

International Union of Speleology

Union Internationale de Spéléologie

Commission on Volcanic Caves

New(s)letter



53

Sept/Oct. 2008

This Newsletter is send free to members of the Commission, and others who are interested in lava-tube-caves. It is not possible to subscribe – but news and information are always (very much) appreciated!

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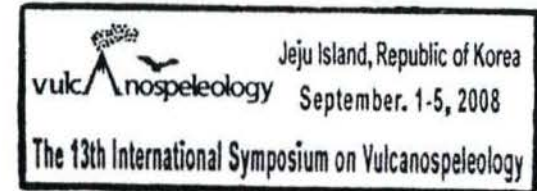
Contributor for 'Speleological Abstracts' (BBS – Commission of Bibliography – U.I.S.):
Greg MIDDLETON – Tasmania

The logo of the commission is a design by Conny SPELBRINK, introduced for the symposium on the Canary Islands (1994). She gave the approval to use this for the commission.

During the Korea 2008 Symposium many pictures, reports, articles and interviews appeared in the papers. Here some of the participants.

광역경제권 사업 '실속 없다'

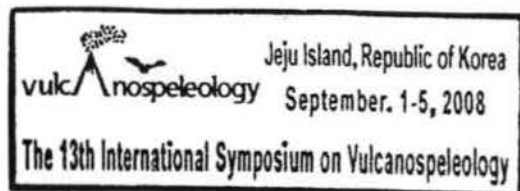
정부 내주 확정 제주 '해군기지 크루즈항' 유력시



kimjb@jejunews.com



제13회 국제화산동굴심포지엄이 1일 제주 선샤인호텔에서 막 오른 가운데 행사에 참석한 용암동굴 전문가들이 주제 발표 내용을 관심있는 표정으로 청취하고 있다. <고기철 기자>haru@jejunews.com



The 13th International Symposium on Vulcanospeleology

This symposium was held on Jeju Island, Korea – 1 to 5 September, and longer for the participants of the post-symposium field-trips.

It was a very, very well organized symposium. The main organizers, Prof. Son and Dr. Woo (who did most of the hard work) had an excellent staff of capable and helpful persons. All this staff was dressed in bright orange shirts, which was very helpful during fieldtrips as participants wandered off too far.

Lectures, as always very diverse.

The amount of participants was staggering, certainly also by the U.I.S. bureau meeting held during this symposium. There were over 50 foreign participants from over 20 countries – the only continent missing was Africa.

Also missing were two persons: Bill Halliday, the founder of the commission and initiator of the first symposium on vulcanospeleology, and John Pint. John was supposed to participate and his stories and lecture of Saudi Arabia were dearly missed.

About lectures – so many areas, so many topics. Here some of my favorites or which attracted attention:

Several lectures about the Azores Islands – update of the current state of research, and promotion of the WoMOVoc project. See article/page in this newsletter.

Árni Stefánsson had several lectures about Iceland – exploration of coastal caves by canoe, preparations of touristic possibilities of a hollow volcanic cone, but also about the catastrophic state of most Icelandic caves due to lack of protection - this combined with comprehensive publication of locations of even the most fragile ones.

Liza King had a fascinating lecture about 'Low Impact Visitation' by tourists in a few Hawaiian caves.

Several lectures made it clear there are still many areas with volcanic caves to be found. Paolo Forti showed this by his report of caves on Rapa Nui, Chile, and Stephan Kempe for Jordan. Tim Francis mentioned Payunia, Argentina, and not presented but announced Umm Jirsan, Arabia's longest longest lava-tube system by John Pint.



Of course, certainly my main reason to go to Jeju was to see the wonderful lava tubes. During the many field trips we saw e.g. Manjanggal Cave, Wahul-, Suzan-, Handeul- and Sochon Caves. And then the wonderful Yongchendonggul Tube. Fascinating to see all this limestone formations in a lava tube. Surface (volcanic) features were certainly not forgotten: tuff cone's, tuff rings, a trachite dome. Some artificial caves (bunkers) from the 2nd world-war, shrines, and geological parks and musea were also included. And also not to be forgotten: marvellous lunches and dinners. Many "thank you's" to all who made this symposium such a success!!

