

NSS NEWS

January 2014



Caving in Haiti

CALENDAR

USA

January 4th, 2014—Central Indiana Grotto Vertical Training, Open Training Session, 10am-4pm, Indianapolis, Indiana Contact: Ron Adams caveronrope@sbcglobal.net (317) 490-7727

February 22, 2014—The SERA Winter Business meeting, hosted by the Pigeon Mountain Grotto, will be held in LaFayette, GA at the LaFayette Community Center. For additional information contact Diane Cousineau at dcousineau@earthlink.net

May 23-26, 2014—Memorial Day Weekend: 43rd Kentucky Speleofest hosted by The Louisville Grotto at the Lone Star Preserve, Bonnierville, KY... We will have a food vendor, On Rope 1, camping, warm showers, howdy party with DJ, banquet, band, kayaking, hiking, cave social. More info: contact judyaw50@yahoo.com

July 14-18, 2014—NSS Convention, NSS Headquarters & Conference Center, Huntsville, AL. Visit our website: <http://nss2014.caves.org> or contact Julie Schenck-Brown, Chair, at Chair2014@NSSConvention.com or (256) 599-2211 or Jeff Martin, Vice-Chair, at ViceChair2014@NSSConvention.com or (770) 653-4435.

July 13-17, 2015—NSS Convention in Waynesville, Missouri

July 17-23, 2016—NSS Convention - Ely, NV. Contact matt.bowers@caves.org for more info or visit www.facebook.com/nss75th.

USA RESCUE TRAINING

March 7 & 8, 2014—HCRU: Introduction to Single Rope Technique; Location: Huntsville, AL; Cost: \$25

Curious about vertical caving? Want to do some rappelling and climbing? Come spend two days learning Single Rope Technique (SRT) from the Huntsville Cave Rescue Unit. Amazing instructor:student ratios (typically 2:1 or better!) and gear is provided. It is also a great refresher course, or learn more about rigging and various maneuvers on rope. Learn more and sign up at <http://www.hcru.org/srt>

May 17-24, 2014—2014 National Cave Rescue Operations and Management Seminar, Camp Golden Bell, Divide, Colorado www.ncrc.info

Seminar delivers eight days of extensive fieldwork and class instruction across all phases of cave search & rescue. Topics include underground communication systems, vertical rescue, hauling systems, and medical management. All cavers are encouraged to attend.

July 12, 2014—HCRU: Tyrolean Traverse;

