

UIS-BULLETIN

Union Internationale de Spéléologie

2001

Volume 47

Number 1

Editor-in-Chief: Pavel Bosák

EDITED IN MAY 2001 * EDITÉ EN MAI 2001 * AUSGEGEBEN IM MAI 2000

**The 13th International Congress of Speleology
in Brasilia D.F., Brazil, July 15-22, 2001**

SPELEOBRAZIL 2001



SPELEOLOGY IN THE THIRD MILLENIUM: SUSTAINABLE DEVELOPMENT OF KARST ENVIRONMENTS

Promoted by: **Brazilian Speleological Society (SBE)**
Speleological Federation of Latin America and the Caribbean (FEALC)
International Union of Speleology (UIS)

Organized by the **Brazilian Speleological Society**
Supported by the **Ministry of the Environment/IBAMA/CECAV**

Pre-Congress Excursions: July 14-21, 2001
MAIN EVENT: July 15-22, 2001
Post-Congress Excursions: July 23-August 8, 2001

Symposia: XVth International Symposium of Biospeleology; IInd International Symposium of Archaeology and Paleontology in Caves; Ist International Symposium of Cave Diving; Lectures and Round Tables; Papers and Posters
Institutional Activities: Assemblies (UIS/FEALC/SBE)
Socio-cultural Activities: Exhibits, Speleomedia, Speleoart, 1-day trips

Pre- and Post-Congress Trips in Brazil

1. Touristic Management of Southern Brazilian Caves:	8 days	USD 600*
3. Show Caves and Historic Cities of Minas Gerais:	5 days	USD 350*
4. National Park of the Serra da Capivara:	7 days	USD 400*
5. Speleology and Archaeology in the Valley of the Peruaçu River:	6 days	USD 600*
8. Caves of São Domingos:	6 days	USD 500*
9. Caves and Karst of the Chapada Diamantina:	8 days	USD 600*
13. Caves in the Ribeira River Valley:	7 days	USD 380*

Post-Congress Trips to Other Countries

14. Caves and Pyramids in Central Mexico:	5 days	USD 700*
16. Mayan Caves and Culture on the Yucatan Peninsula:	7 days	USD 700*

*Terrestrial part only, air tickets must be arranged by participants

The price for the pre- and post-congress excursions **includes breakfast, lunch, and dinner.**

Congress Fees

The table below gives the **deadlines for payment of registration:**

Registration fees (US\$)				
Date	Complete	SBE Member	Partial*	Accompanying Person
March 01 until July 22, 2001	220	110	160	130
After June 30, 2001	250	125	190	150

* Neither proceedings nor entrance to Speleo-Media included

The Organizing Committee of Speleo Brazil 2001 requests that the **payment for registration and excursions** be made by VISA credit card or by bank draft. Personal checks from outside Brazil cannot be accepted. Bank drafts should be sent to the account of SBE/Congresso at the following bank, and a copy of the deposit slip should be sent by fax to one of the following numbers: 55 (61) 316-1580 or 55 (61) 223-6750:

- Name of bank: **Banco do Brasil S/A**
- Number of bank: **001**
- Number of agency: **1515-6**
- Number of bank account: **2001-X**
- Address of bank: **Rua Horácio Leonardi, 50 - Campinas (SP) – Brazil**

News

For **Speleo-Art**, the deadline for registration of participants is April 25, 2001. Photos of the works of art to be submitted must obligatorily be supplied (either by internet or by mail) so that the exhibition can be organized; these must arrive by April 25. The actual entries should arrive between July 1 and July 15. The specific mailing address will be supplied later to those whose works are actually accepted.

For **Speleo-Media**, the deadline for registration of participants is June 15, while that for the submission of the entries is June 15, 2001. The entries for Speleo-Media must have been produced between December, 1997, and March, 2001.

For **information about Speleo-Art** or your registration for this event, please contact Ana Malone - e-mail: anamalone@hotmail.com (Brazilian artists) or Carolina Brook Shrewsbury - e-mail: speleoart@bigfoot.com (international artists).

The **Proceedings of the Congress** to be distributed to the full participants will include a book of abstracts and a CD-Rom containing the full texts of the papers. If you wish, you will be able to have the material from the CD-Rom run off at the Print Shop at the event, but the cost of this printing must be paid by the participant.

The new **Varig number to identify Speleo Brazil 2001 is HRIO-003500**. It should be used in any contacts with Varig about the Congress.

Contacts

For latest news, registration forms, prices, general information, excursion details, and program update

Visit our site: <http://www.speleobrazil2001.org.br>

Questions, opinions, special requests, and sponsorship: e-mail: info@speleobrazil2001.org.br

Brazilian Speleological Society (SBE)
Organizing Committee of Speleo Brazil 2001
CECAV

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Av. L4 Norte It. 8-BI A-38

CEP: 70.800-200 Brasilia/DF BRAZIL

Fax: 55(61)223.6750 and 55(61)316-1580

Information on Pre- and Post-Congress excursions

Pre 01 – TOURIST MANAGEMENT OF CAVES IN SOUTHERN BRAZIL

Contact person:

Luiz Afonso Vaz Figueiredo

E-mail: lafonso@osite.com.br

Phone: 021 (11) 4973-2566 (home) or 021 (11) 4979-3373 (office)

Meeting point:

City: São Paulo - SP

Location: In front of the VARIG desk at the International Airport of Guarulhos **

Date: July 07

Time: between 9 a.m. and noon

Termination:

City: Airport of Curitiba - PR

Date: July 14, 3 p.m.

Pre 03 - TOURIST CAVES AND HISTORICAL CITIES OF MINAS GERAIS

Contact person:

Cláudio Maurício Teixeira

E-mail: claudiom@degeo.ufop.br

Phone: 021 (31) 9961-2842 (cellular)

Meeting point:

City: Belo Horizonte - MG

Location: Tourist Terminal J.K.

Address: At the (corner of Guajajara Street and Amazonas Avenue)

Distance from International Airport of Confins: +/- 40 km; 1.5 hours by taxi **

Distance from Pampulha Airport: +/- 5 km; 15 minutes by taxi

Date: July 10, between 9 a.m. and noon

Termination:

City: Belo Horizonte - MG

Date: July 14, 3 p.m. (at the Tourist Terminal J.K.; transportation to either of the two airports is available)

Pre 04 – NATIONAL PARK OF THE SERRA DA CAPIVARA

Contact person:

Rosa Takalo

E-mail: fumdam@zaz.office.br

Phone: 021(86) 5821612 (office), 021(86) 5822001 (home), 021(86) 9854052 (cellular)

Meeting point:

City: Petrolina - PE

Location: Store of the Serra da Capivara in the airport of Petrolina

Date: July 08, between 3 a.m. and 1 p.m.

Termination:

City: Petrolina – PE (airport)

Date: July 14, 3 p.m.

Pre 05 – SPELEOLOGY AND ARCHEOLOGY IN THE PERUAÇU RIVER

Contact person:

Maria Teresa Teixeira Moura

E-mail: mttmoura@estaminas.office.br or seste@seste-sta.office.br

Phone: 021 (31) 9959 4432 – (Cellular)

Meeting point:

City: Montes Claros - MG

Location: Airport of Montes Claros

Date: July 09, between 9 a.m. and noon

Termination:

City: Montes Claros (airport)

Date: July 14, 3 p.m.

Pre 08 – SPELEOLOGICAL COMPLEX OF TERRA RONCA IN THE STATE OF GOIÁS

Contact person:

Marcelo Safadi

E-mail: safadi@natura.tur.br

Phone: 021 (62) 9979 9289 (Cellular) or 021 (62) 202 2366 (office)

Meeting point:

City: Brasília - DF

Location: Let the coordinator know when and where you will be arriving in Brasilia and where you will be. You will be picked up at your hotel (or at the airport, if that is more convenient).

Date: July 09, between 7 and 8 a.m.

Termination:

City: Brasilia - DF

Date: July 14, 3 p.m.

Pre 13 – ECOTOURISM IN THE VALLEY OF THE RIBEIRA RIVER

Contact person:

Ana Lopes

E-mail: [ana-cnrbma@iflo\(home\)tsp.br](mailto:ana-cnrbma@iflo(home)tsp.br)

Phone: 021 (11) 6231 8555 or 021 (11) 9679 0754 (cellular)

Meeting point:

City: São Paulo - SP

Location: In front of the VARIG desk in the International Airport of Guarulhos **

Date: July 08, between 9 a.m. and noon

Termination:

City: São Paulo - SP (airports)

Date: July 14, 3 p.m.

Post 03 - TOURIST CAVES AND HISTORICAL CITIES OF MINAS GERAIS

Contact person:

Cláudio Maurício Teixeira

E-mail: claudiom@degeo.ufop.br

Phone: 021 (31) 9961-2842 (cellular)

Meeting point:

City: Belo Horizonte - MG

Location: Tourist Terminal J.K.

Address: At the (corner of Guajajara Street and Amazonas Avenue)

Distance from International Airport of Confins: +/- 40 km; 1.5 hours by taxi **

Distance from Pampulha Airport: +/- 5 km; 15 minutes by taxi

Date: July 23, between 9 a.m. and noon

Termination:

City: Belo Horizonte - MG

Date: July 29, 3 p.m. (at the Tourist Terminal J.K.; transportation to either of the two airports is available)

Post 04 – NATIONAL PARK OF THE SERRA DA CAPIVARA

Contact person:

Rosa Takalo

E-mail: <[fumdham@zaz.\(office\)br](mailto:fumdham@zaz.(office)br)>

Phone: 021 (86)5821612 (office), 021 (86)5822001 (home), 021 (86) 9854052 (cellular)

Meeting point:

City: Petrolina - PE

Location: Store of the Serra da Capivara in the airport of Petrolina

Date: July 23, between 3 a.m. and 1 p.m.

Termination:

City: Petrolina - PE

Date: July 28, 3 p.m.

Post 08 – SPELEOLOGICAL COMPLEX OF TERRA RONCA IN THE STATE OF GOIÁS

Contact person:

Marcelo Safadi

E-mail: safadi@natura.tur.br

Phone: 021 (62) 9979 9289 (cellular) or 021 (62) 202 2366 (office)

Meeting point:

Location: Let the coordinator know where you are staying, as you will be picked up at your hotel

City: Brasília - DF

Date: July 23, between 7 a.m. and 8 a.m.

Termination:

City: Brasilia - DF

Date: July 28, 3 p.m.

Post 09 – KARST AND CAVES OF CHAPADA DIAMANTINA – BAHIA

Contact person:

Ivo Karmann

E-mail: <ikarmann@usp.br>

Phone: 021 (11) 3726-3649 (home), 021 (11) 3818-3943

Meeting point:

City: Salvador - BA

Location: Arrival hall of the airport of Salvador

Date: July 23, between 9 a.m. and noon

Termination:

City: Salvador - BA

Date: July 30, 3 p.m.