During the meeting of the Commission on Volcanic Caves the next symposium was announced:

Australia – August 2010 (Undara & Victoria)

Jan-Paul van der PAS (NL)

During the symposium two publications were given to the participants:

Proceedings of the 13th International Symposium on Vulcanospeleology
These are actually the abstracts of some 36 lectures. However some are so extensive it must be the complete lectures.
Size 19 x 26 cm, 115 pages, 280 grams. In English, no ISBN number.
Issued Sept. 2008 during the symposium.

Field Guide of the 13th International Symposium on Vulcanospeleology
This publication of 59 pages – 300 grams, size as above, gives all details of the field trips.
Here are listed most of the geological area's of Jeju, and virtually all this volcanic features and caves are extensively depicted and described.

Obtainability of this publications is unclear. A Proceedings publication would be considered if at least 20 participants supplied their lecture At the moment - Nov. '08 - this was NOT the case (response by Dr. Woo).
Current suggestion to those who like to have their lecture recorded is to forward it to the I.J.S. (International Journal of Speleology).

Commission Meeting Sept. 2008 - JEJU

The Commission Meeting during 'Jeju - Korea' - 2008

J.P. van der Pas - Chairman Commission

At the end of the symposium we had the commission meeting.

I think we had (quick look-around) more countries represented than ever before: Israel, Belgium, Australia, Azores, U.S.A., France, Bermuda, Switzerland, Iceland, Germany, U.K., Brazil, Korea (of course), Libanon, Hawaii (= U.S.A.).

- It was regretted John Pint could/did not attend the symposium. His lecture was missed, but unanimous all participants were impressed by his work for the commission website and sorry for not meeting him (and Suzy) in person.

Due to the program of the symposium several items were forwarded to/included in our meeting:

- the WoMOVoc project by the Azores was discussed (see more in the newsletter on this project), or at:

< www.worldvolcaniccaves.org >

- a new book ('the book?') was announced by Chris Wood (U.K.), Lava Tubes and Lava Tube Caves.

- as done before by Greg Middleton now Harry Marinakis will do a CD-rom with the 'best pictures', made by participants.

- most important item: **next symposium!** We got a proposal and wonderful pictures of Australia by Greg Middleton. Of course accepted - however, Greg prepares us it will be expensive: it will include Undara and Victoria - far away from each other (2500 km) - (probably August) 2010.

- than an even more difficult item... any volunteer for the 2012 event? And yes, indeed, Stephan Kempe has an idea: Jordan. He knows some person there, and there are possibilities. Now it gets interesting: Fadi Nader/U.I.S. is planning a 'Near East' symposium in the future and suggest maybe to combine these two events? Sounds very good.

Remarkable during this Symposium was the attendance of the U.I.S. Bureau, which of course raised the number of participants, and also highlighted the importance of this symposium. The Commission was praised for the work it does, and it was mentioned how important the commissions are for U.I.S.

Activity Report "Commission on Volcanic Caves"

March 2006 - August 2008

- XII Symposium in July 2006, Mexico a great success. Proceedings finished and issued May/June 2008.
- XIII Symposium Jeju/Korea 2008 now taking place. Jeju Caves now on World Heritage List.
- Newsletters #48-52 published (around 90 pages).
- A web-site established for the Commission by John Pint, < www.vulcanospeleology.org >
- Proceedings of Mexico 2006 contain also the proceedings of the Xth Symposium in Iceland and XIth Symposium on the Azores.
- A huge book was issued by Björn Hróarsson (Iceland 2006) with some 1000 pictures, over 600 pages, and listing 'all' caves of Iceland. With GPS locations. A fascinating work (weight 5,5 kilogram), but controversial for giving locations of sensitive caves.

Many activities of Commission members:

