



ISCA Newsletter

September &
October
2020

CONTENTS

Welcome, caversners!

by Juanjo Tíscar

Let me start by sending all of you my best wishes during these difficult days, which have been a mountain of emotions. In order to do so, there is nothing better than talking about one of our favorite subjects: caves.

FROM THE PRESIDENT

Brad Wuest (President) writes about the COVID-19 pandemic and sends his support to all the ISCA members.

FROM THE ISCA BOARD

We interview **Rafael Pagés** (Second Vice President). In addition, **Francesca Serpentine** (Secretary/Treasurer) also shares an important message.

COVID-19 SURVEY

General data on the **international show cave survey** are provided before the final results are made public.

GENGA-FRASASSI 2018

Do not miss any of the unforgettable moments taken by **Franziska Oedl**.



AND MORE...

We visit our European friends at **Grutas de Mira de Aire** (Portugal) and **Grottes d'Isturitz et Oxocelhaya** (France) to learn about their beautiful caves.

Furthermore, read about **Natural Bridge Caverns'** latest and most ambitious project.

Among other contents, read **articles on how to plan a visit** and **COVID-19 disinfection**, and a complete **calendar of events**!



FROM THE EDITOR

Hey! My name is **Juanjo** and I will be editing ISCA's newsletters in order to help us grow as a worldwide association. Some of you already know me from other ISCA meetings. However, let me introduce myself one more time in the following pages. Oh! That's me in San Francisco! (September 2018)



FOLLOW US

We will be adding weekly contents so you can all share your own materials, ideas, experiences and caves! Do not forget to **like our Facebook page**!

A letter from the President

by Brad Wuest

Dear ISCA Members,

I hope you, your family, friends, and coworkers are healthy and safe.

These are extraordinarily challenging times we are living and working in due to COVID-19. Practically every show cave in the world has been closed and/or negatively impacted by this pandemic. By this time, everyone likely knows someone who has contracted the virus or has had personal experience with it. Our hearts and prayers go out to all who are suffering, and I pray for the day when a vaccine is readily available for everyone in the world, and the pandemic ends.



Brad Wuest at the 8th ISCA Congress, held in Genga-Frasassi, Italy. (October 2018)

My family owns and operates [Natural Bridge Caverns](#) in Texas, USA. We closed due to COVID-19 in March and reopened in May, operating at reduced capacities with new health and safety protocols. Every day brought new challenges while we have worked hard to keep our employees and guests safe and healthy, provide a great experience for the guests who choose to visit us, maintain jobs for our employees who depend on them, and work hard to ensure our show cave business survives. I know all of you have been faced with challenges like these, too.

Show caves around the world have been working on their plans for reopening and operating during this pandemic. To help with this need, ISCA's Scientific & Technical Committee prepared the "ISCA Recommendations for Show Caves in Relation to the SARS-CoV-2 Virus Pandemic (COVID-19)," and ISCA has provided other helpful resources, such as "[COVID-19 REOPENING GUIDANCE IAAPA's Considerations for the Global Attractions Industry](#)". We will continue to update and provide new resources for you, some of which follow in this newsletter. I hope you find them helpful as you prepare and revise your reopening and operation plans as circumstances evolve during the pandemic.

ISCA joined cave enthusiasts from around the world in recognition of the [International Day of Caves and the Subterranean World June 6th](#) to increase awareness about the significance of caves for our environment, culture, history, and economy, and how their economic impact has been affected by COVID-19. The day is usually a day of celebration for our show cave industry. We use the International Day of Caves and the Subterranean World to bring attention to the wonder and importance of caves and karst landscapes and to promote show caves. This year, ISCA used the day to also bring attention to the economic devastation the show cave industry has experienced due to COVID-19 and to spread the word that show caves are reopening with new operating procedures and health protocols to provide safe and enjoyable nature experiences for visitors.

To quantify the economic significance of the show cave industry and the impact COVID-19 has had, we recently conducted an international show cave study where we collected data from show caves around the world. A big thanks to all of you who helped our industry by completing the survey! You will read more information about the survey further down in this newsletter.

And, speaking of the newsletter, it has been one of ISCA's goals to greatly increase communications to our members, affiliates, and the public. To handle this important job, ISCA has recruited an invaluable team member. It is my pleasure to introduce you to my friend, Juan José Tíscar Moya. "Juanjo", as he is called, will be helping us accomplish that goal as the editor of our new ISCA newsletter. These newsletters will be published every other month, and you will find it packed with important, useful, and interesting information. Juanjo will also be managing ISCA's social media presence and greatly increasing communications and engagement on those platforms. He is also currently an employee at our ISCA member, [Coves de Sant Josep](#), in Spain. Juanjo has a master's degree and teaches English. He is an excellent writer, has written a book, and he is a wonderful person. You will learn more about Juanjo in this and subsequent newsletters. Please join me in welcoming Juanjo to the ISCA team! We are very fortunate to have him on board.

I am really excited about this newsletter and feel it is packed with great information. I hope you find value in it. Please let us know if you have any suggestions for content or how we can improve.

I am an optimist by nature, and even though these are difficult times we are living and working in, I truly believe that adversity can make us stronger. It can make us more compassionate to others, and it can help us grow closer to family, friends, and co-workers. Adversity can make our teams more cohesive and productive. Adversity can make us, and our show caves, operate more efficiently and become more resilient. I know we will not only make it through these trying times, but we will emerge stronger.

ISCA is here to support our members through these difficult times. If there is anything ISCA or I can do to help you, please let me know. My best wishes to each of you for your health and success!

Sincerely,



Brad Wuest, ISCA President

BRAD WUEST

President/CEO at Natural Bridge Caverns (Texas, USA) and ISCA President. Born in 1972 in New Braunfels, Brad is married to Lexi and they have four beautiful children: Ashley, Clara, Millie and Harrison.

Contact: bwuest@naturalbridgecaverns.com

From the editor

by Juanjo Tíscar



Juanjo (left) and Brad (right) - (San Antonio, Texas, 2018)

Can you guess who I am? The one on the left! Right! The other guy lives in Texas, I am sure you know him very well (if you do not, read the previous page!). He is great, by the way!

Before introducing myself, I would like to thank Brad and all the ISCA members for this opportunity to help this beautiful association to grow as a community. Those who know me already understand how important caves are to me, and it is a real pleasure to be able to work with you and help to share your knowledge with the rest of the world.

Now, let's move on so you can get to learn a little bit more about 'the guy on the left'. Yes, the younger and prettier one in the picture.

I live in a small town near the sea, and nature has always been part of my life. Therefore, it is something very common for us to go hiking and get to see all kinds of cavities. If you have ever visited this area, you may have heard of *Coves de Sant Josep*, one of Europe's largest subterranean rivers. It is a very special place, and this is where I found my current job. I am an English teacher, and some of my favourite hobbies are sports, travelling, movies, reading and writing. I have to tell you I wrote a book...about my cave! I'll be keeping the info until our next newsletter!