Post 13 – ECOTOURISM IN THE VALLEY OF THE RIBEIRA RIVER

Contact person:

Ana Lopes

E-mail: [ana-cnrbma@iflo\(home\)tsp.br](mailto:ana-cnrbma@iflo(home)tsp.br)

Phone: 021 (11) 6232 5728 (office) or 021 (11) 9679 0754 (cellular)

Meeting point:

City: São Paulo - SP

Location: Arrival hall of the Airport of Congonhas

Date: July 23, between 9 a.m. and noon

Termination:

City: São Paulo - SP

Date: July 29, 3 p.m.

Post 14 – CAVES AND MAYA CULTURE OF THE YUCATAN PENINSULA – MEXICO

Contact person:

José Gamboa Vargas

E-mail: gvargas@tunku.uady.mx

Fone: 52 (99) 41-01-91 ext. 143 (office)

52 (99) 24 62 48 (home)

Meeting point:

City: Merida (Yucatan, Mexico)

Location: Merida airport arrival hall; pre-meeting in Brasilia

Date: July 23

Termination:

City: Cancun, Mexico

Date: July 30, 3 p.m.

Post 16 – CAVES AND PYRAMIDS OF CENTRAL MEXICO

Contact person:

Dr. José Palacios Vargas

E-mail: trogolaphysa@hotmail.com

Phone: 52 (56) 22 49 02 UNAM or 52 (56) 89 54 35 (home).

Meeting point:

City: Merida (Yucatan, Mexico)

Location: Merida airport arrival hall; pre-meeting in Brasilia.

Date: July 23

Termination:

City: Mexico City

Date: July 28, 3 p.m.

**** NOTE ABOUT AIRPORTS IN: SÃO PAULO, BELO HORIZONTE, AND RIO DE JANEIRO:**

These three cities have two different airports. One is located inside the city, and other, some distance away, is the international airport. International flights are all routed through the international airports; there are internal flights from both, although most of them use the city airport. There are buses circulating regularly between the two airports in each of these three cities, as well as buses between the international airport and the center of the city.

Since we assume participants in the pre-congress excursions meeting in *São Paulo* will be arriving on international flights, we plan to meet them at the Guarulhos airport on July 7 (Pre-01) or July 8 (Pre-13). We plan to leave the participants of Pre-13 at the Congonhas airport on July 14 (the end of the excursion Pre-01 will be in Curitiba, on July 14.)

For the post-congress excursion, we plan to meet participants at the Congonhas airport on July 23 and leave them at the Guarulhos airport on July 29. If your tickets are for the other airport, there is no problem, as you

can be picked up or left there anyway. To avoid any confusion, please let us know when and where your flights will be arriving and leaving.

In *Belo Horizonte*. The Confins International Airport is located approximately 40 km from the center of the city of Belo Horizonte. It will take about 1.5 hours by taxi from this airport to the meeting point. The Pampulha airport is located in the city itself, about 5 km from the meeting point, and you can reach the meeting point from it in about 15 minutes by taxi. We apologize for the need to get from the airport to the meeting point on your own, but some of the participants will probably be arriving directly in Belo Horizonte on international flights while others will have changed to internal flights, and we felt it better to choose a more central location than one airport or the other.

In *Rio de Janeiro*, the International Airport of Tom Jobim (ex-Galeão) is located about 40 km from the city or Rio de Janeiro; the other airport (Santos Dumont) is inside the city.

Errata and Changes

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News from Member-Countries

A new world depth record in Arabika Massif, West Caucasus

I am happy to inform all cavers, speleologists and karst people that the new world depth record has been set up at the very beginning of the new century.

It was set up on January 6 in Voronja Cave, Arabika Massif, West Caucasus, by the expedition of the Ukrainian Speleological Association led by Yury Kasjan (Ukraine).

Previously (during 80th) the cave was explored to a narrow impassable meander at -340 m. Being located next to the 1,110 m deep Arabikskaja System (Kujbyshevskaja-Genrikhova Bezdna) and heading towards Kujbyshevskaja Cave, Voronja was regarded as a part of the system, although not directly connected.

In 1999 the Ukr.S.A. expedition have re-inspected the cave and found two "windows" in the 60 m deep pit, one at -200 m and another at -240 m, both leading to new branches. The second branch led toward the Kujbyshevskaja cave and has been explored to about -500 m, yet not provided direct connection. The first branch went in the depth steeply by a series of pits. Exploration was stopped at -750 m in 1999 due to the lack of equipment.

The multi-stage expedition of the Ukrainian Speleological Association, held during August-September of 2000, pushed the cave to -1,410 m. During the first stage of the expedition the cave was explored to -1,200 m. At the second stage held in the first half of September, in which a French-Spanish MTDE team took part (also the Ukr.S.A. members), the cave has been pushed to the depth of 1,410 m.

The current expedition started on December 25. On January 2, the underground base camp at -1,200 m has been set up. On January 3, the team started pushing the continuation remained from the last expedition (behind -1,410 m). On January 5, the depth of -1,580 m, and on January 6, the depth of 1,680 m has been reached. There was a next pit of about 70 m deep ahead.

This is the latest information which has been received in Kiev by phone on January 7. Exploration continues, so one might expect that the depth of Voronja is now over 1,750 m.

More detailed information and the final (official) figure about the depth of the cave will be reported in the next feature.

The depth potential of the system is illustrated by the hydrologic connection established by the dye test yet back in 1984, between Kujbyshevskaya Cave and the large Reproa Spring located just on the Black Sea beach. The entrance of Voronja is located at about 2,230 m.

The end of the expedition has been extremely difficult. After successfully finishing the work in the cave, the team encountered real problems with weather that went from bad to worst. This prevented a helicopter to take the team from the mountains on January 11 and 12 as planned. Eventually the helicopter was cancelled and the team made it down from the mountains by feet through the heavy snow and complex relief. Almost all the equipment has been left in the mountains. A tractor arranged by a supporting team helped a only on some lower part of the route. It was only yesterday evening, January 14, that the team arrived to a safe place in a local village. Now they are warm and happy, trying to arrange a heli for January 16 to rescue the equipment because the weather has improved. The team plan to return to Kiev on January 18.

The final reached depth of the cave is estimated to be 1,710 m (two watch altimeters and clinometer survey). This exploration ended with a big chamber and a boulder choke. The choke does not seem to be impassable, so the next expedition will work on pushing the cave still deeper. In the nearby Arabikskaja cave six boulder chokes had been worked out during 80-s on the way to the current -1,110 m deepest point.

Voronja Cave ("Crow's cave") has also another name - "Kruber Cave" - after the outstanding Russian karst scientist of the beginning of the 20th Century. We'll study and decide which name has a priority. Meantime, in news publications it is better to refer to both names. It is very likely that the cave will be connected soon with the nearby Arabikskaja system (currently made by two caves - Kujbyshevskaja and Genrikhova Bezdna).

The depth of -1,710 m can be now published and included in the deep caves lists. Expedition members: Yury Kasjan, Poltava, Ukraine (leader); Nikolay Solovjev, Kiev, Ukraine; Yulija Tiimoshevskaja, Poltava, Ukrain; Oleg Klimchouk, Kiev, Ukraine; Denis Provalov, Kiev, Ukraine; Konstantin Moukhin, Moscow, Russia; Sergej Zubkov, Kiev, Ukraine; Vitalij Galas, Uzhgorod, Ukraine; Anatolij Povjakalo, Poltava, Ukraine; Dmitrij Skljarenko, Moscow, Russia; Ilja Zharkov, Sverdlovsk, Russia (Pennsylvania, USA).

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The U.S.A.

Here in Fairbanks, the glaciology chaps at the University of Alaska, with all their government money, keep doing what little they do on the surface of the glaciers, and write volumes of reports.

The ice cavers here in the real world outside the University, with no money, keep exploring the glacier ice caves, and telling the stories at the local adventure parties. It is not true that the volume of wine and such things alters the data presented at the parties. The data alters the volume of wine and other things consumed, due to the hazards in collecting the data.

Global warming continues to benefit interior Alaska, although not benefiting the ease of exploring glacier caves in the winter. Colder is better. Less water. Dry is nice. December 30, 1999, it was a pleasant 40 degrees below zero F, outside, when I was playing in the Black Rapids Glacier exit cave, but my stove seal broke due to the cold, so I departed early, arriving back in Fairbanks at - 50 degrees, in time for all the millennium parties.

Doug Buchanan
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Indonesia

Indonesian karst areas are now recognized as having scientific and esthetic values also. Not only important for mining. We have now a ministerial decree, still being escalated to a presidential decree, that karst areas in Indonesia is classified in class I - prohibited to be mined, and strictly to be conserved due to its multiple values in science, ecology, biospeleology, hydrology, endemic vegetation and tourism. Class II may be mined, but clearly delineated, which restricted part can be exploited. Has other important non-mining values also, but no significant cave systems. Class III can be mined. No caves are found in this class or already destroyed. Little scientific value. No esthetic value. No significant hydrology and karst water resources.

This is a result of consistent lobbying with the Indonesian Government since 1983 by Finspac. Finspac is on very good terms with the Indonesian Government. Many of its high ranking officials (scientists) are our "honorary

members" doing their best in conserving karst and caves. Even past Mining and Energy Minister (Dr Kuntoro) is sympathetic towards Finspac's constant effort to conserve Indonesian cave and karst areas. The result is his willingness to sign the Ministerial Decree on Karst Classification, also agreed upon by the present Minister of Mining and Energy and wonderfully supported by the State Minister of Environment. The Minister of Environment has organized and sponsored several seminars to promote cave and karst protection all over Indonesia. The Minister of Mining and Energy has also sent senior Geologists from the Geological R&D Center to many places in Indonesia with karst formations to promote the karst classification and conservation of important caves in Indonesia.

FINSPAC has alerted the Government several times to prepare the classical Gunung Sewu, Maros and Highland Karst of Irian Jaya to be nominated World Heritage, also promoted by the IUS according to the IUS official letter, signed by its President in 1993 at Beijing. This letter was sent to the Indonesian Government (3 ministers). The Laurentz National Park in Irian Jaya is now nominated World Heritage. It is a major karst area in Irian Jaya.

Robby Ko

Indonesian National Delegate

Venezuela

Estimados colegas espeleólogos de distintos países del mundo:

Estoy solicitándoles información sobre el "Guácharo" (ave conocida como *Steatornis caripensis* entre los biólogos). Se trata de una gran pájaro que se halla en varios países suramericanos, su alimentación es frugívora y sus hábitos son nocturnos. Estas se agrupan en densas colonias trogloditas para hacer sus nidos en profundas cuevas, donde pueden volar en total oscuridad gracias a un sistema de radar parecido al de los murciélagos.

Lo que deseo saber es si conocen Uds. algunos nombres populares para incluirlos en una investigación **(es un inventario de las denominaciones que los campesinos y los indígenas usan para identificar a este pájaro)**. Sobre todo me interesa saber los nombres del ave para cualquier país de Latinoamérica. Sobre Venezuela tengo cierta documentación, aquí he encontrado mas de una treintena de nombres populares y aborígenes. Si conocen de alguna otra persona que pueda ofrecerme más datos les agradezco que me contacten anotándome su dirección.

