UIS BULLETIN
Union Internationale de Spéléologie
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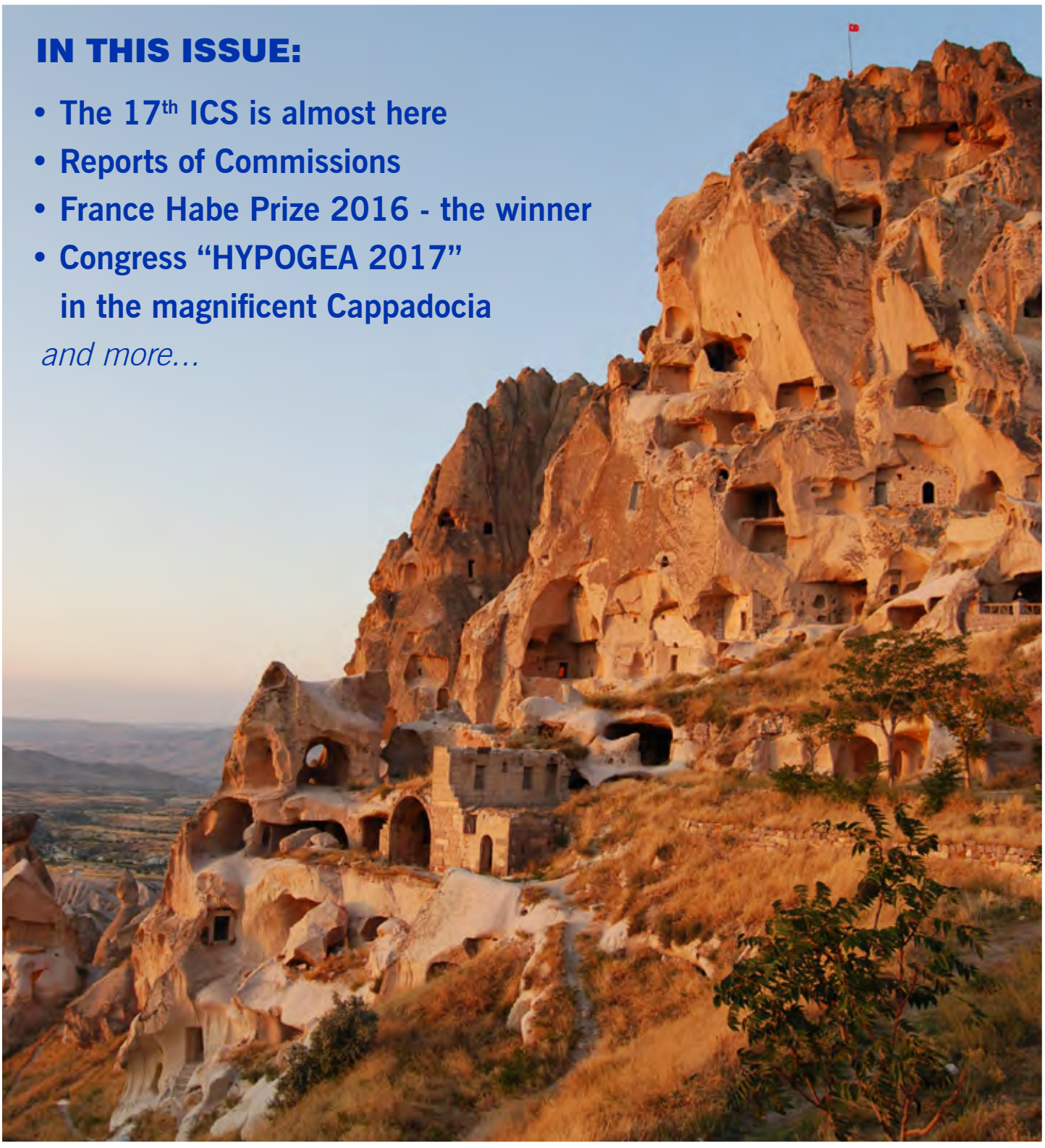

UIS BULLETIN
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Union Internationale de Spéléologie
Founded in Postojna, Slovenia, 1965
The UIS is a non-profit, non-governmental worldwide speleological organization that promotes the development of interaction between academic and technical speleologists of a wide range of nationalities to develop and coordinate international speleology in all of its scientific, technical, cultural and economic aspects.

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Deadline for submissions for the next issue (Nº 59-2)
November 30, 2017

COVER
Cappadocia, Turkey - The richness and variety of artificial cavities, within one of the most beautiful natural landscapes in the world. The local hosted the International Congress of Speleology in Artificial Cavities "HYPOGEA 2017" *(see on page 25)*.

Font:
https://thehappinessprojectlondon.files.wordpress.com/2009/11/dsc_04641.jpg

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Editorial

LOOKING FORWARD

By Efraín MERCADO (Puerto Rico) - Editor in Chief
UIS Vice-President of Operations
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For the last four years UIS Bulletin has been transformed from a basic information issue to a powerful enhanced instrument to serve the cavers all around the world with easy to read, updated information regarding the organization and its members. This means a lot of fine job done across the world, with the extraordinary help of very talented people with the desire to bring their best for the speleology.

Nowadays the bulletin became an easy to reach information and very useful in order to fulfill today's advanced request and technological needs. We continue to work hard to give the best. The easier a reader can became in control of the information the fast it will spread out. That's a goal for us.

Meanwhile important events are happening in the worldwide speleology. As we get prepared for the next challenges, UIS Bulletin serves as a connection point to them. This is the case of the next ICS2017 in Sydney, Australia, "Caves in Ancient Land," an extremely valuable chance to get in touch with the marvels of the country and its speleology.

Looking forward means taking a chance to foresee our future. Is to encourage thru participation of all UIS members the recognition and realization of the "Year of the Caves and Karst", in our next ICS2021 celebration, giving all our strength and hard work toward it with the help of worldwide recognized organizations and UNESCO. Also looking forward means compromise to keep the efforts and to help train new cavers thru de UIS Cave Rescue Commission, as a sound recognition to the work of Cristian DODELIN, the French Federation of Speleology and so many others who place the flag of the UIS and its countries in the summit.

When we look forward we encourage commissions to keep the excellent work done toward our community and countries in the best interest of science, technology and knowledge. Time is short and we are responsible to find out and motivate newcomers, cavers and scientists that will shape the next UIS. New ideas means new ways to do things, to enhance, to test, to implement and to advance speleology.

Whilst, not necessarily everybody is taking advantage of this easy to reach technology, we encourage you to do it. Time changes required change of mind. This is a time to share with all countries. Missing this chance of information exchange and get known is something to avoid. UIS belongs to all of us. We are part of it, we all are the UIS. Do not wait four years more to let know your ideas, projects and future vision for a stronger UIS. Share it now!

This bulletin represents the clear image that together we should, we must look forward. Everybody's ideas are welcomed. UIS is not far, is closer to each one that looks for a better speleology no matter where they live.

Look forward, there is a bright future coming on. Be part of it! *Knowledge that is not shared is useless or have little or no value*.

REPORT OF ACTIVITIES 2016

HISTORY OF SPELEOLOGY COMMISSION

COMMISSION POUR L'HISTOIRE DE LA SPÉLÉOLOGIE

By Bernard Chirol (France), *President*
bearchirol@orange.fr

ABSTRACT

A very rich year 2016 concerning history of speleology. The work about female contribution goes on and many thanks to all people who helped me. A lecture has been created, already given in France, UK and very soon in Sydney.

Hungary, Belgium, Yorkshire were visited this year by your servant…

Another survey concerns the lost pothole of the sinkhole of the Rhône river (Ain, France) between Lyon and Geneva. Ancient texts, new pionneer of caving in 1883 (lecture created).

Many other sites, places studied and protected in France but a great moment was an international course for women in the Jura Mountains (France) in September- October.

A project is to present at Sydney ICS a request concerning the classification of our Commission in the "Research department" instead of in the "Documentation" one.

My colleagues Knolle, Mattes, Bozic, Mulaomerovic, Pearson, Cigna, Hegedus, Craven have written their personal reports joined further in this article.

Special mention for my friend Lionel Barriquand who found a new regional pionneer of speleology (sport ans science) in Blanot (Saône-et-Loire, France). Old texts discovered in Cluny Abbay show the importance for the world of his descents in 1739.

For all details, ask to bearchirol@orange.fr

PS: I must add that France owns now two amazing and pedagogical sites with the Lascaux IV and Grotte Chauvet (Combe d'Arc) reconstitutions.

Une année riche pour moi, grâce au réseau de contacts à travers le monde, intéressés par l'histoire de la spéléologie et de la karstologie.

Histoire mondiale de la contribution des femmes à la spéléologie: ce travail entamé fin 2015 avance. Je remercie en outre tous les spécialistes qui m'ont donné les statistiques de leurs pays. Une conférence est née de cette recherche en cours, ne montrant que quelques aspects de cette longue quête des femmes pour l'égalité de considération, pour accomplir librement leurs rêves. Elle a été donnée à l'Eurospéléo du Yorkshire puis aux Rencontres d'octobre du spéléo-club de Paris en Ardèche, enfin à Villefranche-sur-Saône, près de Lyon.

Voyage en Hongrie en février: visite libre de grottes grâce à la gentillesse de la famille Hegedus présente sur le site aménagé de Szemlö-Hegy et récupération de données historiques. Reconnaissance de l'emplacement du réseau noyé de Molnar également.

En mars, visite sportive payante avec Roland Pélissier de l'Aven Noir qui est une véritable merveille souterraine à la limite Gard/Aveyron (France). Un nouveau mode luxueux de spéléologie…

Poursuite de la surveillance de deux sites du Jura sud (France), dans l'Ain, à Jujurieux et Glandieu où j'ai guidé 35 villageois locaux en septembre avant une conférence sur l'histoire des découvertes dans la grotte des Cascades de Glandieu et une autre sur le gouffre perdu de la Perte du Rhône.

Une conférence en avril à Bourg-en-Bresse sur l'histoire du canyon de la Cluse des Hôpitaux (France) dans le sud Jura avec approche en tant que voie de passage (d'après le livre "Cluse, toujours tu m'intéresses" de 2007).

Le géomorphosite caché de la Perte du Rhône à Bellegarde/Valserine entre Lyon et Genève.

Pour varier un peu et suite à réception d'un article de presse, j'ai ressorti mon dossier "Perte du Rhône" pour construire une nouvelle conférence qui pourrait bien donner un nouveau livre sur ce gouffre en fond de canyon, creusé par une disparition courte du plus puissant fleuve de France: vraisemblablement lors des fusions glaciaires, les calcaires urgoniens ont laissé s'enfoncer le fleuve qui disparaissait entièrement lors des étiages hivernaux. Les eaux du barrage de Génissiat l'ont submergé en 1948! Ce site défendu par Martel vers 1911 disparaissait ainsi. Des hommes ont tenté de l'explorer avant la Révolution française puis un pionnier y est descendu lors d'une catastrophe qui avait barré le Rhône en amont en 1883.

Cette conférence est prévue parmi les 4 de Sydney (ICS).

J'ai participé au repérage et à l'inspection d'une **grotte aux ours**, perdue sur les versants des Monts Jura à Divonnes-les-Bains près de Genève avec une équipe qui s'étoffe et étudie le site dans une Réserve Naturelle (Bertrand Valton, Gérald Favre, …).

En mai, j'ai pu découvrir (il était temps) les karsts de Han-sur-Lesse en Belgique grâce à l'accueil des collègues belges qui ont vidé des siphons pour nous. Un autre a rassemblé des anciennes tenues ayant appartenu à De Joly ou encore toutes sortes de vieux matériels spéléos auxquels j'ai rajouté un descendeur Dad. Mr Quinif nous a accueillis sur ses sites où s'exerce une surveillance pointue de la tectonique. Merci à J.-M. Mattlet.

Au printemps, j'eus la chance de pouvoir rencontrer Dominique Saint Pierre qui travailla avec moi pour améliorer ma conférence "Pertes du Rhône" grâce à une masse de documents accumulés lors de son ouvrage exemplaire pour "Les gorges perdues du Haut-Rhône" paru en 2013.

J'ai donné plusieurs heures de mon temps pour présenter le patrimoine géologique de l'Ain (Massif du Jura sud) à deux journalistes travaillant pour l'émission de France 3 "Des racines et des ailes" en pure perte, la Production ayant opté pour l'option "châteaux". Cette émission va être diffusée prochainement.

J'ai donc pu tester auprès des spéléologues locaux ma nouvelle conférence (doublée en octets) sur la perte du Rhône en Juin à Bellegarde et faire un pèlerinage près du site englouti sous 40 m d'eau.

Un petit voyage à Rome en juillet ne m'a pas vraiment apporté grand-chose en spéléo, si ce ne sont les ancêtres de tenues de plongée imaginées

Chinese Female caving

"Perte du Rhône" - Photo october 1899 showing the sinkhole of the Rhône-River, France.

par Léonardo Da Vinci (Musée).

En août, **le Congrès de l'EUROSPELEO dans le Yorkshire** fut magnifique comme le temps. Des orchestres, des conférences où j'ai pris plaisir à rencontrer le Doctorant Pearson qui travaille sur d'anciens textes traitant des grottes dont il nous donne la signification pour l'évolution de la pensée des hommes. Finalement, grâce aux collègues équipeurs, à David Saint-Pierre, j'ai eu la chance d'aller sous terre chaque jour et de parcourir ces landes couvertes de bruyère et parcourues par les moutons. Visite en prime du musée Wordworth, amateur des grottes, dans le Lake District.

Que du bonheur! Conférences données: Histoire spéléologique de Chypre; Femmes spéléologues (histoire); Les plus vieux plans de grotte (voir Bulletin UIS et Spéléo Magazine).

Tout au long de l'année et ce depuis Brno (2013) où nous avions évoqué avec Laurence Tanguille la possibilité d'un congrès UIS à Lyon en 2021, celle-ci, avec OnlyLyon et les spéléos de Rhône-Alpes a œuvré pour l'acceptation du dossier qui sera entérinée, je l'espère à Sydney (ICS 2017).

A l'automne, l'Association pour l'Education Populaire de Villefranche-sur-Saône m'a donné l'occasion dans un cycle **"Sciences de la Terre"** de proposer 6 conférences dont certaines ont été déjà mentionnées dans ce rapport et auxquelles on rajoutera une présentation générale de l'Histoire de la spéléologie, à partir du travail présenté à Brno en 2013 ainsi que la biographie du karstologue Jean Corbel. Josiane et Bernard Lips ont présenté l'activité grâce au Massif de Samoëns, où se trouve le gouffre Jean Bernard. Le cycle se termine en mars.

Ces conférences sur l'histoire (générale et féminine) ont également été données lors du **stage international féminin** (une aubaine pour mon travail) dans le Doubs (massif du Jura nord en France). Ce stage que j'ai finalement contribué à encadrer aussi techniquement du 26 septembre au 1er octobre m'a remis le pied à l'étrier et permis une enquête auprès des 12 stagiaires de 6 nationalités.

La direction fut assurée par Nathalie Witt et Céline Barrère de la ligue Lorraine. Mon travail reste en cours.

J'ai participé à l'encadrement d'un autre stage, de découverte, intitulé **"stage famille"** où mères

DESCENT CHAMPION - Cover of the issue 126 of the Boléro Magazine, 1952, showing Mile Claude Neilz, 19-year-old, who had just beaten the women's world record by forcing 400 meters underground.

et enfants étaient présents parmi les 17 participants en décembre à Hauteville-Lompnes (Massif sud Jura de l'Ain, France). Une approche intéressante…

En prévision de Sydney **(ICS 2017)**, j'ai émis une requête que le Bureau de l'UIS m'a demandé de présenter en AG en Australie: faire passer la Commission Histoire dans le département "Recherche" au lieu d'être dans l'actuel département "Documentation".

Je vais maintenant vous parler des rapports établis par mes collègues, sachant que j'ai eu de nombreux échanges avec F. Knolle (Vice-Président), J. Mattes, F. Pearson, A. Cigna, S. Craven, S. Gotto, G. Hegedus, D. Saint-Pierre, P. Strinati, T. Shaw, M. Laumanns, J. Mulaomerovic, V. Bozic, G. Badino, C. Benedetto et beaucoup d'autres actifs dans le monde. Je remercie encore une fois celles et ceux qui ont contribué à ma "spéléologie féminine" en cours.

Friedhart Knolle a travaillé sur l'activité des services secrets est-allemands concernant les spéléos, conférence déjà donnée lors de la karst-school du 50ème anniversaire de l'UIS. Bärbel Vogel s'est jointe à lui pour montrer comment notre activité était suspecte mais également intéressante sur le plan militair pour le régime de l'ancienne DDR. Friedhart fut lui-même fiché.

Avec ses collègues de la VDHK et dans les pages de leur Mitteilungen 2 (2016), ils nous apportent des informations sur Hermannshöhle d'après des documents de 1888, ainsi que sur Baumannshöhle dans le Harz.

- Johannes Mattes, de Vienne (Autriche) nous fait part des ses recherches :

Lectures at conferences:

(Unter)welten des Wissens: Raum-, Körper- und Geschlechterkonzepte bei der Erforschung von Höhlen (1500-1800)

Ringvorlesung "Wissenschaftsgeschichte – Themenfelder, Probleme und Perspektiven", Univ. Wien (Wien 11/2016)

Zirkulation von Menschen und Wissensdingen in Wien und zwischen den Metropolen

Workshop der Kommission für Philosophie und Geschichte der Wissenschaften, Austrian Academy of Sciences (Wien 10/2016)

"Zeigen und Verschweigen": Wissens- und Raumkonzepte in historischen Höhlenkarten

Kartographiehistorisches Kolloquium D-A-CH (Wien 9/2016)

Disciplining Interdisciplinarity–The development of speleology as a "handbook science" (1870–1920)

International Congress of the European Society for the History of Science (Prague 9/2016).

Between Occultism and Guided Science – Cave Excavations of the SS Research Community "Das Ahnenerbe" (1935–1945).

International Geological Congress, Session of the International Commission for the History of Geosciences (Capetown 8/2016).

Between Nature and Culture: Concepts of Knowledge and Space in Historical Cave Maps (1500-1800).

Scientiae – International Congress on the Disciplines of Knowing in the Early Modern Age (Oxford 7/2016).

Publications:

Günter Stummer, Lukas Plan, Johannes Mattes: Höhlenkundliche Organisationen. In: Christoph Spötl / Lukas Plan / Erhard Christian (Hg.): Karst und Höhlen in Österreich. Linz: Oberösterr. Landesmuseen 2016. S. 391-398.

Johannes Mattes: Geschichte der Höhlenforschung. Von den Anfängen bis zum Ende des 20. Jahrhunderts. In: Christoph Spötl / Lukas Plan / Erhard Christian (Hg.): Karst und Höhlen in Österreich. Linz: Oberösterr. Landesmuseen 2016. S. 377-390.

Johannes Mattes: Höhlennutzung seit der Antike. In: Christoph Spötl / Lukas Plan / Erhard Christian (Hg.): Karst und Höhlen in Österreich. Linz: Oberösterr. Landesmuseen 2016. S. 287-296.

Dietmar Kuffner, Barbara Wielander, Johannes Mattes: Trauntaler Voralpen. In: Christoph Spötl / Lukas Plan / Erhard Christian (Hg.): Karst und Höhlen in Österreich. Linz: Oberösterr. Landesmuseen 2016. S. 589-598.

Johannes Mattes: Early Efforts in the Musealization of Cave Research. Exemplified by the Speleological Museum in Linz (1912–1917). – Le recenti realizzazioni museali delle scoperte e delle ricerche nel campo della speleologia mondiale viste analizzando lo storico esempio del Museo Speleologico di Linz (1912–1917). In: Atti e Memorie della Commissione Grotte "E. Boegan", Trieste, 47. Jg. 2016 S. 71–88.

Johannes Mattes: Coming from Abroad. The Discourse on Scientific Centralism and Jovan Cvijić's Studies in Vienna. In: Vidojko Jović /Ana M. Petrović (Hg.): 150th Anniversary of Jovan Cvijić's Birth.

RAPORT ABOUT HISTORY OF SPELEOLOGY IN CROATIA

Vlado Božić

Co-ordinator for the history of speleology in Croatia

In The Commission for Speleology of the Croatian Mountaineering Association (CS CMA), 4 years ago, on the annual meeting in the Drežnik Grad 2012, I was elected as a Co-ordinator for the history of speleology in Croatia. On the annual meeting of CS CMA this year in Karlovac I served my report for my work in 2013.-2016. On the same meeting I was elected again for the speleo – historian (mandate for 4 years).

In the past period I collected data about history of speleology in Croatia and with help of my friends I published some booklets:

2013. Development of speleological equipment ant technicts in Croatia (with Hrvoje Malinar), p.1-192.

2014. Ilustrated history of speleology in Croatoa, p.1-75

2016. History of erlarging narroings in caves and pits, p.1-20.

2016. Development of lightings in speleology, p. 1-36.

As a coautor I participated in realization of the booklet "60 years of the Commission for Speleolopgy of the Croatian Mountaineering Assosiation, 1956 – 2016", p. 1-34. (I will send it to you by post).

For the book of the same title, but much detailed, prepared to be published next year, I as co-autor prepared tekst and pictures.

Also, for the new book about speleology (manual), my friend Dalibor Paar and I prepared text and pictures for the article "Historry of speleology in the world and Croatia", intended to be published next year.

My friends biospeleologists prepare a big book about Proteus anquinus, and I made a chapter about history of speleology in the world and Croatia. The book is intended to be published next year too.

On the Rounded table about cavediving (Drežnik Grad, 2012.) is agread to collect all data about divings in the Croatian caves, pits, springs and vruljas, I collect much of that: references, kronology, schooling, accidants, deepet divings, etc.

- Jasminko Mulaomerovic, de Serbie nous a offert un précieux cahier de la correspondance entre E. A. Martel et J. Cvijic. Ces deux membres de la Société de Spéléologie ont entretenu des relations de coopération et d'amitié entre 1896-97 et 1924-25. Cette coopération entre spéléologues européens (et outre-Atlantique !) montre le rôle de fédérateur de Martel au tournant du siècle.