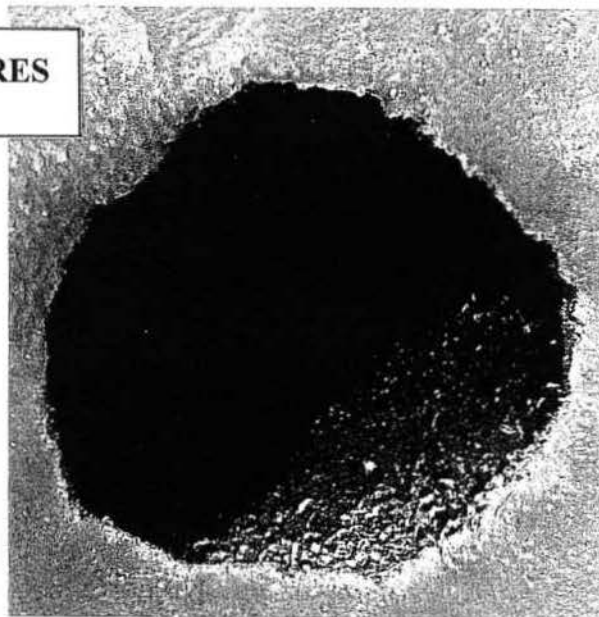
- Work in Kenya to map/remap lava caves for touristic purposes (C. Wood et al)
- Investigations several locations in Iceland (Waters, Wood et al)
- Jordan - finding longest lava cave (Kempe et al)
- Saudi Arabia - finding longest lava tube (John Pint et al)
- Rwanda - finding longest lava tube (Laumanns et al)
- and numerous ongoing projects



Jan-Paul van der PAS
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Chairman Commission
20 August 2008

CAVE-LIKE STRUCTURES ON MARS

Bill Halliday forwarded a lecture for the Korea-symposium. Regrettably the abstract never reached the abstracts-book. Here two (!) abstracts of this lecture. During the symposium a CD-rom with the accompanying pictures was shown.



We propose the cave-like structures recently identified on Mars are actually pit craters, rather than "cave skylights" as they were initially described. Our conclusions are drawn by comparing the structural characteristics of Earth-analogue pit craters to the Arsia Mons features. On Earth, differentiating lava tube skylights from pit craters in the 100-250 m width range using remote sensing imagery is often easy and accurate. Several relevant factors include width, depth, shape and multiplicity. The widest recorded terrestrial lava tube cave has a passage width of about 50 m and most are much narrower; confluent collapse of adjacent passages theoretically might reach widths of 100 m but such confluent sinks lack the circularity of pit craters. Further, whereas all documented terrestrial pit craters in the 100-250 m range are shaft features more than 30 m in depth, the deepest known terrestrial lava tube cave is less than 30 m deep and their skylights and other associated collapse features are even shallower. Pit craters rarely occur in closely spaced groups, and each pit crater in such groups maintains its characteristic near-circular shape from a nadir-viewing perspective, and retains a shaft-like interior structure. In contrast, skylights commonly occur together with other, readily identifiable types of lava tube collapse features (e.g., irregularly shaped orifices, orifices elongated in the direction of flow, multiple orifices outlining complex patterns of braided lava tubes, and trench segments). Like terrestrial pit craters, the cave-like features on Arsia Mons, Mars (a) are spread out across the northern flank of this shield volcano, (b) are circular in nature, and (c) appear to be deep shafts based on the results of photogrammetry routines. While the Arsia Mons features are clearly the most compelling evidence for cave-like structures on the Red Planet, we conclude these features are pit craters and likely do not afford access to subterranean Mars.

The Cave Detection Program of NASA; An Historical and Photographic Account

William R. Halliday

IUS Commission on Volcanic Caves
6530 Cornwall Court, Nashville, TN 37205

Abstract

NASA's Cave Detection Program is broadly of interest to Vulcanospeleologists. Recently, an Earth-Mars Cave Detection Program team including bio-speleologist J. Judson("Jut") Wynne(NSS#55124) was awarded three years' funding from NASA's Exobiology Program. Other speleologists whose names have been included as co-authors of at least one paper from this group are Russ Harter (expert on Mojave Desert lava tube caves), Penny Boston (expert on cave microbiology). To date, Wynne has presented several papers on behalf of his group, including one at the 2006 NSS Convention in Bellingham, WA and two at the 2007 Convention (Marengo, Indiana). Immediately after his 2006 paper, Doug Medville, Don Coons and I established contact with him. We found him warmly interested in increasing his team's familiarity with lava tube caves, pit craters and other volcanic caves. This proved especially useful in and after May 2007. Then, seven punched-out black holes were found by THEMIS photography on Mars' Arsia Mons volcano. The team's September 2007 report(in Geophysical Research Letters) was entitled "Themis observes possible skylights on Mars". But its text considered not only skylights of lava tube caves, but also pit craters and orifices of deep cavernous "subterranean faults".

Lo

the "WoMOVoc" project

Introduced during the Azores-symposium (2004), repeated during the Mexico-symposium (2006) and finally claimed as working ('on the air') during the Korea-symposium 2008, now WoMOVoc gets rolling.