Como complemento quisiera saber varios detalles. Me imagino solo recordarán unos pocos datos de lo que les voy a sugerir. Me basta que anoten algo de lo que aún recuerden:

- 1- NOMBRE QUE USAN PARA EL GUÁCHARO (¿hay variantes ortográficas?).
- 2- ¿Cómo se llaman esas cuevas donde se hallan los guácharos?
- 3- ¿Cuál es la ciudad más cercana? (en cual país?).
- 4- ¿En qué Estado, serranía o región se encuentran estas colonias de aves?
- 5- ¿Cuál es la altitud o cota sobre el nivel del mar en que se hallan esas cuevas?
- 6- ¿Cuál es la cantidad aproximada de individuos anidando allí?
- 7- ¿El nombre local de los Guácharos tiene algún oculto significado etimológico?
- 8- Si el nombre es indígena por favor indíquenme cuál grupo étnico usa el vocablo (señalar el nombre de la tribu y el lenguaje que utilizan).
- 9- Mencionar el nombre del informante si lo recuerdan (también señalaré como colaborador de este inventario al que me responda esta carta).

De antemano les agradezco su gentil colaboración. Espero hayan tenido una muy feliz navidad y próspero año nuevo 2001. Cuidense mucho durante las exploraciones de este milenio.

Rafael Carreño

Presidente

Sociedad Venezolana de Espeleología

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rafaelcarreno@cantv.net

From Commissions and Working Groups

Commission on Protection of Karst and Caves

L'énorme valeur patrimoniale communautaire des grottes est renforcée par un important intérêt scientifique, social, culturel et écologique.

En outre et particulièrement dans les régions karstiques européennes, l'importance du patrimoine spéléologique est renforcée par la grande valeur de ses ressources naturelles, notamment en eau souterraine.

En présence des fortes pressions négatives sur les systèmes souterrains qui sont de plus en plus fréquentes et le plus souvent la conséquence de l'usage abusif du territoire, il est impératif que toutes les fédérations de spéléologie prennent leurs responsabilités et les initiatives nécessaires pour la préservation du patrimoine spéléologique, développent et standardisent des stratégies pour devenir un imposant groupe de pression. Je salue au passage les pays novateurs en la matière et le dynamisme de leurs responsables qui rivalisent d'originalité. J'invite les autres à s'inspirer de leurs expériences.

Le développement et l'usage des nouvelles techniques d'information et de communication (Internet) sont de nature à favoriser ces échanges et à créer un réseau virtuel mondial entre les responsables de la protection de tous les pays membres.

Thus, the speleologist must take initiatives for the protection and conservation of the caves. They have to look after the safeguard of karstic sites, underground waters and landscapes belonging to limestone areas. This objective must be part of a severe, intelligent and scientific management of the surroundings and of natural resources.

This protection is not limited to application of existing laws and regulations but proceed to conception of new and inventive tools according to the matter which takes into account the specificity of each area and where the management decisions are collegially taken by the landowner, the scientists, the qualified administration and the speleologists because without them the caves should not be discovered.

A "World year of show caves" should be organised for 200?. This idea justified itself by an evident manner, when showing the ideal window to make understood to Mister "John Doe" the reason of the imperative necessity to protect this sensitive millenium community patrimony. Once our motivation shall be understood, the beauty and integrity of the underground world will be respected by the coming generations.

Jean-Pierre Bartholeyns
Président

Commission on Archaeology and Paleontology in Caves

The members of the Commission on Archaeology and Paleontology in Caves have been actively working with and reporting on cave resources in the three and a half years since the UIS meeting in La Chaux-de-Fonds, Switzerland. Member projects have involved sites in the Americas, Caribbean, and Europe.

Sadly, our Commission has felt the loss of members Philippe Morel (Switzerland) and François Rouzaud (France). Philippe Morel, an exceptional cave paleontologist with a specialty interest in cave sites with *Ursus spelaeus* – human associations, died in April 1999. François Rouzaud was an exceptional cave archaeologist, whose ties with cavers have enhanced our knowledge of cave archaeological sites in France. He died in May 1999.

Commission member Washington Simões has organized the II International Symposium of Archaeology and Paleontology in Caves for the 13th International Congress in Brasilia, Brazil in July 2001. We enthusiastically look forward to the Symposium and the Congress.

David A. Hubbard, Jr.

Commission on Glacier Caves and Karst in Polar Regions

1. *Activities summary:* Between the 12nd International Congress of Speleology in Chaux-de-Fonds (Switzerland, 1997), and the 1st March 2001, the following activities have been developed:

1.1. 20 glaciological expeditions:

- 2 in the Alps; Görner glacier (1997, Spanish Group), (1999, Italian Group)
 - 3 in Antarctic; Collins glacier (1998, 1999, Russian Group), (2000, Russian, Spanish and Italian Group)
 - 1 in the Bolivian Andes; Chakaltaia glacier (1998, Italian and Spanish Group)
 - 1 in Franz Josef Land; several icecaps (1997, Russian Group)
 - 2 in Grönland; Inlandis (1997, 1999, French Group)
 - 4 in Iceland; Kviarjökull glacier (1997, 1999, Spanish and Italian Group), Kviarjökull and Drangajökull glaciers (2000, Spanish Group)
 - 2 in North Caucasus mountains; Dzhankuat glacier (1998, 1999, Russian Group)
 - 3 in Chilean and Argentinean Patagonia; Viedma glacier (1997, 1998, Italian Group), Tyndall and Zapata glacier (2000, Italian, Spanish, Chilean and Argentinean Groups)
 - 2 in Spitsbergen; (1998, 1999, Czech and Polish Groups)
- Developing Antarctic 2001 by Italian Group

1.2. 2 International Meetings:

April 1998 in Cuneo, Italy. Workshop for preparing future investigations in Antarctic (GLAS Programme "Antarctic Subpolar Glaciers" into SCAR "Scientific Committee Antarctic Research"); Russian, Spanish and Italian Groups

April 2000 in Courmayeur, Italy. V Symposium of Glacier Caves and Karst in Polar Regions. Celebrated under the auspices of "Società Meteorologica Subalpina", to be published in monographic number of NIMBUS

Participation: 10 communications of Spanish Group; 6 communications of Italian Group; 2 communications of Russian Group; 1 communication of Polish Group; 1 communication of Canadian Group; 1 communication of French Group. The publication in print. More information: Dr. Giovanni Badino (badino@to.infn.it) (also, send a copy to Spanish Secretary: karmenka@gugu.usal.es)

2. Future Symposia

2.1. *Iceland 2002:* Iceland 2002, Reykjavik. It will be placed together the Vulcanological Commission of UIS. Actually under discussion to prepare field excursion to Kviarjökull glacier (Economic problems for the transport from Reykjavik to Kviarjökull glacier).

2.2. *North Caucasus 2005:* North Caucasus 2005. Near the town Nalchik in Kabardino-Balkaria. Dzhankuat glacier near to the Elbruz mountain. More information: Dr. Bulat Mavlyudov (ruspeleo@orc.ru) (also, send a copy to Spanish Secretary: karmenka@gugu.usal.es)

3. Actual and Future International Research Program

"Global Warming from the viewpoint of the subpolar glaciers"

3.1. Antecedents

3.1.1. *Glaciological Evidences of Global Warming.* Generalized glacier recession. Gradual rise in altitude of the glacier firn line in continental glaciers. Gradual rise in latitude of the 0°C isotherm.

3.1.2. *What it does suppose?* Rise in medium temperature of the Earth by Green-house effect.

3.1.3. On which parameters it depends? Direct correlation between the CO₂ contained in the atmosphere and the atmosphere temperature. Direct correlation between the CH₄ contained in the atmosphere and the atmosphere temperature. Both gases (CO₂ and CH₄) are responsible for the green-house effect

3.1.4. Consequences derived of Global Warming: Fusion of continental glaciers. Rise in water-level sea (by filling).

3.1.5. How it is evaluated? Quantifying solid glacier mass balance: Input, snowfall in meteorological stations on icecaps; Output, icebergs detached from glacier caps (computing by satellites); Variation on extension and thickness of the icecap (by radioechosounding and satellites). This is the classical glaciological method for estimating the variations of glaciers mass balance. Measuring directly the rise in water-level sea.

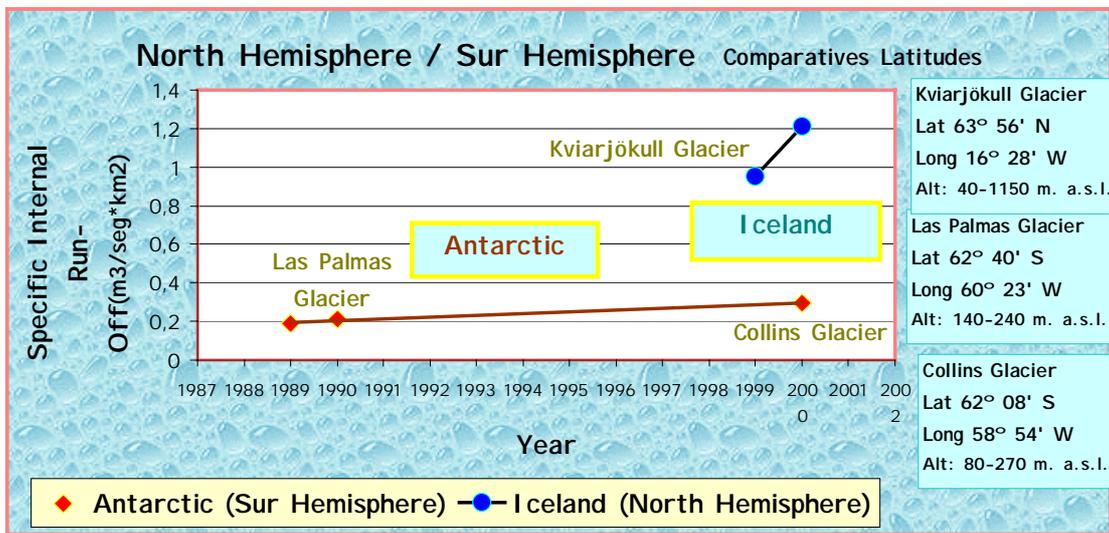
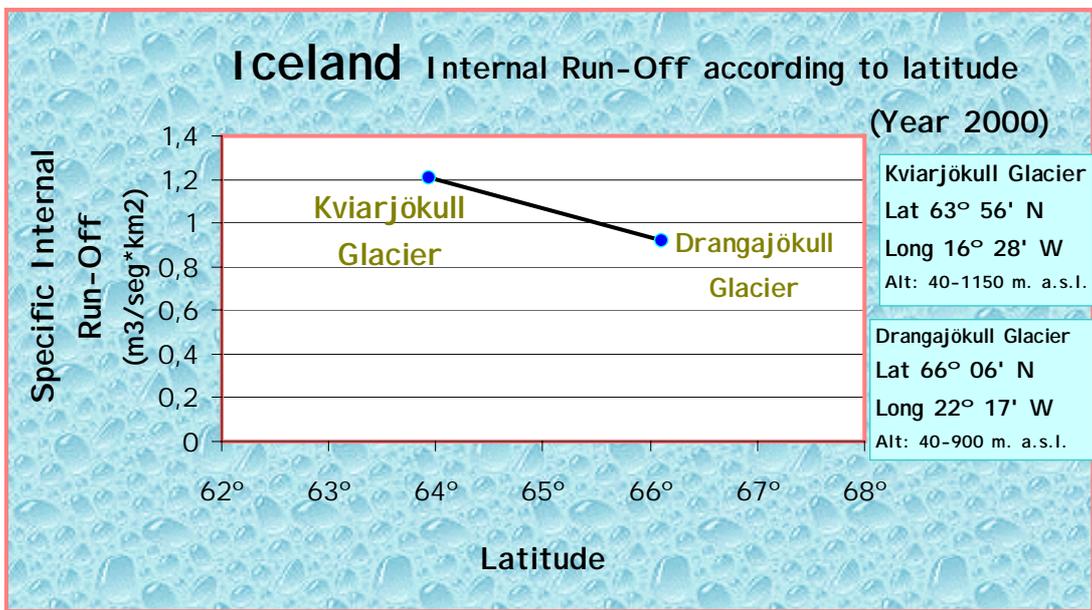
3.2. Evidented actual problem: Rise in water-level sea is greater than that one corresponding to the mass of detached icebergs.