Once again, let me tell you I am really excited to be able to work with you! Please, feel free to contact me anytime. Suggestions are more than welcome!

JUANJO TÍSCAR

I am from La Vall d'Uixó (Spain), my hometown since I was born in 1988. I am an English teacher but I found a lovely subterranean river and I gave it a try. So, I work in a cave! Just like many of you!

Contact: juanjotiscar@i-s-c-a.org
Instagram: @juanjotiscar



*Matt Carr (Natural Bridge Caverns), Juanjo and Brad
(San Antonio, Texas, 2020)*



*I'll tell you about some of the caves I've visited. That's me
at Natural Bridge Caverns (November 2018)*

ISCA's 9th Congress (San Antonio, 2022)

by Juanjo Tíscar



San Antonio (Texas) will be home of the first ISCA Congress in America

Since its foundation in 1990, the **International Show Caves Association** (ISCA) has celebrated eight congresses in which its participants have been able to meet, share and learn about many different and interesting topics. The last of these meetings took place in Italy in 2018 and, within two years, **ISCA's 9th congress** will be held in **San Antonio**, Texas, hosted by **Natural Bridge Caverns**.

Two years ago, **Genga-Frasassi** welcomed 46 delegations from all the different corners in the world. Some of the main topics addressed during the sessions were dynamic pricing, science, tourism development, new media and state-of-the-art lighting, among many others. In addition to the **business** sessions which took place during five days, there were many **excursions** which delighted visitors from every continent.



Participants in ISCA's 8th Congress (Genga-Frasassi, Italy, 2018) – By Franziska Oedl



The River Walk is one of San Antonio's main tourist attractions

In 2022 **Natural Bridge Caverns**, presided by the ISCA President **Brad Wuest**, will be ready to host the 9th congress of the association, which aims to grow and achieve its objectives in order to guarantee the respect and safeguard of the subterranean environment, as well as to promote the economic development of show caves.

From September 29th until October 8th (more specific details will be provided in future newsletters) **San Antonio (Texas)** will become home of all ISCA members and lovers of the subterranean, offering them all kind of attractions and experiences which will remain in their memories for the years to come.

There is no doubt that the impact of the COVID-19 pandemic upon subterranean tourism will be given great importance, although many other topics will also be introduced in order to meet the expectations of every visitor. It will be a perfect moment for cave owners and organizations to benefit from the knowledge of the most important figures and professionals in the field.

ISCA is looking forward to welcome you in 2022 so...take your agenda and see y'all in Texas!

DID YOU KNOW...

So far, the previous ISCA congresses have been held at:

- **1990:** Grotte Di Frasassi, Genga, Italy
- **1994:** Cueva de Nerja, Málaga, Spain
- **1998:** Grotte Is Zuddas, Santadi. Italy
- **2002:** Postojna Cave, Postojna, Slovenia
- **2006:** Crystal Cave & Fantasy Cave, Bermuda
- **2010:** Ice Cave & Cave of Liberty, Liptovský Mikuláš, Slovak Republic
- **2014:** Jenolan Caves, Australia
- **2018:** Grotte Di Frasassi, Genga, Italy

Source: [ISCA](https://www.isca.org)

QUICK REMINDER

Please, remember ISCA's website is no longer a .com domain. We are using a .org instead:

<http://www.i-s-c-a.org>



To the ISCA family

by Francesca Serpentine (ISCA Secretary/Treasurer)

Ciao ISCA members!

The terrible COVID-19 pandemic has caused almost every show cave in the world to close for some time this year. Some show caves still have not been able to reopen. We know the show caves who have reopened are burdened with increased health and safety protocols, government regulations, staffing challenges, reduced capacities, and reduced visitation all of which financially impacts their show cave. Our other membership categories are also dealing with financial hardships.

I'm pleased to inform you that the ISCA Board of Directors has resolved that ISCA will NOT suspend or terminate any memberships due to not being able to afford to pay dues in 2020 because of the financial hardships caused by COVID-19.

If you are able to pay dues it will help ISCA and be appreciated. You may also choose to select a smaller dues category if it more accurately reflects this year's reduced visitation due to the pandemic. But if you can't afford to pay that's ok.

It's the ISCA Board's goal to support all of you, our valuable members so that you can remain a part of our ISCA family.

Please let me know if you have any questions.

Kind regards,

Francesca Serpentine
ISCA Secretary/Treasurer

ISCA Survey on COVID-19

summary provided by Brad Wuest

PLEASE NOTICE

Final results and data on the survey will be provided in our next newsletter (**November 2020**).

Pay attention to our [Facebook page](#) and [ISCA website](#) in order to get the latest news.

Thanks to all the show cave managers who completed the **international show cave survey**!

At this critical point, it was very important that we took the time to do a couple of things. First, we needed to establish a baseline for the significance of the show cave industry worldwide. In other words, we need to be able to tell the world how show caves contribute to the global economy. Second, we needed to find out to what degree the COVID-19 pandemic has negatively impacted show caves, our employees, the economy, and our mission.

Our goal was to get over 100 surveys from across the world. We are happy to report that **114 show caves completed the survey from 22 countries across the continents of Europe, Asia, Oceania, North America, South America and Africa!** We are in the process of analyzing the data and **will prepare a report soon**. The results will be **shared with the show cave industry and our affiliates**. We will also use this information to promote the show cave industry in presentations, to the media, to vendors and public officials for the benefit of the show caves.

Rafael Pagés Rodríguez

interviewed by Juanjo Tíscar



Rafael Pagés Rodríguez (ISCA Second Vice President)

CAVERNER INFO

Full name: Rafael Pagés Rodríguez
Place of birth: Almendralejo (Badajoz, Spain)
Date of birth: October 20th, 1959
Profession: Civil engineer. Head of Tourist Infrastructures in the Regional Government of Extremadura (Spain)
ISCA: Second Vice President
Hobbies: Travelling, photography, skiing, paddle tennis, caves and the subterranean
Contact: rpagers@citop.es

We chat with ISCA's Second Vice President, Rafael Pagés, in order to learn a little bit more about his personal and professional life. Keep reading the following questions (Q) and answers (A) to discover Rafael and his 'subterranean love':

Q: When did you first feel interested in the subterranean world?

A: The subterranean has always been special and magic to me. That is why I always tried to visit as many show caves and mines as possible. However, it became a professional interest when the Regional Government of Extremadura (Spain) considered the rehabilitation of *Mina de La Jayona* and *Cueva de Castañar*. That was an exciting work and since then I became a passionate of the subterranean world.

Q: How have show caves changed since you first started working in this field?

A: On the one hand, the respect for the underground has been given great importance. Nowadays it is unconceivable that caves are damaged during a touristic visit. Technology and materials have also been improved for infrastructures, walkways and lighting. LED technology is now being installed in most caves. Besides, new control systems have been introduced and they allow for a more effective management. However, show caves and mines have also become not only a touristic resource but also a place for science diffusion. Now visitors have the opportunity to learn about cave formations and geological processes, subterranean ecosystems, human history, etc. Finally, I would like to highlight the importance of being able to visit show caves and mines in a different way, such as visiting unseen areas, swimming, kayaking, hiking... 'Speleotourism' allows tourists to learn about a cave in a very different way.

