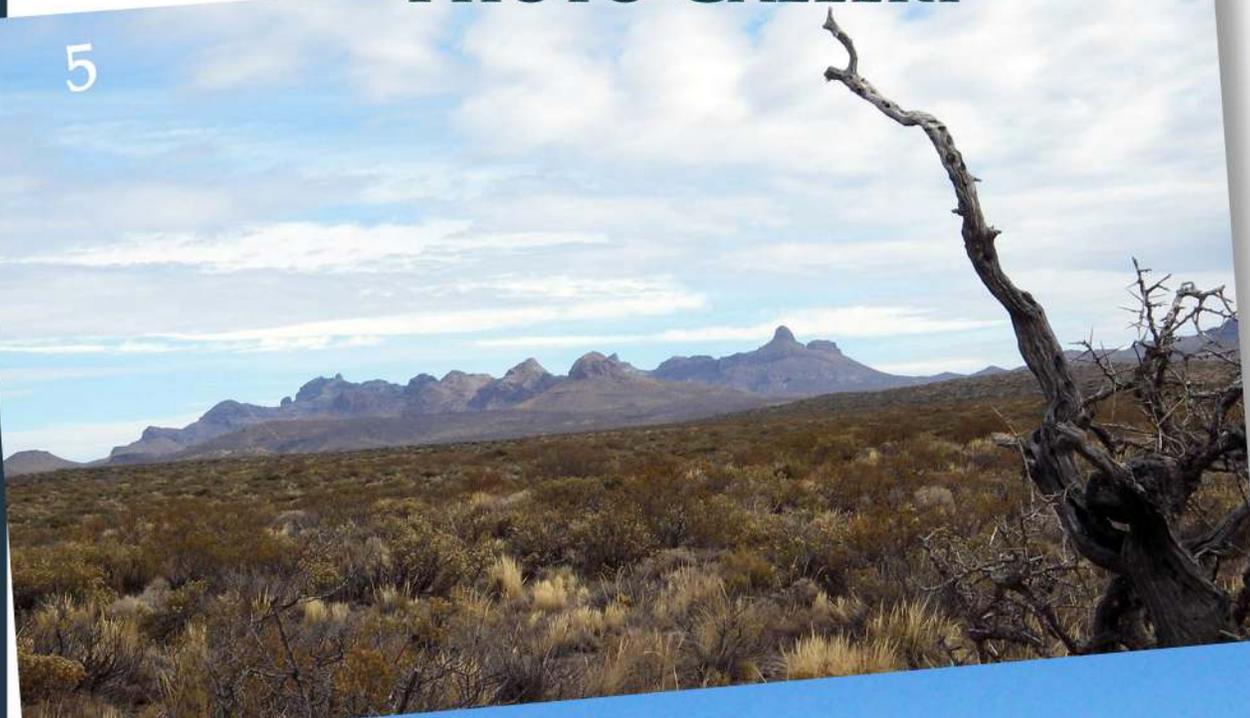




U.S. COMMISSION ON VOLCANIC CAVES

PHOTO GALLERY

5



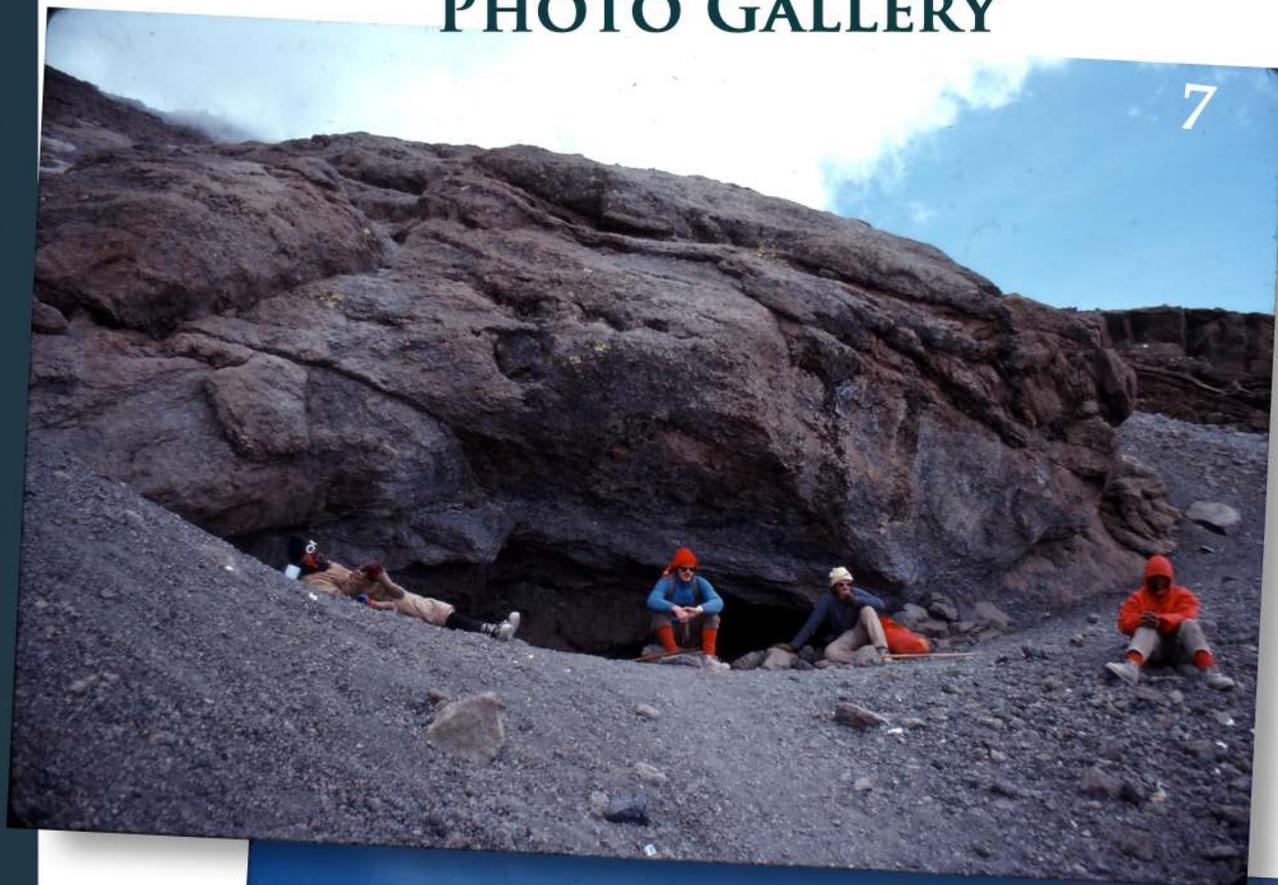
6





U.I.S. COMMISSION ON VOLCANIC CAVES

PHOTO GALLERY





U.I.S. COMMISSION ON VOLCANIC CAVES

PHOTOS ON PREVIOUS PAGES:

PHOTO 1: John Brush (Australia) climbs a 30-meter cable ladder out a volcanic vent called "The Shaft" on Mount Eccles, Western District Volcano Province, Victoria, Australia, August 8, 2010. Photo by Harry Marinakis (U.S.A.).

PHOTO 2: Greg Middleton (Australia) at the entrance to Camp Thorel Lava Cave, Mauritius, October 1, 2010.

PHOTO 3: The entrance to Entrance to Al-Badia Cave, Jordan. Photo by Dr. Stephan Kempe (Germany).

PHOTO 4: Tea time in Azzam Cave (sheep pen), Jordan. Photo by Dr. Stephan Kempe (Germany).

PHOTO 5: The volcanic Patagonian region of Malargüe, Mendoza, Argentina. Photo by Carlos Benedetto (Argentina).

PHOTO 6: The surface landscape near Doña Otilia lava cave, Argentina. Photo by Carlos Benedetto (Argentina).

PHOTO 7: Martin's climbing party in early morning light resting en route to the summit outside Hans Meyer cave at 5250m altitude. The cave is stated to be in a nepheline tephrite-basamite wall, and at that time (July 1975) regarded it as probably the highest known volcanic cave. Photo by Martin Mills (U.K.).

PHOTOS ON PREVIOUS PAGES:

PHOTO 8: Martin Mills (center, blue balaclava) on the summit of Mount Kilimanjaro July 17, 1975. Photo by Martin Mills (U.K.).