3.3. Proposed solution: Estimate the internal run-off, responsible of the discharge by melting friction mechanism and cryokarst process, of the subpolar glaciers (arctic and antarctic), as response of the global warming.

3.4. Formal evidences: Discharge is directly proportional to the atmosphere temperature (measured in experimental catchment areas placed in Collins (Antarctic) and Kviarjökull (Iceland) glaciers). Conductivity is inverse proportional to the discharge. Discharge is inverse proportional to the latitude. Discharge tendency increasing by time

3.5. Comparative results: To compare the discharge in different subpolar glaciers placed at different latitudes in both hemispheres, we propose to use the specific value of discharge in glaciers, by melting friction and cryokarst: $Q = m^3 \cdot s^{-1} \cdot km^{-2}$. The obtained results glaciers of Antarctic and Iceland are shown briefly in the following tables (see next page).

3.6. Future necessity: Estimate the tendency of the specific internal run-off ($Q = m^3 \cdot s^{-1} \cdot km^{-2}$). Measuring at succesive years, in the same experimental catchment glacier areas. Measuring, same years, in comparison with different altitudes and latitudes glacier areas. Establish time series, completing at least one or several hidrological years. Considering: input: meteorological parameters; output: hidrological parameters.



3.7. Preselected Catchment Areas in Project: Preselected catchment, areas explored in previous expeditions, for researching in this future project are:

Grisefjord;	77°N;	Ellesmere (Canadian Arctic)
Wegener;	76°N;	Ukkusigfsat (Greenland)
Loven Est;	79°N;	Nyalesund (Svalbard)
Werenskjold;	76°N;	Horsund (Svalbard)
Svartisen;	67°N;	Alesund (Norway)
Drangajökull;	66°N;	NW of Iceland
Kviarjökull;	64°N;	Vatnajökull (Iceland)
Collins;	62°S;	King George (Antarctic)
Tyndall and/or Grey;	50°S;	Chilean Patagonia
Perito Moreno and/or Viedma;	50°S;	Argentine Patagonia

The present project included as an integral part in the International Commission "Glacier Caves and Karst in Polar Regions" of the U.I.S.

Adolfo Eraso

President of the Commission

For more information:

karmenka@gugu.usal.es

M^a del Carmen Domínguez Alvarez

Secretary of the Spanish Group of the Commission

Permanent Commission on Speleotherapy

The four years period from 1997 to 2001 was characterised by dynamic events, which have joined in a challenge for new board, determined to follow the good practice and ideas of former one and at the same time to establish some basis for technological novelties of the new millennium.

New board of the CPS (Commission Permanente de Spéleo-thérapie) was elected by representatives of European Speleocenters who gathered on the International Conference of Protection and Medical Utilisation of Karst Environment, which was held in Banská Bystrica, Slovakia, June 3-5, 1997. New president of the CPS became dr. Svetozár Dluholucký, Slovakia, new general secretary became Vanja Debevec, Slovenia, new three vice presidents became dr. Jaroslav Chonka, Ukraine, dr. Albrecht Falkenbach, Austria, dr. Pal Narancsik, Slovenia. The board was enriched also by honorary president dr. Beate Sandri and honorary general secretary dr. Jaroslav Řičný. Several ideas emerged during the sessions and exchange of experiences. The need for continuous and longitudinal detailed scientific studies in order to establish the beneficial effects of caves microclimate on asthma and other patients enjoying the speleotherapy (ST), seemed obvious and necessary. In order to promote this activity in Europe and in the world a good communication among speleocenters should include also database and comparable therapy results.

Even at that time was clear that some measurement should be taken to protect good speleotherapeutic practice and avoid careless and profit making activities in new sites. The generally accepted idea of some centres working as a point of reference became a new task for the CPS. Such centres should work with all prescribed protocols, including nature protection and patients follow up. To receive a certificate of speleotherapeutic activity all information should be gathered and discussed.

In 1997 the president and general secretary worked on questionnaire for speleocenters in order to achieve some updated information and new contacts.

Only seven centres answered the formulary: Gasteiner Heilstollen, Austria; Tiefer Stollen Aalen-Wassefalfinegen, Austria; Edel Ltd., Zlaté Hory, Czech Republic; Sveján Speleo, Bystra, Slovakia; Scientific Medical Centre for Rehabilitation, Uzhgorod, Ukraine, Ukrainian Allergological Hospital Solotvino, Ukraine. These were the first candidates for a certificate as suggested in Solotvino, Ukraine, on September 17-20, 1998, were an International Symposium of Speleotherapy was held to celebrate 30 years of the ST in Ukraine.

On the official assembly following conclusions were made: official language became also Russian, beside English and German; presentation of centres should be prepared for internet as well, including a logo sign of each centre, photo, general data. We have all agreed upon the importance of presentation in local and in foreign media as well, especially in medical research reviews. This seemed to be still difficult to obtain due to financial limitation of many centres and lack of support by the state institutions.

On September 28-30, 1998, an International Symposium Radon and Health was held in Bad Gastein, Austria, organised as a part of European Health Forum. Famous experts confirmed the theses about beneficial effects of low dose Radon radiation. Treatment of rheumatic patients in thermal caves with high temperature and well-determined radon concentration was presented also by clinical results.

The work of CPS and efforts for better communication and unified scientific research were upgraded on International symposium of Speleotherapy in Zlaté Hory, on September 17-19, 1999.

New trends in scientific studies emerged. Among others this was demonstrated by imunological and cytological studies in centre in Sežana, Slovenia and Sveján Bystra, Slovakia. The caves protection was underlined by the work of experts from Czech Republic.

Research studies in the future should include comparable clinical and/or biochemical or better physiological data obtained from the patients. A good statistic tests should be applied as well. In this way the ST should be easily discussed in medical and in speleological circles. It was also evident that new comparable description of caves

should be prepared in the future. A committee of three members was formed in order to describe and perform guidelines for physical and chemical measurements in caves where speleotherapy is performed. This will also be the basis for certificate applications. Committee is formed by Peter Jovanovič, Slovenia, Josef Stieber, Hungary, Petr Sládek, Czech Republic.

Because of intense activity in the Russian ST and new trends in research studies, the board of CPS proposed Gregory Feinburg, Russia, for the new fourth vice president.

In order to prepare new scientific information we agreed that international symposiums of the ST will be held every two years instead of each year. Anyhow the board of the CPS will meet every year to discuss continuous work.

Such meeting of board was held in Bystra, Slovakia, on October 5-7, 2000. Dr. Dluholucky, the head of the speleotherapeutic programme Svejan presented a unique confirmation. They received an official state certificate for the ST from Slovak Ministry of Health. The board established some guidelines for physical and chemical parameters in measurements. After the basic information about adequate questionnaires for quality of life measurement, further work will be done with centres whose representatives were present: Svejan Bystra, Slovakia; Ostrov u Machochy, Czech Republic; Edel Zlaté Hory, Czech Republic; Sežana, Slovenia.

The CPS decided to publish a newspaper under the auspices of dr. Dluholucky, Slovakia, and also to promote the speleotherapeutic activity in web pages. Both projects are still going on.

Technological facilities enable us to communicate and share information easily. But nevertheless personal discussions and experience exchanges have proved to be fruitful in every symposium of the CPS. Many speleotherapeutic centres have financial limitations, which result in several restrictions: poor congress participation, modest work in public awareness, no translations of scientific papers into a foreign language. The board of CPS is aware of those problems and will try to find new ways of funding through project work and international programmes in the future.

Further work of the CPS is focused on two events in year 2001: the first is symposium of speleotherapy in Solotvino, Ukraine, on May 15-17, 2001, organised to celebrate 25 years of activities in Ukrainian Allergological Hospital. The second is international symposium in Aggtelek National Park, Hungary, from September 13-16, 2001.

Speleotherapy is an excellent example of man living with nature in the most sustainable way that is possible.

Taking care for patients undergoing the speleological treatment in caves, one is obligated to take care of the cave microclimate, speleothems and entire underground ecosystem as well. Only the intact, well-preserved and protected cave can offer us beneficial effects for speleotherapy. That is why this activity is strictly connected with geological and speleological researches. We are glad to work with the experts in the UIS who can provide us information, regular survey and supervision of proper protection measurements.

Vanja Debevec
Secretary General of the Commission

Commission on Volcanic Caves

Activities 1997-2001

- symposium *Kenya 1998* (proceedings published as the UIS publication);
- symposium *Catania 1999* (Sicily, Italy), proceedings to be published;
- post-conference excursion to Azores (*Portugal 1999*, SFCE conference); coincidence with the Catania event;

As requested by the UIS, contacts with the Commission on pseudokarst and Commission on GlacierCaves and Karst in Polar Regions were maintained. The contact with the non-speleological study group of the L.A.V.E. were established. Dr. Halliday and Prof. Kempe have been working on Hawaii, Prof. Wood and G. Middleton have been working on Iceland.

Newsletter

The Newsletter is sent to all commission members and those interested. During 1997-2001 totally 15 issues were produced (total of about 140 pp.).

Plans

- the next symposium will be held on Iceland, Reykjavík 2002 (organized by Dr. Jónsson).
- the symposium on Azores, still unclear, originally proposed for 2001, then moved to 2002 not to coincide with Speleo Brazil 2001, which caused the interference with Iceland, then postponed to 2005?

Jan Paul van der Pass
Commission President

Commission on Pseudokarst

The Commission was set up at the 12th International Congress of Speleology (La Chaux-de-Fonds) on August 15, 1997.

Goals and results

Record of the pseudokarst phenomenon: the activity has been going on in each group and country. Unfortunately, our knowledge is basically concentrated to the Central Europe. About 800 to 1,000 new objects have been recorded.

The co-operation with the UIS Commissions: we have an excellent relationship with the Commission on Volcanic Caves and Commission on History of Speleology. We have been trying to establish closer contacts with other commissions, too.