- Frank Pearson (United Kingdom) que j'ai eu la chance de rencontrer et d'écouter durant l'Eurospéléo 2016 nous fournit son rapport:

Frank Pearson - Department of English and Creative Writing, Lancaster University, Bailrigg, Lancaster. UKLA1 4YW - d.pearson1@lancaster.ac.uk
frankpearson59@gmail.com

My research is into the representation and experience of caves from 1660 to 1830 – in scientific writing, philosophy, travel journals, poetry and novels. Due to the restrictions in length for a PhD, the research focus is the caves of Britain though I do look at texts in translation that had an impact on the British perception of the underground. I have been working on the following two areas this year in order to complete my study (September 2017).

1. The disputes between those who sought the truth of the geological formation and age of the earth through empirical observation and those who believed in the truth of biblical revelation had to include the formation and function of caves. The origin and eventual storage place for the water responsible for the biblical flood was for many of the theorists and chronologists the key to understanding the formation of the current subterranean and surface nature of the earth. How these theories and chronologies based on the exploration and study of the underground changed throughout the eighteenth century and into the nineteenth century and how these changes in perception were evident in the scientific, philosophic and literary writings of the period in relation to the underground is the subject of my research.

2. A key element in the literary culture of this period was the fascination with the descent narrative (katabasis), from John Milton's Paradise Lost, through John Dryden's translation of Virgil's The Aeneid (and several more translations during the century), the re-discovery and transcription of the Anglo-Saxon epic, Beowulf, translations of Dante's Inferno to William Wordsworth's The Prelude, which, unlike the imaginary descents in the above epics, includes a descent into a real cave. Wordsworth used the metaphor of a subterranean river that

repeatedly surfaces and sinks in limestone country for the workings of the creative imagination. How the classical descent narrative was used by poets, novelists, philosophers and travellers throughout this period is also the subject of my research. This fascination with the underworld, the subterranean, the subconscious, the irrational runs alongside the rational, observational and empirical exploration of the underground.

- Arrigo Cigna nous signale deux études sorties récemment:

Grotte meteorologica di Murisengo (una revisitazione) sur une cavité creusée comme cave à vin vers 1700 puis considérée comme un indicateur météo, décrite en 1795 et à nouveau étudiée de nos jours pour ses qualités climatiques .

D'autre part, un article sur la grotte de Cunardo Varese en Lombardie (Italie) nous fait part des premières mentions historiques vers 1490 et des explorations déterminantes des années 1940-1950. Contacter Arrigo pour plus de détails.

- Gyula Hegedus résume l'histoire des rapports entre l'UIS et sa Commission secours, à travers des noms comme Bernard Urbain, de Martinoff, Dodelin, etc ainsi que des grands rassemblements et colloques sur ce thème. Gyula est actuellement responsable de ce Département Secours en Hongrie et fera une communication à Sydney.

- Stephen Craven (Afrique du Sud) continue d'exhumer d'intéressants documents sur Cango cave: Yorkshire visitors in 1920-1938; Mapping; William Guybon Atherstone in dec. 1852. Un article Simpson support in "Descent 2016" et la carrière himalayenne de Robert Dove Leakey.

Enfin, je salue mon jeune collègue Lionel Barriquand qui a permis de mettre la main à Cluny sur des documents du 18ème siècle mettant en avant la qualité de pionnier régional de la spéléologie en Bourgogne (Saône-et-Loire) du Docteur Benoît Dumolin qui s'avère finalement être un jalon ignoré mais significatif de la karstologie nationale et mondiale. Son exploration en 1739 des grottes de Blanot montre ses théories scientifiques cohérentes et précoces! Merci à S. Jaillet, C. Gauchon et J.-C. Nobecourt, D. André pour leurs travaux historiques, également.

Pour toutes précisions et références sur ces informations, me contacter: *bearchirol@orange.fr*

Merci à tous ces collègues et pardon pour ceux que j'ai oubliés.

International Crew: Sept-October 2016

REPORT OF ACTIVITIES

CAVE RESCUE COMMISSION

By Christian Dodelin (France),
UIS Adjunct Secretary / President of the UIS Cave Rescue Commission
dodelinchristian@gmail.com

Photos © Spéléo Secours Français

Stage Spéléo-Secours en Chine

Massif de la Shuanghe - 28 octobre au 4 novembre 2015

SHUANGHE GUIZHOU CHINA - 28 October - 4 November 2015

Participants: 31 spéléos dont 25 stagiaires, 5 cadres et 1 personne pour la logistique. Les spéléos Chinois viennent de 9 provinces différentes.

Le projet initial est d'incorporer un stage spéléo secours en camp pré-congrès de la deuxième rencontre internationale de la Fédération asiatique de spéléologie. Le projet n'avait que sept stagiaires inscrits une semaine avant le stage. Jean Bottazzi a ouvert le projet aux spéléologues chinois et proposé le site de la Shanghe. Dans les quatre jours qui ont suivi vingt trois candidats se manifestaient alors que par ailleurs quatre Malaisiens pressentis n'avaient pu obtenir leur visa.

Finalement, le stage se fait avec des spéléologues chinois venus de différentes régions.

Logistique

Les stagiaires ont un hébergement à quelques centaines de mètres des cavités. Dans l'autre direction, ils sont à égale distance d'une grotte touristique où nous prenons le repas du soir et disposons d'une salle de cours. Les cadres sont logés au bout de la vallée quatre kilomètres plus loin.

Les travaux pour faire la route compliquent quelque peu les trajets qui se feront souvent à pied.

Déroulement

JOURNÉE DU MERCREDI 28 OCTOBRE

Bernard et Christian arrivent de France et sont pris en voiture à Chongqing en récupérant au passage deux sacs de matériel envoyés par Erin de l'université de Guillin. En fin d'après-midi, nous sommes au complet dans la vallée de la Shuanghe où nous trouvons la route en pleine construction, uniquement accessible en 4X4. L'entrée en matière est instantanée.

En effet, à peine le pied posé à terre, le repas du soir est englouti et la première réunion de présentation du programme déroulée.

Salle pour les communications

Route en pleine construction en la vallée de la Shuanghe

JEUDI 29 OCTOBRE

Entrée de la grotte Hejiaodong (grotte des adeptes de He)

Le matin, rendez-vous est donné au porche d'une grotte que Jean a pré-équipé la semaine précédente au cours d'un autre stage. Plus de seize cordes sont en place sur les parois et une terrasse a été confectionnée au pied des voies. Cela servira de support pour commencer.

Le principe de l'apprentissage se fait sur une démonstration technique suivie immédiatement d'une application par les stagiaires.

Les argumentaires sont donnés pour chaque point sur l'usage de la technique, ses limites afin de faire de tous des cadres potentiels.

Pour la mise en oeuvre, les stagiaires se mettent par équipe de trois. Les amarrages sont abordés en donnant les arguments qui conduisent à préférer le SPIT même si les goujons sont souvent utilisés parce que davantage disponibles dans le commerce.

Le premier noeud incontournable est le répartiteur sur trois points d'ancrage distincts.

Les informations sont données par les cadres en français et traduites en chinois par Jean Bottazzi.

Rappel sur la sécurité avec la réalisation du noeud en bout de corde dès qu'on l'utilise ; le noeud de huit est à privilégier car en plus de répondre à bon nombre de situations, il est connu de tous.

Il est aussi important d'avoir un enseignement simple et contrôlable par tous.

Le noeud répartiteur de charge

Le noeud italien et sa clé d'arrêt

Premier atelier: descente d'une victime par contrôle sur descendeur; ce dernier est positionné dans le mousqueton sur le répartiteur; idem avec descendeur stop; enfin avec noeud italien et pour chaque matériel la technique de blocage qui lui est propre. Passage de noeud sur la corde dans um dispositif de descente sachant que ça ne peut être qu'accidentel.

Deuxième atelier: Système de traction d'une civière au moyen de la corde par poulie bloqueur puis par un palan; la technique de restitution de mou de corde est vue pour chaque situation.

On aborde la montée par la technique du contrepoids en fin d'après-midi. Cette technique est la plus utilisée: elle offre plus de confort pour la victime en évitant les à-coups dus à l'usage du palan; elle économise l'énergie des sauveteurs; elle est rapide à mettre en place. Mais elle demande um apprentissage sérieux et une bonne compréhension des places et missions de chaque opérateur.

Le bilan du soir commence par une question relative aux tests et la raison pour laquelle nous avons opté pour une corde au lieu de 2 sur des tyroliennes?

Concernant la longueur des répartiteurs, elle varie de trois à six mètres. Ces éléments de corde sont conservés pour un usage unique sans frottement et ne doivent pas être employés à d'autres usages comme, par exemple, un point d'attache autour d'amarrage naturel avec frottement.

Le matériel personnel: les longes manufacturées ne correspondent pas souvent à la morphologie des personnes en termes de longueurs. Deuxième inconvénient: ce sont des longes donnant moins d'amplitude pour la progression. Dernier inconvénient: ce sont des longes hyperstatiques. L'idéal est d'opter pour des longes en corde dynamique de neuf millimètres de diamètre, qu'elles soient d'um point central d'accrochages ou séparées en deux parties. Le choix se portera sur une corde dynamique terminée par des noeuds qui servent également d'amortisseur de la force choc en cas de chute.

Les mousquetons de longes préconisés sont asymétriques, simples, en veillant à ce que le doigt n'accroche pas. Eliminer les mousquetons aux doigts incurvés qui sont prévus pour un usage spécifique en escalade et inappropriés pour la spéléo.

Comment déterminer la longueur des longes?

La petite longe doit rester en main en ayant le coude plié au niveau du MAVC. La grande longe doit permettre d'atteindre le bloqueur lorsque l'on est em tension sur une corde de progression.

Le choix du baudrier est important pour l'aspect confort (largeur des sangles et surface corporelle soutenue par une sous-cutale). Penser au confort du sauveteur.

Le choix du descendeur (stop ou simple) est fonction de la culture d'apprentissage.

La pédale de pied doit devenir un outil de sécurité. Faite en dyneema, elle est réglée à la taille du spéléo. Il faut éviter les pédales réglables. En dyneema, cela ouvre des perspectives pour de l'auto se-

cours. La pédale ne comporte pas de noeud.

Le baudrier de poitrine doit pouvoir s'adapter facilement et être tendu lors de la montée pour gagner en efficacité. Quand on remonte, chargé d'un kit, l'indépendance du baudrier de poitrine par rapport au cuissard, évite des pertes de rendement.

Le matériel individuel de progression, c'est un choix personnel à regarder de près pour augmenter l'efficacité et le confort.

Le bloqueur de pied est important. On le retrouve en secours comme aide pour le régulateur et pour l'accompagnant d'une civière.

L'éclairage doit être bon et suffisant pour un sauveteur, que ce soit pour la progression ou pour l'équipement.

Le matériel personnel de survie est indispensable: couverture de survie et matériel de chauffe.

En soirée, révision des techniques abordées aujourd'hui en falaise à partir des dessins publiés dans le manuel du sauveteur. L'occasion de rappeler les usages pour chaque technique et les limites.

VENDREDI 30 OCTOBRE

Journée falaise: techniques verticales avec enchaînements de montée par contrepoids et retour par tension latérale sur palan; parcours d'une victime sur civière dans un itinéraire avec plusieurs reprises par contrepoids; mise en place de tyroliennes avec les différents systèmes de tension puis blocage de la tyrolienne. Le mode de blocage détermine la tension résiduelle dans la tyrolienne et permet ou non le largage de la tyrolienne sous charge.

Plusieurs mises en civière permettent de se familiariser avec la civière Nest, don des établissements PETZL au stage pour la circonstance.

Soirée bilan:

Nous avons eu un goujon de détérioré en plus des deux autres le premier jour, ce qui confirme la nécessité de répartir la charge sur trois points au moyen du répartiteur. La rupture d'un ancrage montre la nécessité de vigilance sur tous les points de détails contribuant à la pose de ces accessoires. Les réponses

aux questions restent dans le domaine technique.

Les paramètres non maîtrisés tels que la roche, le vieillissement des ancrages SPIT et goujon…. Etc. démontre la nécessité de répartir les ancrages dans des emplacements distincts. Nous avons eu l'arrachement d'un SPIT qui n'avait pas été expansé.

Il y a aussi le risque de l'erreur du fait de l'oubli des équipeurs: SPIT sans cône, goujon avec vis non serrée…

Le contrôle est un devoir pour chacun. Il doit s'appliquer pour soi et entre nous. Nous avons abordé la réalisation des tyroliennes en précisant les tensions obtenues selon le type d'attache: 120 DaN avec le noeud italien verrouillé par noeud de mule. 200 avec descendeur simple (avec une mise en tension au moyen d'un palan déporté) et 240 avec descendeur Stop (la corde positionnée autour de la première poulie).

En matière d'efforts appliqués dans les ateliers de transfert de la victime sur un retour avec palan pour la maintenir en parcours aérien déporté, on arrive à un maximum de 400 DaN. L'essentiel, c'est d'avoir les charges et tensions en mouvement et en équilibre. Au sol, Il faut limiter le contrepoids par les personnes en charge à deux pour le contrôle de

la trajectoire de la civière. Idem pour le nombre d'équipiers pour un palan en fonction des

poulies utilisées.

Les techniques employées aujourd'hui répondent au transfert latéral d'une victime qui peut se faire par une tyrolienne ou par une traversée avec la même corde tractée par um palan. L'emploi de l'une ou l'autre des techniques est à écider sur le terrain. Au contrepoids sur la corde, on peut aider pour la tension depuis le bas par des équipiers qui tiennent la corde à la main. Les contrepoids partent toujours de l'ancrage pour fournir une force de tension sans saccade. Le contrepoids se délonge quand la civière a décollé. Si nous disposons de systèmes débrayables sur une tyrolienne, ils doivent avoir suffisamment de corde libre pour réaliser la libération et le suivi de la corde. Il est possible de n'avoir qu'un côté débrayable.

Sur une tyrolienne, la tension sur le répartiteur est celle de la tension initiale de la corde à laquelle s'ajoute le poids de la charge qu'on y met. Fin de la soirée par la projection d'un film sur les tests faits en Croatie puis par celle du film sur la tyrolienne de Millau, record du monde de tyrolienne sur corde unique de dix millimètres

cinq de diamètre sur une longueur de deux mille cent quatre vingt mètres pour quatre cent mètres de dénivelé.

SAMEDI 31 OCTOBRE

Parcours et succession d'ateliers dans le même porche d'entrée qui permet d'appliquer toutes les techniques apprises. Un contrepoids, deuxième contrepoids, troisième, … poursuite par tyroliennes… Mise en oeuvre avec les deux civières.

Questions du soir:

Concernant les tyroliennes, il n'est pas nécessaire de les tendre au maximum. Dans un répartiteur on peut mettre plusieurs mousquetons selon les besoins.

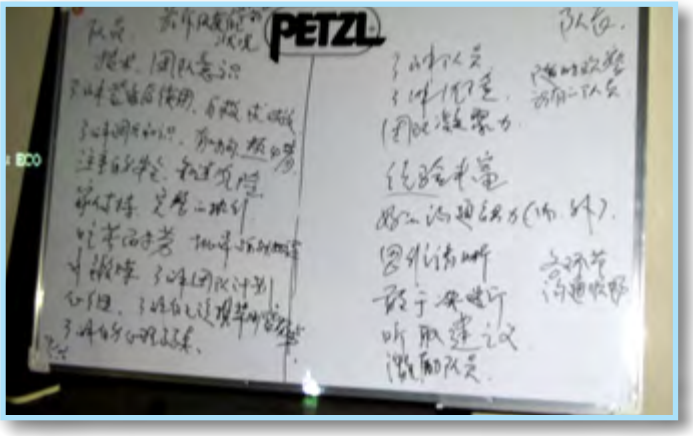
Pourquoi doit-il y avoir des chefs d'équipe? Pour l'organisation et la bonne réalisation des missions.

A partir des suggestions des uns et des autres nous établissons ce qu'est un équipier puis un chef d'équipe. Un stagiaire note au tableau les différentes propositions.

Rôles et compétences de l'équipier: être technique, soit autonome sous terre. Etre sur une liste répertoriée, connaître le matériel et savoir l'utiliser, avoir une bonne connaissance des grottes, savoir s'intégrer dans une équipe, se rendre disponible, se former, être attentif à sa propre sécurité, connaître les dangers du milieu souterrain, avoir le feu vert de son environnement familial, savoir faire preuve de rigueur et discipline, être apte à se plier à une décision, avoir de bonnes capacités physiques et 'endurance, savoir accepter la critique et faire preuve d'autocritique, participer à des entraînements réguliers, connaître le plan et les membres de l'équipe, être consciencieux, avoir anticipé la logistique en cas d'appel, bien se connaître sur le plan émotionnel.

Rôles et compétences du chef d'équipe: connaître les capacités de ses équipiers, savoir connaître et estimer les risques, savoir utiliser les compétences particulières des équipiers, posséder une grande expérience, être habile en communication et obtenir la confiance de son équipe, être clair, savoir prendre des décisions, savoir écouter et entendre ce que l'autre

dit, en tenir compte, savoir rendre compte et expliquer une situation. Il est le garant de l'équipe. Il en est le responsable et doit veiller à l'intégrité physique de son équipe.



Rôle et compétence de l'équipier

Rôle et compétence du chef d'équipe

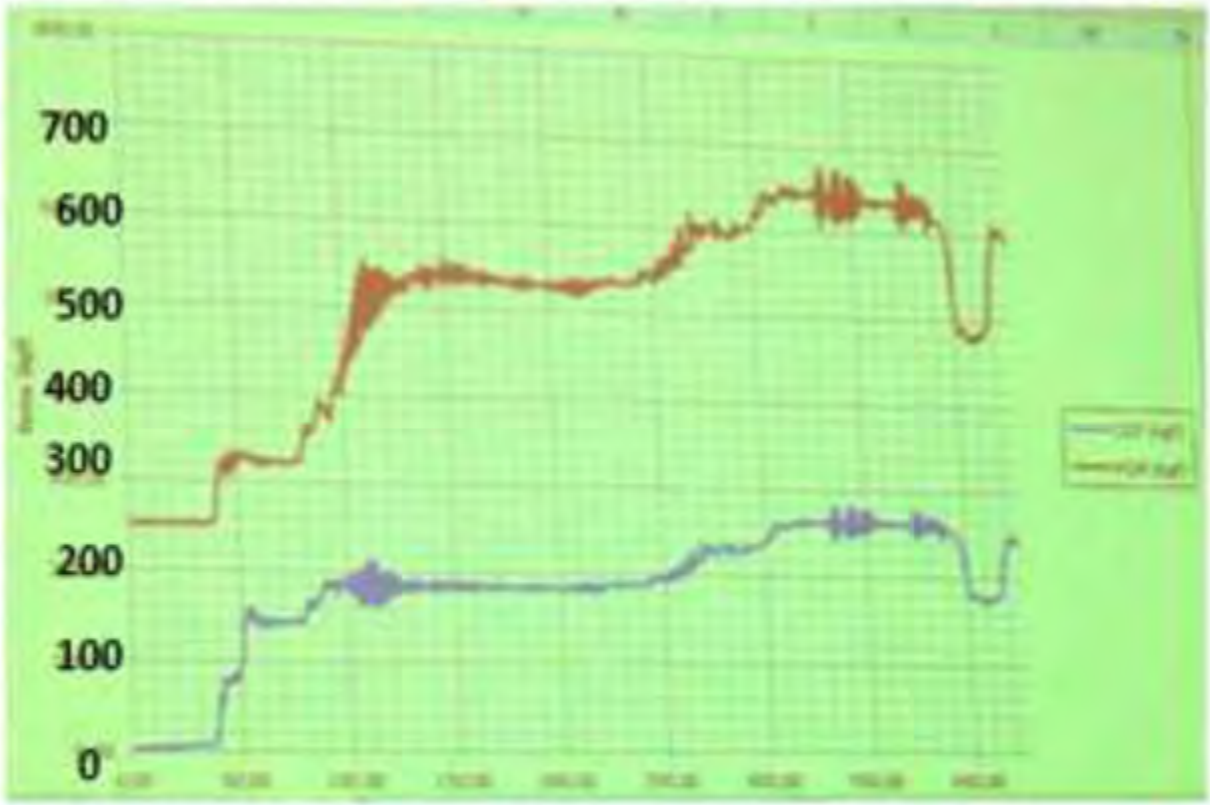
Toute personne signale à la surface toute situation grave ou anormale au cours d'une opération de secours. Peut on préciser l'usage de poulie de renvoi pour écarter ponctuellement la corde lors d'une remontée?

C'est possible, mais pas plus de deux poulies de renvoi sinon il est préférable de faire une reprise de contrepoids. Selon l'angle de la corde et la paroi, la poulie de renvoi sera fixée à un, deux ou trois points d'ancrage. En cas de points courts, un cabestan peut s'avérer utile. C'est toujours un dispositif débrayable.

L'intérêt des poulies humaines dans un grand puits permet avec un contrepoids en haut de remonter une civière avec l'aide ajoutée des poulies humaines.

Dans de grandes verticales, un contrepoids peut s'arrêter sur un ancrage s'il n'est pas possible ou opportun pour lui d'aller jusqu'à sa base. Résultats des tests sur les techniques secours et commentaires à partir du tableau de synthèse du SSF.

Test and measure of forces generated by counterweight on a tyrolean



BLUE : 190daN generated by 3 people / 270 to 290 during the evacuation
RED : Tensions initial 250daN + blue value give on the anchorage of the tyrolean rope 520daN with maximum of 680daN

Situation de secours: en cas d'alerte, la première équipe envoyée est l'ASV (équipe d'assistance à la victime). Ce sont cinq ou six bons spéléos qui ne sont pas médecins. Ils vont aller rapidement au contact de la victime.