WoMOVoc is going to be a data base of the World's Most Outstanding Volcanic Caves.

The idea is to establish a list of the most important volcanic caves. For all suggested criteria see please <http://www.worldvolcaniccaves.org/pages/aboutus/>

This project was discussed in Korea during the commission meeting. A remark was made about the name. Will this be familiar by speleological/geological interested persons? However, no one had a better name.

A committee was established for judging new proposals: Prof. Paolo Forti (Italy), Dr. Chris Wood (U.K.), Prof. Stephan Kempe (Germany), Prof. Oromi (Tenerifa) and J.P. van der Pas. Chris Wood already suggested in this commission should be an archaeologist and a place for conservation.

So, please look to this site, give your opinion, and for further information just ask:

João Paulo Constância,
jpconstantia@worldvolcaniccaves.org

Just some first remarks:

- cave should be longer than 3000 meter. But there might be a very important caves much shorter
 - all proposals should be in English. But there might be some reports in Russian or Chinese (all U.I.S. members)
 - giving locations is requested. But maybe it is worthwhile to look at the lectures of Arni Stefánsson about protection of caves. Giving locations of this 'most' important caves will attract (too) many curious visitors
 - maybe Arni should be asked as adviser for this field.
- JAN PAUL*

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Remark by Dr. W.R. Halliday (U.S.A.)

During the Korea 2008 symposium in Korea Mrs Lisa King gave a lecture mentioning a Hawaii cave which was named "Nāhuka". Bill claims this name is confusing. Here a letter from Bill to explain/ask about the proper name of this cave.

6530 Cornwall Court
Nashville, TN 37205

27 September 2008

Chairman, US Board on Geographic Names
US Geological Survey National Center
Sunrise Valley Road
Reston, VA 20192

Dear Sir:

The enclosed photocopy is from the Proceedings of the 13th International Symposium on Vulcanospeleology, Jeju Island, Korea, 1-5 September 2008. You will note the use of the Hawaiian word "Nahuku" (meaning The Hangings) in place of the name Thurston Lava Tube, Hawaii Volcanoes National Park, Hawaii.

With support from the Cultural Anthropologist at that national park, members of the Hawaiian Sovereignty movement of the Native Hawaiian community have been covertly seeking to rename this cave "Nahuku" for several years. Ever since its discovery, almost a century ago, a very large scientific literature, and an even larger popular literature has used the name "Thurston Lava Tube" for this cave. It is well documented that the original Hawaiian name for the cave was "Ke Ana Kakina", not "Nahuku". Published use of "Nahuku" is very confusing to the vast majority of readers.

The Commission on Volcanic Caves of the International Union of Speleology has received no notice of any impending consideration of changing the name of Thurston Lava Tube to "Nahuku". Please advise if your Board is considering or has approved such a change of the name of Thurston Lava Tube to "Nahuku".

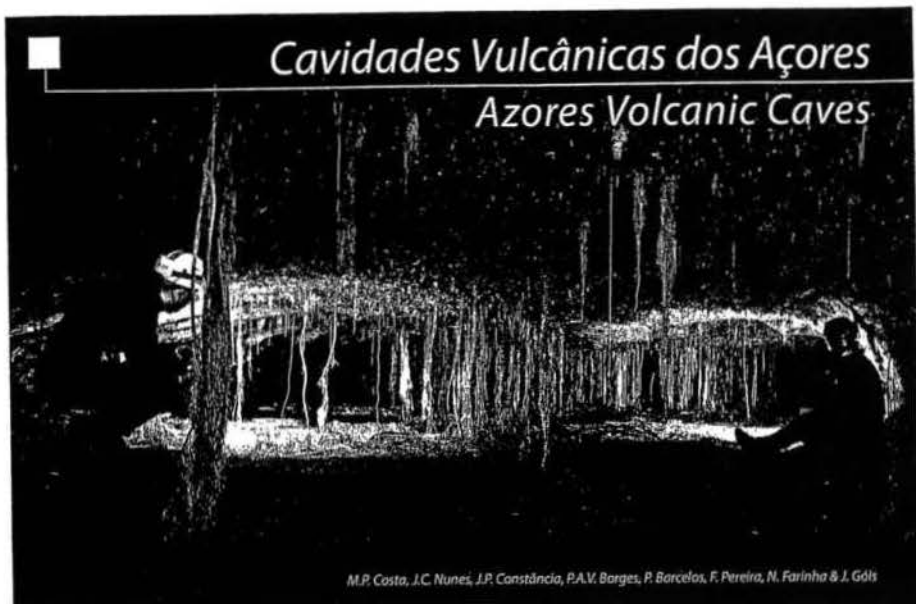
Thank you in advance.