Scientific groups: the co-operation in the research of root stalagmites and solution of sandstones has become international. National teams have been dealing with tafoni caves, fumaroles, gravitation caves, ice in basaltic caves, etc.

Publications and Newsletter: we published annual reports on the Commission activity in the UIS Bulletin. We established the Commission newsletter (Nachrichtenbrief) where information, programs, invitations book reviews etc., have been published (in German and English). The newsletter is bi-annual in 30 copies and it is available on internet. We published also: Small lexicon of the non-karstic terms, Pseudokarst reports, Caves in sandstone and granite, Proceedings of the 7th International Symposium on Pseudokarst, and several papers in national scientific media.

Organization of pseudokarst bibliography: national bibliographies on pseudokarst for Hungary and Germany were finished. The work on the bibliography of other countries has been still in progress.

Protection of pseudokarst: the protection of pseudokarst is included in environmental laws of many countries. The problem is that there is no special reference to this topic.

In 1999, the 7th International Symposium on Pseudokarst was organized (Arad, Romania). Six regional meetings were held in the Central Europe (Cluj-RO, Byreuth-D, Ipolytarnóc-H, Wien-A, Zagan-PL and Znojmo-CZ). Some other symposia on pseudokarst were held in the World (Australia, Chinaú).

Plans

The activity of the Commission is expected to be extended over the Europe. We have been contacting groups interested in pseudokarst to co-operate with the Commission.

The next pseudokarst symposium will be held in Vienna (Austria) in 2002. The place of the future one in 2005 to be decided. We expect the organization of more regional meetings, some of them in Europe. We will continue in preparation of the international pseudokarst bibliography and databases. We will publish our results.

István Eszterhás
Commission President

Commission des Speleo-secours

La Commission a continué, dans la mesure de ses moyens, à privilégier les contacts et l'aide à la création et à la formation d'organisations de spéléo-secours dans toutes les régions karstiques.

Personnellement, le Président s'est rendu aux réunions et formations suivantes:

- août 1997: stage international organisé par le Spéléo-Secours Français après le Congrès de l'UIS;
- 1998: Congrès de la FFS à Prades;
- 1999: Congrès de la FFS à Mandeure;
- octobre/novembre 1999: Réunion Européenne consacrée aux spéléos-secours organisé par le Spéléo-Secours du Bade-Würtemberg (Allemagne);
- novembre 1999: stage international de formation organisé par le Spéléo-Secours Français dans les Pyrénées
- janvier 2000: Congrès National Argentin de Spéléologie avec rencontre de différents corps de secours (pompiers, gendarmes, police), exercices de transport en civière en grottes et en terrains variés, conseils, démonstrations, essai de création d'un Spéléo-Secours national;
- mars 2000: réunion de secours en plongée à Dijon organisée par le Spéléo-Secours Français;
- juin 2000: congrès de la FFS à Tarascon-sur-Ariège.

De son côté, le Vice-Président, Trifon Daaliev, a organisé dans le Sud-Est de l'Europe (Balkans) avec les spéléologues bulgares de nombreuses formations aux techniques spéléos et au secours à l'intention des pays voisins (Albanie, Macédoine, Turquie, Grèce, etc.) qui ne possèdent pas d'organisations nationales spéléos; en outre, des rencontres nationales avec exercices sont organisées chaque année en Bulgarie et des spéléologues des pays voisins y sont invités. Des manuels sur les techniques et la structure du spéléo-secours ont été distribués aux spéléos étrangers. Une nouvelle civière a été fabriquée et testée.

Un accord de collaboration en spéléo et spéléo-secours a été signé entre les spéléos français et bulgares.

La Commission encourage et apporte son appui aux stages et formations organisée par les organisations de secours spéléos de différents pays ainsi qu'avec les médecins spéléos.

En Amérique Latine, des stages ont été organisés par les Espagnols, et par le Porto-Ricain Efraïn Mercado, membre du Bureau de la Commission; récemment, le Spéléo-Secours Français a donné une formation aux Mexicains à l'occasion du Congrès National Spéléo Mexicain.

De spéléologues libanais ont participé à un stage de formation de la SSF en France.

Dans les autres pays d'Asie et d'Afrique, dépourvus d'organisations spéléologiques, les expéditions étrangères emmènent avec elles un matériel d'intervention et disposent généralement d'un médecin.

Notre Commission reçoit l'aide des spéléo-secours français, italien, espagnol, bulgare et porto-ricain.

Elle ne reçoit aucun financement de l'UIS.

Le Président du Spéléo-Secours Français, Christian Dodelin, a été invité à participer au Bureau de la Commission.

Un des projets présenté lors du Congrès de l'UIS en Suisse à la demande du Bureau de l'UIS, était de mettre en place des coordonateurs régionaux afin de rapprocher la Commission des organisations de sauvetage sur le terrain. Il n'a pas rencontré le succès escompté :

- seule la FEALC a nommé un responsable pour sa région, le Porto-Ricain Efraïn Mercado;
- l'Europe Occidentale a refusé;
- l'Europe Orientale n'y a pas vu d'intérêt;

- pour le Sud Pacifique (Océanie, Sud-Est Asiatique, la Vice-Présidente Grace Matts s'efforce d'organiser la région.

De même, à la demande du Bureau de l'UIS, une cellule a été créée afin de recenser les grandes expéditions ; le but était qu'en cas d'accident, les expéditions proches de l'équipe accidentée puissent l'épauler ; cette initiative n'a rencontré aucun succès.

André Slagmolen
Président de la C.S.S.

Commission on Cave Diving

There has been one official meeting of the cave diving commission during these 4 years. It took place in Dijon (France) at the occasion of an international diving convention of more than 170 cave divers from a number of European countries, from April 22-24, 2000. It reflects the difficulties of the cave divers commission that is full of goodwill at time of a UIS congress, but fails to communicate, meet and work together. One of the main difficulties is the fact that cave divers are not professors belonging to University Institutes and have no financial support at their disposal. This should be considered by the UIS. A special grant should be voted for such a non-scientific commission, in order to be able to fulfil its task.

I was elected by a majority of cave divers with the following programme:

- 1) Reverse the tendency to bureaucracy, new rules and new regulations that the previous commission president had developed.
- 2) Reverse the commercialisation tendency for cave divers licences and certificates that was going on
- 3) Promote the presence of active divers to participate to the work of the commission
- 4) Restore the presence of French divers within the UIS divers

The programme above has been fulfilled at 80 %, but it would need to be continued for the next 4 years.

Of course, there are a number of actions that also took place during these 4 years. They are mainly questions to be answered. This has been done without difficulties. I would like to mention the help the UIS commission has been able to give to some international expeditions. We have experienced that some national members of UIS have been creating difficulties instead of helping such ventures. At the end, with some goodwill, the expeditions could take place with big success.

I can't afford to come to Brasil and I regret very much. If the 4 programme points above are still accepted by the majority of the cave divers, I am ready to continue the work with the cave diving commission, as president or as member

Jean-Jacques Bolanz
Commission President
Lausanne

Commission on Karst Hydrogeology and Speleogenesis

Activity report for the period of 1998-2001

Founded in 1994 as a Working Group, the Commission has obtained its present status in 1997. The main goal of the Commission is *to promote scientific co-operation and research in the field of karst hydrogeology, with special emphasis to speleogenesis as the core problem of permeability development in soluble rocks and evolution of karst aquifers*. The Commission promotes researches in the field of Karst Hydrogeology and Speleogenesis in two principal ways: (1) By sponsoring and organising a framework for communication and information exchange between relevant workers via different means, including electronic and printed circulars, newsletter and web site. (2) By setting up specific priority topics (specific objectives) and running respective time-defined projects aimed to result in fundamental publications on these topics.

The Commission does not organise its own regular meetings except sessions held during the UIS Congresses, although it may have occasional working meetings or sponsor some thematic sections at major international karst/cave symposia.

Membership to the KHS Commission is open for any researcher interested in its activity and sharing its goal. To the date, some 90 scientists from 25 nations have registered as Commission members.

Fostering communication and information exchange

In order to foster closer cooperation between our Commission and the Karst Commission of the International Geographic Union (President Prof. John Gunn) and in fulfilment of the Cooperation Agreement between the UIS and IGU, a joint newsletter called "*The Karst Conduit*" has been started in 1998. Two issues were produced in April 1998 and December 1998, distributed electronically as e-mail attachments. In 1999 the KHS Commission web site has been established (http://happy.carrier.kiev.ua/~klim/UIS_KHS/), designed to provide information on the KHS Commission activity and other news useful for karst workers.

Close relations were also established between the UIS KHS Commission and the Karst Commission of the International Association of Hydrogeologists (President Prof. Heinz Hoetzi). We further realised the fact that the three mentioned commissions of IGU, IAH and UIS all deal with interrelated aspects of highly integrated karst systems, and that many karst and cave scientists are simultaneously affiliated or cooperate with all three bodies.

Consultations with the sister commissions of IGU and IAH have further developed into the idea to set up a common web page (Karst Page) which would serve as a single portal to karst-related information generated from, or related to, the activities of the three commissions. Such page has been eventually established and can be accessed by using one of the following URLs: <http://www.karst-hydrogeology.de/>; http://happy.carrier.kiev.ua/~klim/UIS_KHS/

From this page links lead to the specific sites of the each commission, other useful karst-related web sites, as well as to a jointly maintained Info-Board, which provides information on meetings, publications and other news relevant to a wide karst community. This hopefully makes it easier for karst and cave researchers to use information resources, facilitates further integration of activities of the three commissions and helps to avoid duplication of efforts.

With the development of the UIS KHS Commission web site and establishment of the Karst Page and joint Info-Board, further publication of "The Karst Conduit" has been abandoned because all its functions were now well covered by these means.

KHS Commission Projects

The main project of the previous period, preparation of the fundamental book "Speleogenesis: Evolution of Karst Aquifers", had been largely completed during 1994-1997. However, it took some additional efforts to get the book eventually published in 2000, thanks to the Special Publication Committee of the NSS and its chair David McClurg. The book provided in-depth coverage of the recent advancements in the theory of cave origin and of the role of speleogenesis in the development of permeability and in general evolution of karst aquifers. With some 44 karst and cave scientists from 18 countries participated in the book, the project was a truly international effort and served to raise the UIS profile as a science-promoting organisation. The book has been well received by a wide scientific community and called forth quite positive reviews in various mainstream journals such as *Journal of Hydrology*, *Ground Water*, *American Association of Petroleum Geologists Bulletin*, etc. *"This book should help make geoscientists aware that hard science has indeed been done by speleologists"* (A.F. Agnew, *Ground Water* 38, 6, p. 811).

For the period of 1998-2001 the KHS Commission has set up three projects. Below is a brief review of the progress and suggestions for further actions.

Project 1: "Karst Hydrogeology and Speleogenesis in Deep-Seated and Confined Settings", coordinators Dr. A.Klimchouk and Dr. Yu.Dubljansky. This project, intended to foster further researches of evolution and behaviour of karst groundwater systems and processes of conduit porosity development in deep-seated and confined settings, has received quite low response from karst and cave geoscientists. This indicates either non-sufficient recognition of the theme importance among researchers or the lack of completed studies. I suggest cancelling the project as a collective pursuit although some individual scientists will continue it towards a monograph.