Avec un bilan de la victime, ils noteront un certain nombre d'observations. Dans le même temps, d'autres installeront un point chaud où la victime sera introduite. Un deuxième bilan plus complet sera alors fait.

Nous disposons d'une fiche conçue par des médecins pour porter à leur connaissance des éléments qui leur feront

apprécier la gravité des blessures de la victime et son état de dégradation. Ces fiches sont remplies par l'équipe ASV et la transmission des infos est facilitée par le fait qu'en surface, à la réception de la transmission et au PC, ils disposent de la même fiche vierge. Dans le même temps la communication sera établie avec la surface par TPS ou par téléphone (SPL).

Présentation des TPS Nicola

L'intérêt et l'importance de la communication en secours est explicite, que celle-ci s'opère par TPS ou par téléphonie au moyen du SPL fabriqué par le SSF. Le système est présenté avec ses principes et étapes de mise em oeuvre.

DIMANCHE 1ER NOVEMBRE

Entrée supérieure Shanwangdong (grotte du roi de la montagne) – entrée inférieure Yinhedong (grotte de la rivière de l'ombre).

Exercice en grotte. Le choix se porte sur une traversée souterraine dans le lit d'une rivière, véritable canyon souterrain. Une succession de puits et marmites profondes constituent l'essentiel des obstacles. Cinq équipes sont réparties avec leurs missions, tel qu'en secours.

Au printemps 2015, cette cavité a été le théâtre d'un drame puisqu'un jeune spéléologue, lors de l'encadrement d'un groupe, a voulu récupérer du matériel dans l'une des vasques et y est décédé, des suites d'une hydrocution. L'autopsie a révélée qu'il n'avait pas d'eau dans les poumons. Si l'évacuation dure un peu plus de deux heures, la mise en place aura pris beaucoup de temps, plus de quatre heures. Ceci est dû en partie aux difficultés rencontrées par les stagiaires pour transposer les techniques récemment apprises à l'environnement en trois dimensions d'une cavité. Nous laissons les stagiaires s'organiser par eux-mêmes mais cet exercice, sans expérience préalable, est difficile.

La soirée est consacrée au bilan de l'exercice. Chaque chef d'équipe présente sa partie d'évacuation et indique ce qui a bien fonctionné, les problèmes rencontrés et des pistes d'amélioration. Pour tous, les points d'ancrage ont été placés trop bas, ce qui génère une dépense d'énergie pour compenser cet inconvénient.


PETZL

LUNDI 2 NOVEMBRE

Grotte Hejiaodong

Retour en falaise dans le porche d'entrée pour les techniques d'auto-secours et de secours à personne. Au-delà des acquisitions techniques, tout cet enseignement sert pour l'autonomie personnelle et la sécurité des équipes d'exploration. Les techniques de réchappe sont importantes pour notre propre sécurité ou la mise en sécurité d'une victime en attendant les secours. C'est une des missions de prévention des équipes de spéléo secours.

Ces techniques se font avec le matériel normal de progression ou celui emporté pour les équipements classiques. Que peut-on faire avec ce que l'on a sous la main?

Présentation du diaporama de l'ASV. Aujourd'hui, on compte deux mille sauveteurs en France. Il y a une moyenne de quatorze accidents par an et cela touche un tiers de spéléologues, les autres victimes étant extérieur à la FFS.

Souvent les décès sont en plongée. Il y a un décès par an dans la pratique spéléologique classique. Le rôle de cette équipe ASV est d'aller au contact de la victime, faire un premier bilan, assurer um déplacement en cas de danger avéré, établir un point chaud pour mettre la victime en lieu sûr. Le point chaud se construit et s'adapte en tout lieu. Un deuxième et troisième bilan est transmis par communication au PC. Il s'agit d'organiser l'attente soit du médecin soit du début de l'évacuation.

Le point chaud est maintenu propre au mieux et permet de stopper les mauvaises conditions de température et 'humidité.

L'objectif de cette équipe est que l'état de la victime cesse de se dégrader puis s'améliore. On n'entre ni en botte ni en combinaison dans un point chaud.

Après bilan transmis au PC, l'action médicale est décidée. Pendant l'attente, le blessé est alimenté car il ne sera pas transféré à l'hôpital avant plusieurs heures voire plusieurs jours.

Présentation de la fiche bilan médical. Elle se décompose en identité de la victime, circonstance de l'accident, éléments de conscience, respiration, circulation sanguine. Les points d'observation sont notés sans interprétation. On s'en tient à ce qui est visible. Informations concernant la situation du point chaud.

L'objectif est de voir la progression, l'évolution de l'état de santé de la victime.

Une équipe ASV dispose en général de trois à quatre sacs. Ce matériel est prêt et il faut penser à remplir les gourdes d'eau et prendre la doudoune ou le vêtement spécifique pour la victime.

Cette équipe risque de rester longtemps

sous terre, d'où la nécessité pour ses membres de s'économiser et d'avoir de quoi tenir en nourriture…

Il faut toujours garder en mémoire que la victime entend tout en permanence. Cela demande donc de la part de cette équipe la plus grande discrétion.

Cette logistique est propre au secours et n'est pas emmenée pour une cession d'exploration.

Présentation de la gestion d'une opération.

Cas d'un accident dans une cavité. Une alerte arrive par un témoin. Le CT va prendre contact avec les autorités et va décider d'envoyer une équipe ASV. Equipe 1 est ASV dans le cas d'une alerte pour un blessé. Elle se rend directement dans la cavité pour aller au contact de la victime. Elle a pris le matériel au local avec un TPS. A ce stade de l'opération, le CT est encore à son domicile.

On va décider avec les autorités de l'emplacement du PC pas trop loin de la cavité mais dans des conditions de logistique confortable (salle, électricité, téléphone, nourriture, couchage).

Un CTDA va se rendre sur site pour l'accueil des sauveteurs et l'organisation sur place. C'est là que tous les sauveteurs se rendent quand ils sont conviés.

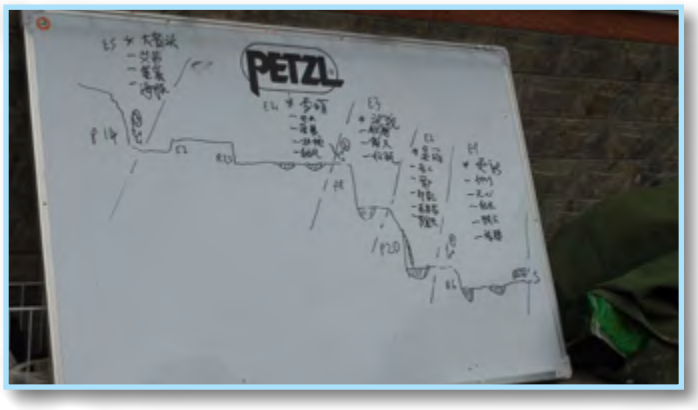
Il y aura le secrétariat, le matériel, des espaces d'accueil des sauveteurs pour se préparer, se restaurer, se reposer, être en attente.

Chaque personne qui arrive est inscrite au secrétariat et rempli une fiche de renseignements. Cette fiche va servir pour composer les équipes et connaître le personnel disponible puis engagé.

On dispose un poste radio et Nicola à l'entrée de la cavité avec une personne qui filtre les entrées et sorties et rend compte au PC.

Anticipation sur les équipes qui seront nécessaires. Le planning est un document qui permet de gérer le personnel. C'est l'outil du CT qui lui permet de savoir où sont les spéléologues. Le PC peut suivre par les moyens de communication les différentes équipes en cours de mission et détecter s'il y a un problème ou pas.

Une équipe téléphone est envoyée dans les plus brefs délais. Organisation de l'évacuation de la victime par une découpe de la cavité comme nous l'avons fait sur notre exercice. Le nombre de personnes sera décidé pour chaque équipe puis la mission de chaque équipe sera définie et rédigée. La fiche de mission est faite en double avec un exemplaire pour le chef d'équipe, l'autre au PC. Toute modification pendant le déroulement est transmise au PC.



Quand des équipes sont engagées sous terre un diagramme est mis en place. Il permet de suivre les équipes dans la cavité dans le temps qui s'écoule. Chaque équipe a une couleur. Cela nous donne le temps mis par les équipes pour se rendre d'un point à un autre. Ces outils, avec la main courante, sont les moyens de gestion d'une opération qui permet de garder une trace de tout ce qui se fait mais aussi qui permet d'anticiper.

MARDI 3 NOVEMBRE

Retour en falaise pour la dernière journée. Suite au départ prévu de Bernard en milieu de matinée,

nous retrouvons les stagiaires à leur hébergement, prenons le petit déjeuner avec eux puis faisons la photo de groupe à l'entrée de la cavité.

Plusieurs ateliers sont définis: la mise en stef pour maintenir la civière horizontalement en évacuation, passage d'un noeud dans un système de contrepoids, le passage d'une tyrolienne à une autre tyrolienne dans une direction différente, l'installation d'un système de contrepoids sur tyrolienne.

Une fois achevée la mise en place des cordes, nous donnons les éléments pour résoudre les données techniques pour tous avec des présentations faites par Éric, Carlos puis Christian. Jean reste à son poste de traducteur.

Quatre équipes avec leurs chefs d'équipe mettent en oeuvre les ateliers. Nous aurons le temps de faire circuler une civière de l'atelier tyrolienne à celui de remontée d'une verticale par le contrepoids sur tyrolienne. Ce dernier atelier ayant fait l'objet d'un essai avec un spéléo comme victime à la place de la civière. Ceci permet de tester et vérifier que la mise en tension n'occasionne pas de frottement de la corde porteuse.

Par manque de temps, certaines équipes ne pourront tourner qu'une fois sur les ateliers. Nous avons entièrement déséquipé les cordes en parois.

En soirée, nous reprenons quelques points techniques sur les ateliers. Pour le passage d'un noeud

dans un contrepoids, il est rendu difficile si on n'a pas différencié le point d'accroche des deux descendeurs qui servent à la manoeuvre.

La situation d'un contrepoids sur tyrolienne, s'il est spectaculaire, est aussi intéressant à maîtriser dans le cas des puits d'entrée dont les parois sont

Contrepoids sur tyrolienne dans l'entrée de Hejiaodong

souvent instables et présentent des risques de chutes de pierres. Elle demande une idée claire de la situation pour que chaque intervenant soit précis dans l'exécution de sa mission.

Présentation du SSF à l'aide d'un PowerPoint. Cela permet de donner une idée concernant l'organisation d'une structure secours, avec ses objectifs et ses moyens.

Les stagiaires sont invités à imaginer comment ici, en Chine, ils peuvent engager un dispositif secours spéléo. Ils reprendront cette discussion à leur gîte, entre eux.

MERCREDI 4 NOVEMBRE

Les stagiaires se sont levés plus tôt pour achever le nettoyage des cordes dans la rivière. Nous pouvons consacrer la matinée à un bilan et répondre à leurs questions concernant l'organisation qu'ils envisagent en Chine.

Le constat est qu'en peu de jours, ils ont abordé un grand nombre de techniques. Cela a été rendu possible parce qu'ils avaient un minimum de connaissances en progression sur corde sous terre. Ils envisagent de poursuivre ces entraînements mais craignent que des applications et divergences de méthodes ne viennent compliquer les choses. La solution est de maintenir une rencontre annuelle entre eux pour évaluer les nouveautés, que ce soit dans les concepts ou dans l'intégration de nouveaux matériaux.

Nous sommes dans des pratiques différentes et le type de cavités dans lesquelles nous pratiquons nous orientent dans le choix de notre équipement et de nos pratiques. Ces différences sont une richesse et doivent être partagées pour bénéficier des avantages qu'elles présentent tout en constatant leurs limites.

Dans la mesure où ils se prennent en main avec une répercussion dans leurs provinces qui sont à l'échelle de l'organisation des secours, nous pourrons apporter une aide par notre venue pour d'autres formations.

A l'échelon de l'UIS (Union Internationale de Spéléologie), nous pourrons collecter les adresses des responsables qui se manifesteront dans les différentes provinces pour les circulariser comme les responsables secours des autres pays du monde.

C'est à eux de trouver l'articulation administrative qui leur convient et sera propre à leur pays.

Longue vie au SSC, le Spéléo Secours Chinois. L'impossibilité de créer une structure nationale sans l'aval de l'Etat obligera pour le point de départ à garder les contacts entre eux sans appellation officielle.

Nous terminons par un diaporama récapitulatif de quelques moments du stage puis par la remise des attestations. Une attestation a été faite au nom du jeune Chinois décédé dans la cavité où nous avons fait l'exercice sous terre. Ce fut intense en émotion d'autant que beaucoup le connaissaient et plusieurs étaient dans un état de crainte qu'il n'arrive un autre accident. (malédiction liée à des croyances).

Une dernière photo sur le perron des bâtiments d'accueil de la grotte touristique avant le dernier repas pris en commun et la dispersion des stagiaires.

Cadres du Spéléo secours français: *Bernard Tourte, Christian Dodelin, Jean Bottazzi, Carlos Placido, Éric Sanson.*

Logistique: *Xue Lian*

Sponsor: *Etablissement PETZL qui a fait don d'une civière et de matériel mécanique.*

Liste des participants: (certain signe en chinois ne sont pas passés!)

Nom		genre	province
汪献刚	Gang Wangxian	M	Beijing
李 萌	Li Meng	M	Beijing
武冀海	Wu Jihai	M	Beijing
周东平	Zhou Dongping	M	Beijing
魏林红	Wei Lin Hung	F	Beijing
张 鹏	Zhang Peng	M	Henan
王希国	Wang Xiguo	M	Henan
刘育新	Liu Yuxin	M	Henan
赵建伟	Zhao JianweiM		Henan
赵树林	Zhao Shulin	M	Hebei
郁百胜	Yubai Sheng M		Hebei
邵 峰	Shao Feng	M	Hunan
向雪松	Xiang Xuesong	M	Hunan
余 智	Yu Zhi	M	Hunan
董曾远	Dong Cengyuan	M	Zhejiang
吴 筠	Wu Yun	F	Guangxi
罗宏杰	Luo Hongjie	M	Guangxi
林 波	Lin Bo	M	Guangxi
叶 锐	Ye Rui	M	Jiangsu
吴 雨	Wu Yu	F	Chongqing
范开林	Fan Kailin	M	Chongqing
彭永利	Peng Yongli	F	Chongqing
蒲智文	Pu Zhiwen	M	Guiyang
郑 凯	Zheng Kai	M	Chongqing

Fin du stage devant les locaux de la grotte touristique Dafengdong.

ACTIVITY REPORT

CAVE DIVING COMMISSION

By Maxime de GIANPIETRO (Switzerland), *President*
uiscdc@yahoo.com

The highlights of the Cave Diving Commission activities since the UIS meeting in Brno until June 2017 can be summarized as follows:

In autumn 2013 we successfully launched a website https://cdcuis.wordpress.com/, fully dedicated to the activities of the Cave Diving Commission of the UIS with the aim to make it easier for people all around the world to access crucial information about the commission's ressources and activities as well as to get in touch with its key people easily.

The President of the commission was invited to attend, as a guest, the 2014 annual meeting of the French Cave Diving Commission (Commission Plongée de la FFS - Fédération Française de Spéléologie) which was held during the annual congress of the French Speleological Society (FFS) in the French Jura.

During this meeting the two commissions agreed on how France would in the future run it's cave diving seminars and workshops, this decision was important since the commission has to respond to requests from countries which do not have suitable knowledge to offer cave diving seminars and courses to their members.

At the request of the local speleologists, our Vice-President, Mr Philippe Brunet, organised in 2013-2014-2015 and 2016 Cave Diving Workshops abroad and more will certainly come.

The Commission members were invited to attend the 13th International Cave Rescue Conference, RISS 2015, as speaking guests, held in Vaumarcus from April 16th-19th. At this occasion we showed the movie *"Rescue in the Bouclans' Spring"*, a documentary produced by our commission. The aim was to show to the conference participants how a multisumps cave diving rescue operation works. We highlighted the challenges that such an intervention means to traditional rescue teams, letting them better understand the needs and the severe constraints that cave diving rescue specialists encounter when planning a joint rescue multisumps operation.

This event, which gathered more than one hundred participants from around the world, was also rich in exchanges thanks to various presentations, exercices and brainstorming sessions.It was a unique opportunity to meet and to talk to Rescue Speleologists and to Rescue Divers coming from a dozen of countries and to present them the peculiarities, constraints and procedures of Cave Diving Rescue in a multisump environment. In return we could gather and exchange informations about the organisation of Cave Diving Rescue in some countries and the lack of such organisations in others. During this Conference we were pleased to tie with the representantive of the Rescue Commission of the UIS who had also attended.

Our commission was able to present another documentary on a multisump exploration in several Speleological conventions in Europe with the aim to demonstrate to classical speleologists the wherabouts of joinedt operations with Cave Divers when exploring new caves. These documentaries can be viewed on the website of the commission.

The Cave Diving Commission gave its patronage to the Cave Diving Conference in Dorgali, Sardinia organised in May 2015. The organizing Committee was made of the Sardinian Spelological Federation (FSS) and the Cave Diving Commission (CNS) of the Italian

Margrit Hohl (CH) exploring the Baba exsurgence, in France.

Subaquatic speleologist F. Martin (France) in the Source du Gour (France).

Speleological Society (SSI). This congress highighted the main outcomes in the exploration of the karst underwater system along the Orosei gulf during the last 50 years. Several explorers were invited and presented the outcomes of exploration dives and new perspectives. Part of the session was devoted to reports on other exploration areas and new cave diving equipment. Another patronage was granted to the International Namibia expedition led by Dr. Alessio Fileccia.

The President of the Cave Diving Commission was invited to attend personally to the February, 2016 Conference in Teheran, invitation that he unfortunally had to decline shortly before its begin due to an unexpected change of his professional agenda. We take the opportunity to reiterate our thanks

To the Iranian Organising Commitee for their appreciated invitation and we hope to be able to come to Iran to talk about the wherabouts of surveing and mapping Underwater Caves in the near future.

The Commission was also asked to give its expertise on Cave Diving Exploration matters to local territorial autorities of a country that had to grant special permits for a major cave exploration, involving speleologists, cave divers and heavy surface support.

We also assisted a National Cave Diving Commission in the setup of its new Chart and the definition of the new terms of reference and specifications of the Cave Diving Commission within its national Speleological Organisation. Several national Cave Diving Commissions approached us regarding the procedures for issuance of Cave Diving Accreditations for their members and we responded to their requests in issuing new Cave Diving Accreditions as Underwater Speleologists.

We were also involved in the successfull testing of a new subterranean positioning device that could be defined as something like an underground GPS. We do hope that this device will help the future explorers to map new galeries discovered with a greater accuracy.

I take the opportunity of this brief to thank the two Vice-Presidents of the commission, Mr Manuel Pinto-Soares (P) and Mr. Philippe Brunet (F), for their most appreciated contributions to it as well as for their overall constructive collaboration and their strong dedication towards our commission.

Subaquatic speleologist with closed circuit rebreather.

Speleologists mapping and measuring an historic water well.

Unfortunately, its was not possible to get the same support from the Secretary of the Commission, Mr Arjan van Waardenburg (NL). Fact is that after having collected all the data from the Cave Diving Commission meeting in Brno (July, 2013) and after having committed himself to protocol the essence of the meeting, incl.

Gathering the names of the participants, he unexpectedly broke the contact and never reacted to the various attempts we undertook for months to contact him. This had a negative impact in the briefing of the participants of the meeting. We reacted to this unfortunate situation in appointing Mr. German Yanez from Mexico as a new Acting Secretary of the Commission. Furthermore, and in view of his deep knowledge of the region, Mr Yanez was put in charge to promote the activities of the Commission in Central and South America, as he already did in Central America. Plans are that he will organise new events in South America. Thanks go to Mr Yanez for his initiatives!

The Commission Members for the years to come anticipate to continue their work in helping national Speleological Organisations in cave diving matters as a Competence Center and to help them in setting-up Cave Diving courses, to provide Subaquatic Speleologist Accreditations (see https://cdcuis.wordpress.com/2013/08/07/accreditation/) when asked and to act as patrons and as mediators between Federations. Last but not least to develop the interactive Web presence in order to increase the Commission's visibilty towards the scientific world and the international authorities.

We hope to see you all during the next Cave Diving Commission meeting that will take place during the 17th UIS Congress, next July, in Sydney, Australia.

REPORT OF ACTIVITIES

ARTIFICIAL CAVITIES COMMISSION

By Mario Parise (Italy), *President*
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The International Congress of Speleology in Artificial Cavities "HYPOGEA 2017"

After rennovating the composition of the UIS Commission on Artificial Cavities, dating back to 2009, the main efforts of the new Commission have been dedicated since the very first years of its activity to organization of international meetings, workshops and congresses about the issue of artificial cavities, their importance from multiple disciplines (history, archeology, anthropology, sociology, geology, engineering geology, etc.), and the need to define occasions in which interested scholars could meet to share experiences and improve the overall understanding about knowledge, management and correct valorization of underground sites built by man in past epochs. Among the organized meetings, we recall here the 2012 Workshop in Turin (Italy), dedicated to "Classification of the typologies of artificial cavities in the world", and the successful session on the theme "Speleological research and activities in artificial underground", within the framework of the 16th International Congress of Speleology, held at Brno (Czech Republic), in 2013.

On this latter occasion, it was presented the updated version of the classification of artificial cavities, as approved by the UIS Commission, which derived from that developed by Italian scholars (Galeazzi, 2013; Parise et al., 2013).

After such activities, the idea of organizing an international congress was born. Together with this idea, a new brand was established, namely "Hypogea", which marked the birth of the first edition of the congress.

The name HYPOGEA was originally born in Italy from the will to share the experiences and expertise of three different caving organizations in Latium: Asso, Egeria Underground Research Center, and Roma Sotterranea. It has now become a brand for designing and identifying the International Congresses of Speleology in Artificial Cavities, and is now inextricably linked to international caving appointments in artificial cavities (Galeazzi & Parise, 2017).