Q: When did you establish a first contact with ISCA?

A: When I started working at *Cueva de Castañar* I found it essential to work with those who knew the most about show caves in our country (Spain) and they all were part of the **Spanish Association of Tourist Caves (ACTE)**. Since then, everything ran smoothly, because ACTE had always been part of ISCA, and therefore I had to collaborate with both of them. Years later, David Summers, the former ISCA President, asked me to become a member of the executive team. Recently, after the last elections, Brad Wuest wanted me to be part of the Vice Presidency, something which quite honoured me.

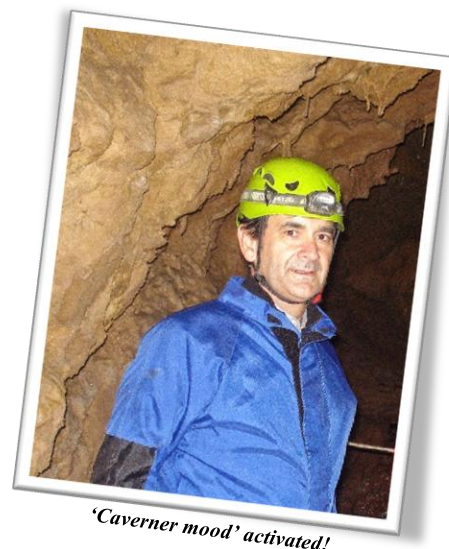
DID YOU KNOW...

Rafael also holds the Vice Presidency of the **Spanish Show Caves Association (ACTE)**, among other relevant positions. It is our pleasure to have such an important figure in the association!

[ACTE's website](#)

Q: Could you mention some of your current projects?

A: As ACTE's responsible of communications, we are working on the diffusion of **the importance and knowledge of the subterranean world** through current available **media**. I would like to highlight the **Spanish Congress on Show Caves (CUEVATUR)**, whose 8th edition in Madrid has been postponed due to the pandemic. The previous congress was held in La Vall d'Uixó (Spain) and it became a success and a referent within the sector. In addition, we have just called for the **Alfonso XII Award to the excellence in the subterranean world** (go to page 14 for further info!). Finally, maybe the hardest and most exciting project is the declaration of **June 6th** as the **International Day of Caves and the Subterranean World**. It means a lot to all of us because it would serve as recognition of the importance of caves' knowledge and preservation.



Q: How have you lived the COVID-19 pandemic?

A: Lockdown was not easy. A lot of work, sometimes even exhausting.

Q: Which impact could this crisis have upon show caves?

A: There is no doubt the pandemic will have an effect on show caves and mines. Managers will have to make an extra effort so that visits are safe both for tourists and the staff. Limited groups will benefit them, especially small caves, since visits will become less crowded and, consequently, they will have more quality.

Q: Despite the bad news, what positive things may come out from the pandemic?

A: I would highlight the quick response of the sector in order to adapt to the new circumstances. ISCA provided action protocols which allowed us to create safe visits on time.

Q: Let's see what kind of caverner you are, how many caves have you visited in your life?

A: I couldn't say. More than 100!

Q: Which is the last cave you have visited?

A: [La Jayona](#) in Fuente del Arco, Badajoz (Spain). It is an iron mine exploited until World War I. After its abandonment, nature has completely taken it over. Now, it is a beautiful place and its visit is more than recommended.



RANKING: TOP-CAVERNERS

1. Rafael Pagés – Over 100 caves
2. Juanjo Tíscar – 24 caves 😞

How many caves have you visited?
juan jotiscar@i-s-c-a.org and let us know!

Q: Could you mention three caves which left you astonished?

A: I cannot pick only three because each one is totally different from another. One of my favourites, [Cueva de Castañar](#) (Extremadura), an amazing cave with outstanding aragonite crystals, but there are other Spanish caves which are magical: [El Soplao](#) (Cantabria) or [Gruta de las Maravillas](#) (Huelva). Internationally, [Gruta de Frasassi](#) (Italy), [Natural Bridge Caverns](#) or [Caverns of Sonora](#), both of them in the USA.

Q: Who would you like to be interviewed in our next newsletters? What would you like to ask him/her?

A: **Heros Lobo** (ISCA Director in Brazil): Iberoamerican caves sometimes have a different concept of what show caves are. How should the subterranean tourism of those areas develop so that it sustainably meets the economic expectations?

Safe and effective disinfection of show cave infrastructure in a time of COVID-19

by Hazel A. Barton (Department of Biology, University of Akron, USA)



This page is a summarized version of the real article:

[Read the full article online at the International Journal of Speleology](#)

Abstract

The COVID-19 pandemic, caused by the novel coronavirus SARS-CoV-2, has been responsible for over 650,000 deaths worldwide. Transmission of SARS-CoV-2 occurs primarily through airborne transmission or direct human contact, demonstrating the importance of social distancing measures and the use of face masks to prevent infection. Nonetheless, the persistence of coronavirus on surfaces means that disinfection is important to limit the possibility of contact transmission. **In this paper, the potential for various surfaces in show caves to serve as sources for SARS-CoV-2 infection is examined.** Given the isoelectric potential (pI) of SARS and SARS-like coronaviruses, it is likely that they are adsorbed via electrochemical interactions to (limestone) rock surfaces, where the high humidity, pH and presence of biocarbonate ions will quickly lead to inactivation. Nonetheless, **show caves contain infrastructure made of other non-porous surfaces that are more permissive for maintaining coronavirus viability (...).** The results suggest that **alcohols (70% ethanol), organic acids (citric and lactic acid) and dilute hypochlorite represent the best disinfectants for in-cave use on non-porous surfaces.** These disinfectants are able to inactivate coronaviruses in <5 min with **minimal impact** to cave features and ecosystems.

Introduction

(...) **In order to ensure the safety of visitors to show caves, it is important to disinfect surfaces that are expected to be touched by visitors. This paper examines the known chemistry and sensitivity of human coronaviruses to disinfectants and provides a number of recommendations for effective disinfection, while limiting potential impact to the cave environment.**

Conclusions

To date, there are no recorded cases of COVID-19 transmission have been identified as the result of surface contact transmission (Dietz et al., 2020) and the majority of cases can be traced to airborne transmission or direct human contact, demonstrating the importance of social distancing measures and the use of face masks (Prather et al., 2020; Santarpia et al., 2020; Stadnytskyi et al., 2020). The calculated pI of SARS-CoV-2 suggests that **in caves the virus would be adsorbed onto limestone surfaces, further reducing the likelihood that these surfaces could serve as a source of virus transfer (...).** In addition, **the high humidity of caves and chemistry of limestone surfaces (including inactivating bicarbonates and high pH) are likely to rapidly inactivate adsorbed coronavirus particles,** suggesting that the limestone/rock surfaces or concrete walkways pose no specific danger for contact transmission. Nonetheless, **nonporous surfaces (such as plastics, metals and glass) are more permissive to coronavirus viability and tourist operators should focus on disinfection** of infrastructure from these materials that visitors will touch.