Project 2: "Epikarst: its Nature, Hydraulic Functioning and the Role in Karst Morphogenesis". The project had initially Prof. J.Gunn of Huddersfield University as a coordinator, although he withdrawn recently due to commitments to other projects and we agreed that I replaced him for this role. The project was designed as a joint effort of the KHS Commission and IGU Karst Commission and intended to dispute in a single volume general views and models of epikarst formation and function and the role of epikarst in overall karst evolution, hydrology and morphogenesis. Selected case studies of epikarst formed under different settings were thought to illustrate and test validity of general concepts and models. Although the original structure outline (see at: http://happy.carrier.kiev.ua/~klim/UIS_KHS/Ep_outl.htm) has not been covered in full by the offered contributions, the latter eventually comprised a fairly representative picture. With nine contributions suggested so far, we have now a sufficiently good basis to finalise the book. The project is open for additional inputs until June 30, 2001, final deadline for manuscript submission is set up for October 30, 2001 and the publication release is planned for the end of 2002. For details of the current status, contribution list and further work schedule, please visit http://happy.carrier.kiev.ua/~klim/UIS_KHS/Ep_stat.htm.

Project 3: "Practical Implications of Speleogenetic Studies", coordinator Dr. John Lamont-Black, University of Newcastle. The idea of this ambitious project was to prepare a volume or a series of volumes aimed to apply modern concepts of speleogenesis and specific speleological methods to practical issues involving karst and caves and to present instructive case studies illustrating how speleological perspective and knowledge can be utilised to develop more robust and elegant solutions to problems associated with subsidence hazards assessment and mitigation, resource prospecting/exploitation/protection and management strategies in karst. In view of the complex and interdisciplinary nature of the project goal, an Editorial Panel has been formed for the project, consisting of some 19 leading international workers of various backgrounds, with the task to advise on the development of segment/volume rationales and structures and selection of contributing authors. It took considerable efforts to find appropriate coordinators/editors for each segment and to develop respective rationales and structures. Eventually, the five segments/volumes of the project have been outlined as follows (for details go at http://happy.carrier.kiev.ua/~klim/UIS_KHS/KHS_Prj3.htm): (1) Formation of Mineral Resources, coordinator Dr. David Lowe; (2) Karst Aquifer Properties, Assessment and Management of Groundwater Resources, coordinator Dr. Martin Sauter; (3) Mining and Quarrying in Karst Terrains, coordinators Dr. Tom Aley and Dr. P. L. Younger. (4) Karst Subsidence Hazard, coordinators Dr. John Lamont-Black, Dr. Barry F. Beck and Dr. Tony C. Waltham. (5) Cave Protection Issues, coordinators Dr. David Gilleison.

However, not all the segments were advanced at the same rate due to different enthusiasm shown by karst workers in response to the respective calls for contributions and different impetus from the respective coordinators. To the date, only the segment on subsidence hazard, provisionally entitled *"Practical implications of speleological studies for karst subsidence hazard assessment"*, is shaped in a volume, which can be published in the near future. With 15 titles offered so far, it is decided to push ahead with this volume independently in hope that its possible success will re-stimulate action on the other segments. There is one firm offer of publication so far but the final selection of a publisher will be made after receiving the results of book proposals sent to other publishers. As to other

segments, the KHS Commission should investigate possibilities to give an additional impetus to the work or cancel those segments, which seem unlikely to be completed within reasonable time.

New project (4): Karst Rock Features and Rosk Relief, coordinator Dr. Tadey Slabe, Karst Research Institute, Slovenia. In addition to the projects approved at the KHS Commission meeting at La Chaux-de-Fonds, Switzerland in 1997, this new project has recently been adopted on the proposal of Dr. Tadey Slabe. Its goal is to prepare the book dealing with meso- and micro-features that form on the surface of soluble rocks (editors W. Dreybrodt, A. Gines, M. Knez and T. Slabe). The rationale can be viewed at http://happy.carrier.kiev.ua/~klim/UIS_KHS/KHS_Prj4.htm; contribution titles and abstracts are expected at the Karst Research Institute, Titov trg 2, SI-6230 Postojna, Slovenia, e-mail: krf@zrc-sazu.si.

Cooperation with karst commissions of IAH and IGU

In addition to the above-mentioned cooperation in development of karst-related information exchange network, the KHS Commission was involved in discussion and development of various projects being undertaken by the karst commissions of IAH and IGU:

- IAH Karst Commission and EU-COST Action 620 project: "Vulnerability Mapping for the Protection of Karst Groundwater" (the workshop on the role of the epikarstic zone held in Austria in April, 1999);
- IAH Karst Commission book: "Techniques and Methodologies in Karst Hydrogeology" (preparation of the chapter on Speleological Investigations under "Techniques" heading; to be completed to the end of 2001);
- IGU Karst Commission and Fitzroy Dearborn publisher project "Encyclopedia of Cave and Karst Science" (KHS Commission members involved in the Editorial Advisory Board and in writing of a number of articles); for details go at <http://www.fitzroydearborn.com/london/cave.htm>.

Overall, the UIS KHS Commission has successfully performed its role in advancement of studies in the field of karst hydrogeology and speleogenesis and helped to further rise the UIS profile as a science-promoting organisation. Most of the current projects will continue to the next period of 2002-2005. Ideas for new projects and activities are welcome and they will be discussed during the Commission meeting to be held in Brasilia during the 13th UIS Congress.

Dr. Alexander Klimchouk

President, UIS Commission on Karst Hydrogeology and Speleogenesis

P.O.Box 136, Kiev-30, 01030 Ukraine

Phone: +380-4473-30194, fax: +380-44-5128283

E-mail: klim@klim.carrier.kiev.ua

Web: http://happy.carrier.kiev.ua/~klim/UIS_KHS/

Commission on Techniques and Equipment

The commission has not been very active recently. However, it is now conducting a Vertical Usage Survey and preparing to host a Techniques and Equipment session and workshop at the 13th International Congress of Speleology, in Brasilia, DF, Brazil on July 15 to 22, 2001.

We encourage all Congress attendees desiring to deliver a paper, report, or to present a slide or video show on subjects dealing with caving techniques and equipment to simply bring it with them to the session at the Congress. Sessions of this Commission are always informal with a lot of questions and open discussion. Therefore, we prefer to plan the session agenda on an ad hoc basis at the beginning of the session. We ask who has brought a paper, report, or a slide or video program to present, and then plan the agenda accordingly.

Since the time and place for the session hasn't been announced yet, please check the Congress program immediately upon registering to learn the room and time assignment. For slide or video presentations, appropriate audio-visual equipment will be available.

One paper to be presented at the session will be the results of the survey now underway to determine the type of vertical equipment used by cavers worldwide. This survey is included below. All those receiving this bulletin are encouraged to take part in the survey and provide the answers to the Commission President at the Email address below. The same survey will also be posted on the Caver Digest. The Caver Digest Email address is: Jim Olsen <cavers@caversdigest.com>

We will also be asking to have it posted on the web page of the National Speleological Society. The NSS web page is at: <http://www.caves.org>.

Vertical Usage Survey

1. Depth of Pits Most Often Done
 - Under 15 m
 - 15m to 60 m
 - Over 60 m
2. Type of Rope Used.
Please specify brand name of rope: _____
 - 8 mm
 - 9 mm
 - 10 mm
 - 11 mm
3. Descending Equipment
 - Up to 60 m:
Bobbin Brand _____.

Brake Brand _____
 Figure 8 Brand _____
 Rappel Rack Brand _____
 Mini Rack Brand _____
 Other _____
 Over 60 m:
 Bobbin Brand _____
 Brake Brand _____
 Figure 8 Brand _____
 Rappel Rack Brand _____
 Mini Rack Brand _____
 Other _____

4. Ascending Equipment

Up to 60 m:
 Frog System Brand of ascenders _____
 Ropewalker Brand of ascenders _____
 Other _____
 Over 60 m:
 Frog System Brand of ascenders _____
 Ropewalker Brand of ascenders _____
 Other _____

5. Country of Residence _____

—End of Survey—

Please send the answers to the survey questions to the following address (Email preferred): David McClurg dmcclurg@value.net , 104 Graves Court Vallejo, California 94591 U.S.A.

Another item of business at the session will be to select a new Commission President. I have served as President since 1981 and must now turn over the duties to a successor. Regrettably, I will not be able to attend the Congress in Brazil. Therefore I will ask one of my local colleagues who will be attending to be my proxy and chair the Techniques and Equipment Session in Brazil. This will most likely be William Frantz, from Los Gatos, California, who served in a similar capacity at the International Congress in China. I will confirm this to the UIS Secretary General as soon as possible.

David McClurg
 President

Candidature pour la présidence de la commission de bibliographie UIS

Depuis la démission de Reno Bernasconi de la présidence de la commission de bibliographie UIS après 28 années au service de la bibliographie spéléologique mondiale, la commission n'a plus eu de réunion, mais a continué son travail de réalisation du BBS.

Un nouveau groupe s'est créé en Suisse, dont les membres sont issus de l'ancienne collaboration avec Reno. Ce groupe a publié le bulletin Bibliographique spéléologique no 37. Le bulletin no 38 devrait l'être d'ici quelques mois.

Grâce au soutien de l'Académie Suisse des Sciences Naturelles et de l'Institut Suisse de Spéléologie et de Karstologie, des nouveaux collaborateurs et un soutien financier ont pu être trouvés. Ne nous leurrions pas : bien que le soutien soit déjà conséquent, le Bulletin Bibliographique Spéléologique est réalisé par des bénévoles qui ne comptent pas leurs heures de travail. Il faut compter 2000 heures de travail pour produire un BBS (sans compter le travail des fédérations nationales, coéditrices du Bulletin).

Je propose ma candidature à la présidence de la commission avec pour objectif de continuer à assurer la parution régulière du BBS, ceci dans la continuité des structures mises en place par Reno Bernasconi.

J'ai pour objectif de susciter le maximum de collaboration avec les fédérations membres de l'UIS, et d'augmenter le nombre d'abonnés, principalement par des commandes collectives issues des fédérations.

Toute proposition d'aide ou toute remarque peuvent être adressées au soussigné qui acceptera avec plaisir les propositions de collaboration.

Candidate statement for the presidency of the UIS Bibliography Commission

Ever since Reno Bernasconi resigned from his position as president of the IUS bibliography commission, which he had held for 28 years, the commission continued to produce the BBS although its members ceased to convene.

Several of Reno's former collaborators have formed a new group in Switzerland. This group has published the 37th issue of the BBS Speleological Abstracts, and the BBS 38 is due to appear in a few months.

Thanks to the support of the Swiss Academy of Natural Sciences and the Swiss Institute of Speleology and Karstology, new collaborators have been found and financial support has been obtained. However, the BBS is produced by volunteers who are not paid for their work, despite the helpful contribution of the financial aid. Producing one issue of the BBS requires 2000 hours of work (in addition to the work of the national federations, which co-edit the BBS).