Love the old cagoules! - Editor

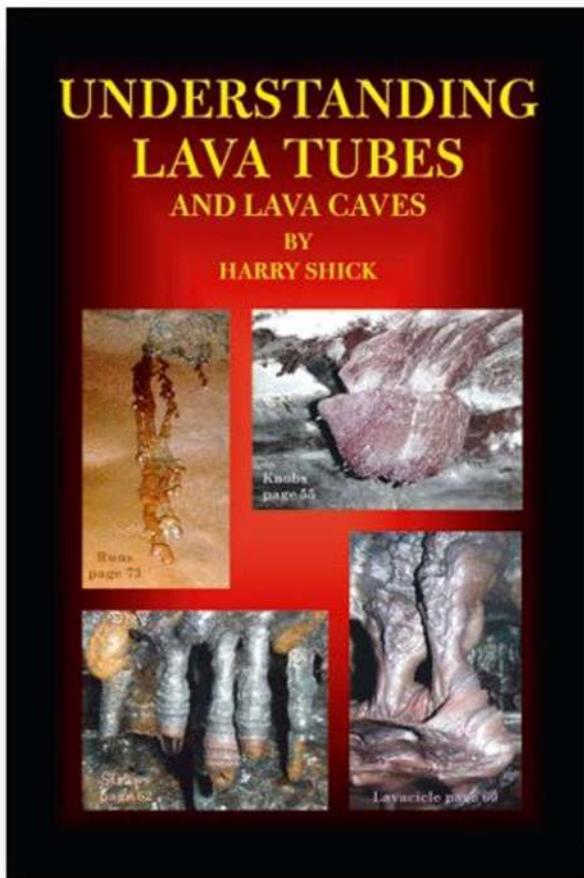
PHOTOS FOR THE NEXT NEWSLETTER

The photo gallery for the next newsletter will be dedicated to photos from the 14th symposium in Australia (August 2010). Greg Middleton (Australia) and Kenneth Ingham (USA) did a wonderful job of putting together a couple of compact discs with the proceedings from the symposium, as well as photos from the symposium.

If you did not submit photos for inclusion in the Australian proceedings, you can still your photos published right here in the next e-newsletter. Please send a couple of you best photos to the editorial staff, and we will try to include some of them in the next e-newsletter.

As always, we are looking for photos from previous symposia for the photo gallery. Please dig through your old files and send us some great pictures! I can also accept slides and prints, which I will carefully scan and return to you.

-Harry Marinakis, co-editor



Book Review

By Jan Paul van der Pas

Understanding Lava Tubes and Lava Caves

Author Harry Shick

2008

15x22x0.8 cm, 126 pages, weight 200 grams, soft cover

English language

Price around US \$15

ISBN 978-1-4251-8985-3

How does it look? What are the contents?

Well, there is the famous “Glossary” by Charles Larson, and this is not mentioned in the references. Then there’s the new book by Dave Bunnell, “Caves of Fire.” Harry’s book is something in-between.

The glossary goes from aa to volcanic conduit with short explanations. Pictures and figures on nearly every page, some in color. In his introduction, Harry mentions Dr. William R. Halliday and Professor Stephan Kempe.

The book is meant as an afterwards reading for interested cave tourists. It gives explanations, but also answers “questions.” The book is very much based on Kazumura Cave, where Harry is the guide.

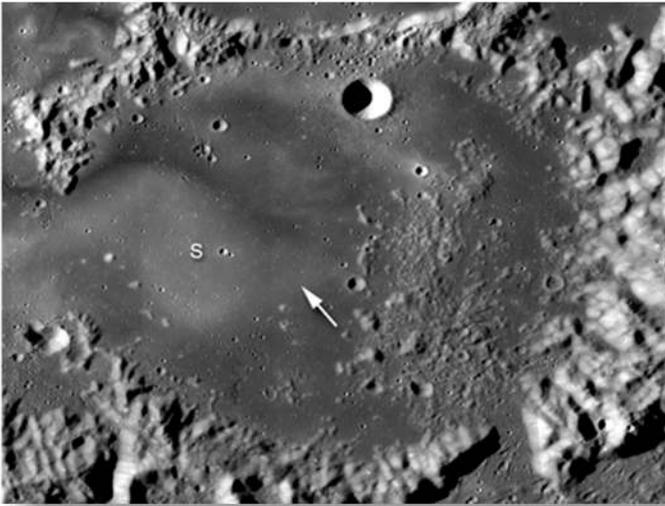
Since there is no “complete” book about volcanic caves this might be a publication which promotes this topic. Dave Bunnell’s book gives wonderful pictures, the glossary of Larson gives many explanations, and the final answer: the book edited by Chris Wood is still not available...