Following the first edition (HYPOGEA 2015, held in Rome, Italy, in March 11-17, 2015; Parise et al., 2015), the 2nd International Congress of Speleology in Artificial Cavities has been organized last March (from March 6 to March 10, 2017) in Turkey, in the magnificent scenario of Cappadocia ***(Fig. 1)***. HYPOGEA 2017 was again held under the auspices of the International Union of Speleology, and with the following patronages from different associations and institutions: Turkish Federation of Speleology, Società Speleologica Italiana, Balkan Speleological Union, Institute of Research for the Geo-Hydrological Protection of the National Research Council of Italy, Université Paris 8, EURASIA Institute of Earth Sciences of the Istanbul Technical University, Obruk Cave Research Group, Hypogea Ricerca e Valorizzazione

Figure 1 - *Typical landscapes of Cappadocia, primarily governed by the effects of erosional processes on the soft volaniclastic rocks.*

Figure 2 - *Examples of the artificial cavities in sites of Cappadocia, from churches and worship sites (the two photos above), to settlement showing pigeon-dove structures, nowadays at the open air (below, left), to underground settlement (below, right).*

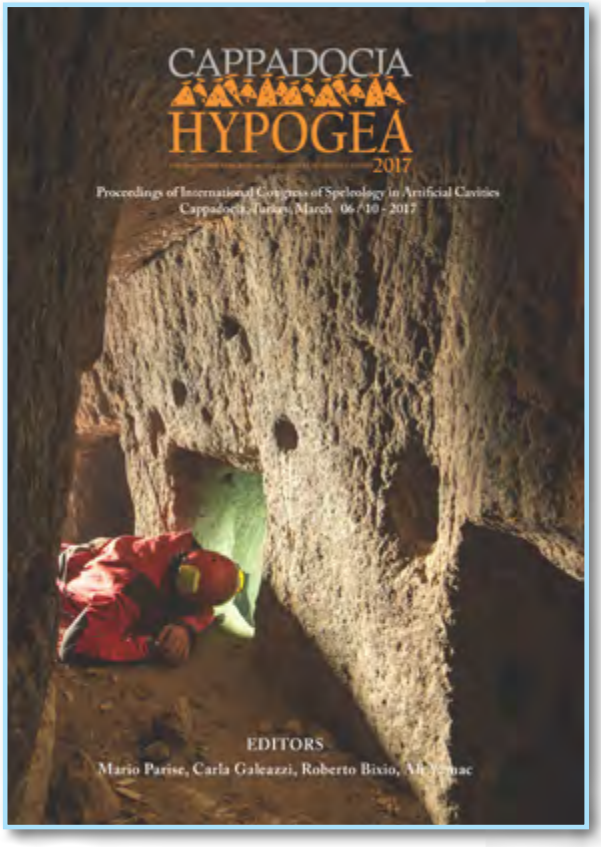

Figure 3 - *Cover of the HYPOGEA 2017 book proceedings.*

Cavità Artificiali, Municipality of Nevsehir, Directorate of Nevsehir Museums, and CEKUL Foundation for Protection and Promotion of the Environment and Cultural Heritage.

The congress had definitely a not simple phase of organization, due to the political turnmoils registered in the last months in many areas of the world, including the eastern Mediterranean and the middle East. Nevertheless, it was attended by more than 50 scholars from 11 countries (Bulgary, France, Georgia, Germany, Greece, Italy, Israel, Russia, Spain, Turkey, and Ukraine). A variety of different themes about artificial cavities were explored, analyzed, and discussed during the week of the congress: from the inventory, to exploration methods and techniques, from mapping, to the use of new technologies for exploration and topographic survey, to research and re-explorations in mines, up to hazards related to instability processes within artificial cavities.

After the historical scenario which hosted HYPOGEA 2015, represented by the magnificence and richness of the town of Rome, the 2017 event took place within the spectacular natural scenarios of Cappadocia, a regione worldwide-known (De Jerphanion, 1925, 1936; Bixio et al., 2002; Jolivet-Levy, 2002, 2015; Bixio, 2012) for the richness and variety of artificial cavities ***(Fig. 2)***, within one of the most beautiful natural landscapes in the world.

The book proceedings ***(Fig. 3)***, edited by Mario Parise, Carla Galeazzi, Roberto Bixio and Ali Yamac (Parise et al., 2017), are a ponderous volume of about 560 pages, which reflects the huge amount of work done in the months preceeding the congress. They are organized in different sections, covering all the themes discussed during the congress:

i) Archaeology, Archaeometry, Art history;
ii) Geology, Geomorphology, Environmental Hazards;
iii) Hydraulic underground works;
iv) Hypogean civilian dwellings;
v) Military and defensive works;
vi) Mining works;
vii) Religious – cult structures;
viii) Typologies, Symbols, terms and cadastre of artificial cavities.

The field trip program has been particularly rich, with great participation and appreciation by the attendees. The most magic and significant sites of Cappadocia have been visited, started from the Open Air Museum at Goreme, which host, among many other wonders, the most famous example of Cappadocian red painting, that is, the pictorial decoration of the Church of Saint Barbara (Andaloro et al., 2017), including an enigmatic representation with a cock and a fantastic creature (a turtle, according to Jolivet-Levy, 2015); to the underground city of Kaymakli, which together with Derinkuyu is one of the most famous subterranean sites of Turkey; the beautiful valley of Soganli, one of the most important centers of monastic life in Cappadocia (Crescenzi et al.,

2017), with byzantine churches and monasteries dating back to 9th and 12th centuries; to Gelveri; to the canyon in the Ilhara valley, hosting, beside many important temples, a number of large rock-cut residential complexes (Leontev & Ianovskaia, 2017); to the magnificent underground system of the village of Sivasa, nearby Avanos. Overall, a variety and richness in artificial cavities which rarely is observed in other parts of the world ***(Fig. 4)***.

The congress once more has confirmed the need and the importance of having a periodic opportunity to meet, in order to share the research experiences, and the international studies on artificial cavities. This also to further strengthen the activities of the Commission on Artificial Cavities of the International Union of Speleology. The great interest by interested scholars is further testified by the proposal, recently accepted by the Commission, about the 3rd edition of the International Congress of Speleology in Artificial Cavities "HYPOGEA 2019", which will be held in north-east Bulgaria, in the city of Dobrich, on May 20-25, 2019.

Figure 4 - *General view from the outside of a magnificent rock-cut church.*

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ACTIVITY REPORT JULY 2013 - MAY 2017

COMMISSION PERMANENTE DE SPÉLÉOTHÉRAPIE (CPS) PERMANENT COMMISSION ON SPELEOTHERAPY (PCS)

By Iuri Simionca, MSR-II, Biol. Dr. , Ph.Dr. (Romania), *President*
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The Permanent Commission on Speleotherapy / Commission Permanente de Spéléothérapie (PCS/CPS-UIS) and its role in development of speleotherapy and descendants methods

Speleotherapy (ST) is a relatively new method of complementary medicine, although, as is well known ancient tribes appreciated isolation in underwater caves, salt or karst caves, or possessing various ores and was officially recognized in the years 1950-1960 in Germany (Yang B., G. Schubert 1962) and Poland (M. Skulimowski, 1968).

In 1949, Dr. Karl H.Spannagel after 5-6 years of climatological and microclimate observations, and also after medical investigations on patients with respiratory disease that was applied treatment in the "Klutert" Cave (Ennepetal, Germany), confirmed its therapeutic efficacy. Due to excellent curative effects "Kluterthöhle" in November 4, 1954, was recognized for use in medical purposes and balneary resort received the title "Ennepetal with air cavity", included in "Baths German Calendar".

After similar preliminary studies within 4-5 years by the Prof. Mieczyslaw Skulimowski, in 1964, in Wieliczka Salt Mine (Poland) has been opened the first section of the underground therapy ("Underground Sanatorium for Allergology"), by proposing the name of "subteraneotherapy" for new method of treatment with underground physical factors and mentioning the therapeutic effect in brochial asthma patients; the name of subterraneotherapy, soon to be also called the Skulimowski method. In 2014, 50 years of Speleotherapy were marked.

Number of speleotherapeutic centers has increased considerably. Speleotherapy in the underground now is an effective therapeutic method for the treatment of obstructive respiratory tract diseases, especially of patients with bronchial asthma (BA), the upward and effective practice in Central and Eastern Europe, but also in the West: Austria, Czech Republic, Germany, Poland, Russia, Slovakia, Ukraine, Belarus, Hungary etc. Today speleotherapy is known as the therapy of patients with various diseases in the underground salt mines and caves possessing natural therapeutic factors (INTERNATIONAL SYMPOSIUM OF SPELEOTHERAPY, 1998).

ST occupies an important place in salt mines mines and carst caves with different parameters: Wieliczka, Poland; Solotvino / Slatina, Ukraine; Bad Bleiberg, Austria; Klutert Hohl, Germany; Zlate Hory and Cisarska Cave, Czech Republic; Bystrianska Jaskyna, Slovakia; Tapolca Seehohle, Hungary, "Unirea" Salt Mine - Slănic Prahova, Romania and will occupy a significant place the Turda Salt Mine, Praid and Cacica salt mines from Romania (Iu.Simionca et al., 2005, 2008).

Since 1969 year were achieved 15 editions of "The International Symposium of Speleotherapy" and other editions of conferences in the field, organized by Speleotherapy Commission [Permanent Commission on Speleotherapy (PCS) / Commission permanente de spéléothérapie (CPS) - Department of Research / Département de la recherché scientifique of Union Internationale de Spéléologie (UIS) / International Union of Speleology (UIS)] in Austria, Germany, Czech Republic, Hungary , Russia, Romania, Poland and other countries, including the XIV International Symposium of Speleotherapy (XIV ISS) in the town of Turda, Cluj County, Transylvania, Romania, in 2012 and the XV ISS – in Wieliczka, Poland – in 2014 (www.speleotherapycommission.webgarden.com).

In accordance with the Decision of the Permanent Commission on Speleotherapy (PCS) / Commission permanente de spéléothérapie (CPS) - Department of Research / Département de la recherché scientifique of Union Internationale de Spéléologie (UIS) / International Union of Speleology (UIS) at Working Committee Meeting, 27–28 March 2012, Ostrov u Macochy, Brno, Czech Republic and Wieliczka, Krakow, Poland (2013), and also Calendar of

scientific events of UIS, in 4 to 6 October 2012 took place the **XIVth International Symposium of Speleotherapy (XIVth ISS)** in the town of Turda, Cluj County, Transylvania, Romania (*http://speleotherapysymposium.webgarden.com*; *http://www.speleotherapycommission.webgarden.com*) under the aegis of the Union Internationale de Spéléologie / International Union of Speleology (UIS) affiliated to UNESCO and Romanian Academy of Medical Sciences.

Symposium Organisators: the Permanent Commission on Speleotherapy (PCS) / Commission permanente de spéléothérapie (CPS) of UIS and S.C. Turda Salina Durgau S.A., Romania.

Coorganisators / Partners: the National Salt Company A.S.- SALROM, Romania; National Authority for Scientific Research from Ministry of Education, Research, Youth and Sports, Romania; National Institute of Rehabilitation, Physical Medicine and Balneoclimatology, Romania; Joint venture"Palsir", Solotvino, Transcarpation Region, Ukraine.

Organisations that have provided support: Academy of Romanian Scientists, Romanian Association of Balneology, Romanian Show Caves Association, Balkan Speleological Union, Fédération Spéléologique Européenne (FSE), European Cave Protection Commission (ECPC) from Fédération Spéléologique Européenne (FSE).

The following six sessions were of the XIVth International Symposium of Speleotherapy (2012) is dedicated to various studies, perspectives and current issues, including:

Session 1. The speleotherapy in mines and caves, history, presence and quality of therapeutic factors (microclimate, physical, chemical, microbiological and other studies in various mines and caves to assess the presence and quality of therapeutic factors) for used in health and balneoclimatic tourism.

Session 2. The structure of underground sections in mines and caves with speleotherapeutic factors. Structure of the medical institutions used speleotherapy methods.

Session 3. Organization of speleotherapeutic treatment in mines and caves. Management, protection, engineering problems, exploitation of various mines and caves for speleotherapy. Climatic characteristics of the geographic zones with speleotherapeutic potential.

Session 4. Exploitation of various mines and caves for speleotherapy. Mecanisms of speleotherapy in mines and caves, experimental results on laboratory animals with induced pathologies. The clinical, biochemical, immunological and other effect of speleotherapy in mines and caves for patients with various diseases. Indications and contraindications. Methods of speleotherapy. The use of speleotherapy in mines and caves in prophylaxis, treatment and rehabilitation of patients with different pathologies.

Session 5. The use of speleotherapy and speleotherapy with other complementary and alternative methods (CAM) in prophylaxis, treatment and rehabilitation of patients with different pathologies. Speleotherapy perspectives in health. Shifting to Praid and visiting the Praid Salt Mine – the balneoclimatic and tourism route.

Session 6. Mechanism of halotherapy. Microclimate, physical, chemical, microbiological and other studies in various halochambers. Methods and equipment of halotherapy. Experimental results of the haloterapy effects on systems and mechanisms involved in different diseases. The clinical, biochemical, immunological and other effect of halotherapy. The use of halotherapy and halotherapy with other complementary and alterntive methods (CAM) for prophylaxis, treatment and rehabilitation of patients with different pathologies.

Session 7. Halochambers, equipment of halotherapy.

During the scientific event "The XIVth International Simposium of Speleotherapy, 2012" were presented scientific achievements in the field of speleotherapy and halotherapy from various countries (Romania, Czech Republic, Ukraine, Poland, Slovakia, Belarus, Russia, Netherland, Estonia, Canada). At the XIVth International Symposium of Speleotherapy, 2012 have been organized:

- Slide presentation of Sankt – Petersburg Institute of Prophylaxis Medicine (Russia) products – Halochambers and products for Halotherapy.
- Presentation of products and equipment for Halotherapy of Company Indium Top LLC, Estonia and Company Halosense Inc. Canada.
- Exhibition results of projects under Phare 2005, entitled "Improved tourist attraction of potential spa area with salt lakes, Durgau-Valea Sarata Area and Turda Salt Mine".
- Shifting and visiting the Praid Salt Mine (balneoclimatic and tourism route) and also evening dinner in underground tavern / gallery in the Praid Salt Mine.

• Visiting Turda Salt Mine (Ghizela Mine, Rudolf Mine, Theresia Mine and underground sections of speleotherapy.

The analysis of the current status in the field - (Iu. Simionca, 2007, 2010, J.Chonka, Iu. Simionca, P. Slavik, 2012) showed the existence of a series of fundamental issues – potential development priorities in the field of speleotherapy in caves or mines and of halotherapy, which were discussed at the Symposium:

• the enhanced interest of a large category of persons in different countries (preponderant in Europe) for medical and touristic services in original and specific locations with therapeutic natural factors, such as those from some caves or salt mines and chambers with artificial underground salt mine environment or microclimate (halotherapy method descending from speleotherapy in salt mines);

• lack of technical and medical standards for use in medical / speleotherapeutic and of balneoclimatic tourism some caves and mines (mainly - salt mines, and other mines) and for halotherapy - the surface rooms with salt mine underground artificial environment or underground salt mine microclimate;

• need for monitoring standards of geomechanical stability of the underground spaces in caves and mines which possesses speleotherapeutic factors and used for medical purposes. "Balneoclimatic tourism" or "speleo- and salt mine tourism";

• lack of monitoring "standards" for curative properties of some caves and mines (including salt mines), assessing their stability and therapeutic effectiveness, particularly after using for "cave or salt mine tourism" and "medical balneoclimatic tourism" or speleotherapy (after human impact);

• adequate measures for restoring the specific underground environmental factors;

• the necessity of approaching and launching at national level of researches on methodologies regarding speleotherapy, related to the presence and the quality of underground therapeutic factors and to the medical history of the patients (age, disease status, previous medication).

These issues could build up a development program of speleotherapy in salt mines, carst and other caves and descending methods used in medical purposes, for "balneoclimatic" or "speleotherapeutic tourism"over a period of several years, which would involve increasing the quality of human life.

In order to realization of the mentioned "objectives" Iuri Simionca proposed a series of activities for the following years (needed to be discussed and developed in the years 2012 -2015), which would constitute a scientific development program in the field of speleotherapy. Among these proposals need to be mentioned:

• Supporting the national commissions of speleotherapy activities in different countries.

• Sustaining for the establishment of national commissions of speleotherapy in those countries where there are opportunities for developing of speleotherapy.

• Completing the structure PCS / CPS with working groups for different activities in speleotherapy.

• Supporting the achieve some proposals for "standarts" specific to speleotherapy domain and descending methods.

• Evaluation of speleotherapy in several centers and sustaining the development of them.

• International certification of speleotherapy centers.

• Supporting of qualification and continuing education of the specialists from speleotherapy centers.

• Opening a bank account of PCS / CPS in one of the countries with members of the Permanent Commission on Speleotherapy.

• Founding by PCS / CPS – UIS the "International Society of Speleotherapy Centers", realization of statute, financial account and registration.

• Founding of the "Journal of speleotherapy and descending methods". Preparation of justification for proposal to publish a yearly supplement in "The Journal of Speleology"-UIS in speleotherapy domain.

• Founding group of bibliography and documentation in domain of Speleotherapy.

• Realization and developing cooperation agreements with various national and international professional societies for the development of speleotherapy and descending methods.

Mentioned activities proposed at the PCS/CPS--UIS Meeting of October 4, 2012 and at the closing session of the XIVth International Symposium of Speleotherapy (Turda, 2012).

The XIVth International Symposium of Speleotherapy was finalized with information to participants at Simposium about the decision of the Permanent Commission of Speleotherapy / Commission Permanente de spéléothérapie of UIS (PCS / CPS - UIS) Meeting from October 4, 2012 (Turda, Romania) dedicated to election of new board, proposed for the Dr., MUDr. Pavel Slavik (Czech Republic) - President of Permanent Commission on Speleotherapy (PCS/ CPS) and Ph.D., M.D. Jaroslav Chonka (Ucraine) - Vice President PCS / CPS (members in period 2008 – 2012), and then MUDr. Pavel Slavic read the

new voted board of Permanent Commission on Speleotherapy:

1. HONORARY PRESIDENT:
Dr. Beata Sandri
Past President of the Permanent Commission on Speleotherapy, Bad Bleiberg, Austria.

2. HONORARY PRESIDENT:
Prof., Dr., MD, Svetozar Dluholucky
Past President of the Permanent Commission on Speleotherapy, Banska Bystrica Medicine University, Slovakia.

PRESIDENT:
Dr.b, Ph.D. B.D. Iuri Simionca, MSR II
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e-mail: simionca_iuri@yahoo.com

VICE PRESIDENTS:
1. Ph.D., M.D. Jaroslav Chonka
Ukrainian Allergological Hospital.
Responsible for the domain "Speleotherapy in salt mines and salt chambers",
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e-mail: chonka@speleoterapia.org;

2. MUDr. Pavel Slavík
Responsible for the domain "Speleotherapy in carst and other caves."
Childrenś Sanatorium with Speleotherapy in Ostrov by Macocha, p.o.,
Czech republic, 679 14 Ostrov u Macochy 389;
Tel.: +420 516 444 322; e-mail: reditel@speleotherapy.cz

3. Dr.ing. Rudolf Pavuza
Responsible for domain "Meassurement techniques in caves and cave microclimate".
Dept.of Karst and Caves, Museum of Natural History; Austria, Museums pl. 1/10, A-1070 Vienna; Tel.: +431 523 0418; e-mail: rudolf.pavuza@NHM-WIEN.AC.AT

4. Dr.Ing. Ovidiu Mera
Responsible Secretary: S.C. Turda Salina Durgau S.A., 401200. Turda, Aleea Durgaului Str. 7, Cluj County, Romania; Tel/Fax: +40364-260940; +40264-311690;; Tel.: +40735 195 512;
e-mail: ovidiumera@yahoo.com

5. Prof. RNDr. Oldřich Navrátil, DrSc.
Speleotherapy Repository / Library:
Poznaňská 12, Czech Republic, 616 00 Brno.
Tel.: +420 549 256 005;
e-mail: oldrich.navratil@unob.cz

6. Ph.D. biol., Mihail Hoteteu
Biochemist - Bibliography and Website Responsible: Romania, Institute of Rehabilitation, Physical Medicine and Balneoclimatology. 011171 Bucharest,
Ion Mihalache Blvd. 11A, Tel.: + 402 131 864 82 / 312; +40724 593 111,
e-mail: hoteteu@yahoo.com

At the symposium closing session the participants expressed their support for the new Board of PCS/CPS-UIS and the Vice Chairman of Program Committee, New President of the Permanent Commission of Speleotherapy of UIS - M.S.R.II, Dr.b., Ph.D, Iuri Simionca (from National Institute of Rehabilitation, Physical Medicine and Balneoclimatology, Bucharest, Romania) read the Closing Document of the XIVth International Symposium of Speleotherapy, signed for representatives of Organizing Committee and participants - representatives from different countries; the were awarded diplomas for participation on the XIVth International Symposium of Speleotherapy.

On the XIVth International Symposium of Speleotherapy registered 143 participants from several countries: Belarus – 2, Belgium – 1, Canada – 1, Czech Republik – 4, Estonia – 1, Netherlands – 2, Poland – 3, Romania – 101, Russian Federation – 1, Ukraine – 27; including the participants with scientific titles and various specialties: Correspondent Member of Academy – 1; University Professor, Associate Professor, Main Scientific Researcher II – 10; Scientific Researcher III, Scientific Researcher - 4; Lecturer Ph.D - 2; Dr. of sciencies, Ph.D – 26 (Dr. med, Dr. biol., Dr. Eng., Dr. psih.); Ph.D. Student - 3; M.Sc. - 3, MSc. Stud. - 2; M.D., B.D. – 60 (primary doctor, specialist doctor, bacteriology doctor); Principal biologist – 3; Biologist -1, Chemist – 2; Engineer – 10 (in fields: geology, caves, salt mines, environment, equipments); Economist – 8; Public Administration Specialist / Referent – 3; Student – 5.