How to visit a show cave: an instruction manual

by J.J. Durán Valsero, S.R. Durán Laforet, R. Morales García and P.A. Robledo Ardila

Introduction

Most of the visitors of the thousands of show caves around the world spend around an hour enjoying a visit to a series of exceptional places, with a unique natural and cultural heritage. Most likely, this visit is the first time they come in contact with the underworld; and, in many cases, it may also be the only time they do it in their lives. Surprisingly, almost all underground tourists are satisfied with their visit to a show cave, although they are not aware that this satisfaction can go far beyond the limited time dedicated to their tour if they prepare properly for it.

This "manual" is precisely an attempt to offer underground tourists a range of ideas that allow them to achieve basic three objectives:

- To enjoy in a more long-term way the experience of visiting a show cave.
- To expand this experience, experiencing it more intensively, learning to understand better the caves and their content, valuing all aspects of the underground heritage, both natural and cultural.
- To transform the visit into a unique and unforgettable experience, worth sharing with your family and friends.

[Source: download the full manual on ISCA's website](#)



J.J. Durán Valsero, S.R. Durán Laforet, R. Morales García and P.A. Robledo Ardila provide visitors with the necessary elements to plan and make the most of their visit to any show cave in the world thanks to a series of recommendations which should be paid special attention not only during the visit but also before and after it.



Mammoth Cave, Kentucky, USA: Tourists in a footbridge (Source: www.margaretriver.com)

Natural Bridge Caverns unveils multimillion-dollar technology expansion to enhance popular ‘Discovery’ Tour

**NATURAL BRIDGE
CAVERNS**

“Upgrades include **programmable LED lighting**, **underground Wi-Fi** and **weather stations** to monitor cavern environment.”

Natural Bridge Caverns will now be experienced in a whole new light. The original lighting installed in 1963 started to be renewed in 2019, just five years after Natural Bridge Caverns President and CEO **Brad Wuest** began conversations in order to implement the project. The new system **incorporates over 1200 fixtures** and **uses less than 5000 watts of power** (around 35000 watts were used before its installation).

Travis Wuest, vice president and co-owner of Natural Bridge Caverns, showed his excitement at “how some speleothems that were never before visible, now look so beautiful and chambers and formations I already loved look even better than before.”

Thanks to [Cave Lighting CL](#), a German-based company whose experts have already worked in many caves, scenes are now brighter, a larger number of speleothems can be seen and specific areas will now be turned on and off as guests are guided through the cavern.



[READ FULL PRESS RELEASE HERE](#) - [DOWNLOAD FULL GALLERY](#)



One of Natural Bridge Caverns most beautiful chambers, the Castle of the White Giants. Before and after project.

DID YOU KNOW...

Natural Bridge Caverns’ **Discovery Tour** pursued two main goals when it was first developed: **preservation** of the caverns’ environment and **comfort** of its guests. Nowadays it is one of the world premier show caverns, and one of the most popular attractions in Texas.

More at [NATURAL BRIDGE CAVERNS WEBSITE](#)



Alfonso XII Award to the excellence in the subterranean world

denomination authorised by the Royal House of Spain

The **Spanish Association of Tourist Caves (ACTE)** has announced the **4th call** of the **Alfonso XII Award** concerning the **Research, Conservation and Enhancement of the Subterranean Environment**.



AIM - Giving the maximum existing recognition in the international scope to those people or institutions that have contributed in a relevant manner to the exploration, knowledge, research, protection, spreading or enhancement of the subterranean environment, and also the cultural and natural heritage related to it.



JURY - Formed by personalities of recognized prestige in the subterranean world, who will represent its different aspects, specially the ones referred to the scientific research, heritage protection and the impulse of the sustainable tourism.



AWARD - The award, with unique and indivisible character, will be composed by an official diploma and a bronze sculpture, representative from the subterranean world and created by a prestigious artist.



DEADLINE - Candidatures can be presented until **December 2020, 30th**. They will be sent to the attention of **ACTE Vicepresident, Sr. D. Juan José Durán Valsero, Ríos Rosas St.,23, ZIP Code 28003 (Madrid)**, by certificated mail or delivery company.

CALLS



WITH THE COLLABORATION OF



INTERNATIONAL SHOW CAVES ASSOCIATION



Instituto Geológico
y Minero de España

[Download further information](#)



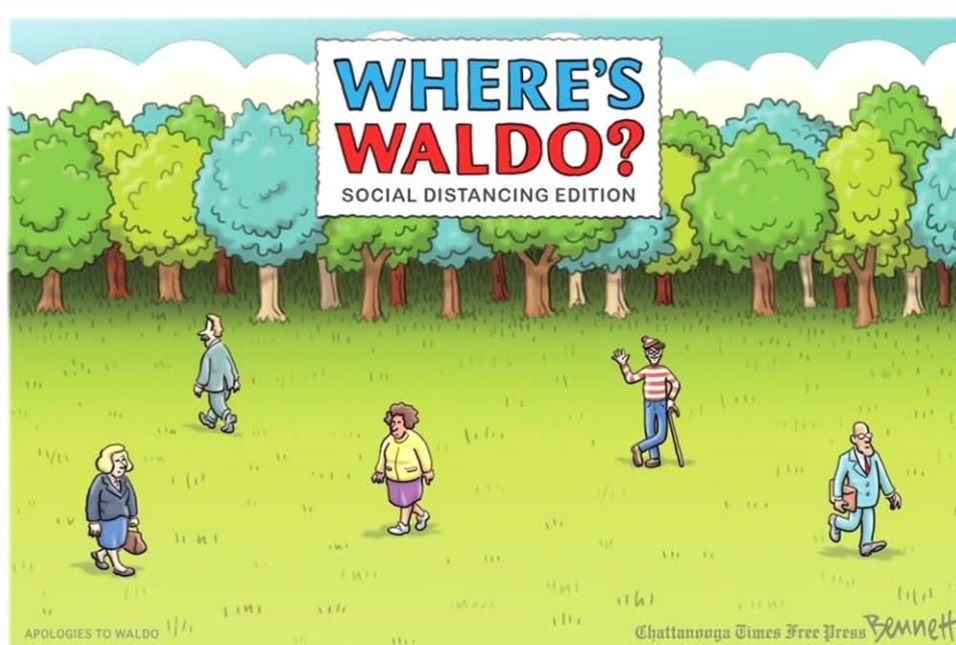
[ACTE's homepage](#)