I would like to present my candidature for the presidency of the commission, with the aim of continuing to ensure the regular publication of the BBS, using the structures that Reno Bernasconi has already set up.

My goal is to encourage a greater amount of collaboration with the IUS's member federations and to increase the number of subscribers, mainly through grouped orders by these federations.

Any suggestions or comments can be addressed to the undersigned, who will accept with pleasure additional offers of collaboration.

Centre de Documentation UIS
C/o Bibliothèque Suisse de Spéléologie
Deriaz Patrick

CH - 1614 Granges, Switzerland

Internet : <http://www.isska.ch/bbs>, e-mail : ssslib@vtx.ch

Invitations

Voyage au Laos en 2001

J'ai le plaisir de vous proposer un circuit de découverte du Laos, un pays qui s'ouvre à peine au tourisme, qui a gardé son identité et présente une multitude de minorités ethniques attachées à leurs traditions ainsi qu'une grande diversité de paysages. N'hésitez pas à me contacter.

Circuit de 15 jours, 14 nuits, juillet 2001. Le Laos, du nord au sud.

Ce circuit sera éventuellement adapté en fonction des dates et heures d'arrivée et de départ du groupe et des horaires des transferts en avion. Les prix indiqués comprennent la PAF et l'inscription obligatoire à l'asbl. Meilleure saison: d'octobre à mars.

Jour 1: Arrivée à Vientiane, transfert à l'hôtel Lao Plaza. Après le déjeuner visite de la ville avec les fameuses pagodes Vat Si Saket, Vat Pha Kaew, Pha That Luang et Patouxay.

Jour 2: Vientiane/Luang Nam Tha/Muang Sing. Visite de la ville, le Marché du Matin puis transfert à l'aéroport pour le vol vers Luang Nam Tha. Excursion en voiture pour Muang Sing. Sur la route, visite des villages des minorités : Lu, Ikor, Yao et déjeuner au restaurant en ville, nuit à l'auberge Muang Sing.

Jour 3: Muang Sing. Visite des villages des minorités à Muang Sing: Lu, Ikor, Hmong, et des environs de la ville.

Jour 4: Muang Sing/Oudomxay (Muang Xai). Trajet en véhicule pour Oudomxay. En route, visite des villages des minorités Lantène et Hmong. Déjeuner au restaurant au bord de la route. (ou pique nique). Nuit à l'hôtel Singthong.

Jour 5: Oudomxay/Muang Ngoy. Trajet en pick up pour Muang Ngoy ; déjeuner à Pak Mong et continuation jusqu'à Muang Ngoy. En route, visite de quelques villages de minorités. Nuit au Guest house à Muang Ngoy.

Jour 6: Muang Ngoy / Luang Prabang. Embarquement sur le bateau traditionnel et descente de la Nam Ou. Déjeuner au restaurant local sur la rive. Visite des grottes de Pak Ou, village Whisky (?) Lao (Ban Sanghai). Nuit à l'hôtel Phouvao.

Jour 7: Luang Prabang Visite de la ville avec les Pagodes, Vat Visoun, Vat Xieng Thong, le Musée National (Palais Royal Haw Kham), Mont Phu Si (colline sacrée).

Jour 8: Luang Prabang. Voiture ou minibus. Chute d'eau de Kuang Si. Visite de Ban Thapen (Khmu). Déjeuner pique nique à la chute d'eau. Visite de la tombe de Henri Mouhot. Village de tisserands (Ban Phanom) nuit à l'hôtel Phouvao.

Jour 9: Luang Prabang/Xieng Khuang Voiture ou minibus. Visite du marché local. Transfert à l'aéroport pour le vol vers Xieng Khuang (11h00-11h30). Transfert à l'hôtel Phou Pha Daeng, visite de la plaine des jarres et de Muangkonne (ancienne capitale de Xienkuang).

Jour 10: Xieng Khuang/Vientiane. Fin de la visite de Xieng Khuang et de ses environs puis transfert à l'aéroport pour le vol vers Vientiane. Transfert à l'hôtel Lao Plaza, après midi visite du jardin des Bouddhas via le pont de l'amitié.

Jour 11: Vientiane/Pakze/Tadlo. Tôt le matin, transfert à l'aéroport et vol pour Pakze. Voiture ou minibus pour Tadlo. En route, visite des villages des minorités Katu, Nge, Alak. Nuit à l'auberge Tadlo.

Jour 12: Tadlo/Vat Phou/île de Khong. Voiture pour visiter le Plateau des Boloven. Déjeuner au restaurant local puis traversée du Mékong pour visiter le Vat Phou, continuation en bus jusqu'à île de Khong. Nuit à Sala Donekhong.

Jour 13: île de Khong. Bateau pour aller voir la chute d'eau Somphamit. Visite d'un village au milieu des cocotiers et d'un village de pêcheurs. Déjeuner au restaurant au bord du Mékong. Puis visite la chute de Khonphapeng et retour sur l'île de Khong.

Jour 14: île de Khong/Pakze. Traversée du Mékong et trajet en voiture pour Pakze, promenade à dos d'éléphant 2h aux alentours du mont Asa et visite du site de Oup Moung, nuit à Champasak au Palace.

Jour 15: Pakze/Ubon Ratchatani(Thaïlande). Visite du marché local et d'un village de tisserands (Ban Saphai). Transfert à la frontière (Laos-Thaïlande) jusqu'à l'aéroport Ubon Ratchatani pour le vol vers Bangkok. Fin des services.

Inclus: Tous transferts, visites et excursions selon le programme avec transports privés, guide francophone. Logement en chambres doubles. Pension complète. Droits d'entrée. Autorisation de visa (à faire confirmer). Billets d'avion pour les vols intérieurs Vientiane-Luang Namtha. Luang Prabang-Xiengkhuang-Vientiane. Vientiane-Pakze.

Remarques: Le vol pour Vientiane-Luang Nam Tha n'a lieu que mardi, jeudi, samedi et dimanche. Les hôtels proposés sont les plus confortables. Possibilité de formules moins chères avec d'autres hôtels plus simples, 1/2

pension ou nuit et petits déjeuners. Prix de ce circuit:

Acompte: 5,000 BEF à verser à l'inscription. Solde à payer en USD par personne suivant le tableau ci-dessous :
2 personnes = 1,477, 3 personnes = 1,309, 4/6 personnes = 1,209, 7/9 personnes = 1,083, suppl. single = 187.
visitez notre site : <http://users.skynet.be/Espace-Sport> et plus particulièrement la page « voyages ».

Etienne Delforge
Trésorier de l'asbl «Espace Sport»
Place des Acacias, 11
B.1040 Bruxelles
Tel./fax: 02 734 97 44
E-mail: delforgeetienne@hotmail.com

Karst rock features and rock relief – new book under the preparation

Editors: Wolfgang Dreybrodt, Àngel Ginés, Martin Knez, Tadej Slabe

Factors controlling karst processes leave typical traces on karst rocks. These karst rock features together form characteristic rock relief.

Karst features are either single features or are combined into assemblages of features on the surface of a rock. Rock relief, which links them, can be defined as the actual surface configuration of a karst feature. Rock features may differ from karst features such as karren, doline and cave yet they are, as a rule, elementary constituents of them. Thus, rock features originate on the karst surface, either on bare rock or beneath the soil, either at the edge of the sea or in caves.

The origin and shape of rock features is strongly influenced by the rock properties. Frequently rock features give evidence how karst phenomena have been formed. Rock relief consisting of several rock features reveals either intrinsic complexity of karst feature formation or the most distinctive stages of its development.

A wide and heterogeneous spectrum of single rock features and their combination into rock relief emphasises the diversity of formation and development of karst. According to previous experience as gathered also in the international literature we think that their study could make an important contribution to karstological researches. They offer the first and relatively simple, sometimes even an integral explanation of the origin and development of karst phenomena. Increasing knowledge of karst rock features and rock relief can be useful for researchers interested in the understanding of karst.

This book is the new KHS UIS project. A skeleton title of contribution and abstract is expected up to May, 2001 at the Karst Research Institute ZRC SAZU, Titov trg 2, SI-6230 POSTOJNA, Slovenia
E-mail: krf@zrc-sazu.si. The first reconciliation of the participants is due during the 9th International Karstological School at the end of June 2001 at the Karst Research Institute ZRC SAZU, Postojna.

Tadej Slabe
Karst Research Institute, SAZU
Postojna

World Inventory of Caving Organizations

Ukraine

Ukrainian Speleological Association

P.O.Box 136

Kiev-30

01030, Ukraine

Tel./fax: ++380-44-5128283

E-mail: klim@klim.carrier.kiev.ua

Date of foundation: 1992

Number of clubs: 28

Total number of cavers: 400

Publications: The Light, since 1991, twice a year;
The Ukr.S.A.Newsletter, since 1992, quarterly

Addresses of Web Pages

The UIS web page updated

I have just made a major update to the UIS web pages. Here is a copy of the entry in the "What's New" page on 27-Mar-01:

Added Country Delegates page.

Added Notices for next General Assembly page.

Added downloadable copies of UIS-Bulletin Nos. 45 & 46.

Added The Ultimate International Cave and BBat Environmental Law Website to Mineralogy Commission pages.

Major Addresses update by adding Country Delegates from UIS-Bulletin

44, and updates from 45 and 46.
Updated Speleotherapy on the Commissions page.
Updated Cave Diving on the Commissions page.
Updated Volcanic Caves on the Commissions page.

Peter Matthews

BBS

Some news about the BBS: <http://www.isska.ch/bbs/public/anglais/etat.htm>

Patrick Deriaz

Costa Rica

Asociación Espeleológica de Costa Rica: <http://espeleologia.tripod.com>

Óscar Mario Herrera M.
Asociación Espeleológica de Costa Rica

France

Eric Madelaine French cavers mailist coordinator address: <speleos-fr@sophia.inria.fr>
SIS (Section INRIA Speleo): <http://www.inria.fr/agos-sophia/sis>
SophiTaupes (Section Speleo du COV): <http://www-sop.inria.fr/agos-sophia/sis/COV/ST.html>
CDS 06: <http://www.ffspeleo.fr/cds/06/>

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Poland

Zarząd Główny PTPNoZ: <http://free.ngo.pl/ptpnoz/>

Jerzy Mikuszewski
Sekretarz ZG PTPNoZ

Saudi Arabia

Web pages of caves in Saudi Arabia: www.Saudicaves.com

John and Susy Pint [johnpint@sps.net.sa]
and *Thucky D. Dhubb*

New Books Available

Colloque Riviera 2000 - Tectonique active et géomorphologie

Les catastrophes naturelles et plus particulièrement les séismes restent une importante cause de mortalité et leur incidence sur l'économie planétaire est considérable. Pour définir l'aléa sismique il est important de disposer de données éloignées dans le temps. Les études historiques ou archéologiques permettent de disposer d'informations sur quelques centaines d'années. L'évaluation de la récurrence des séismes et leur quantification impose cependant de disposer d'informations sur de plus longues périodes. La recherche des marqueurs morphologiques de la tectonique active dans les paysages permet de plonger dans un passé plus lointain. Des ruptures ont pu affecter les dépôts superficiels, et la recherche de failles dans les formations quaternaires, par examen de tranchées, permet parfois de les retrouver. Ces méthodes sont très importantes pour les pays dépourvus d'histoire écrite et de constructions anciennes.