Number of representative institutions / including Romania - 57/35: Institutes for research and development - 14/4; universities - 9/7; NGO - 6/2; economic operators - 28/22.

Number of presentations: lessons – 4, oral presentations – 52, posters – 1, exhibits 3, specialized exhibition -2 (http://www.speleotherapysimposium.webgarden.com; UIS BULLETIN - VOLUME 56 - N° 1 of 2, 2013 - http://www.uis-speleo.org/downloads/uis-bulletins/uisb561.pdf)

Other activities on the XIVth International Symposium of Speleotherapy:

• Live broadcast / recorded a scientific event; continuous translation of scientific communications from Romanian, Ukrainian and Czech into English language.

• Shooting / photos and video film about scientific event.

• ABSTRACTS of INTERNATIONAL SYMPOSIUM OF SPELEOTHERAPY. International Symposium (14; 2012; Turda, Romania) The XIVth International Symposium of Speleoterapy: Abstracts : ed. a XIV-a, Turda, 2012. – Cluj-Napoca : Casa Cărții de Știință, 2012 (ISBN 978-606-17-0241-1), 74 pp. (Edit. categoria B, CNCSIS). Commission permanente de spéléothérapie (CPS)–Département de la recherché scientifique - The Permanent Commission of Speleotherapy (PCS) - Department of Research - Union Internationale de Spéléology (UIS)- International Union of Speleology; Romanian Academy of Medical Sciences. Under the redaction: Iuri Simionca, Jaroslav Chonka, Pavel Slavic, Ovidiu Mera, Mihail Hoteteu, Liviu Enache, Gheorghe Stoian (*http://www.speleotherapycommission.webgarden.com*; *http://speleotherapysymposium.webgarden.com*)

• Symposium Day (Sunday) - day visiting some carst caves (organized by PCS / CPS - UIS, Balkan Speleological Union, SC Turda Salt Mine Durgau SA: Visiting Cristal Cave of the Farcu Mine (Rosia Commone, Bihor County) and Meziad Cave (Meziad Village, Remetea Commone, Bihor County) - possible perspectives for Speleotherapy (*http://www.speleotherapysimposium.webgarden.com*).

In the letter from 24.02.2013 of the Iuri Simionca - President Permanent Commission of Speleotherapy/ Commission permanente de spéléothérapie (PCS/CPS-UIS) to Commission memers, in according with Decision PCS / CPS Meeting from October 4, 2012 and the "XIVth International Symposium of Speleotherapy, 2012, Turda – Romania "Clossing Document" (*http://www.speleotherapycommission.webgarden.com*) in order to popularize the scientific results of the speleotherapy in the caves and salt mines (or other origin) as well as descending methodologies (halotherapy / "galoterapia" / "salinoterapie" etc) was proposed the realization of Bibliographic Bulletin of Speleotherapy and descending methods (BBST). The deadlines of the bibliographic bulletin as well as other activities were discussed at the PCS / CPS -UIS working meeting on 14-15 March 2013 in Wieliczka, Poland.

By the Resolution of the PCS/ CPS from 14-15 mars 2013 (Wieliczka Health Resort, Poland) it was proposed activities to assess the state of speleotherapy, including:

1. Will be made the list with the necessary studies to evaluation of the speleotherapy centers.

2. The PCS/CPS-UIS recommend that the speleotherapy and halotherapy centers to organize the making of necessary studies for establish methodological recomandations, indications and contraindications

3. Enlarging website *http://speleotherapycommission.webgarden.com* for information of the PCS / CPS activity, and e-mail:

speleotherapycommission@webgarden.com

At the **16th International Congress of Speleology (Brno, 21-28 July, 2013)** the members of the Permanent Commission of Speleotherapy/ Commission permanente de spéléothérapie (PCS/ CPS-UIS) participated on working sessions with 5 communication papers and also published 1 article and 4 abstracts in the Proceedings of the Congress.

Also at 16th International Congress of Speleology the PCS/CPS-UIS was organized Working Meeting to which it has been discussed:

1. Commission Report to 16th ICS (Brno, 2013) prepared by the President PCS/CPS-UI Simionca (Romania) and Vice-Presidents Yaroslav Chonka (Ukraine) and also Pavel Slavic (Czech Republic). The Report of PCS/CPS-UIS to 16th International Congress of Speleology included the following activities:

a. Excerpt from Report on XIIIth International Symposium on Speleotherapy in Blansko, Czech Republic, 23th–25th of October 2008.

b. Clossing Document of the XIVth International Symposium of Speleotherapy – PCS/CPS-UIS, 2012, Turda Romania;

c. Synthesis Report of the Scientific Meeting "The XIVth International Symposium of Speleotherapy", Turda, Romania, 2012, October 4-6, organized by the PCS/CPS-UIS and S.C. Turda Salina Durgau S.A. / C.S. Turda Salina Durgau A.S., Romania, with two component parts:

i.evaluation of past activity of Board of the Permanent Commission of Speleotherapy / Commission Permanente de Spéléothérapie (PCS/CPS-UIS).

ii. election the new Board of the Permanent Commission of Speleotherapy / Commission Permanente de Spéléothérapie (PCS/CPS-UIS).

2. For the XVI International Congress of Speleology (Brno, 2013) were discussed and prepared

the following requests, changes in the structure and composition of the Permanent Commission of Speleotherapy / Commission Permanente de Spéléothérapie by the adequate justifications (Iu.Simionca- Romania, Ja.Chonca-Ukraine, P.Slavik- Czech Republic, R.Pavuza - Austria, O.Mera- Romania):

a. For the evaluation (reglementation) of the underground structures (salt mines or others origins and caves with curative properties) utilisation status in medical purposes. For examole, in Czech Republic in the Law 164/2001 (Balneary Law), where is written in "Hlava VI, Přírodní léčebné lázně a lázeňská místa v § 25 Podmínky pro stanovení přírodních léčebných lázní odst.(2)", for the areas with climatical conditions according to part 1 takes not a underground spaces.

b. This situation implies that legislation on the use of salt mines, karst caves or other mines, caves an subterran cavities for the medical or tourist medical purposes is different in several countries. So there is a need a study for "preparation of preliminary information concerning the status of medical or tourisic use of caves and mines in different countries".

3. Completing the working groups:

a. Working Group "Speleotherapy in salt mines and salt chambers" is completed with Nicholae Grudnicki (Romania, National Salt Company SALROM SA).

b. On the basis of PCS / CPS Meeting decisions from October 4, 2012 and the XIVth ISS from 4 to 6 October 2012 (Glossing Document of the XIVth International Symposium of Speleothe rapy– UIS, Turda, Romania, 2012) concerning of therapeutic methods descendant from speleotherapy in some salt mines, in the working group "Speleotherapy in Salt Mines and Salt Chambers", whose president is the Vice-President of PPS / CPS Ia. Chonka, it creates the working subgroup in halotherapy, composed of Pavel P. Gorbenko - Responsible (Russia), Ivan S. Lemko (Ukraine) and is proposed to discuss and include candidatures other specialists from different countries.

4. It has also been proposed to speleotherapy centers and committee members to transfer the existing bibliography into electronic format for integration into a unitary database.

Contact: *hoteteu@yahoo.com*

5. In the position of Speleotherapy Repository/ Library it is named MUDr. Vladimir Svozil (Zlate Hory, Czech Republic).

Commission Report to the XVIth International Congress of Speleology (Brno, 2013) discussed and approved at CS/CPS-UIS Working Meeting from 16th ICS (Brno, 2013) was submitted on 24.07.2013 to UIS GENERAL ASSEMBLY 2013, George VENI, Vice-President UIS of Administration and Fadi NADER General Secretary of UIS (Iu. Simionca. Activity Report Commission Permanente de Speleotherapie. In: UIS BULLETIN – VOLUME, 2014, 56 - N° 1 of 2 *http://www.uis-speleo.org/downloads/uis-bulletins/uisb561.pdf*).

General Assembly of the 16th Congress of Speleology of UIS from 26 July 2013 (Brno, Czech Republic) on the basis of the Report of the XIVth Symposium of 2012 (Turda, Romania) the decisions from 14-15 march 2013 of Wieliczka (Poland) PCS/CPS-UIS Working Meeting, as well as the respective decision of PCS/CPS-UIS Working Meeting from 16th International Congress of Speleology (23.07.2013) approved the Report, new structure and also the international final component of the Speleotherapy Commission (Permanent Commission on Speleotherapy / Commission permanente de spéléothérapie) (Annex 1).

Permanent Commission on Speleotherapy / Commission Permanente de Spéléothérapie (PCS/CPS-UIS) * (Annex 1) for four years: Web: *http://www.speleotherapycommission.webgarden.com/*

Honorary President
Svetozar DLUHOLUCKY, Slovakia

President
Iuri SIMIONCA, Romania

Vice President
Jaroslav CHONKA, Ukraine

Vice President
Pavel SLAVÍK, Czech Republic

Responsible Secretary
Ovidiu MERA, Romania

Principal Advisor Responsible Secretary
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Constantin MUNTEANU, Romania

Advisor Secretary
Magdalena KOSTRZON, Poland

Speleotherapy Repository/Library
Responsible: Vladimir SVOZIL, Czech Republic

Custodian
Oldrich NAVRÁTIL, Czech Republic

Bibliography and Website
Responsible: Mihail HOTETEU, Romania

Biblography advisor
Marta HAISAK, Ukraine

WORKING GROUP 1
Speleotherapy in Salt Mines and Salt Chambers

Chairman
Jaroslav CHONKA, Ukraine

Members
Iuri SIMIONCA, Romania; Ovidiu MERA, Romania

Advisors Members
Nicholae GRUDNICKI, Romania; Ioan IETCU, Romania; Claudia BILHA, Romania; Jakub CERVINSKI, Poland; Krzysztof CZARNOBILSKI, Poland

a. WORKING SUBGROUP HALOTHERAPY
(Speleotherapy In Artificial Salt Chambers)

Advisors Members
Pavel P. Gorbenko, Russia; Ivan S. Lemko, Ukraine

WORKING GROUP 2
Speleotherapy in carst and other caves

Chairman
Pavel SLAVÍK, Czech Republic

Members
Svetozar DLUHOLUCKY, Slovakia; Vladimir SVOZIL, Czech Republic

WORKING GROUP 3
Assessment of Potentially Curative Underground Environment in Caves, Mines and other Artificial Spaces; measurement techniques

Chairman
Iuri SIMIONCA, Romania

Members
Rudolf PAVUZA, Austria; Peter JOVANOVIC, Slovenia; Liviu ENACHE, Romania

Advisor Member
Marian Romeo CALIN, Romania

*** In accordance with:**

1) The proposal and the vote on the Meeting of the Permanent Commission of Speleotherapy / Commission Permanente de Spéléothérapie - UIS (PCS/CPS-UIS) at 4 October 2012, Turda, Romania, voted at The XIVth International Symposium of Speleotherapy in October 6, 2012, Turda, Romania;

2) Additions comply with :

• the Resolution of the Permanent Commission of Speleotherapy/ Commission permanente de spéléothérapie (PCS/CPS-UIS) meeting, from 14-15 march 2013, held in Wieliczka Health Resort, Poland;

• the Resolution of the Permanent Commission of Speleotherapy/ Commission permanente de spéléothérapie (PCS / CPS-UIS) meeting, from July 24, 2013 in Brno (at 16th International Congress of Speleology).

In order to evaluate speleotherapy centers and the development of speleotherapy in Central and Eastern Europe, in the years 2010 – 2012 - 2016 the board members of international Permanent Commission on Speleotherapy (PCS) were vizited:

• Moravia Children's Specialized Health Care Center, Children's Sanatorium with Speleotherapy, Ostrov u Macochy, Czech Republic;

• Sanatorium Edel, Children's Sanatorium with Speleotherapy, Zlate Hory , Czech Republic;

• Regional Allergic Hospital with underground section of speleotherapy in Salt Mine N8, Solotvino, Ukraine;

• Republikan (Ukrainian) Allergologic Hospital, with underground section of speleotherapy in Salt Mine N8, Solotvino, Ukraine;

• Scientific-Medical Centre and Clinic "Rehabilitation" (Halotherapy Centre) Health Ministry of Ukraine, Uzhgorod, Ukraine;

• Speleotherapy Center in Bistra cave near Banska Bystrica, Slovakia;

• Turda Salt Mine Complex with Salt mines Ghizela, Rudolf, Terezia and underground sections destinated for speleotherapy and tourism, Cluj county, Romania;

• Praid salt Mine with underground sections for agrement / treatment and tourism, Harghita county, Romania;

• Respublikanskaia bolnitsa speleolecheniya in Solegorsk Salt mine Complex with two underground speleotherapeutic sections, Solegorsk, Belarus Republic.

• Targu Ocna Salt Mine vith new galeries for agrement and tourism, Romania.

• Carst Cave Fundata – Rasnov, Brasov (Romania) with multidisciplinary studies of underground microclimate, aerosol particles and microbiological investigations (possible to use for recreation and tourism in order to improve the resistance of the body to negative urban environmental factors and to the action of pathogenic biological factors).

Significant experience in treating patients, especially children, is obtained in karst caves accumulated in Czech Republic (Moravia Children's Specialized Health Care Center, Children's Sanatorium with Speleotherapy, Ostrov u Macochy) and Slovakia (Speleotherapy Center in Bistra cave near Banska Bystrica), in salt mines from Wieliczka (Poland) and Solotvino (Ucraine), Solegorsk (Belarus Republic).

Significant perspectives for the development of speleotherapy for health and for "speleotherapeutic tourism" possess the salt mines from Turda, Slanic Prahova, Cacica and Ocna Dej (Romania). These have benefited from multidisciplinary saline environmental studies, complex bio-medical studies specific to patients with various respiratory pathologies and have underground areas with galleries arranged for this purposes.

The results were presented at the XIVth International Symposium of Speleotherapy (Turda, Romania, 2012) at the Meeting of Permanent Commission of Speleotherapy/ Commission permanente de spéléothérapie (PCS / CPS-UIS) from Brno (Czech Republic, 2013) at 16th International Congress of Speleology, to the XVth International Symposium of Speleotherapy (Poland), 2014) , to UIS BULLETIN--VOLUME (2014 56 -Nº 2 of 1 and 2 of 2) and *www.speleotherapycommission.webgarden.com*.

To mention the following results of speleotherapy state in Solotvino – Slatina (Ukraine):

Underground speleotherapy sections of Zakarpatie Regional Allergology Hospital and Ukrainian Republican Allergy Hospital in Solotvino - Slatina (Ukraine) with underground Speleotherapy cections in Solotvino Salt Mines No. 8 and No. 9 would have had 45 and 38 years of functioning. But these superb speleotherapeutic sections no longer exist because were flooded.

The calamity in salt mines from Solotvino, Tyachiv district, Transcarpathian region, Ukraine, particularly flooding of mines Nr. 8 and 9, blocked salt extraction and activity of salt mines complex - "SE of Solotvino Salt Mine" but also it slowed activity of these hospitals and stopped the speleotherapy underground sections, where or treated patients with bronchial asthma, other chronic allergic and infectious-inflammatory respiratory diseases since 1968 yar, therefore almost half a century, and also skin and airway burns – after the catastrophe at Chernobyl.

The problem of reconstruction speleotherapy sections in the salt massif from Solotvino, Tyachiv district, Transcarpathian region, was discussed at the First Kiev International Scientific Conference "Scientific and methodological Foundations of medical geology", 17-18 April 2013 (Ukraine), were invited MSRII, Dr., Ph.D. Iuri Simionca - the President of Permanent Commission on Speleotherapy (PCS) / Commission permanente de spéléothérapie (CPS) of the UIS, Pr. Imunologist at National Institute of Rehabilitation, Physical Medicine and Balneoclimatology, Bucharest, Romania and Ph.D., M.D. Jaroslav Chonka - Vice President of PCS/CPS-UIS, Director of Ukrainian Allergic Hospital Ministry of Health of Ukraine, Solotvino, Tyachiv district, Transcarpathian region.

The First Kiev International Scientific Conference "Scientific and Methodological Foundations of Medical Geology", 2013 (Ukraine), through the decision (p.16, from 18 April 2013), has recommended:

"In connection with high value and high efficiency of speleotherapy treatment of patients with bronchial asthma in the conditions of Solotvino Salt mines microclimate considering the presence of large of explored reserves of high quality rock salt and based on the conclusions of leading specialists about the possibilities of usage; appeal to President of Ukraine and Prime Minister of Ukraine with the proposal to consider question of restoring institutions for speleotherapy on Solotvino salt deposit."

In October 22-23, 2013, was organized the International Scientific-Practical Conference "Perspective of Speleotherapy Recovery and Salt Extraction Based on Rock Salt Deposits in the village Solotvino, Tyachiv district, Transcarpathian region" , under the auspicies of Permanent Commission on Speleotherapy / Commission permanente de spéléothérapie (PCS / CPS – UIS) and the Association of Ukraine allergists.

Resolution of the International Scientific-Practical Conference "Perspective of Speleotherapy Recovery and Salt Extraction Based on Rock Salt Deposits in the village of Solotvino, Ucraine included the following main decisions:

"The programme on solving environmental, social and industrial problems of the village is worked out by the National Technical Commission (Institute of Geology, National Academy of Sciences; Ukrainian Scientific-Research Institute of Salt, etc.). The programme contains sections on creating a new underground branch of Alergologic Hospital and limited production of salt.

The conference was attended by 94 experts from scientific-research, design and production organizations of Ukraine, Russia, Poland and Romania (9 professors, and 8 PhDs), representati-ves of national communities of Hungarians and Romanians in the village of Solotvino.

As a result of discussions it is observed that in the world practice the treatment of allergic diseases in underground spaces of salt environment is the most

effective tool that has also proven cost-effectiveness. The experience of underground deparments of allergic hospitals in the village of Solotvino prove that here are the most favorable conditions that lead to high efficiency treatment of asthma, allergic diseases and rehabilitation after burn injuries and more. Based on the results of synthesis of ecological and geological studies (Institute of Geology, National Academy of Sciences; Ukrainian Scientific-Research Institute of Salt, etc.) within salt deposits the areas that are marked by undisturbed geological structure, absence of hazardous geological processes and satisfactory protection of salt massif are found.

These areas are suitable for underground use, in particular, to create a health center underground spaces and limited use of salt resources. This creates preconditions for solving social, industrial and urban environmental problems in Solotvino."

Working Meeting of Board of the "Permanent Commission on Speleotherapy / Commission permanente de spéléothérapie – UIS" (PCS/ CPS-UIS) and PCS /CPS Working Group "Speleotherapy in Salt Mines and Salt Chamber" at the Scientific-Practical Conference with International Participation "Perspective of Speleotherapy Recovery and Salt Extraction Based on Rock Salt Deposits in the village of Solotvino, Tyachiv district, Transcarpathian region" (Solotvino, October 23, 15.00 – 16.00, 2013) and the Board of PCS / CPS – UIS) noted the following:

1. "Scientific studies conducted in the years 1973 - 2011 on the salt environment from underground (speleotherapy) sections of allergy hospitals in Solotvino (Ukrainian Allergic Hospital Ministry of Health of Ukraine and Zakarpatya Regional Allergy Hospital), located in salt mines No.8 and No.9 from SE "Solotvino Salt Mine"; clinical medical studies; hematological, biochemical, microbiological, immunological humoral or cellular studies on laboratory animals with experimentally induced pathology, as well as …..of patients with bronchial asthma and various chronic inflammatory and allergic respiratory diseases or on patients post burns of the airways and skin, indicate the presence and outstanding quality of medical therapeutic factors in the underground galleries of both salt mines and presence marked therapeutic effect……"

2. In both mentioned Solotvino allergology hospitals and especially in SI "Ukrainian Allergic Hospital Ministry of Health of Ukraine" were formed well known countrywide and worldwide specialists in the fields of speleotherapy, pneumology, allergology, immunology and other, and also scientists - professors, PhD, candidates in science, lecturers and assistants in institutes and universities. Based on previous experience, the training of healthcare professionals and scientific researchers in the above mentioned fields is in progress.

3. SI "Ukrainian Allergic Hospital Ministry of Health of Ukraine" and Zakarpatya Regional Allergy Hospital have necessary buildings, utilities and communications systems, water, heating, electricity to the surface and are equipped with specific medical equipment, mostly modern."

Based on the results presented in the sessions of the respective scientific event Program, taking into account the discussions and the evaluation of these results, the Board of Permanent Commission of Speleotherapy / Commission permanente de spéléothérapie - UIS and Working Group "Speleotherapy in salt mines and salt chambers" of PCS/CPS-UIS sustain the Decision of the Scientific-Practical Conference with International Participation "Perspective of Speleotherapy Recovery and Salt Extraction Based on Rock Salt Deposits in the village of Solotvino, Tyachiv district, Zakarpatya (Transcarpathian) region", which took place in Solotvino, October 22-23, 2013, alongside with the relaunching and development of speleotherapy into underground salt massif in the town of Solotvino, District Tyachiv, Zakarpatya (Transcarpathian) region, Ukraine.

In order to relaunch speleotherapy in salt massifs / Rock Salt Deposits of Solotvino town, District Tyachiv, Zakarpatya (Transcarpathian) region there are specialists in medical and related fields, two operational hospitals ("Ukrainian Allergic Hospital Ministry of Health of Ukraine" and "Zakarpatya Regional Allergy Hospital") with utilities, and medical experts in related fields and also specific equipment.

Details of Siolotvino salt mines calamity and the activities of finding technical solutions for extraction of salt from respective salt massif, as well as for the construction of the new under-ground section of Speleotherapy are published (UIS BULLETIN- VOLUME 56 - Nº 2 of 2) See on the link http://www.uis--speleo.org/downloads/uis-bulletins/uisb562.pdf

Contents:

In October 23-25, 2014 in "Wieliczka" Salt Mine (Poland) vas held "The XVth International Symposium of Speleotherapy ("The XVth ISS) of "The Permanent Commission on Speleotherapy (PCS) / Commission permanente de spéléothérapie (CPS) of Union Internationale de Spéléologie (UIS).