Location: DeSoto State Park, AL; Cost: \$10

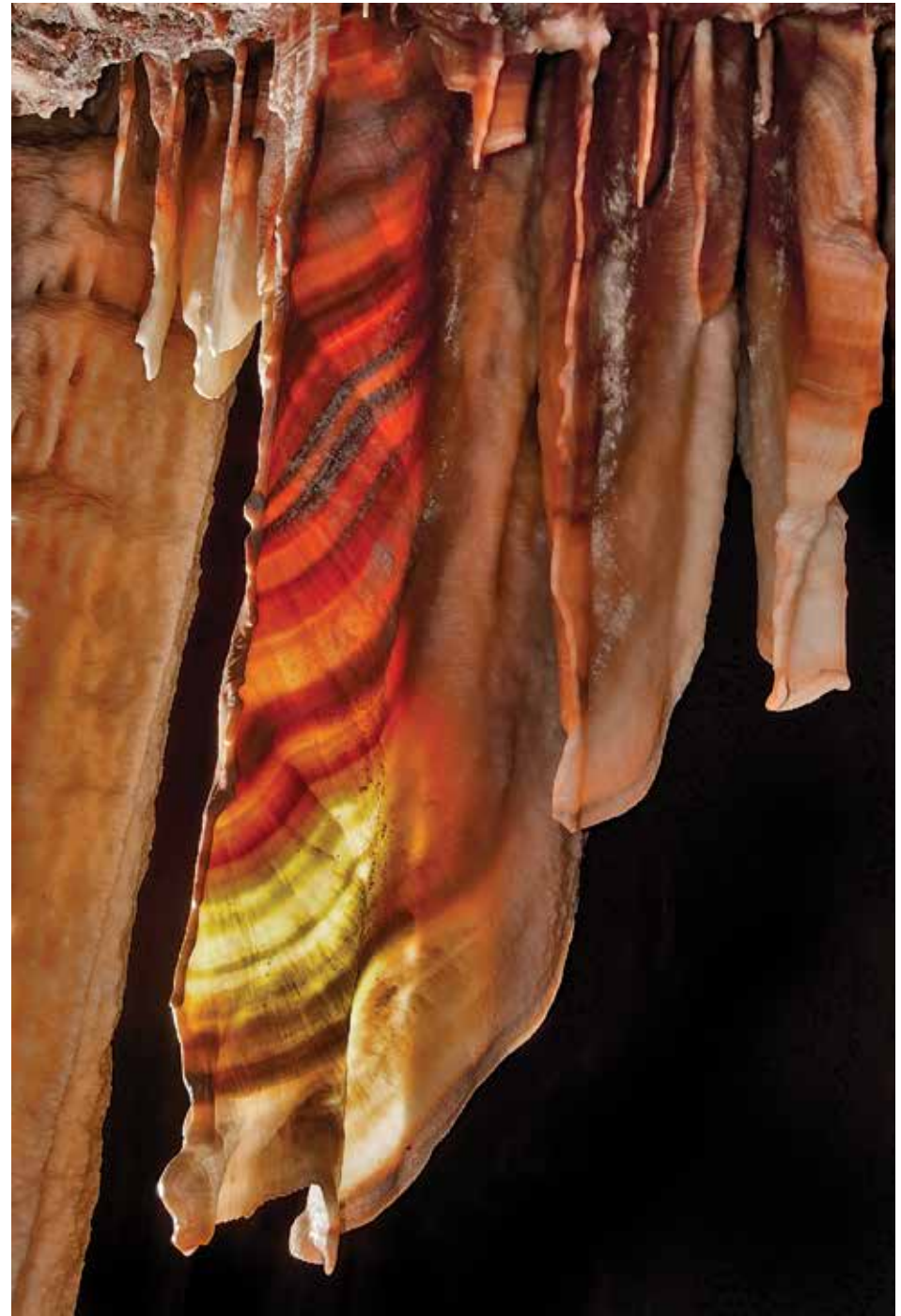
Come join us on a highline 230-ft long highline 120-ft above DeSoto Falls at the Huntsville Cave Rescue Unit's annual fundraiser! It's a great family event, with lots of camping, hiking, and swimming options in the park. Make it a weekend of fun! See <http://www.hcru.org/tyroleantraverse> for more information, no pre-registration required.

August 21-24, 2014—HCRU: Rescue Technician: Cave Rescue 1 & 2; Location: Huntsville, AL

Cost: \$50 Non-Certification (typical for cavers), \$295 Certification. This NFPA 1006 class is sanctioned by the Alabama Fire College and taught by the Huntsville Cave Rescue Unit.

FOREIGN

March 15-22, 2014—16th International Symposium on Vulcanospeleology, Galapagos Islands. Pre-symposium caving or scuba diving March 10-15, 2014; Post-symposium caving March 22-29, 2014



Draperies in Bellony Cave, Haiti. Photo by Carole Devillers

Send items for the calendar to davebunnell@comcast.net at least 6 weeks before desired month of publication (i.e., by March 15 for the May issue).

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www.caves.org/pub/nssnews/style.html

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Deadline: Ads, articles and announcements should be sent to the editor by the 15th of the month, six weeks before the month of issue (e.g., material for the March issue needs to be in by January 15).

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NSS NEWS

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Volume 72 Number 1



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FRONT COVER:

As if inside the jaws of a shark, Haitian guide Elioivil Jean-Baptiste admires the concretions in Grotte Marie-Jeanne – Port-à-Piment, South department, Haiti Photo by Carole Devillers

BACK COVER:

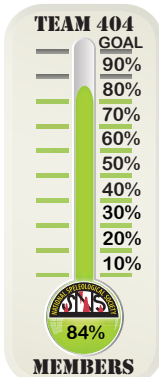
Left: Pat Kambesis sketching in La Chambre d'étoile, Grotte Marie-Jeanne. Photo by Mike Lace.