Ces dernières années, le milieu souterrain des massifs calcaires (karst) est apparu comme un outil particulièrement performant. Grâce à l'étude des stalactites et stalagmites des grottes, il est possible de mettre en évidence, de dater et de quantifier d'anciens séismes ainsi que des mouvements de failles, ce qui permet de reculer la connaissance de l'histoire sismotectonique d'une région jusqu'à plusieurs dizaines de milliers d'années dans le passé.

C'est dans cette optique qu'a été organisé en octobre 2000 à Villefranche-sur-Mer le Colloque "Riviera 2000", à l'initiative du Centre d'Etude du Karst de Nice (CEK) et de l'Equipe "Gestion et valorisation de l'environnement" de l'Université de Nice. Les thèmes abordés furent les suivants :

- Identification et étude des formes de relief révélatrices de la tectonique active dans les paysages aériens et sous-marins.
- Enregistrement d'événements anciens dans les grottes karstiques.
- Confrontation des observations naturalistes avec les mesures géodésiques.
- Méthodes de datation et quantification des paléoévénements.
- Aide à la définition de l'aléa sismique.

Environ 30 communications ont été présentées à une bonne cinquantaine de participants, permettant de faire le point sur la question et les travaux récents en cours.

Les Actes viennent de paraître et sont disponibles à l'adresse suivante (80 FRF ou 12 Euro, franco de port) :

Philippe Audra
Equipe Gestion et valorisation de l'environnement
UMR 6012 du CNRS "Espace"
Université Nice-Sophia-Antipolis
98 Boulevard Edouard Herriot - BP 3209
F - 06204 NICE Cédex 3

EXPLO 2000 : sortie des Actes

Comme prévu, la *Commission Explo de l'UBS* a une fois de plus relevé le défi. Grâce au travail et à la ténacité d'une cheville ouvrière discrète mais efficace, les actes du 4^e **Congrès Européen de Spéléologie d'Exploration: EXPLO 2000** sont effectivement sortis comme annoncé: le 17 mars 2000 pour l'assemblée générale de l'UBS. Pari tenu et preuve supplémentaire du dynamisme de cette commission !

De format A4, ils comptent 150 pages reliées avec une première page de couverture couleur protégée par un film plastique.

Les communications sont regroupées dans une table des matières à 5 sections avec pour l'

- *Europe*: 9 communications
- *Asie et Océanie* comportent 13 communications
- *Afrique*: contient 2 textes
- *Amériques et Antarctique* soit 5 présentations
- *Techniques et Tables rondes* en comptent 8
- *Compléments* sont composés de 7 chapitres.

Tous les textes sont largement agrémentés des illustrations et croquis fournis par les auteurs.

Bon voyage, bonnes découvertes et bonne lecture...

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e-mail : jp.bartholeyns@profor.be

International Journal of Speleology

On behalf of the Editorial Staff of the International Journal of Speleology - Physical Speleology, I am happy to inform you that on the very next months, vol. 28/B (1999) will be printed. During this year 2001 we intend to publish also vol. 29/B (2000) and vol. 30/B (2001). As you know the letter "B" after the number of the volume means "*Physical Speleology*", while the letter "A" means "*Biospeleology*". During this year 2001 the whole index of the International Journal of Speleology (from vol. 1 to now) should be available on a web page and possibly the abstracts of the papers included in the last five volumes should also be available on the same page. In order to assure both a continuity and a good scientific level we need at present the submission of a number of papers. Could you please contribute directly or ask some colleague of yours to co-operate to this effort ? It is our wish to assure a life to the International Journal of Speleology together with a reliable scientific standard: we succeeded in finding the funds (as you see the price of the journal is incredibly low in comparison to similar scientific publications) but now need GOOD PAPERS !

Arrigo A. Cigna
the Editorial Staff
Fraz. Tuffo
I-14023 COCCONATO (Asti)
Italy
Tel & fax: +39 0141 907 265

Note of Editor

Starting with this number of the UIS Bulletin, I changed the designation of number of volumes. In the past, I followed the tradition, that each number of the UIS Bulletin was signed as the separate volume. Therefore, in a year in which the International Congress of Speleology was held, published volumes contained only No. 1 (e.g., Vol. 42) or No. 2 (e.g., vol. 43), which made problems with the bibliographical processing. From this volume No. 47, all numbers published during one calendar year will be grouped within one volume number.

Pavel Bosák
UIS Bulletin Editor-in-Chief

SPELEOLOGICAL EVENTS IN 2001-2002

For national events in the U.S.A. see, please, the Calendar in each number of the NSS News, the updated event calendar can be found on the UIS Speleo Calendar at <http://rubens.its.unimelb.edu.au/~pgm/uis/events.html>

I	20th Speleological School	2001 02.05 - 02.11	Cieszyn, Poland and Lip-tovský Mikuláš, Slovakia	University of Silesia, Administration of Slovak Show Caves	Andrzej Tyc, Department of Geomorphology, University of Silesia, ul. Bedzinska 60, 41-200 Sosnowiec, Poland e-mail: atyc@us.edu.pl
N	Speleofórum 20	2001 04.06 - 04.08	Rudice, Moravian Karst, Czech Republic	Czech Speleo.Soc.	Czech Speleological Society, Kališnická 4-6, 130 00 Praha 3, Czech Republic, e-mail: novotna@nature.cz
I	Middle-East Speleology 2001	2001 04.20 - 04.22	Beirut, Lebanon	Spéléo Club du Liban	Spéléo Club du Liban, P.O.Box 70-923 Antelias, Lebanon, e-mail: sc_liban@hotmail.com
I	9th International Karstological School-Classical Karst, Contact Karst	2001 06.25 - 06.30	Postojna, Slovenia	Karst Res. Inst. SAZU	Karst Research Institute SAZU, Titov trg 2, 6230 Postojna, Slovenia, e-mail: IZRK@ZRC-SAZU.SI
I	13 th International Congress of Speleology + 4 th Speleological Congress of Latin America and Carribean Countries (CEALC) + 26 th Brazilian Speleological Congress (FEB) pre-Congres program Congress post-Congres program	2001 07.07 - 07.31 07.07 - 07.14 07.15 - 07.22 07.23 - 07.31	Brasilia, DF., Brazil	UIS + FBS	info@speleobrazil2001.org.br www.speleobrazil2001.org.br
I	Conference on Sustainable Development in Karst Regions	2001 08.24 - 08.27	Beijing, P.R. China	The Geological Society of China	Mr. Wang Wei, Miss Wang Yanjun, The Geological Society of China, No. 26 Baiwanzhuang, Beijing 100037, China, T.: ++86-10-68311539, Fax: 0086-10-68311324, e-mail: cagsdic@public.bta.net.cn
I	XXIV Congres Europeen de Subterraneologie	2001 09.07 - 09.09	Laon, France	Service de recherche de s carrieres de la Ville de Laon	Service de recherche de s carrieres de la Ville de Laon, 8, Rue Sérurier, F-02000 Laon, France, t. : 03-23231714, e-mail : webmaster@ville-laon.fr
I	Hidden Earth 2001	2001 09.13 - 09.16		BCRA	e-mail: enquiries@bcra.org.uk http://www.caves.org.uk
I	12 th International Speleotherapy Symposium	2001 09.13 - 09.16	Aggtelek, Hungary	Aggtelek National Park Directorate	Aggtelek National Park Directorate, Tengersizem oldal I, H-3758 Jósvalfó, Hungary, t.: ++36-48-350006, e-mail: baradla@yahoo.com ; fee: 40 USD
N	11 th National Speleological Congress	2001 09.15 - 09.17	Geneve, Swiss	Section Geneve SSS	Section Geneve de la SSS, c/o M. Jean-Marc Leuba, 6, Chemin de la Nonette, CH-1292 Chambésy, Swiss

I	7th Conference on Limestone Hydrology and Fissured Media	2001 09.20 - 09.22	Besancon, France	University of Franche-Comte and University of Neuchatel	Pr. Jacques Mudry, EA Strain, Flow, Transfer, Faculty of Sciences, F-25030 Besancon Cedex, France, tel.: +33-3-81665753, Fax: +33-3-81665794, e-mail: jacques.mudry@univ-fcomte.fr
N-I	8º Congreso Espanol de Espeleología	2001 10.12 - 10.14 .	Alcalá de Henares, Madrid, Spain	FEE	Federación Madrileña de Espeleología, Estadio de la Comunidad de Madrid, Avda. de Arcentales s/n, E-28020 Madrid, Spain, t.: 91-3203702, fax: 91-3203734, e-mail: fmespeleo@mx3.redestb.es
I	International Show Cave Association, International meeting ISCA: New technologies on promotion and management	2001 10.25 - 10.28	Pastena, Colleparado, Italy (Frosinone)	ISCA	Consorzio Pastena e Colleparado, Via Porta Napoli 1, 03020 Pastena, Prov. Frosinone, Italy, t.: 0776/546531, fax: 0776/546261, e-mail: consgrottepastcoll@hotmail.com
I	ALCADI 2002 – 6 th International Symposium on history of Speleology and karstology	2002 04.27 - 05.01	Gorizia, Italy	UIS, SSS, Centro Rich.Cars.C. Seppenhofer	Centro Richerche Carsiche “C. Seppenhofer !, Gorizia, Italy
I	8 th International Symposium on Pseudokarst	2002 June	Vienna, Austria		Karst- und Höhlenkundliche Abteilung, Naturhistorisches Museum Wien, Museumplatz 1/10/1, A-1070 Wien, Austria e-mail: speleo.austria@netway.at

*Note:*I-International event, R - Regional event, N - National event In the table, we mention only such events which are announced to the UIS Secretary General, the dead-line for acceptance for the print is **March 15** each year, except years in which the International Congress of Speleology is held (dead-line for winter and spring - February 15, dead-line for summer, autumn and winter - June 15)

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- (1) the use of the name and/or logo have to be confirmed by some of the UIS Bureau members, and
- (2) the use of the name and/or logo is against the payment. According to the motion of the Assembly General of the 9th International Congress of Speleology, Bowling Green, USA, July 22, 1981, point 4, the payment per capita in the UIS events are set **at 5% of the event registration fee, with a minimum of 3 USD** (see UIS Bull., 22, 1/2, p. 28).

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Published quarterly by Società Speleologica Italiana, with the support of Ministero dei Beni Culturali e Ambientali, Consiglio Nazionale delle Ricerche, Museo di Speleologia "V. Rivera", L'Aquila

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Published by the Publishing House "Zlatý kůň", P.O. Box 8, Kaprova 12, CZ-110 00 Praha 1, Czech Republic

UIS Bulletin
Union Internationale de Spéléologie
c/o Czech Speleological Society
Kališnická 4-6
CZ-130 00 Praha 3
Czech Republic

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