The XVth International Symposium of Speleotherapy", according to the proposal of PCS/CPS-UIS and "Wieliczka" Salt Mine Board, was dedicated to those 50 years since the official opening of the first salt mine underground sanatorium - Allergological Sanatorium "Kinga" in "Wieliczka" Salt Mine, Poland.

Topics of XVth ISS, 2014, Wieliczka, Poland:

1. The history of speleotherapy / subterraneotherapy in Wieliczka Salt Mine, Poland for threatment of pacients with bronchial asthma and other chronic respiratory diseases.

2. The hystory of speleotherapy and halotherapy.

3. Microclimate, physical, chemical, microbiological and other studies in various mines and caves to assess the presence and quality of therapeutic factors for used in health and balneo-climate (spa) tourism.

4. Management, protection, engineering problems, exploitation of various mines and caves for speleotherapy.

5. The structure of underground sections in mines and caves with speleotherapeutic factors. Methods of speleotherapy.

6. Halotherapy, halotherapeutic chambers and methods; salt aerosol generating systems and similar equipments.

7. Experimental results of the speleotherapy and haloterapy effects on systems and mechanisms involved in different diseases.

8. The clinical effect of speleotherapy and halotherapy for patients with various diseases.

9. Mechanisms of the speleotherapy and halotherapy

10. The use of speleotherapy in prophylaxis, treatment and rehabilitation of patients with different pathologies.

11. The use of speleotherapy with other complementary and alterntive methods (CAM) for prophylaxis, treatment and rehabilitation of patients with different pathologies.

12. Standards of geomechanical stability of the underground spaces in caves and mines which possesses speleotherapeutic factors and used for medical purposes. balneoclimatic tourism or speleo- and salt mine tourism;

13. Standarts specific to speleotherapy domain and descending methods.

14. Structure of the medical institutions with speleotherapy methods.

15. Climatical characteristics of the geographyc zones with speleotherapeutic potential.

Organisers of "The XVth ISS" - were "The Permanent Commission on Speleotherapy (PCS)/Commission permanente de spéléothérapie (CPS)-UIS" and the main organizers - institutions from Poland ("Wieliczka" Salt Mine, "Wieliczka" Salt Mine Tourist Route, "Wieliczka" Salt Mine Health Resort, Department of Clinical and Environmental Allergology Jagiellonian University Collegium Medicum from Krakow, SP ZOZ MSW Hospital in Krakow, Kraków Saltworks Museum).

Opening ceremony (in the Conference Hall from underground of "Wieliczka"

Salt Mine – Drozdowice IV Chamber)

Special guest Mrs Halina Skulimowska – wife of Prof. Dr. Mieczyslaw Skulimowski.

Participants:

I. Total participants– 80, inclusively from: Ukraine– 25, Poland- 22, Romania- 10, Italy– 6, United Kingdom- 3, United States of America– 3, Canada -2, Czech Republic -2, Hungary– 2, Republic of Moldova– 2, Russia– 1, Belgium– 1, Germany – 1.

II. Institutions from different countries represented by participants – 51:

1. "Permanent Commission on Speleotherapy (PCS) / Commission permanente de spéléothérapie (CPS)" of the World Organization "Union Internationale de Spéléologie (UIS) / International Union of Speleology" (member ICSU & UNESCO).

2. "Wieliczka" Salt Mine, Wieliczka, Poland with "Wieliczka" Salt Mine Tourist Route Sp. Z o.o and „Wieliczka" Salt Mine Health Resort.

3. Institute for Water Supply and Environmental Protection, Cracow University of Technology, Cracow, Poland.

4. Malopolska Voivodship, Krakow, Poland.

5. Polish Association of Balneology and Physical Medicine. Warsaw, Poland

6. Department of Balneology and Physical Medicine. Medical College in Bydgoszcz, Nicolaus Copernicus University, Poland.

7. Department of Clinical and Environmental Allergology of Jagiellonian University Collegium Medicum, Krakow, Poland

8. Polish Society of Allergology in Malopolska, Krakow, Poland. SP ZOZ MSW Hospital in Krakow,

Poland.

9. Microbiology Unit, University Hospital, Krakow, Poland.

10. Krakow Saltworks Museum, Poland.

11. Department of Health Resort Materials of the National Institute of Public Health, Poznan, Poland.

12. Department of Geology and Mining reservoir of AGH University of Science and Technology, Kraków, Poland.

13. Narodowy Instytut Zdrowia Publicznego-Państwowy Zakład Higieny, Krakow / Warsaw, Poland.

14. Salsano Haloterapia Polska, Sulejówek, Poland.

15. SE "Ukrainian Allergic Hospital, Health Ministry of Ukraine", Transcarpathian region, Tyachiv district, Solotvino, Ukraine.

16. Regional Alergologic Hospital, Transcarpathian region, Tyachiv district, Solotvino, Ukraine.

17. Scientific-practical Medical Centre "Rehabilitation" Health Ministry of Ukraine, Uzhgorod, Ukraine.

18. University, Uzhgorod, Ukraine.

19. Hospital in Stebnik, Lviv, Ukraine.

20. Socialtechnopark Transcarpation section, Tiachiv, Transcarpatia, Ukraine.

21. Danylo Halytsky Lviv National Medical University, Ukraine.

22. Novovolynsk central hospital, Ukraine.

23. National Institute of Rehabilitation, Physical Medicine and Balneoclimatology, Bucharest, Romania.

24. National Salt Society-SALROM SA, Bucharest, Romania.

25. University "Stefan cel Mare", Suceava, Romania.

26. Emergency County Hospital, Pneumology Department, Suceava, Romania.

27. University of Bucharest, Dept of Molecular Biology and Biochemistry, Bucharest, Romania.

28. S.C. TURDA SALINA DURGĂU S.A., Turda, Romania.

29. Turda Municipal Hospital, Cluj County, Romania

30. Romanian Association of Balneology, Bucharest, Romania.

31. Horia Hulubei National Institute of Physics and Nuclear Engineering - IFIN HH, Magurele, Romania.

32. University of Medicine and pharmacy "Grigore T. Popa" Iaşi, Romania- Pediatric Dep.

33. The Academy of Scientists, Bucharest, Suceava Department, Romania.

34. Italkali Spa, Contrada Raffo, Petralia Soprana , Sicilia and Torino, Piemonte, Italy.

35. Municipality Petralia Soprana, Italy

36. SANATORIUM EDEL s.r.o., ZLATÉ HORY, Czech Republic.

37. Institute of Public Health, Ústí nad labem, Czech Republic.

38. Halomed North America, Inc., Vienna, Virginia (VA 22180), United States of America.

39. Salt Chamber, LLC - Salt Therapy Association, Boca Raton, FL 33432, United States of America.

40. Department of Pathology, University of Louisville, Louisville, KY, United States of America.

41. National Institute of Health", Sankt Petersburg, Russia.

42. Social Technopark, Sankt Petersburg, Russia.

43. Saint – Petersburg Institute of Prophylactic Medicine, Sankt Petersburg, Russia.

44. Beton tool ltd, London, United Kingdom.

45. Salisburyvillas.freeserve.co.uk, Royston, Hertfordshire SG8 5PU, United Kingdom.

46. Salzheilstollen Berchtesgaden, Berchtesgaden, Germany.

47. The Salt Room, Nova Scotia, Canada.

48. Institute of Respiratory Hygiene and Halotherapy, Budapest, Hungary.

49. Saltchamber Belgium, Geetbets, Belgium.

50. "Salt Chamber" in Sanatoria & Preventoria, Academy of Sciences, Chisinau, Republic of Moldova.

51. Republican Center of Speleotherapy, Institute of Naturotherapy, Erevan, Republic of Armenia

III. Professors, scientific researches I-II, doctors of sciences, master of sciences– 36, inclusively: Professors / scientific researches I – II and Doctor of sciences – 7, Doctors of sciences – 24, Master of sciences – 5.

IV. Participants of different professions and functions in workplaces: 80 (among which 23 heads of departments and laboratories, directors and managers of institutions and also leaders of associations and societies), inclusively:

1). With medical and biological specialties – 54: medical doctors – pulmonologists – 3; medical doctors – allergists – 3; doctors of children – 2; medical doctors - specialists in balneotherapy or climatotherapy – 3; medical doctors (pulmonologists, allergists, of internal diseases, paediatricians, specialists in medical rehabilitation, balneotherapy or climatotherapy) - who practice speleotherapy /subteraneotherapy cure in carst or salt caves and salt or of another origin galleries from mines for patients with bronchial asthma, chronic bronchitis and other chronic respiratory or skin diseases – 19; medical doctors (pulmonolo-

gists, allergists, of internal diseases, paediatricians, specialists in medical rehabilitation, balneotherapy or climatotherapy) - who practice halotherapy cure in patients with bronchial asthma, chronic bronchitis and other chronic respiratory or skin diseases – 15; medical doctors of other medical specializations – 1; kinetotherapists – 2; microbiologists – 2; immunologists, cell biologists – 4.

2). Engineers, economists and marketing specialists – 26: engineers geologists – 3; engineers geophysicists – 3; mining engineers – 7; speleologists – 2; engineers chemists – 2; computer science and electronics engineers – 3; economists – 2; marketing specialists – 4.

V. Lectures, scientific reports and communications and also posters presented in symposium sessions –36. The works presented in the XVth ISS (Wieliczka, Poland) referred to many aspects - from the study of issues related to microclimate study of underground galleries from salt and other origin mines and carst caves, to assessment of the speleotherapy / subterraneotherapy impact on the patients' health with different chronic respiratory pathologies.

VI. Abstracts and article published in the journal "Acta Balneologica", 2014, v.3. pp- 131-164 [(ISSN 2082 – 1867), indexed by the Ministry of Science and Higher Education (4 points), Index Copernicus, Polish Bibliography of Medicine, and is a patron of the Committee of Physical Culture and Social Integration of the Polish Academy of Sciences; Citation Index Thomson Reuters, Web of Science].

VII. Scientific reports, lectures, communications and posters discussed and remarked in the scientific sessions:

Session I "The history of speleotherapy / subteraneotherapy treatment in the world. Perspectives of development, management and protection of mines and caves used for speleotherapeutic purposes".

Session II. "The current status and prospects of speleotherapy in salt mines and other mining cavities, in the karst caves and of other origin. The underground speleotherapeutic factors, quality and mechanisms of curative effect. Experimental results":

Session III "Alergology and pulmonary rehabilitation in speleotherapeutic centers; using the speleotherapeutic, physical, balneary and climatic factors for medical rehabilitation and prevention on patients with chronic infection-inflammatory and allergic respiratory and cutaneous diseases and also for increase the quality of life".

Session IV. "The developement of halotherapy - therapy on the surface spaces with salt mine artificial environment and other descending methods of speleotherapy in salt mines".

Session V. "The developement of halotherapy - therapy on the surface spaces with salt mine artificial environment and other descending methods of speleotherapy in salt mines".

Session VI. "Closing of the XVth International Symposium of Speleotherapy. Proposals and discussion on the Closing Document of the XVth International Symposium of Speleotherapy, 2014, Wieliczka, Poland (XVth ISS)".

"Closing Document of the XVth International Symposium of Speleotherapy" – composed by Committees of "The XVth International Symposium of Speleotherapy" (XVth ISS) and representatives of Organizers; "The Permanent Commission on Speleotherapy (PCS)/Commission permanente de spéléothérapie (CPS)-UIS", "Wieliczka" Salt Mine Inc., "Wieliczka" Salt Mine Tourist Route, "Wieliczka" Salt Mine Health Resort, Department of Clinical and Environmental Allergology of Jagiellonian University Collegium Medicum, SP ZOZ MSW Hospital in Krakow, Krakow Saltworks Museum.

There followed the discussion of document, proposals and decision:

Proposals and discussion on the Clossing Document of the XVth International Symposium of Speleotherapy, 2014, Wieliczka, Poland (XVth ISS). The decision on the Clossing Document of the XVth International Symposium of Speleotherapy (XVth ISS), 2014, 23-25 October, Wieliczka, Poland, was performed.

After the scientific sessions has been "Working meeting of Permanent Commission on Speleotherapy / Commission permanente de spéléothérapie" (PCS/CPS-UIS) to which were discussed:

Concerning of standards necessity for speleotherapy and halotherapy and also of specialists education.

Perspectives of the PCS/CPS-UIS Bibliographic Bulletin.

Regarding the content of the Statutes and the seat of the International Association of Speleotherapy.

"Wieliczka" Salt Mine (Poland) Organizing Committee offered tours to the participants: Visiting the "Tourist Route of the „Wieliczka" Salt Mine and Health Resort Chambers" and also Krakow center.

Information on the XVth International Sympo-

sium of Speleotherapy and concerning on proposals, discussions and decisions (Closing Document) presented on UIS BULLETIN (2015, 57-1):
http://www.uis-speleo.org/downloads/uis-bulletins/uisb571.pdf
and the websites:
http://www.15speleotherapysymposium.webgarden.com/
http://www.speleotherapycommission.webgarden.com/

IN THE YEARS 2013 (AND NOVEMBER, DECEMBER 2012) – 2015 – 2017 WERE ALSO CARRIED OUT:

• Website and e-mail of the Permanent Commission on Speleotherapy / Commission permanente de spéléothérapie" (PCS/CPS-UIS);

• Publishing the abstracts of the two symposia (XIV, Turda, Romania and XV, Weliczka, Poland);

• Activities related to the elaboration of bibliographic data in the sphere of speleotherapy and halotherapy for printing the Bibliography Bulletin and publishing later on the PCS/CPS-UIS website and the website of UIS. The Bibliography Bulletin it's working;

• The PCS/CPS-UIS working groups have activated on the decisions of two symposia (XIVth in Turda, Romania; XVth from Wieliczka, Poland) and the working meetings. Such a structure of the Commission appears to be more efficient and involves specialists - personalities from different countries. Thus, during the years 2015-2016 - May 2017 for the first time started the activity for making proposals for technical documents regarding the structure and security of the speleotherapy sections in the galleries of functional and nonfunctional salt mines and in the karst or other caves, as well as and the artificial spaces for halotherapy at the surface (the work is underway);

• During the working meetings and through the media were discussed the parameters of the underground factors with therapeutic / curative properties for the realization of the underground speleoterapeutical sections in salt mines and for the karstic or other caves, as well as the artificial spaces of halotherapy (the work is underway);

• Patronage role of PCS/CPS – UIS in Project – Programme Central Europe, 2016. Second Call for proposed, 2016 (Italia, Poland, Slovenia, Austria) dedicated speleotherapy development, medical tourism, tourist rute in mines and caves with benefic properties on organism;

• Participation PCS/CPS-UIS in 2016 year for evaluate the status of Project "Public Call for Applications for Development Innovative Products and Services within Tourism Economy (2016 – 2018). The Company Postojnska Jama d.d. Torism Product "VIP EXPERIENCE – SPELEO-WELLNESS", Slovenia.

In various scientific studies on salt mines and karst caves or galleries of other origins, as well as experimental and clinical biomedical studies with batches of sick patients, data were obtained indicating that not all salt mines and caves of different origins or spaces built on the surface for halotherapy benefit from the same natural therapeutic factors or the same beneficial effect on the human body.

Not all saline mines and caves of different origins or surface spaces for halotherapy have specialists (physicians, nurses or other medical staff) to provide specialized help in case of medical emergencies (asthmatic, cardiac, etc.).

The sections of speleotherapy (often these are just galleries for tourism or relaxation) are not in specialized hospitals at the surface or in other state or private medical institutions and have no contracts with medical institutions for medical services. Similarly, it is interesting to note that, in some countries, salt mines, the karstic or other caves, although having underground therapeutic factors, are not covered by national legislation on the use of environmental curative factors for medical purposes, such as mineral waters, therapeutic mud and others.

All these facts require the launching of specific activities in the field of speleotherapy in salt mines, karst or other caves and halotherapy on surface spacies (their classification for speleotherapy - prevention, treatment, medical recovery / rehabilitation, for "speleotherapeutic tourism," relaxation and leisure, "tourism to view the charm of the underground gallery") by carrying out specific multidisciplinary studies with methodological recommendations and other specific documents for their use in the intended purposes, including medical - indications and medical contraindications.

These activities can be conducted in collaboration with research institutions, institutions and beneficiaries willing to use these spaces with benefic properties for human organism and for the improvement of the quality of life, as well as in collaboration with some UIS commission (a series of studies in these directions were launched by the members of PCS / CPS – UIS in Romania, Poland, Czech Republic, Germany, Russia, Ukraine and it unfolds in these years with perspective in the future).

For this purpose it is useful to have a working meeting of the Commission together with those interested in different countries for the scientific development of speleotherapy and halotherapy, "speleotherapeutic tourism" and other forms of use the underground spaces with curative and beneficial properties for improving the health of human body.

THE XVI[TH] INTERNATIONAL SYMPOSIUM OF SPELEOTHERAPY (PLANNING ACTIVITY)

In 50-60 years of the twentieth century, there were some publications, eand ncounters or scientific events in different countries at which mentioned the interest in the results of improvement health on the sick with various diseases (especially respiratory) after cure of presence in the some karst caves and salt mines. In May 22-24, 1968 the East-Slovakian Museum at Kosice has organized the "International Symposium about Speleo-climate, Speleo-therapeutics and Speleochemistry", to which it has been discussed motion for its foundation of an international commission. UIS Assembly approved in 1969 the "Speleotherapy commission", subsequently called the Permanent Commission on Speleotherapy / Commission permanente de spéléothérapie (PCS/CPS) of UIS.

Since 1969, have been organized 15 international symposiums of speleotherapy (ISS) at an interval of 2-4-5 years. To mention International Symposiums of Speleotherapy from 1989 (Prague, Czechoslovakia - during the Joint Meeting INTERASMA' 89), in 1992 (Bad Bleiberg, Austria), in 1993 (Solotvino, Ukraine); the 11th ISS (Zlaté Hory, Česká republika, 1999); the XIIIth ISS that occurred in 2008 (Blansko, Czech Republic); the XIVth ISS in 2012 (Turda, Romania); the XVth ISS in 2014 (Salt Mine "Wieliczka", Poland).

Similarly there have been a significant number of national conferences and other scientific events in different countries (Uzhgorod - Solotvino, Ukraine, 1971); among which international participation - the First Conference of Speleotherapy from Romania ("Turda Salt Mine", Romania, 2011); Working Meeting of Speleotherapy at the 16th International Congress UIS of Speleology (Brno, Czech Republic, 2013); Conference of Speleotherapy from Solotvino (Ukraine, 2013).

At the XVth International Symposium of Speleotherapy (Wieliczka, Poland, October 23-25, 2014) and at the PCS/CPS-UIS meeting at the end of this scientific manifestation on the proposal of Dr. Vladimir SVOZIL, Member of Extended board of Permanent Commission on Speleotherapy; Responsible Speleotherapy Repository/Library (Sanatorium EDEL s.r.o. Children's Hospital of Respiratory Diseases with Speleotherapy (in the underground galleries from mountains Zlaté Hory, Czech Republic) was discussed organization of the XVIth International Symposium of Speleotherapy in Zlaté Hory Czech Republic in 2016/2017 in accordance with the 16th International Congress of Speleology (Brno, 2013) and PCS/CPS –UIS Meeting from this Congress that approved the new extended structure of the Permanent Commission on Speleotherapy / Commission Permanente de Spéléothérapie" over the next four years. At the request of representatives of the receiving party and local organization of the respective planed scientific manifestation and after the consultation with the members of PCS/CPS-UIS Board it redesigned the organization of this symposium in 2017/2018 in Zlate Hory (Czech Republic) or in another country with speleotherapy centers.

INFO: "Symposium of Speleotherapy in Potash Mines" at the IIIth International Congress "Sanatorium Treatment" in 42 World Congress International Society of a Medical Hydrology and Climatology (ISMH), 2017, iune, 5-7. Moskow, Russia (*www.congress42.moscow*). Title of Simposium "Speleotherapy: scientific bases, achievements and actual problems". The Commission will be represented by Professor Gorbanko Pavel (Russia) - member of the working group, who will also present a communication in the field of speleotherapy and halotherapy.

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Simionca Iu. (Ghe.), Hoteteu M., Grudnicki N., Kiss J., Enache L., Petec Calin Ghe., Rogojan Rodica, Matei Mihaela. (2005).: Environment study in order use potential therapeutic factors existing in the cavity of one salt mine for the achievement of some perspectives of speleotherapy development in Romania. In: 14th International Congress of Speleology. Athens-Kalamos, 21-28 August 2005. Proceedings of the 14 th International Congress of Speleology. International Union of Speleology (UIS). Hellenic Speleological Society. Athens, Vol.2, p.421 – 425.

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Casa Cărţii de Ştiinţă, 2012 (ISBN 978-606-17-0241-1), 74 pp. (Editura categoria B clasificata de CNCSIS).

INTERNATIONAL SYMPOSIUM OF SPELEOTHERAPY International Symposium (15; 2014; Wieliczka, Poland). The XV[th] International Symposium of Speleotherapy of Permanent Commission on Speleotherapy (PCS) / Commission permanente de speleotherapie (CPS) of UIS, Wieliczka, Poland, 2014, 23 to 25 October "50 years since the official opening of the first salt mine underground sanatorium Allergological Sanatorium "Kinga", Wieliczka, Poland" (Organized by "Wieliczka" Salt Mine and PCS/CPS of UIS. Under the aegis of: Board of the "Wieliczka" Salt Mine, Union Internationale de Spéléologie / International Union of Speleology (UIS), Polish Association of Balneology and Physical Medicine). Editors of the Issue XV[th] international Symposium of Speleotherapy: Iuri Simionca, Yaroslav Chonka, Kajetan d'Obyrn and other coauthors. Article and Abstracts in: Acta Balneologica, Tom LVI, N3, (137) 2014, p 131-163, (p.131), (ISSN 2082 – 1867).