Bottom: Jim Goodbar with formations near the Lac de Sorel in Grotte Marie-Jeanne, Haiti. Photo by Olivier Testa.

Headquarters Funding Update

We've solidly passed the ¾ mark with our Team 404 drive. We are now at 84% of our goal and closing in. Interested in donating? The donation form can be downloaded from our home page (www.caves.org) or call the NSS office (256-852-1300) and they'll take care of it for you. Every dollar brings us closer to paying off our mortgage.

Remodeling efforts continue. Want to help out one weekend? You can contact Maureen Handler, our HQ volunteer coordinator, at hqvolunteer@caves.org or 423-605-5569. Our Facebook page also lists upcoming work weekends.



A Speleological Introduction to Haïti

Brian Oakes

Though only a short flight from Miami (90 minutes), Haiti is a different world altogether, geographically, historically, and culturally. Haiti, with its 27,750 square kilometers, makes up the western third of the island of Hispaniola. Haiti is the most mountainous of the Caribbean islands, in fact a famous local Creole expression states “*dèyè mon gin mon*” (behind mountains are more mountains). In these mountains volcanic and marine sedimentary rocks predominate and range in age from early late Cretaceous (Coniacian to Campanian) to Eocene with a complex series of uplifted Pleistocene reefs in several coastal areas.

The southern peninsula of Haiti lies within the tectonically-active boundary zone between the North American and Caribbean Plates, resting on the Gonave Microplate that has undergone a very complex geological history for at least the last 85 million years since the early late Cretaceous. Two major faults run through Haiti, one in the north (Septentrional Fault) and the other in the south (Walton Plantain Garden Enriquillo Fault). Numerous phases of tectonic activity have created the structurally complex mountainous areas trending east-west in the Southern Peninsula and the extensive central massif in the north. Haiti is characterized by extensive development of karst topography as a result of the uplifted carbonates and very humid tropical climate. In the Southern Peninsula mean annual temperatures average 25 °C and rainfall ranges from 1200-2000 cm/year.



Karst environments in Haiti are diverse and well-developed with significant cave development and an extensive range of cave types documented to date, including sea caves, talus caves, conduit caves (i.e. fluvial, stream caves), tafoni (caves formed by salt air weathering), tufa caves, man-made caves and flank margin caves. Until recently cave exploration has been limited to one or two documented expeditions (Mouret, 1981; Lips, 1997). In 2007, at the invitation of local property owners and community leaders, two American speleologists (Pat Kambesis and Michael Lace) undertook an initial exploration of a cave located in the southwest behind the town of Port-à-Piment called Grotte Marie-Jeanne.

Though initially skeptical, what they actually discovered has led to multiple and regular visits over the past seven years, by a growing number of speleologists (see the article by Carole Devillier in this issue), and the declaration of Grotte Marie-Jeanne, at 5 km in length, as the longest mapped cave in Haiti. Grotte Marie-Jeanne is a key tourist attraction in the south and in 2009, at the request of key stakeholders, a cave management and improvement plan was drawn up and a cave management committee was created. In 2011 funding (\$165,000) was sought and granted by the Minister of Tourism and the South Coast Initiative (a United Nations-headed group) to build facilities, improve cave access, train

guides and provide support to the cave management committee. A local organization (Kombit Port-a-Piment) was selected as the implementing agency and work began in July 2013 and should be completed by June 2014. As a direct result of the cave exploration, resource assessments and eco-tourism development at the site, the land above and surrounding the cave has now been designated a protected area.