So if you are interested, this is an online publication:

www.trafford.com/08-1416

orders@trafford.com

U.S. COMMISSION ON VOLCANIC CAVES



LUNAR LAVA CAVE

A Japanese spacecraft (SELENE/Kaguya) discovered a lava cave pit in the Mare Ingenii (The Sea of Cleverness) region, one of the few lunar mare features on the far side of the Moon. This skylight is estimated to be about 130 meters (427 feet) in diameter.

Mare Ingenii may be best known for its prominent lunar swirls, which are high albedo surface features associated with magnetic anomalies. However, lunar swirls are not the only unique geologic feature found in the far side “sea of cleverness”.

The NASA spacecraft Lunar Reconnaissance Orbiter Camera took this detailed photo (lower right).

Partially-illuminated boulders and debris on the floor of the pit can be seen on the left side of the pit. (Illumination is from the upper right.)

UPPER LEFT PHOTO:

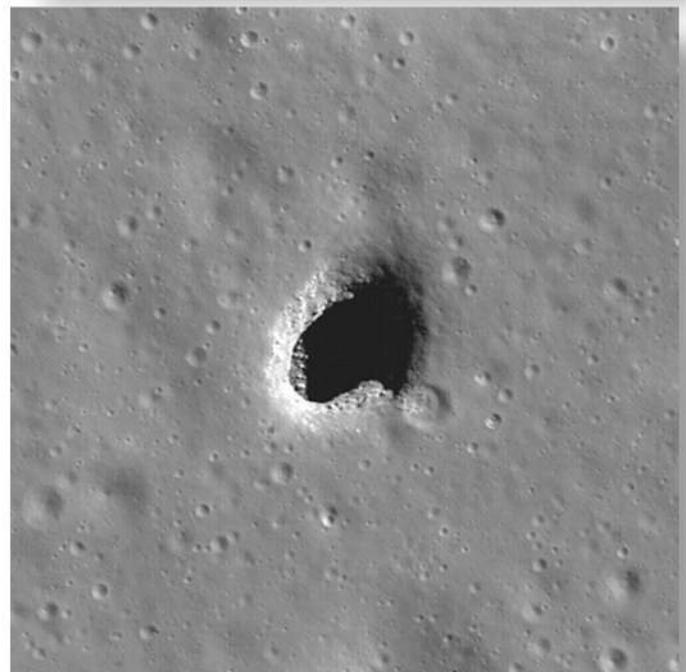
Arrow indicates location of pit in Mare Ingenii. “S” indicates one of the numerous lunar swirls located in this region. Image is a portion of LROC WAC mosaic, 200 meters per pixel resolution; image width is 160 km (100 miles).

Credit: NASA/Goddard/Arizona State University

LOWER RIGHT PHOTO:

This pit in Mare Ingenii, the ‘Sea of Cleverness,’ is about 130 meters (427 feet) in diameter!

LROC Frame: NAC M128202846LE.
Credit: NASA/Goddard/Arizona State University



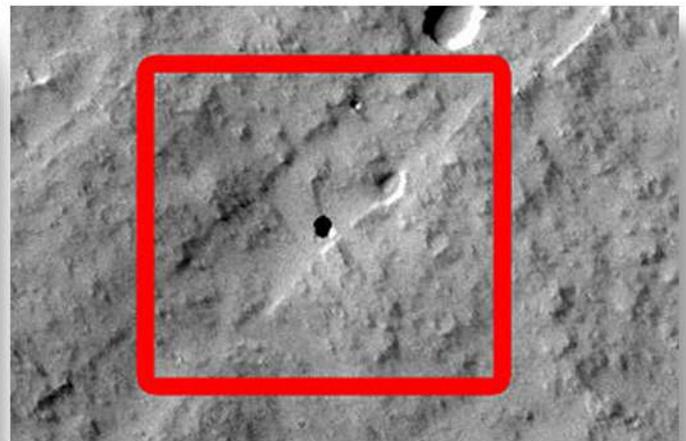
MARTIAN LAVA CAVE

Seventh-grade elementary school students in California discovered a lava cave skylight on Mars while they were examining images of Mars for a school project. The images that they were examining were taken with the Thermal Emission Imaging System (THEMIS), an instrument on NASA's Mars Odyssey orbiter. The students chose to study areas on Pavonis Mons volcano for a school project. The students were trying to answer the question, "Do lava tubes

occur most often near the summit of a volcano, on its flanks, or the plains surrounding it?"