The funny side of life

by Juanjo Tíscar



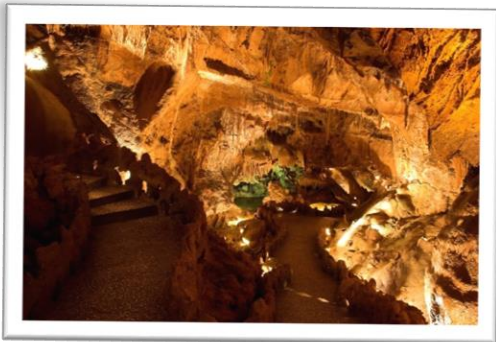
“My quarantine supplies are over”



Source: The Canberra Times

Grutas de Mira de Aire

with the collaboration of Nuno Jorge



CAVE DETAILS

Cave name: Grutas de Mira de Aire

Location: Mira de Aire, Portugal

Email address: geral@grutasmiradaire.com

Phone number: +35 12 44 44 03 22

Type of member: Full member

Website

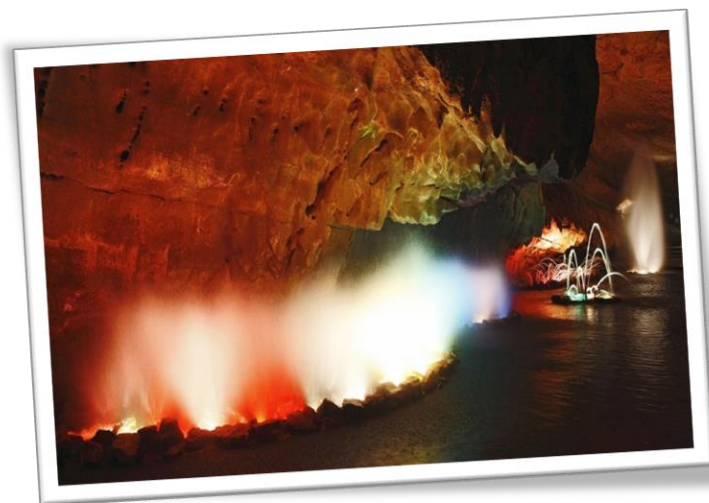
Though the existence of caves in the region was well known, on the 27th July 1947 four local men decided to enter the cave to look for water, as during the cold days of winter locals would see steam rising from the ground. They threw thick ropes, and boldly descended to the small gallery below without equipment. Advancing a couple dozen meters they found themselves on a window open over a void. What laid ahead, the dim gas lantern couldn't properly show them.

A big room covered in pitch blackness echoed their voices and the sound of rocks that they threw inside. Some days later they returned with more ropes and descended to the first room where its magnitude barely showed them the walls and stalactites hanging from the ceiling.

News of this discovery that was unparalleled to any other in the region arrived in Lisbon and from there came the first speleologists that were preparing to create a Scientific Society for the study of caves.

During the following years the cave was visited and studied by many and in the 50's and 60's camping sites were held inside the cave for the first time in the Iberian Peninsula as speleologists mapped the cave. In the 70's a company was created in order to prepare the cave to be able to be visited by the general public. It opened its doors on the 11th August, 1974, and has since received more than 10 million visitors. The caves system is composed by 3 main caves, Moinhos Velhos, Pena and Contenda which in total span over more than 11 kilometres of galleries.

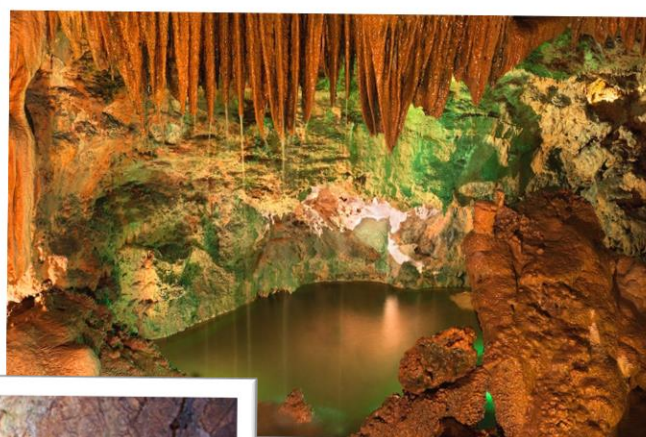
During rainy winters the waters of this system join the waters of the Olho de Mira and Regatinho springs flooding the great closed depression (Polje Mira-Minde) existing between the villages of Mira de Aire and Minde.



Grutas de Mira de Aire is among the most spectacular caves in the Iberian Peninsula

DID YOU KNOW...

There is a **wine cellar** at a depth of **80 metres**, and events such as **weddings and concerts** are usually held at a depth of **110 metres**.



Grutas de Mira de Aire, a subterranean paradise



8th ISCA Congress

photos by Franziska Oedl

[Click here to download](#)



Grottes d'Isturitz et Oxocelhaya, France

with the collaboration of Joëlle Darricau



CAVE DETAILS

Cave name: Grottes d'Isturitz et Oxocelhaya
Location: Saint-Martin-d'Arberoue, France
Email address: contact@grottes-isturitz.com
Phone number: + 33 559 29 64 72
Type of member: Full member
Website

Amongst hills and valleys...

Lays a prehistoric treasure. Gaztelu hill includes three superimposed caves: Isturitz Oxocelhaya and Erberua. Only two are open to visit. Since the early 20th century it was known that there had been a human presence there for 80 000 years.

From Neanderthal Man (middle Paleolithic) to Homos sapiens (Upper paleolithic) In Isturitz caves one can observe the most interesting stratigraphic displays in the Pyrenean region. Gaztelu hill offers a quite remarkable overview of the development of the occupation of a site from the present day back to prehistoric times.

Located a few short kilometres from Hasparren, Gaztelu Hill belongs to the magnificent landscapes of the interior Labourd and Lower Navarre regions. Carved out by the river Arberoue, the hill's three caves were originally occupied by humans sometime between 80,000 and 10,000 B.C.: first Isturitz, then Oxocelhaya and, finally, Erberua, through which the river still runs today. A

veritable curiosity, these decorated caves and their magnificent, surprising concretions first served as an essential habitat for the populations of hunter-gatherers already exploring the Pyrenees.

Since sheltering our oldest ancestors, those we call 'cavemen', these structures have been occupied almost continuously by humans and animals. Such animal and human traces, including parietal art, are found almost exclusively in caves. The Isturitz site emerged as a main hub and gathering place where communities, cultures, industries, styles and the sense of the sacred itself flourished.

As many as 500 people likely lived at the site at any given time. The Neanderthals were the site's first occupants, followed by the Cro-Magnons with their art, crafts and tools. More than 70,000 objects, paintings and etchings have been unearthed at the site, demonstrating the caves' importance.

The arrival of prehistoric populations at Isturitz is explained by the geography, climate, fauna and even flora of the various prehistoric periods. Palaeolithic tribes migrated to these sites due to their easy access to the Arberoue valley. The region has benefited from a unique climate in that the oceanic influence eased the harsh effects of the last glacial period.