View from the entrance to a cave in Laschobas, Haiti, Photo: Brian Oakes



Decorated chambers in Grotte Marie-Jeanne Photo: Michael Lace

While mapping Grotte Marie-Jeanne we also explored other caves in the area to get a better understanding of the local landscape, its geology, and the types of caves present in Haiti. This exploration and research to date has in part been supported by a grant from the International Exploration Committee of the National Speleological Society. The more we explored the more we started to understand and be astonished by the complexity and diversity of caves in the country. It was at this point we decided to establish Recensement Speleologique d'Haiti, (Haitian Speleological Survey) that seeks to inventory, assess, survey and preserve the caves of Haiti. A Web site for the project has been established at www.haitianspeleologysurvey.com/

Recent exploratory trips to each of the 10 departments in Haiti have shown us that there are likely thousands of caves the length and breadth of the island.

Our most recent exploratory expedition (September – October 2013) was to the southwest, more particularly the Pic Macaya National Park. Haiti has two national parks, both in the south. Park La Visite is in the southeast with Pic La Selle being the highest point in the park at 2680 meters. In the southwest Pic Macaya rises to 2347 meters and is the second highest mountain in Haiti. Both parks have well developed karst topography.

Whereas most scientific studies have concentrated on the south and southwest flanks of Pic Macaya, our team decided to explore the north and northeast areas of the park. Recent road improvements have facilitated access so we established our base camp in the town of Beaumont in the Grande-Anse department. A study of regional topographical maps, though dated, indicated numerous sinkholes and sinking streams in the area with elevations from 500 to 2300 meters, hence potential for finding caves with considerable vertical relief.

The karst landscape is best developed



West side entrance in main collapse sink, Grotte Marie-Jeanne Photo: Brian Oakes

in areas of low relief between about 800 m and 1400 m elevation east and northeast of Pic Macaya. In these areas of karst development one finds hundreds of residual cones with shallow slopes usually of 100m or less and the low points are principally doline collapses or sinkholes. Steep-sided solution pipes are also frequently encountered. Along with sinkholes, these structures form natural collection points for animal remains. Some of the richest collections of fossils in Haiti have come from these areas.

As is typical in karst areas at higher elevations, few streams are actively flowing throughout the year. Much of the rainfall quickly enters the subsurface hydrologic cycle via the extensive joint system and larger scale solution features (flowing into caverns). This water resurfaces at lower elevations as natural springs or resurgences. The flank areas of the park contain numerous springs exiting the subsurface hydrologic cycle at elevations above 1000 m and provide a constant water

source for the main rivers flowing towards the north and northeast. The residual soils are characteristically highly oxidized, reddish laterites and bauxites that are common in humid tropical environments.

One of the key outcomes of future research of the Macaya National Park and its various watersheds will be to understand the regional hydrologic parameters as well as the impact that continued deforestation and increased erosion will have on the groundwater cycle.

REFERENCES

- Florentin, J.M. and Maurasse, R., 1982. Survey of the Geology of Haiti: A Guide to Field Excursions in Haiti. Miami Geological Society. 103p.
- Lips, Bernard, 1997. A Speleological Reconnaissance of Haiti, *Speleo Dossier* No. 28, 24p.
- Mouret, C., 1981. Karst Zones in the Republic of Haiti. *Spelunca*, No.1, Jan.-March.



View from the Northern section of the Grotte Marie-Jeanne doline, Photo: Jim Goodbar



Doline entrance to Grotte Marie Jeanne, Photo : Brian Oakes



Long-eared bat. Photo : Dan Nolfi



Haitian Brown Tarantula Photo: Jim Goodbar



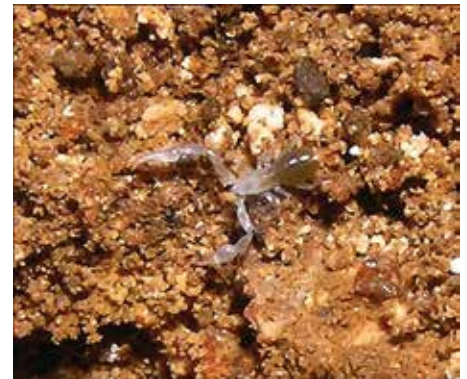
Blue earthworm from Lair of the Blue Worm, Grotte Marie-Jeanne. Photo: Pat Kambesis.