Iu. Simionca (2014). Activity Report Commission Permanente de Speleotherapie. In: UIS BULLETIN – VOLUME 56 - Nº 1 of 2, pp. 27-28 (*http://www.uis-speleo.org/downloads/uis-bulletins/uisb561.pdf*).

First Kiev International Scientific Conference "Scientific and methodological Foundations of Medical Geology", 17-18 April 2013 (Ukraine) *http://training.tutkovsky.com/novyny/print:page,1,319-rishennya-pershoyi-kiyivskoyi-mizhnarodnoyi-naukovoyi-konferenciyi-naukovi-ta-metodologichni-osnovi-medichnoyi-geologiyi.html*

Resolution of the International Scientific-Practical Conference "Perspective of Speleotherapy Recovery and Salt Extraction Based on Rock Salt Deposits in the village of Solotvino, Tyachiv district, Transcarpathian region", October 22-23, 2013, Solotvino, Ukraine (The original in Ukrainian language is available in: *http://media0.webgarden.com/files/media0:5284cb5551c69.pdf.upl/Binder1.pdf*

http://media1.webgarden.com/files/media1:52e103f6a7910.pdf.upl/Resolution%20Solotvino.pdf

UIS Bulletin (2014), 56, VOLUME Nº 2 of 2, pp. 29-36 *http://www.uis-speleo.org/downloads/uis-bulletins/uisb562.pdf*

UIS Bulletin (2015) Volume 57, pp. 6-20 *http://www.uis-speleo.org/downloads/uis-bulletins/uisb571.pdf* by Simionca Iuri. XV[th] International Symposium of Speleotherapy, Salt Mine Wieliczka, Poland, 23 – 25 October 2014.

Regards,

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REPORT OF ACTIVITIES

PUBLICATIONS EXCHANGE WORKING GROUP OF THE UIS INFORMATICS COMMISSION

By Trevor FAULKNER (United Kingdom), *Chairman*
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http://www.uisic.uis-speleo.org/publexch

This is the second report of the Publications Exchange Working Group (PEWG) to the UIS Informatics Commission. It builds on the first report, which was published in UIS Bulletin 58–1, pp. 5–7, May 2016, to which readers are referred. The PEWG has been established to tackle the challenges and opportunities for the exchange, accessing, organisation, safe storage and archiving of world-wide published speleological and karstic information into the distant future.

THE MAIN AIMS OF THE PEWG ARE TO:

1- Promote the exchanges of previous and new paper journals and books that will be housed in physical libraries internationally;

2- Publicise the extent of this international coo-

peration to help safeguard the preservation of important speleological information into the distant future, as a widely distributed 'archive';

3- Examine the opportunities and problems related to the production, dissemination and long-term storage of information electronically, primarily to improve its international, searchable, 'access'.

The vision is that the Working Group will assist in the networking of over 100 existing speleological libraries internationally that will each hold and catalogue a good selection of published cave and karst literature.

The Working Group was formally established within the UIS Informatics Commission, with close liaison with the UIS Bibliography Commission, at the 16th International Congress of Speleology (ICS) held in Brno, Czech Republic, from 21–28 July 2013.

WORKING GROUP PARTICIPANTS AND COMMUNICATION

Editors and Librarians of international speleological organisations and other interested people are asked to regard themselves as part of this Working Group. Please forward the PEWG Terms of Reference (ToR) and its Appendices to your Exchange Partners and invite them to join, by sending a short email to the Chairman (trevor[at]marblecaves.org.uk). The ToR and the Appendices are held on the PEWG web page at http://www.uisic.uis-speleo.org/publexch/.

These are publicly available, but are not necessarily completely up to date. The latest working versions of the Appendices are distributed to the Working Group by the Chairman, from time to time, and placed on the web page when appropriate.

Meetings for the Working Group are arranged at international speleological events, to discuss progress and to facilitate the actual exchange of back issues of speleological journals and books. Since the first report, a formal meeting was held at the EuroSpeleo 2016 event in Yorkshire, UK, on 16 August 2016. Minutes are available on the website.

ACHIEVEMENT OF THE AIMS OF THE WORKING GROUP

The aims are achieved by the preparation and maintenance of various Recommendations and informational spreadsheets that are Appendices to the Terms of Reference. The Appendices currently identified are:

Appendix 1: Speleological libraries.
Appendix 2: Paper publications.
Appendix 3: Postal exchanges.
Appendix 4: Digital scanning.
Appendix 5: Electronic publications exchanges.
Appendix 6: Working Party Contacts spreadsheet.
Appendix 7: Journal Titles Published spreadsheet.
Appendix 8: Publications Exchanges Status spreadsheet.
Appendix 9: Action Review: previous and outstanding actions for the Working Group.
File PEWG Appendix 9

PROGRESS TO DATE

The ToR and its Appendices were re-issued at Issue 2 on 9 November 2016, following discussion at the Workshop held on 16 August 2016, and are available on the website. Appendices 1 to 5 are probably now stable, so that editors and librarians can consider the recommendations. Appendices 4 and 5 have been written by an expert team to address the issues regarding the electronic exchange of published information. At Issue 2, Appendix 4 still needs to make recommendations about the use of Optical Character Recognition (OCR).

Everyone is asked to provide new information and updates for Appendices 6, 7 and 8. Peter Matthews, the Chairman of the UIS Informatics Commission, is thanked for continuing support in placing PEWG information on to the UISIC web page.

NEXT MEETING

A Publications Exchange Workshop will be convened within the 17th ICS to be held in Sydney, Australia, from 23–29 July 2017: https://www.speleo2017.com. The workshop is for all Caving Librarians, Caving Editors and others interested in the exchange and safe archiving of speleological literature.

The aims of the Workshop are:

1 - To review the ToR and the Appendices at draft issue 3, following a possible restructuring, before publishing Issue 3.

2 - To review progress in achieving the aims of the Working Group.

3 - To provide an opportunity for networking and the physical exchange of publications amongst the attendees.

Prior registration, by sending a short email to the Chairman before end June 2017 is requested, so that a suitable agenda can be proposed, but is not essential for attendance.

France HABE Prize 2016

By Jean-Pierre Bartholeyns (Belgium)
UIS Adjunct Secretary/President of the Department of Karst and Cave Protection of the UIS
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France HABE (†10/12/1999)

INTRODUCTION

The France HABE Prize is awarded by the Department of Karst and the Cave Protection of the International Union of Speleology (UIS).

The prize is named in memory and honour of Dr. France HABE (†10/12/1999) of Slovenia (Yugoslavia), who among his other many accomplishments served as President of the UIS Protection Department (1973-1997).

Its purpose is to promote the protection of karst and caves for generations to come. Their natural legacy are proven sources of increasingly rich information about the history of our planet and humanity, enabling people to act more thoughtfully, efficiently, and sustainably for the future and the biodiversity of our environment.

THE 2016 PRIZE

Two submissions were received on time from Belgium and Indonesia. They concern an atlas of a karst area (the 6th volume of a series) and the enumeration of different actions of a caving club who looks like dynamic.

The Jury of the France Habe Prize 2016 was composed by 2 members of the Scientific Committee of the UIS Department of Karst and Cave Protection and its President.

They noted each submission following an evaluation frame about presentation, compilation, photography, scientific content, legibility and original point of view. They decided unanimously to attribute the France Habe Prize 2016, an amount of € 250, to the best and more original contribution.

The winner of the UIS France Habe Prize 2016 is the **Commission Wallonne d'Etude et de Protection de Sites Souterrains (CWEPSS) for the *Atlas du Bassin du Hoyoux - 6e Volume des Monographies Karstiques par Bassin Versants.***

This remarkable work done tirelessly for many years deserves to be somewhat explained.

Well structured and based on multidisciplinary scientific achievements this inventory work conducted with the effective participation of field speleologists has a very useful multi-layer mapping. It is a real reference tool for the protection and ecologically sustainable management of caves and karst areas of Wallonia.

This reflection and this way of working is applicable and reproducible in other karst areas without any problem. Discovery here below what initiative you can also have in your own region/country.

ATLAS DU BASSIN DU HOYOUX

6th Volume of the Karstic Monographs by Watersheds

PUBLICATION AND CIRCULATION OF A CARTOGRAPHIC INVENTORY OF KARST, CONCEIVED AND STRUCTURED BY THE WATERSHEDS SUB-BASINS

The English version is a translation of the French and original one.

INTRODUCTION

The protection and preservation of karst and caves pass through an excellent knowledge of this millennial environment hyper sensitive and fragile.

This is the reason who motivated the CWEPSS to register all phenomena of it and to map them.

Water is the key element of this environment, it seemed thus logical to the CWEPSS to approach this work by hydrologic basins.

The different volumes of the karstic monographs (5 presently) of the Atlas are designed as an aid in the management of limestone regions. They allow everyone to understand the formation and evolution of calcareous massifs. They aim to make actors aware of the vulnerability and of the need for conservation of this exceptional heritage.

Tool of reference to set up an integrated, durable strategy on the scale of the hydrogeological basins in favour of the protection of karst and caves.

1. PROTECTION NEEDS AND CONSTRAINTS IN BELGIUM

Belgium is one of the European countries with the highest population density. Its past and very important industrial present, its position at the centre of Northern Europe (leading exchanges and an important traffic), its intensive agriculture and the modification of its territory and landscapes related to increased town planning are many elements which put strong pressure on the environment.

The karstic subterranean environment in particular is subjected to restrictions that endanger its integrity and the conservation of the ecosystems associated with them:

- vast quarries break certain solid calcareous masses and fold down the groundwater table to produce cement and ballast;
- the discharge of water used directly in the karst and the recourse to depressions (or quarries) as discharges introduce diffuse or specific pollution into the subterranean environment;
- the destruction of certain cavities during infrastructure and equipment work;
- the resort to intensive agricultural practices inducing the transfer of pesticides, manure and antibiotics towards subsoil waters and the karstic aquifers;
- show caves are subject to alteration by unsustainable exploitation;
- certain "wild" caves are over-visited and even vandalized by day visitors.

The conservation of the karstic subterranean sites (and their ecological integrity) is thus clearly in danger in Belgium. Today it is a question of making the value of this environment known and of better integrating its protection in all the policies and the legislation affecting it.

Accordingly, a cartographic and descriptive inventory of the karstic zones (structured in hydrogeologic units) proves to be an essential tool to initiate the lasting and integrated protection of the subterranean inheritance on the scale of a state.

2. LONG-TERM INTEGRATED ECOLOGICAL SUSTAINABILITY

This inventory of karstic sites and subterranean rivers of Belgium, called "**the *Walloon Karst Atlas***", constitutes both an X-ray photograph of the current karstic situation and a powerful tool for the targeted actions for the protection of the sites, the species and the underground habitats. It offers all required information to allow to select the sites to be protected. In particular, this inventory with its cartographical window proposes to reinstate the significant underground sites in their hydrological context so as to define management and protection on a storage tank level.

With regard to the protection of the karstic solid masses and the underground ecosystem, this type of more global and integrated solution can without doubt be usefully applied in other areas of Europe. This tool of reference (cartography and annexed texts), with computerized data, is meant to be widely circulated to all parties interested in the environment.

Incorporating observations and data, some of which are very old, the Walloon Karst Atlas is furthermore regularly updated. The inventory of the cavities' fixtures observed periodically is encoded; this makes it possible "to follow" the evolution of a site over the course of time. Cooperation with a network of partners (scientists and cavers) was set up to carry out this follow-up work on the inventory of fixtures.

Fig 01. La large galerie principale du trou Al Wesse (Modave), faisant l'objet de fouilles archéologiques.
The main width gallery Al Wesse hole (Modave), subject to archaeological excavations.

If the paper version of our inventory of karstic sites can lose some of its exhaustiveness in the course of time and further to new discoveries in the relevant zones, the database used as a foundation (and which is available to partners) will continue to be updated in real time. In addition, we count on being given the aid of a more significant number of partners in the field in the follow-up of the sites thanks to the publication of the work which will facilitate updating.

3. SCIENTIFIC AND TECHNICAL FOUNDATIONS

Convinced of the importance of a cartographic and descriptive register of karst as a tool for cave protection, CWEPSS works on the updating, the printing and the circulation of this database. A priority is that this information is made available to the various people acting for the environment (see Pt 5).

The SIG (geographical information system) version, of the Walloon Karst Atlas is already used by some administrations and partners. The paper publication is a necessary complement, often more convenient; especially for field surveys.

In the logic of the hydrogeological units and in agreement with the European Framework Water Directive (2000/60/CE), the karst data are grouped and published by subwatersheds rather than according to administrative limits with no hydrogeological significance.

The charts accompanying the inventory are at 1/20,000ths (i.e. on the scale of the Belgian armed forces' charts) offering a remarkable degree of accuracy and legibility to the Atlas users.

The maps which accompany the inventory are published at 1/20,000ths (i.e. on the scale of the Belgian armed forces' charts) offering a significant degree of accuracy and legibility to the users of the Atlas.

Finally, each phenomenon is revisited in the field during the year preceding the printing of the book in order to have a complete description and update. The data is presented on cards of which the structure is detailed below (see Pt 4). The listings are accompanied by photographs and topographies that usefully supplement the description of the sites in question.

In terms of circulation, 1,000 copies of each karstic monograph will be issued, and will be distributed via various circulation channels (public, private, bookshops, the caving world …) to end-users.

4. IN A PRACTICAL WAY

In our inventory (in its paper as well as its numerical version), each fact is the subject of a descriptive card that includes the following fields:

NAME AND SITE

Name of the site: It is the name most commonly used to indicate the phenomenon and its referenced name in literature. Synonyms are also mentioned.

No of the site: number reproduced on the chart excerpt at 1/20,000ths so as to position the site.

Commune: field including the name of the Commune and that of the old commune (prior to fusion).

Locality: hamlet or local name of a point of reference close to the karstic site in question (geographical reference mark).

Lambert Co-ordinates: geographical co-ordinates in Lambert 72 allowing the localization of the site. These co-ordinates were obtained either in literature, or via GPS (for recent summaries) or by carrying them forward on charts. The precision of the localization of the phenomena varies between 10 and 50 m.

Altitude: For the subterranean sites and/or the sites with a sizeable depth, the value is that of the entrance or the plateau in which it opens.

Forest regions: takes on the name of the forest areas in which the site lies. This is for management, monitoring and site protection reasons.

CHARACTERISTICS AND DESCRIPTION OF THE SITE

Geology: level/formation (on the basis of the new geological map).

Description: text presenting the characteristics, the features of the site and its immediate neighbourhood.

Hydrogeology: aspects related to water affecting the site in question (flow, height, nature of water… and possible contact with other phenomena that are part of the same hydrological system).

Inventory of the site: the date, followed by an observation regarding the state of the phenomenon. Several consecutive listings can be encoded for the same site so as to follow its evolution. This field gives a report of the cases of pollution and/or rehabilitation and research tasks in progress.

SIZE OF THE SITE

On the surface: length/width/depth expressed in m for a given phenomenon.

Underground: development/level difference expressed in m for the underground part of the site.

Topography: again takes the name and the date of the various authors of the site plan.

STATUS OF THE SITE

Interest(s): indication of the interesting aspects of the site, or those that merit being gone into more thoroughly.

Status: mentions the status in the sector plan, as well as any other protection status granted to the site (or a ± larger perimeter in which it is located; e.g.: classified site, natural reserve, Natura 2000 zone…).

Intervention(s): with regard to the interest, the vulnerability of the site or its measurement, list of fixtures which CWEPSS suggests taking to contribute to the preservation of the site and to permanently protect the local karst.

BIBLIOGRAPHIC REFERENCES

The list of writers who have published information on the site in question. This to allow the people working on a particular phenomenon to have a bibliographical list that relates to it.

ILLUSTRATIONS

For all the caves with a development of more than 50 m, the most complete topography of the network is included in the inventory. Finally, the different cards are illustrated with a selection of photographs (mostly taken by CWEPSS in 2007-2015) which complete the inventory of fixtures and the description of some of the sites mentioned.

INTRODUCTORY ARTICLES

The inventory part of each monograph is preceded by article which present the geological characteristics, hydrological, caving and scientific interests associated with the mapped area. These original review articles are written by experts and contribute to the understanding and the overall vision of the karst and of the issues associated with it.

5. EXPECTED RESULTS OF THE PROJECT

The first mission of this inventory is to contribute to the knowledge and to a better taking into account of karstic phenomena and subsoil waters, in the management of calcareous areas and regional planning.

With its precise cartography and its descriptive index cards offering a complete bibliography for each inventoried phenomenon, as well as a catalogue of fixtures and recommendations with regard to management, this work is structured like a working paper with various possible uses.

For **regional planning:** in karstic areas the quality of the subsoil can raise serious instability problems. Moreover, it is necessary to take into account the assets and the weak points of this environment before approving installations that could be detrimental. By positioning the karstic sites accurately, the karst Atlas accurately gives useful data to plan the territorial development of these areas.

For **work and infrastructure:** by recording the surface and subsoil karstic phenomena, the Karst Atlas draws the attention of land developers to the risks of soil instability which can in places be non-aedificandi. The data in the atlas is also used as a basis to designate the karstic limitation perimeters (natural risk) for urbanization.

For the **protection of subsoil waters:** the karstic phenomena are as many direct access points to the wa-

ter table and the invaluable subsoil waters they contain (60 % of Belgian drinking water is drawn from the karstic zone). Particular care is required around these burying points to protect the water legacy. The atlas will prove to be very invaluable when defining monitoring zones around the collections, where the karstic sites will have to be the subject of a certain security.

For the **inventory and the prevention of pollution:** the list of fixtures of the various karstic phenomena and some old quarry limestone shows that liquid and solid discharges remain relatively frequent in the depressions of the soil that constitutes the karstic sites. The situation has fortunately improved since thirty years, but there are still some cases of old polluted, non cleared sites and some new alarming tipping. .

For **nature conservation:** a very important proportion of the calcareous zones of the Lesse (more than 55%) in Bocq and Samson are mentioned in Natura 2000. This protection status is an excellent thing and the karst Atlas will allow the people in charge of these great protected areas to better integrate the underground dimensions and the specific vulnerability of these sites in the total management of these calcareous soils.

For **scientists and naturalists:** to any person interested in subterranean sites and with the related scientific interests, this atlas will prove to be an invaluable inventory to direct their research and to select the sites on which to undertake their studies.

For **speleologists:** the charts giving the geological limits and the establishment of the various karstic sites will help to determine where and how to organize their prospecting and their research to make new discoveries.

6. PROJECT STUDY OF IMPACT RESULTS OF THE ATLAS

For more than 15 years, the karstic inventory of the Wallonia sites has been used as background document and reference in the application of a group of campaigns and initiative in favour of the protection, the study and the preservation of caves and calcareous areas.

One can quote, as examples:

a - The granting of Underground Cavities of Scientific Interest status, with a network of almost 100 caves in Wallonia, so as to protect a representative share of the underground legacy of the area. The choice of sites, the science files and the delimitation of certain measures of protection to be applied were done on the basis of the Karst Atlas.

b - The designation of karstic restriction areas. By crossing the register of the karst data with the various projects, assignment of the ground and plan of regional planning, the zones where karst presents a risk for urbanization were defined. These contribute to the taking into account of the subterranean environment in land planning.

c - The European Pascalis program (Protocols for the Assessment and Conservation of Aquatic Life In the Subsurface). The choice of the 192 stations in which the condition of the fauna in subsoil waters was carried out was selected thanks to the Karst Atlas. This inventory was also very useful to define the feeding zones of each one of these sites.

d - The protection associations of bats (Plecotus) refer to the Atlas during the counting of bats and to understand the logic of wintering grounds network and reproduction adopted by these flying mammals.

These three examples show how such an inventory is necessary to set up a conservation policy in favour of the subterranean environment. A wider circulation of such a database will allow other organizations, associations and institutions to have recourse to this database to promote research in, and protection of, the subterranean environment.

Fig. 02. Vaste galerie drainante dont le réseau total dépasse les 4 km et qui sert de captage alimentant notamment la Ville de Bruxelles.

Extensive drainage gallery whose total network exceeds the 4 km and is the catchment including supplying the City of Brussels.

7. CHRONOLOGICAL IMPLEMENTATION PROGRAM

The lists of soil, biological researches and cartographic work necessary for such an inventory and its uninterrupted updates is a process that CWEPSS started there is now almost 30 years.

With no publication or circulation, this data remained primarily for internal use and as a support tool for the activities undertaken by CWEPSS itself in terms of protection. For 6 years (in cooperation with the Upper Meuse River Contract and then that of the Lesse), CWEPSS has undertaken to publish its inventory by sub-basin.

Thus the l'Atlas du Karst: Bassin du Viroin (290 pages) was published (in 1,500 copies) in November 2009. Six months after publication, more than 400 copies of the work had already been sold, thus confirming the interest in this work and the data which it contains.

CWEPSS has worked then on the update of the karstic data in the Bocq and the Samson basins. This monographs of 375 pages out of press in 2011. In 2013 it is the monograph Basins Burnot and Molignées (383 pages) that is published.

In 2014 the CWEPSS publish the monograph of the Basse Lesse (399 pages) and in 2015 the karstic monograph of the Lesse Calestienne - the largest karstic region of the country (487 pages). 2016 will see the publication of the karstic monograph of the Bassin du Hoyoux. These amply illustrated monographs are published in full color and circulated to associations and institutions to be used for karst protection.

8. INVOLVEMENT OF THE LOCAL CAVERS

A large number of cavers and clubs that are active in the field of the search for and the protection of karst in Belgium are members as well as partners of CWEPSS.

Our inventory work is fed by publications, topographies and statements carried out by these teams on the ground. In addition, our commission makes the following available to these partners:

- its documentation (more than 500 works, 4000 articles, charts and photographs concerning karst in Belgium),
- its experience in terms of conservation of subterranean sites,
- its control of the records regarding classification and protection of cavities with regard to proposing a durable status for a cave.