The great history of mankind

The adventure began in 1895, when a number of objects were discovered by workers. The Darricau family, who owned the site, carried out an excavation and subsequently also began a tourism operation. In 1922, the famous engraved pillar was found in the main chamber at Isturitz.

In the interest of protection, the caves were classified as historic monuments in 1953, making them a scientific and public site. The discovery of a series of etchings and drawings of horses and bison over the years that followed reaffirmed the caves' archaeological importance. Ongoing excavations and research have over time added to knowledge about the rocky spur making up the site.

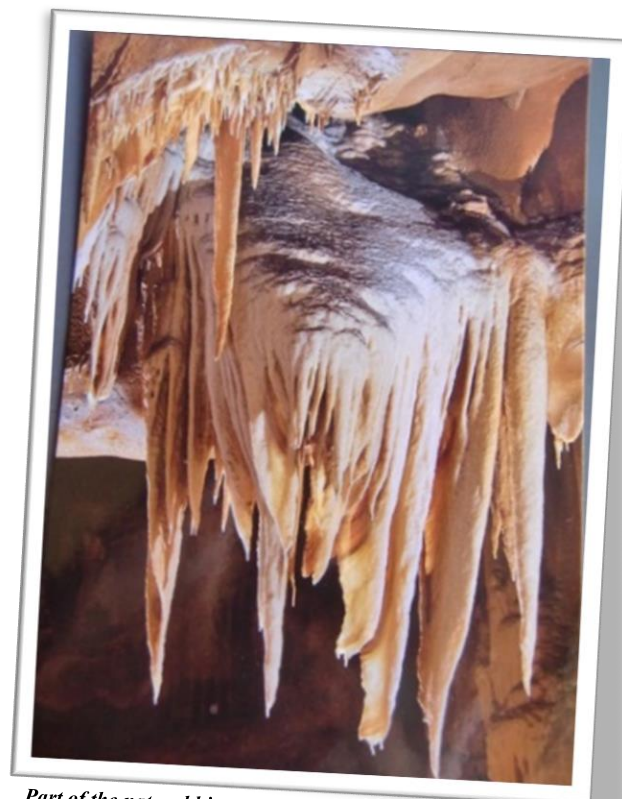
DID YOU KNOW...

There is a one-of-a-kind **museum** where visitors can find **flutes** made with **culture wing bones**. These range from the Aurignacian to the **Magdalenian** period (32.000 years ago).

‘Because people don’t come here just to view archaeological finds; they come to experience an entire history, the great history of which we are all a part, whether researchers, excavators or visitors... For from the Neanderthals to the Cro-Magnons, from the Bronze Age to the mediaeval period, from the mythology of the modern era to the science and curiosity of the 20th century, we remain forever interested in the same story – the story of the people who came together here to witness, occupy and become familiar with this odd little hill’, recounts Joëlle Darricau earnestly.

Her objective is to bring heritage to life, to have artists embrace and experience the caves as a source of energy, inspiration and creation. ‘We want to offer a multi-faceted cultural approach at this site to reflect its full diversity. Our goal is to pique visitors’ curiosity and encourage them to venture down new roads of discovery.

Exchanging ideas reconciles scientific discipline, artistic rigour and open access. It also provides a showcase for the Basque culture. In keeping with Joëlle Darricau’s objectives and focus, ‘the cultural project extols responsible tourism whilst seeking to convey to visitors not only the beauty of the site and the information it holds but also the values of humanity and universal heritage that have been passed down through its history’. There are places where the birth of man is still celebrated.



Part of the natural history of Grottes d'Isturitz et Oxocelhaya

You cannot miss...

by Juanjo Tíscar

CAVE LIGHTING WORKSHOP: HOLISTIC TOURISM CONCEPT

OCTOBER 21ST-24TH, 2021

Every four years Cave Lighting organizes informational meetings at different show caves in Europe and around the world. The last time we met was in November 2017 in Belgium, where the specialist audience had the opportunity to visit Grotte de Han and other Belgian show caves. Various topics were discussed, among them it is important to highlight tourism, nature conservation and show caves.

Download all the info [HERE](#)



[CAVE LIGHTING HOMEPAGE](#)

INTERNATIONAL
CAVE MEETING
GIANT ICE CAVE
DACHSTEIN

WORKSHOP
HOLISTIC TOURISM CONCEPT


A KIND OF PASSION

10/21/2021
TO 10/24/2021
OBERTRAUN-AUSTRIA
INVITING OUR CAVE FRIENDS!



360-DEGREE VIRTUAL TOUR

THE HISTORY OF MAMMOTH CAVE:


- ✓ HOW WAS IT FORMED?
 - ✓ HOW DO EXPLORERS STUDY IT?
 - ✓ ARTISTIC WORKS AND SCIENTIFIC STUDIES
- Further information [HERE](#) 

#SPELEOMEDIT

SPELEOLOGY OF THE MEDITERRANEAN

CALL FOR PARTICIPATION:

WITH THE PARTICIPATION OF
THE SPELEOLOGICAL SOCIETY OF ITALY & TETIDE

Further information [HERE](#) 




BCRA CAVE SCIENCE MEETING 2020



NOVEMBER 14TH, 2020

ONLINE & HOSTED BY PROFESSOR MIKE ROGERSON
(UNIVERSITY OF NORTHUMBRIA)

Further information [HERE](#) 