There are two lava cave skylights associated with the Pavonis Mons volcano lava flows. This one is estimated to be approximately 190-by-160 meters (620 x 520 feet) wide and at least 115 meters (380 feet) deep.

This skylight is now a candidate for further imaging by the High Resolution Imaging Science Experiment (HiRISE) camera on NASA's Mars Reconnaissance Orbiter.



LEFT PHOTO:

A THEMIS image showing a Martian "lava tube" and the location of the skylight.

UPPER RIGHT PHOTO:

A close up photo of the Martian skylight.



U.S. COMMISSION ON VOLCANIC CAVES

This description of Dr. Theofilos (“Theo”) Toulkeridis was published in the book “Volcanic Caves.” He might host a symposium in the Galápagos Islands. He asks that you look online on YouTube and search on the words “Galápagos” and “hornitos.”

DR. THEOFILOS TOULKERIDIS

Dr. Theofilos Toulkeridis, Ph.D., is a full-time professor at the University of San Francisco at Quito (USFQ), where he has been teaching in the Polytechnical Unit since 1999. In addition, Dr. Toulkeridis is the director of the Center of Geology, Volcanology and Geodynamics since its foundation in 2002.

Dr. Toulkeridis is a Greek citizen but earned both a Bachelor of Science and Master of Science degrees in Geology and Paleontology, with a specialty focus in Isotope Geochemistry from the University of Mainz and the Max Planck Institute of Chemistry (Geochemistry Division) in Mainz, Germany. His doctoral degree in Geology and Isotope Geochemistry was completed in 1996, with the same institutions and in collaboration with the Centre for Surface Geochemistry at the French National Centre for Scientific Research. (CNRS) in Strasbourg, France. He graduated “summa cum laude,” the highest available grade.

Afterwards, Dr. Toulkeridis did post-doctoral research for three years, in both France and Germany.

Dr. Toulkeridis is the author or co-author of more than 25 peer-reviewed publications in international journals and has had more than 80 contributions in scientific congresses. He has been featured in a multitude of public seminars, interviews and talks on the radio, in newspapers and on both national and international television on weekly to monthly basis. Dr. Toulkeridis is the coordinator of numerous international cooperations and has conducted research in several continents. His research in Ecuador is mainly focused upon volcanoes in the Subandean basin, the volcanic Cordilleras of the “Sierra” and the Galápagos Islands. His research at the Ecuadorian coast is focused on field instabilities, geological hazards and structural geology.

Dr. Toulkeridis is an international consultant and expert in natural disaster management. His focus is the detection and minimizing the effect from geological hazards. However, “Theo,” as everybody knows him, is a dedicated teacher in the classroom. in the laboratory and in the field. Hereby, he conducted, since 1999 up to date, more than 200 field trips at the Ecuadorian mainland and the Galápagos.



U.S. COMMISSION ON VOLCANIC CAVES

PUBLICATIONS RECEIVED BY THE COMMISSION

NEWSLETTER OF THE HAWAI'I
SPELEOLOGICAL SURVEY
(FALL 2010, NUMBER 28).

Forty pages of information, all from Hawai'i. Bob Richards is doing a fantastic job as editor. The number of new caves found is staggering, as is the number that have been found by Doug Medville. Dozens of pictures and maps of new caves.

bob@cavegraphics.com

NEWSLETTER OF THE COMMISSION
ON PSEUDOKARST
(DECEMBER 2010, NUMBER 21)

Eighteen pages, bilingual (English and German). Includes reports about meetings and symposia to come. These symposia include:

Second International Conference on Granite Caves, Sweden (June 1-4, 2010 plus a post-congress trip)

Twelfth International Symposium on Pseudokarst (Tui, Galizia, Spain, September 10-14, 2012).