William R. Halliday

William R. Halliday
Honorary President,
Commission on Volcanic Caves of the International Union of Speleology

Cc: IUS Commission on Volcanic Caves (JPG and KSW)

New Publication



Cavidades Vulcânicas dos Açores

Azores Volcanic Caves

by: Costa, Nunes, Constância, Borges, Pereira, Barcelos,
Farinha & Góis

A small but highly informatic booklet about the volcanic caves on the Azores. Size 24x 17 cm, 48 pp, 66 color pictures. Weight 200 gram.

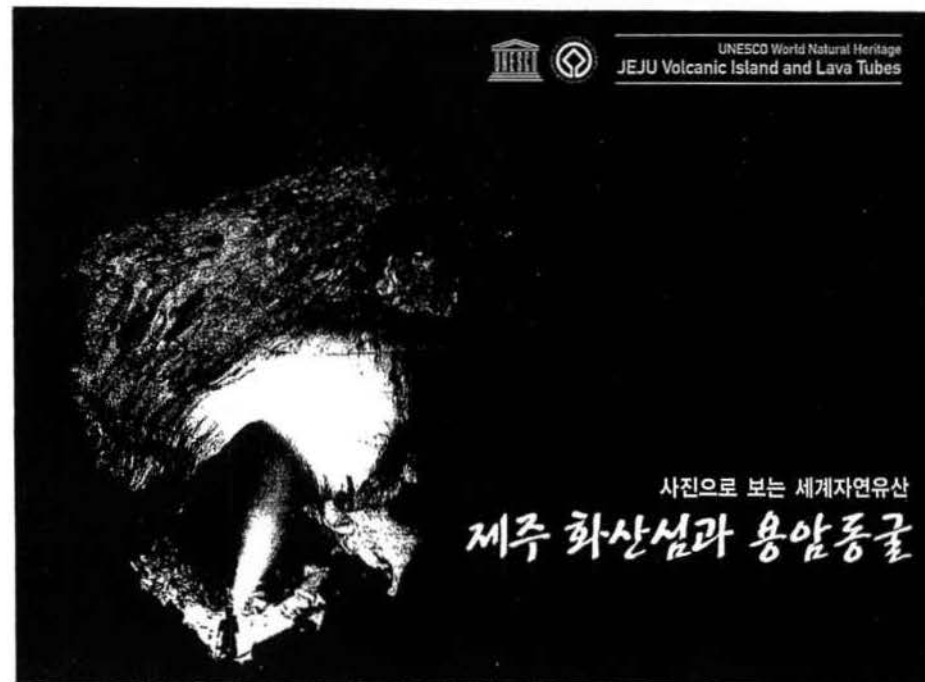
In English and Portuguese. Introduction about origin of volcanic caves and cavities. Amount issued 10.000, on April 2008.

Locations of all caves on the different islands (not GPS).

ISBN 978-989-95432-2-5

Info via www.speleoazores.com
gespea@speleoazores.com

New Publication



UNESCO World Natural Heritage

Jeju Volcanic Island and Lava Tubes

A monumental book, some 220 pages, each page several color pictures.
Size 22x26 cm, 1½ cm thick, weight 1 kg (2.2 lbs).

Date of issue August 2007. Introduction in Korean, pictures also text in English.

Page 9 – 56 Mount Hallasan Volcano

57 – 78 Seongsan Ilchulbong Tuff Cone

79 – 128 Geomunoreum Lava Tube System – Bengdwigul Lava Tube

Manjanggul Lava Tube

Gimnyeonggul Lava Tube

Yongcheondonggul Lava Tube

Dangcheomuldonggul Lava Tube

From page 132 pictures from World Heritage Sites all over the world (some caves and volcanic landscapes)

ISBN : 978-89-89079-05-7

<http://www.hallailbo.co.kr>

New Book

すねぐろの

洞穴のはなし

鹿島愛彦

Naruhiko Kashima

The title of this publication will not be familiar to many of this Newsletter.