14 PSEUDOKARST

Chęciny 22-25.06.2021

14TH INTERNATIONAL SYMPOSIUM ON PSEUDOKARST

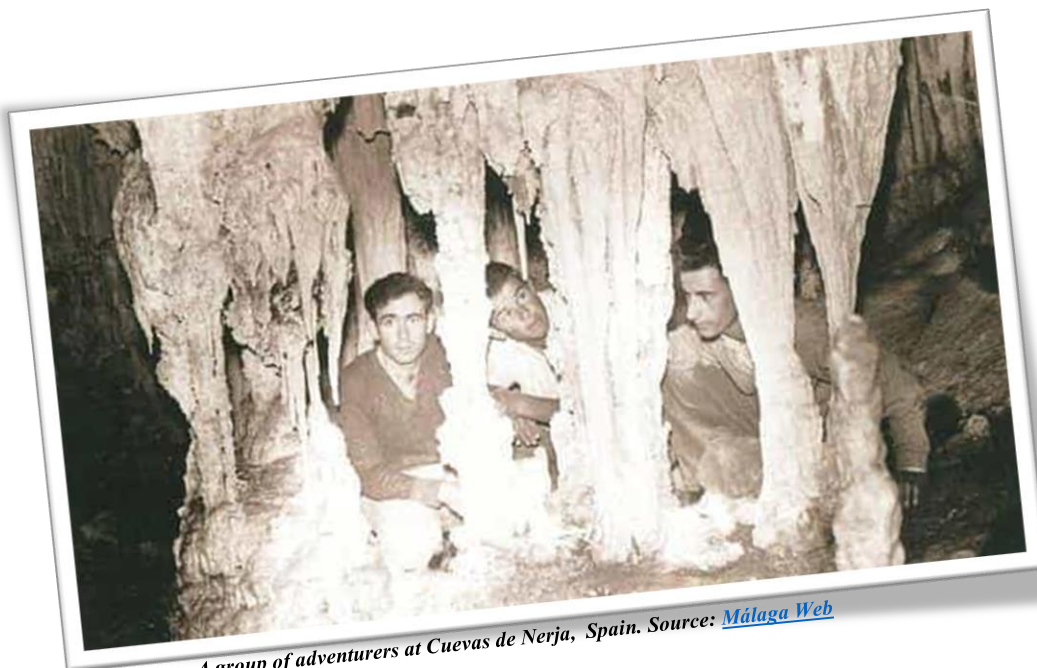


APRIL 22ND-25TH, 2021

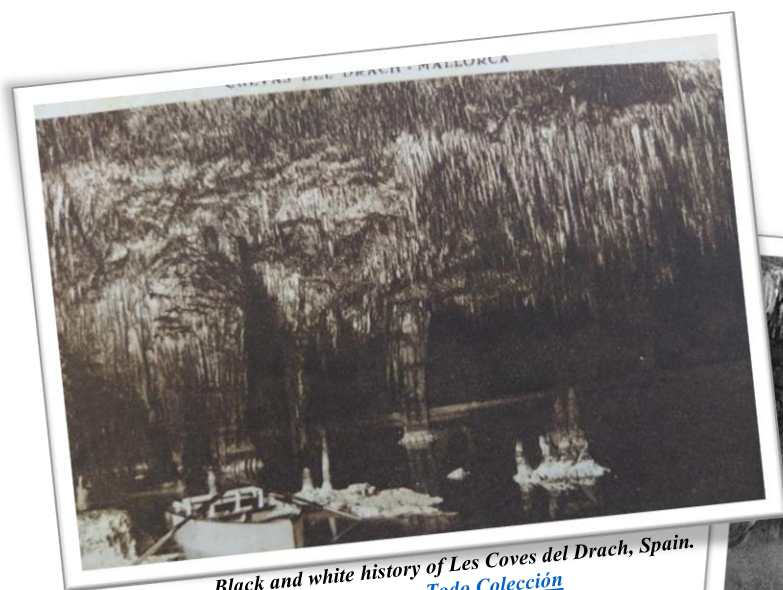
EVERYTHING YOU NEED TO KNOW [HERE](#) 

A look at the past

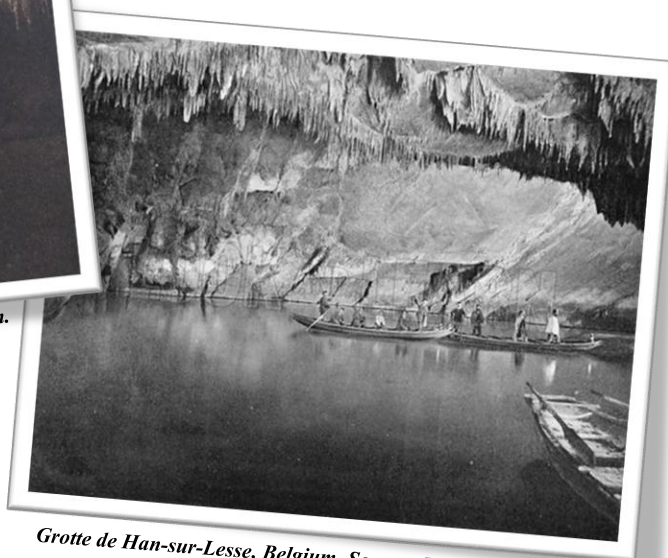
by Juanjo Tíscar



A group of adventurers at Cuevas de Nerja, Spain. Source: [Málaga Web](#)



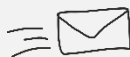
Black and white history of Les Coves del Drach, Spain.
Source: [Todo Colección](#)



Grotte de Han-sur-Lesse, Belgium. Source: [Look and Learn](#)

CONTRIBUTE!

Send your **old pics** and a **short description** of your beautiful spot. You will be appearing in upcoming newsletters!



juanjotiscar@i-s-c-a.org

What caves are these?

by Juanjo Tíscar



CAVE 1

Hint 1:

It was declared a **National Natural Landmark** in 1976.

Hint 2:

It is one of the caves with the largest number of **helictites**.

CAVE #2

Hint #1:

The first guide was said to have walked **almost 30 hours** to find the end of the caves.

Hint #2:

It is considered to be a part of a famous route: **R62 road**.



RANKING COMING SOON...

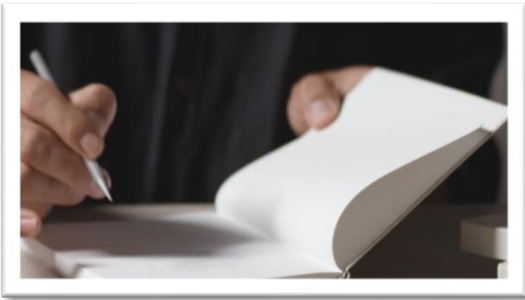
Get an **extra point** by answering in first place!
Find their name in our next newsletter

Send you answers!

Contact: juanjotiscar@i-s-c-a.org



Karst stone paper



You read it well...Did you know paper can also be made from recycled stone? Among many of its features, this paper is stronger than the one coming from pulp wood. Besides, it is also waterproof!

Water, trees and other resources are not wasted, and acid or chlorine are not needed in order to produce a more durable, sustainable and smoother kind of paper. [More info HERE](#)

Let's make it happen

by Juanjo Tíscar

Sharing is essential in many fields of our daily life. It is vital for children in order to learn some of the most important values of life, such as friendship. It is also important in college, where we establish relationships for many different purposes, such as partying or seeking for academic help. Of course, it is a key factor of our professional and non-professional life as adult people.

Our newsletters aim to share contents with all the ISCA members who may find them useful for learning, entertaining, and, why not, sharing them one more time with other people who may be interested in caves and the subterranean world.

If you want your cave to appear in the following newsletters, if you want to be interviewed and share future projects or improvements, or if you just want to say 'Hi!' to the rest of the members of our lovely family, contact me whenever you want! Anything you consider necessary will be welcomed and posted in future newsletters.

Got any news?

Make sure you let me know when you have any news to share with the rest of ISCA members. It is our objective to produce newsletters with interesting subjects and you can help by sharing your own materials. Feel free to send me your pictures, articles, photographs and anything you consider important, interesting or even funny!

Deadline

ISCA's newsletter will be shared every other month (next one will be November-December). Therefore, everything sent **before day 20th of the month prior its release** will be collected and taken into account to appear in ISCA's newsletters.

Next deadline: October 20th!

(note: if you find an alien's body or similar on October 21st or later, let me know, too!)