More information is available on the website of the UIS Commission on Pseudokarst:

www.pseudokarst.de.vu

(new website address)

LINEAR AND ARCUATE CAVERNOUS LANDFORMS OF MARS AND EARTH AS HABITATION SITES AND REFUGIA: SOME OPPORTUNITIES AND CONSTRAINTS

HALLIDAY, William R., WYNNE, J. Judson,
PINT, John J., and OKUBO, Chris H.

We concur that outburst channels downslope from a controversial crevice cave on Ascræus Mons were eroded by lava, not water and we present photodocumentation of presumably similar lava flowing actively on Kilauea Volcano, Hawaii, USA. We conclude that exploration, study and habitation of spacious, accessible caves on Mars remain viable, even though NASA space suit developers suggest that subsurface astronaut activities are not feasible because the risk to human life outweighs the potential benefits of such investigations. We exclude volcanic crevice caves and most lava tube caves from further consideration but urge special attention to crevice caves in stratified rock, hollow volcanic tumuli, dissolution caves in beds of salt, piping (suffosion) caves in poorly consolidated clastics, glacier caves, littoral caves in ancient shorelines and cavernous spaces beneath displaced monoliths.

Colorado Convention Center: Room
710/712

1:30 PM-5:30 PM, Wednesday, 3
November 2010

Geological Society of America *Abstracts
with Programs*, Vol. 42, No. 5, p. 644

MINERAL REPORT MOUNT EGON CAVE, KENYA

Dr. William R. Halliday collected a mineral during a field trip to Mount Egon Cave, Kenya. The cave was not a lava tube. The specimen was sent to Dr. Onac Bogdan for analysis. Here is Dr. Bogdan's report:

"The mineral is calcite having the following cell parameters: $a=4.99 \text{ \AA}$, $c=17.07 \text{ \AA}$, just a bit different from a classic calcite value for which c -parameter is 17.06 \AA (this small difference is caused by Fe enrichment, which is also most probably the reason for the dark color of your calcite sample.

"In addition to calcite I found micro-crystals of magnetite ($a=8.34 \text{ \AA}$), which like calcite has a different cell parameter than the classic magnetite ($a=8.40 \text{ \AA}$) due to substitution of Fe by manganese or titanium.

"I am sorry if you were expecting more special minerals and I came up with only these two. However, magnetite is not a common cave mineral but obviously an easy to explain presence in lava tubes."

ANNOUNCEMENTS

Martin & Kirsty Mills announce that they have two issues of the out-of-print Icelandic publication *Surtur* that are available free to a good home (for the cost of postage):

Surtur, volume 5, 1994

43 pages

Used and slightly crinkled from condensation?

In Icelandic throughout.

Appears to cover a cave in Hnappinns, Klakahellir, an Icelandic cave registry?

Visits to Surshellir and Vidgelmir, Kristjansdolum, cave surveying,

SRT, Annual Report and membership list

Surtur, volume 7, 1999

probably the last, fine condition, 62 pages of glorious colour photographs with both Icelandic and English titles.

U.S. COMMISSION ON VOLCANIC CAVES

SPELEO CALENDAR

2012



XV International Symposium on
Vulcanospeleology
Amman, Jordan
March 15-22, 2012
www.vulcanospeleology.org
www.jo-geologists.com



Argentine Congress of Speleology
IV & First Latin American
Congress of Speleology
Malague, Mendoza - Argentina
April 1-8, 2012
<http://www.fade.org.ar/>

Volcanology Meeting
Mexico
Dates and location to be
determined

SPELEO CALENDAR

2013

16th INTERNATIONAL CONGRESS OF SPELEOLOGY



WHERE HISTORY MEETS FUTURE

16th International Congress of
Speleology
Brno, Czech Republic
July 21-28, 2013
<http://www.speleo2013.com>

U.I.S. COMMISSION ON VOLCANIC CAVES

1972 U.S.A.

1975 CATANIA

1982 U.S.A.

1983 CATANIA

1986 JAPAN

1991 U.S.A.

1994 CANARY IS.

1998 KENYA

1999 CATANIA

2002 ICELAND

2004 AZORES

2006 MEXICO

2008 KOREA

2010 AUSTRALIA

2012 JORDAN



VULCANOSPELEOLOGY SYMPOSIA