But ... not being able to read this, does not mean it is unimportant.

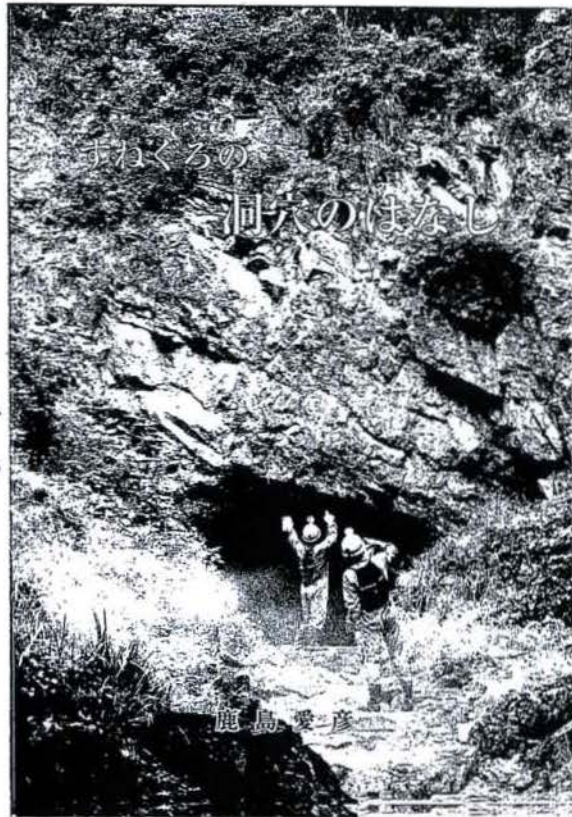
Title and writer all in Japanese: (Caves of the world by Naruhiko KASHIMA).

A book of 15x21 cm, weight 400 gm, issued 29-3-2008. 185 pages and more than 250 color pictures.

Describes caves of all over the world, but clearly dedicated to volcanic caves and volcanic areas.

No ISBN number, but maybe info via nkaseegl@viola.ocn.ne.jp

(some of the pictures have an english text)



광역경제권 사업 '실속 없다'

정부 내주 확정 제주 '해군기지 크루즈항' 유력시

During the Korea 2008 Symposium many pictures, reports, articles and interviews appeared in the papers. Here the opinion of the chairman of this commission (please note the for him very unusual dress).

"제주 화산지형 독특하고 종류 다양"

동굴심포지엄 참가 장폴 회장 "자연유산에 꾸준한 관심 필요"

"세계자연유산으로 등재된 제주의 자연을 직접 볼 수 있게 돼 무척 흥분됩니다."

1일부터 열흘간 개최되는 제13회 국제용암동굴심포지엄에 참여하기 위해 제주를 찾은 장폴 반데르파스 국제동굴연맹 화산동굴위원회 회장(사진·72)은 제주에 온 소감을 묻는 질문에 이렇게 입을 열었다.

하얗게 세버린 머리와 얼굴의 주름살이 그의 나이를 가늠케 했지만 들뜬 목소리와 호기심 가득한 표정은 그의 설레는 마음을 짐작하기에 충분했다

장폴 회장은 이어 "사진으로만 봤던 제주 세계자연유산 지구는 아름다움 그 자체였



다"며 제주 용암동굴에 대한 칭찬을 아끼지 않았다.

장폴 회장은 이와 함께 "제주도의 화산 지형은 아이슬란드나 여타 지역에 비해 모양이 독특하고 종류가 다양하다

는 데 그 가치가 있다"며 "제주의 자연을 전 세계인들에게 소개 할 수 있게 돼 오히려 영광"이라고 덧붙였다.

장폴 회장은 세계자연유산의 활용 방안과 관련해서는 "세계자연유산의 활용과 보존을 위해서는 무엇보다 지역민들의 꾸준한 관심이 있어야 한다"며 "이번 심포지엄을 계기로 전세계인의 사랑을 받을 수 있게 되기를 바란다"고 강조했다.

그러나 장폴 회장은 "규모가 작은 동굴은 지도에 기입되지 않거나 홍보가 미흡한 경우가 더러 있는 것 같다"며 이에 대한 개선을 주문하기도 했다. <조정현 기자>

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