@ juanjotiscar@i-s-c-a.org



In memory of Mrs. JIN YUZHANG



Mrs. JIN YUZHANG at ISCA's 8th Congress in Genga-Frasassi, Italy (October 2018)

Dear all friends:

I am saddened to tell you that Mrs. JIN YUZHANG passed away in her sleep at 0:03am on April 27.

She had been suffering from unknown illness over a month. After exhausting all treatment options, she finally met her end on Monday. She was surrounded by loved ones and at peace when the final moment came.

Born in 1936 in Shanghai, China. She was founder of the Karst Laboratory on Corrosive Experiment. She made great efforts for the chemical examination of natural water, carbonate rock and speleothems in the laboratory and fieldwork, with earliest work started in 1957.

She participated in the majority of speleological annual conferences and forums in China and attended the 12th (1997, Switzerland), 13th (2001, Brazil), and 16th (2013, Czech Republic) International Congress of Speleology by the UIS and the 2nd (1994, Spain), 7th (2014, Australia), 8th (2018, Italy) ISCA Congresses, as well as the conference in Greece (2012).

As one of the co-organizer of the 11th International Congress of Speleology (1993, China), she was the chief editor of the Supplement of Proceedings which was issued in 1994. She also served as the interpreter of the congress. As part of the congress, she sought the approval and championed the successful publication of the prepaid postcard from the Ministry of Post and Telecommunications in China to commemorate the congress.

It included the name of the event, and the printed stamp had the congress logo with the UIS logo at its centre. She has attended many unite caving expeditions by China, France, Belgium and Spain and China-Slovenia cooperative research on karst and caves, effort to give contribution for translated the Chinese version into France and English of the result report.

Her dedication to science in China, her shining personality through the interaction with her colleagues, friends worldwide, and with her family members, will be greatly missed.

She is survived by her husband, Professor ZHANG SHOUYUE, who has already been with her over 60 years, two children, Lee and Fan ZHANG, and four grandchildren, Nathan, Heather, Leslie and Spencer.

What's to come next?

NEW ARTICLES

Latest news

INTERVIEWS

Let's learn about our ISCA friends

CAVES

We have got plenty of these to show

CUEVATUR 2018

Photo collection

AND MORE...

Do not miss anything!



ISCA Calendar

Pay attention to the following events!

(If there is any event missing, let me know so I can include it in our next newsletter!)

Some of them may have suffered variations due to the pandemic. Please, contact them for confirmation!)

16th - 17th September, 2020 – [Visual KARSYS Online Course](#)

25th - 28th September, 2020 – [Geological Society of America Convention/GSA 2020 Connects Online](#)

29th - 30th September, 2020 – [National Caves Association USA Virtual Convention](#)

12th - 15th November, 2020 – [European Cave Rescue Association Meeting 2020](#)

14th November, 2020 – [British Cave Research Association Science Symposium](#)

5th - 8th December, 2020 – [ALCADI 2020: International Symposium on History of Speleology and Karstology 2021 - International Year of Caves and Karst](#)

12th - 16th April, 2021 – [16th Multidisciplinary Conf. on the Engineering and Environmental Impacts of Karst](#)

17th April, 2021 – National Bat Appreciation Day

22nd - 25th April, 2021 – [14th International Symposium on Pseudokarst](#)

May 2021 – [US Geological Survey Karst Interest Group Meeting](#)

3rd - 7th May, 2021 – [Australian Cave and Karst Management Association Conference](#)

6th June, 2021 – [International Day of Caves and the Subterranean World](#)

14th - 18th June, 2021 – [28th Int. Karstological School "Classical Karst": Regional Karstology](#)

22nd - 24th June, 2021 – [EuroKarst 2021: The EU Congress on Karst Hydrogeology and Carbonate Reservoirs](#)

28th June - 2nd July, 2021 – [NSS Convention 2021 \(Weed, California\)](#)

11th - 14th July, 2021 – [Karst Record IX \(KR9\) Conference](#)

25th July - 1st August, 2021 – [18th Int. Congress of Speleology \(France\)](#)

16th - 20th August, 2021 – [34th Int. Geo. Congress: Global Karst Critical Zone and Land Use Planning](#)

28th August - 4th September, 2021 – [19th International Symposium on Vulcanospeleology](#)

September 2021 – [Fort Stanton Cave Science Conference](#)

30th September - 3rd October, 2021 – [26th International Cave Bear Symposium](#)

21st - 24th October, 2021 – [Cave Lighting Workshop](#)

26th - 30th October, 2021 – [6th EuroSpeleo Protection Symposium](#)

29th October - 2nd November, 2021 – [Speleo Kamaraton](#)

29th September - 8th October, 2022 – **ISCA's 9th Congress and NCA Convention** (San Antonio, Texas)

2022 - NSS Convention 2022 (Custer, South Dakota)

Time to
check my
agenda!





[ISCA](#) is pleased to support and be a partner in the [International Year of Caves & Karst 2021](#)! ISCA feels that caves and karst landscapes are truly deserving of international recognition at this level due to their worldwide significance. We commend the efforts of [UIS](#) and other partners in this worthy endeavour. We also greatly appreciate UIS's support of ISCA's efforts to establish an International Day of Caves & the Subterranean World.

ISCA and its worldwide membership of show caves proposes to support the international year by offering free admissions to show caves at various times throughout the International Year of Caves & Karst 2021. Concepts to distribute these free admissions tickets include the following: trading them with media outlets in exchange for promotion, social media, caves and karst trivia, photo contests, learning projects for schools, ticket distributions to school groups and economically challenged families, and traditional methods of marketing and public relations efforts.

Participation will be the choice of each individual show cave. Visitation to show caves is one of the primary ways millions of people worldwide learn about caves and karst every year. ISCA's efforts will be aimed at increasing education and awareness of caves and karst. Please join us in supporting the International Year of Caves & Karst 2021!

[VISIT THE IYCK WEBSITE AND LEARN MORE ABOUT KARST](#)



Join us and become an ISCA Member

Visit www.i-s-c-a.org for details and follow us on Facebook!



By **sharing** this newsletter you will be helping ISCA reach a wider audience. Thanks!



INTERNATIONAL SHOW CAVES ASSOCIATION

ABOUT INTERNATIONAL SHOW CAVES ASSOCIATION

The [International Show Caves Association \(ISCA\)](#) was founded in 1990 and is headquartered in [Frasassi/Genga](#), Italy, ISCA is an international organization of persons, associations, corporations, and government agencies who own, manage or operate [show caves](#) that are open to the public. ISCA provides a critical forum for show caves to network and collaborate on matters that pertain to their caves. ISCA aims to promote, encourage, and support the cooperation of show cave operators, speleologists and cave enthusiasts through the sharing of information and to promote the preservation and conservation of caves, while increasing public interest in the world of show caves by way of unique marketing and the evolution of methods to enhance the show cave experience.

Editor: Juan José Tíscar Moya – **Contact:** juan jotiscar@i-s-c-a.org

Issue: September & October 2020