Lastly, the karstic listings that we carry out were also structured (see point 5) so as to be used by the speleologists in their research on a solid mass or a particular zone.

The caving community is thus at the same time the source and one of the main recipients of this cartographic and descriptive inventory.

9. INVOLVEMENT OF EXTERNAL PARTNERS

In point 5 of the file, we detail the various uses of this inventory and the people to whom it is directed in order to reinforce the recognition of the interest and the vulnerability of the subterranean environment.

These people, members of public institutions, organizations, universities, local authorities, water distributors, administrations are, besides cavers, the first to receive our listings.

Since 1992, the network of contacts and partners that we have woven within universities and local and regional governments allows us on the other hand to benefit from observations and new information on many phenomena.

Finally, very profitable relationships have been established with geologists (Geological Service of Belgium and the teams responsible for the revision of the geological map). They make it possible to integrate new observations and to refine the hydrogeological dimension of solid masses to manage certain karstic networks on the scale of storage reservoirs.

10. COMMUNICATION TO THE SPELEOLOGICAL COMMUNITY

All the actions of CWEPSS and in particular the initiatives for the protection of the subterranean sites are communicated on a quarterly basis (4 x per annum) to the speleological community (as well as to a larger audience) via EcoKarst (our association's publication).

This same information, as well as the procedures to be followed to take part in the inventory of the karstic phenomena work, and the "instructions" to protect the remarkable caves in Wallonia can be consulted on the association's Internet site *www.cwepss.org*, updated monthly.

Lastly, CWEPSS is active in various commissions of the Belgian Union of Caving, takes part in the speleological conferences organized to protect and study the subterranean environment and regularly publishes articles in magazines including that of the federation (Regards).

11. COMMUNICATION WITH MEDIA AND PUBLIC

With EcoKarst, CWEPSS has its own quarterly publication which is widely circulated in Belgium (nearly 1,000 copies) to all the organizations, associations, industries, communes and administrations with an interest and/or a ± direct influence on the underground environment.

The readership of our publication is reinforced and enlarged by its transmission on our Internet site, where each number is downloaded several hundreds of times. *http://www.cwepss.be/ecoKarst.htm*.

With regard to the listing of the karstic sites, although it is a rather technical document, everything has been done to make it attractive and more accessible to the public in general and to "non- specialists" through the conception and the design of the publication (many illustrations, introductory popularized articles, very clear sets of chart themes) as well as via its circulation.

It is indeed a question of showing all inhabitants of calcareous areas that karst management is everyone's responsibility. We thus organized press conferences, gave several conferences, offered field visits directed to the general public and had articles published in several newspapers and magazines. Regional and communal administrations also relayed this information. Several panels of our road show, often carried out according to the place of the presentation, deal with the atlas.

12. MAIN PAST REFERENCES / EXPERIENCE OF THE ORGANIZATION IN THE FIELD OF CAVE PROTECTION

Karst and cave protection represents the social object itself of our association and its purpose. The large majority of the activities developed now for almost 45 years have this very vocation. In particular the following actions:

October 1970 - 1st Symposium on the Protection of Karstic Sites. Origin of the idea of the creation of a protection commission.

From 1971 - Organization of cleaning sites ("dépollukarst" weekend) in certain extraordinary caves of the country.

1976=>1990 - National campaign for the protection of two of the most remarkable caves in the country (Hotton and Lyell-Dew) threatened by quarries (these actions ended in the classification of these sites and a halt to the development of the quarries that threatened them. Our slogan: a classified site to be crushed.

1978 - The aims of the "Pollukarst" investigation carried out for the Ministry of Public Health on the basis of the first actions of the atlas were to draw up a chart of the condition of the speleological environment and to sensitize public opinion to the dangers of pollution to the karstic sites.

1982 and 1991 - Files on classification and natural retention for certain threatened caves, interventions to stop sewer rejects in sinkholes and to obtain settling tanks for motorway water.

1988 - Public awareness campaign together with the publication of a booklet and the creation, within the framework of the European Year of the Environment, of a vast road show "Endangered Subsoil Waters and Caves".

Since 1994 - Involvement in the work of the Protection and Access Commission of the Belgian Caving Union regarding access conditions to the caves.

1995 - Republishing, within the framework of the European Year of Nature Conservation, of a booklet "Caves and subsoil waters, treasures to be protected" destined for the 10-12 year age group, previously published in 1989.

1997-2003 - Installation (at the request of the Walloon Government) of a network of Underground Caves of Scientific Interest, including management plans and an access policy, and the endorsement of research in order to ensure their preservation.

From 2003 - Expertise and opinion given for several tourist caves to advise on management modes, lighting and methods for less harmful cleaning of the caves.

2001-2004 - Study on karstic constraints and regional planning, with as specific goal the delimitation of zones where urbanization is to be avoided because of exposure of the caves.

2002-2006 - Pascalis (Protocols for the Assessment and Conservation of Aquatic Life In the Subsurface), coordination (in collaboration with the Royal Institute of Natural Science of Belgium) of the programme in favour of the protection of stygobiontic microorganisms.

Since 2008 - Participation in the management commissions of the Natura 2000 areas in Wallonia, with a view to better recognition and the taking into account of the subterranean habitat in the management of these regions.

Since 1977 - Gathering, keeping up-to-date the karstic site Inventory Data of Wallonia and publications: Province of Liege (1996), Province of Namur-Upper Meuse (1999).

Nov. 2009 - Publication of Atlas: Viroin Basin.

Sep. 2011 - Publication of Atlas: Bocq and Samson Basins.

2013 - Publication of Atlas: Burnot and Molignee Basins.

June 2014 - Publication of Atlas: Basse Lesse Basin, (very soon).

June 2015 - Publication of Atlas of the Lesse Calestienne.

September 2016 - Publication of Atlas: Hoyoux Bassin (press release scheduled on 20/09).

IN MEMORIAM

SAMI KARKABI

Palestine, 1931-2017

by Johnny Tawk *(Lebanon)*
johnnytok@hotmail.com

Sami Karkabi, co-founder of the Speleo Club du Liban (SCL), passed away on the 24th of March, 2017, at the age of 86 years. His name is mostly associated with the Jeita Cave.

Born in Haifa, Palestine, in 1931, Sami Karkabi obtained in 1952 a MPC general mathematics from the Graduate School of Mathematics of Beirut. That same year, he taught hotel accounting at the Ecole Hôtelière before working in the Lebanese Petroleum Company from 1952 to 1953.

He started caving in 1949, and since 1951(founding of SCL) he led many expeditions first, inside the Jeita cave where he pushed the explorations from 2800 m till 6400 m (Terminal Siphon) from the entrance. Numerous obstacles had to be overcome, especially the famous "Falaise Karkabi", named after him.

In 1954, he travelled to France and met Robert de Joly (president of Speleo-Club de Paris at that time) and learned further about touristic development of caves. One year later, he became in charge of the design of the touristic part of the lower level of Jeita cave, while at the same time he was the director of the project on behalf of the Commissariat Général du Tourisme.

Passionate about speleology, he explored numerous cavities and underground karstic systems in Lebanon, as well as abroad. Thus, in 1956, he took part in the French expedition of the "Gouffre Berger" in the Vercors in France, 1st -1000 m deep cave in the XXth Century. Together with Speleo Club du Liban members, they discovered the Upper Galleries in Jeita Cave in 1958 which led to the touristic development of the cave's new galleries in collaboration with the Ministry of Public Works and Dar el-Handassa in 1965.

Sami Karkabi, editor of the SCL's speleological journal Al-Ouat'Ouate from 1954 till 1999, was also an anthropologist, and carried out numerous studies in this field. As a university professor, he had organized numerous seminars on vernacular habitats in countries such as Iraq, Morocco, Algeria, Iran, Ethiopia, Turkey, Sudan, Yemen and Kenya. He also took charge of two anthropo-architectural research workshops in Lebanon, Wadi Kannoubine (the Holy Valley) and Wadi Nahr es-Salib. The first is a world heritage site recognized by UNESCO.

1950 - Sami in Jeita Cave, Lebanon.

Sami participated in different International Speleological Congresses and Symposia from 1958 till 1999. In addition, he took part of the organizing committee of the 1st and 2nd Middle East Speleology Symposia in 2001 and 2006. He was appointed honorary member of the Speleo Club of Paris in 2004. He also had numerous scientific and other publications (books, articles). In particular, he has more than 25,000 cave photographs and more than 250,000 photos from his anthropological studies.

Sami Karkabi was a great building block for the Lebanese speleology. He always believed in team spirit. For many years he has been the mentor and support of many cavers and speleologists. He spared no efforts to keep sustainable bridges between the Lebanese speleologists and the international community of speleologists (UIS), even during the difficult times of the Lebanese civil war. He never compromised perfection, ethics and efficiency. He has been a true friend and appreciate comradeship and the little things that make up a good life. His memory and legacy will be safeguarded by the present and future generations of the Speleo-Club du Liban, who would have never been the same without him.

1952 - Sami at the entrance of Jeita Cave

Calendar of Events 2017 2018

17th International Congress of Speleology (ICS) - *"Caves in an Ancient Land"*
23-30 July 2017 (Panthers Event Centre, suburb of Penrith, western Sydney, Australia)
http://speleo2017.com

International Clean-up of Gouffre Berger
1-15 August 2017 (Vercors, France)
http://cds39.fr/BFC/index

11th Balkan Caving Camp - 20th Hellenic Speleological Meeting
August 27th – September 3rd, 2017 (Leonidio, Peloponnesus, Greece)
www.balkanspeleo2017.gr

V Biospeleology Conference (V Encuentro Ibérico de Biología Subterránea)
21-23 September 2017 (Seville, Spain)
https://5encuentrobssevill.wixsite.com/veibs

44th International Association of Hydrogeologists Congress
25-29 September 2017 (Dubrovnik, Croatia)
http://iah2017.org/

22nd National Cave and Karst Management Symposium
16-20 October 2017 (Eureka Springs, Arkansas, USA)
http://nckms.org/

British Cave Research Association - 28th Cave Science Symposium
21-22 October 2017 (Leeds, UK)
http://british-caving.org.uk/phpBB3/viewtopic.php?f=29&t=1386&sid=6def9ad7ebf1e24460cac3a8f13b1148

Geological Society of America (GSA) Annual Meeting & Exhibition
22-25 October 2017 (Seattle, Washington, USA)
http://community.geosociety.org/gsa2017/home

9th International Conference on Geomorphology (9th ICG)
6-11 November 2017 (Vigyan Bhawan, New Delhi, India)
Karst Session: *http://www.icg2017.com/session.php*

Workshop: Grotte de Han, New Dramatic Effect of Lighting
16-18 November 2017 (Han-sur-Lesse, Belgium)
http://cavelighting.de/workshop-grotte-de-han-new-dramatic-effect-of-the-light.html

15th Sinkhole Conference, joint with the **3rd Appalachian Karst Symposium**
2-6 April 2018 (Shepherdstown, West Virginia, USA)
http://www.sinkholeconference.com/

18th International Vulcanospeleology Symposium
21-27 July 2018 (Lava Beds National Monument, California, USA)
http://www.vulcanospeleology.org/sym18/ISV18.html

17th International Congress of Speleology, Sydney 2017

Sydney, Australia, 23-30 July 2017

CAVES IN AN ANCIENT LAND

by Denis Marsh - *President, Speleo 2017 ICS Organising Commission*
(a commission of the Australian Speleological Federation)
denis.marsh@hotmail.com

The world premier speleological event for 2017 is almost here. Over 400 speleologists from some 45 countries around the world will shortly be heading 'Downunder' to Australia for the 17th International Congress of Speleology (17th ICS), convened by the UIS and hosted by the Australian Speleological Federation.

'SPELEO 2017', 23 – 29 July 2017, to be held in Sydney, Australia, promises to be a truly unforgettable experience. With around 257 papers and over 60 posters to be presented, the packed program will hold an interest for everyone attending. You can view the exciting list of accepted abstract titles on the ICS website at *https://www.speleo2017.com/* or simply following this link *https://www.speleo2017.com/AcceptedAbstracts.html* .

For details on the ICS program, check out the draft program on our website *https://www.speleo2017.com/Program.html* .

More details will be posted as they become available. Why not keep up to date with information by subscribing for email updates and announcements? To subscribe just visit our Mail List page on the website at *http://lists.speleo2017.com/mailman/listinfo/speleo2017-announce* .

Alternatively follow us on Facebook *https://www.facebook.com/Speleo2017/*

Circular 3 is now available and contains much of the important information to help with organising your trip and finding the latest information on the Congress planning. Read or download a copy here *https://www.speleo2017.com/Circulars/Circular3.pdf*

We are still accepting Late Registrations and also Day Registrations so no need to miss out if you have not registered yet. Visit the Congress registration facility now *https://conference.speleo2017.com* and join us in Sydney, Australia.

The organising committee for the 17th ICS is excited and looking forward to welcoming registrants to the Congress and will be making every effort to create a friendly and relaxed atmosphere for all our friends in speleology from around the globe.

UIS BUREAU 2013/2017

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UIS BUREAU 2013/2017 in Dalesbridge, United Kingdom, August 2016.

***Left to right*:** Efraín MERCADO *(Vice-President for Operations/Puerto Rico);* Nivaldo COLZATO *(Adjunct Secretary/Brazil);* Giovanni BADINO *(Adjunct Secretary/Italy);* Kyung Sik WOO *(President/Republic of Korea);* Zdeněk MOTYČKA *(Adjunct Secretary/Czech Republic);* Nadja ZUPAN HAJNA *(Adjunct Secretary and Treasurer/Slovenia);* Mladen GARASIC *(Adjunct Secretary/Croatia);* Fadi NADER *(Secretary General/Lebanon);* Jean Pierre BARTHOLEYNS *(Adjunct Secretary/Belgium);* John CUGLEY *(Adjunct Secretary/Australia);* George VENI *(Vice-President for Administration/USA) and* Christian DODELIN *(Adjunct Secretary/France);*

Photo by José Ayrton LABEGALINI *(UIS Past President)*

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ACTIVE NATIONS MEMBERS LIST
as reported by the UIS Treasurer

54 Active Nations Members in June 2017
(with debts for 2 or more years marked with*)

Algeria *	Honduras*	Puerto Rico
Argentina*	Hungary	Romania
Australia	Indonesia	Russia*
Austria	Iran IR	Serbia
Belgium	Israel*	Slovakia
Bosnia & Hercegovina	Italy	Slovenia
Brazil	Jamaica*	South Africa
Bulgaria	Japan	South Korea
Canada	Lebanon*	Spain*
China	Lithuania	Sweden
Colombia	Luxembourg	Switzerland
Costa Rica*	Mexico	The Netherlands
Croatia	Mongolia*	Turkey
Cuba	Norway	Ukraine
Czech Republic	New Zealand	United Kingdom
France	Paraguay*	USA
Germany	Poland	Venezuela*
Greece	Portugal	Vietnam*

Some countries have paid their annual fees up to 2022. Some haven't paid for 2 years or more!

Please indicate WHO is paying for your country - especially if there are two or more speleological associations in your country. The UIS Bureau can't select the payer for your country and we don't return money!!!

If you have a new treasurer or responsible person for payments, please send the new name and e-mail address to zupan@zrc-sazu.si.

We do not know who to contact in some countries or we do not have their proper address.

Have not found your country in this list?

Ask the UIS Treasurer

PAYMENT VIA UIS WEBSITE

Now the payment of the annual fees can be done directly via UIS Web Page through PayPal service.

http://www.uis-speleo.org/index.php?option=com_content&view=article&id=67&Itemid=383

UPDATE your status now!

CONTACT UIS

UNION INTERNATIONALE DE SPÉLÉOLOGIE
Titov trg 2, 6230 Postona, Slovenia
www.uis-speleo.org

FINANCE

ANNUAL CONTRIBUTIONS

By: Nadja ZUPAN HAJNA, UIS Treasurer/UIS Adjunct Secretary (Slovenia) - zupan@zrc-sazu.si

Prof. Dr. Nadja ZUPAN HAJNA (Slovenia) in United Arab Emirates

Headquarters of the Karst Research Institute in Postojna, Slovenia, where the offices of the UIS are located. In the detail, the bronze plaque with the emblem of the UIS affixed below the name of the institute.

Each UIS member country has the free choice of the category in accordance with its own financial possibilities and with the number of speleologists or speleological societies/ associations/ federations/ clubs/ institutions.

The UIS Bureau authorized to reduce or to remit the contributions, if the UIS member-country makes a respectively written demand. If the UIS Bureau requires, the UIS member country has to give reasons for the difficulties of a payment.

The authorization of the UIS Bureau to reduce or remit the contributions confirms that the impossibility of a payment by actual political problems or difficulties will not be an argument to exclude any member country from the international collaboration within the structure of the UIS.

ANNUAL CONTRIBUTIONS

The UIS General Assembly at the 15th ICS decided to change the annual contributions of the UIS member-countries to Euro currency, while keeping the same rates as those since 1994. The annual contributions will be as follows, starting from January 2010:

Category A - 300 Euros
Category B - 200 Euros
Category C - 50 Euros

UIS BANK ACCOUNT

Account name
Mednarodna speleološka zveza-UIS
Titov trg 2
6230 Postojna - Slovenia

Account No.
IBAN SI56 1010 0003 7861 520

SWIFT Code: BAKOSI2X

Bank (name and address)
Banka Koper d.d.
Traška 2
6230 Postojna - Slovenia

Accepted Currencies:
USD (United States Dollars)
EUR (Euros)

STATE OF UIS BANK ACCOUNT ON MAY 31, 2017

10.704,27 EUR

14.972,76 USD

Deposits in EUR and USD bring interest to cover various bank and account charges.

Union Internationale de Spéléologie
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GUIDE FOR SUBMITTING AND PUBLISHING ARTICLES IN THE UIS BULLETIN

ENGLISH VERSION

1 – INTRODUCTION

This guide describes how to prepare and submit articles for publication in the UIS Bulletin.

The main objective of the UIS Bulletin is to give readers high quality content that respects their need for accurate and informative speleological news of international interest.

2 – ARTICLE PRODUCTION

***2.a** – When writing an article or report for the UIS Bulletin, authors should answer the following main questions:*

Who?
What?
When?
Where?
How?
Why?

***2.b** – All papers and articles submitted to the UIS Bulletin should be preferably in the English language.*

If the author is not able to do that, the author may use any of the other UIS Official Languages:

French
German
Spanish
Italian
Russian

In special circumstances, we accept articles in other languages. Such requests are reviewed on a case by case basis.

***2.c** – All papers and articles submitted to the UIS Bulletin for publication in a language, other than the UIS Official Languages, must include a short and precise abstract (summary) in English.*

The photos and figures included with the article must have captions in the original language and in English.

***2.d** – Authors should review their articles thoroughly, and get independent reviews to assure clarity of meaning before submission. Any corrections must to be sent before the announced deadline for receipt of materials for that issue of the Bulletin.*

The editors are not responsible for misspellings or incorrect information, although they will make their best effort to fix errors while keeping articles as close to the original version as possible.

***2.e** – When referring to an institution name in the article, please use the complete official name first, followed by the institution acronym in parenthesis. Examples: Unión Internationale de Spéléologie (UIS); International Council for Science (ICSU). Once the full name of the institution is used, then only the acronym should be used afterward.*

***2.f** – Dates must be written in the following format:*

MM/DD/YYYY (Month/Day/Year)

***2.g** – The International System of Units (SI), often called the "metric system," should be used.*

***2.h** – All bibliographical references used must be included in alphabetical order at the end of the article. The use of a generally accepted bibliographical system is recommended.*

3 - FORMAT

***3.a** – When available, the text of the article should be written using Microsoft Word or Open Office (which is an open source office suite), in vertical A4 size format, single column, automatic character spacing and single line spacing.*

***3.b** – Please use Times New Roman, 11 point font. The editors have the right to modify the final document in order to fit it adequately to the Bulletin format and available space.*

***3.c** – Authors should avoid the overuse of the following font types and styles: bold, underlined, italics, and double spacing between words.*

***3.d** – Use a manual change of line when starting a new paragraph.*

3.e – *Use an appropriate and consistent form of numbering throughout the document. Please avoid complex systems. In the case of title and subtitle numbering, please, deactivate the "automatic numbering" mode. Do it manually.*

3.f – *Save your document in .doc or .docx (MS Word) or .odf (Open Office) format when possible.*

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4.a – *Images (photos, figures, graphics, maps, logos, etc.) should be inserted immediately after they are first mentioned, with their own captions.*

4.b – *When using any images, send them as individual files (in addition to their placement in the MS Word of Open Office file), in .JPG, .JPEG, .PNG or .TIFF format. The minimum resolution should be of 300 dpi or 1.024 x 768 pixels, using RGB color standard.*

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The caption may be a title or short description that describes the image. It should clarify any doubt that an image could present, and emphasize any important information that readers cannot see or interpret themselves easily.

Captions shall identify, whenever feasible, the people (use full names) and the place presented in the image. For example: "Entrance of Gouffre Berger, France. From left to right: Mario Speleo, Yaneth Dolina, Helen Helictite, and Carol Cave" or "Elizabeth Abyss (in green T-shirt)".

4.e – *If the image was already published in any publication, the source shall be mentioned and the permit for reproduction of the image (usually special markings like: ©).*

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5.a – *Each article, paper or material shall be submitted to the editors of the UIS Bulletin by e-mail or other electronic means.*

If using regular mail we suggest the use of couriers or express mail (although it is expensive). If you do not use express mail, your package could take weeks to months before reaching the editors.

Send all material in advance of the deadline announced for the next issue of the UIS Bulletin. Any material received after that date will be used in the subsequent issue. Once published, the editors will deliver a digital copy of the UIS Bulletin to the article's author and collaborators to the emails provided.

Please send your full name, title, profile photo, academic title (if you wish), main field of expertise or profession, nationality (or country), main email and alternate email. Please, use the following addresses to submit your article:

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· typographical mistakes

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We appreciate your understanding.
Should you have any comments, please send them to:

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