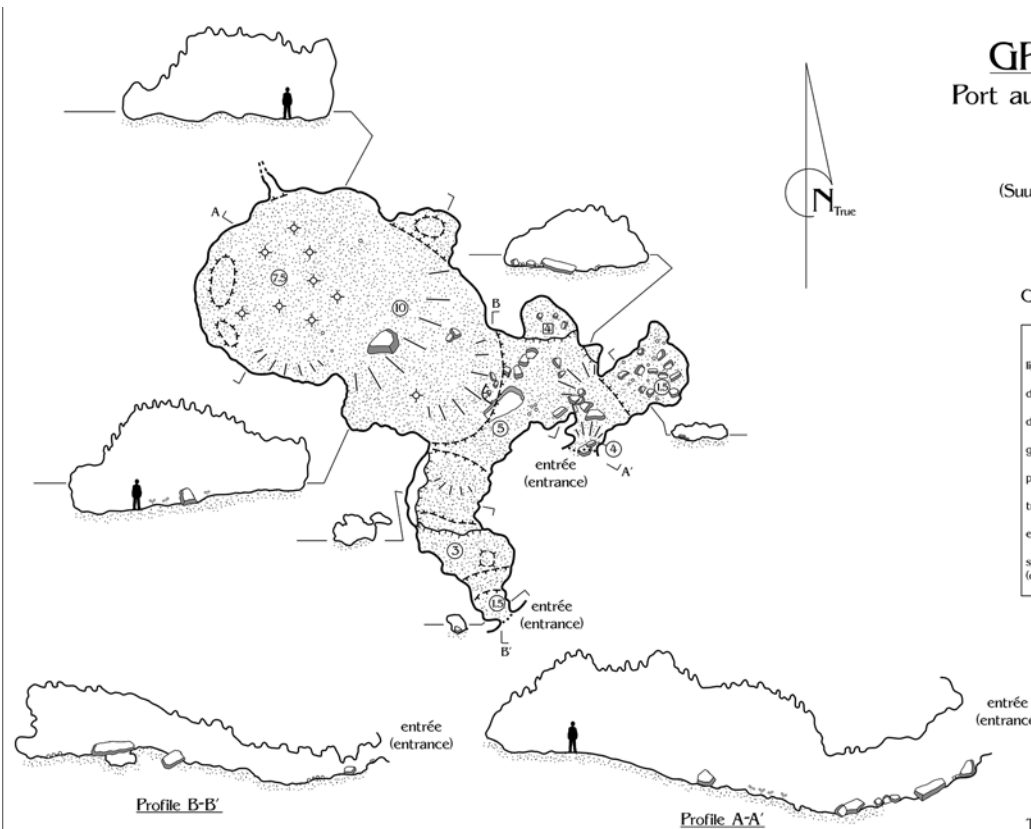
Black tarantula. Photo: Olivier Testa



Amblypid Photo: Pat Kambesis



Pseudoscorpion from Grotte Marie-Jeanne. Photo: Brian Oaks



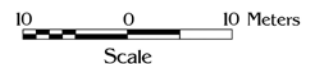
GROTTE LABAYE

Port au Piment, Republique D'Haiti

Topographie (12-7-08) par:
 (Suuntos & Fiberglass Tape Survey By)
 Pat Kambesis
 Ben Miller
 Dan Nolfi

Cartographie par Ben Miller, 2009

Légende/Legend	
ligne d'écoulement (dripline)	
dérivèlement du plafond (change in ceiling)	
dérivèlement du plancher (change in floor)	
guano de chauves-souris (bat guano)	
penne (slope)	
trou de cloche (bellhole)	
effondrement (breakdown/rocks)	
spéléologue est de 1.8 mètres de hauteur (caver is 6 feet in height)	



Total de topographie (total survey) : 76.1 Meters, 249.7 Feet

Grotte Marie-Jeanne: An initiation to Haitian caving

Patricia Kambesis

It started out with a short e-mail message from a stranger in Haiti. My eye quickly scanned to the last sentence “Please let us know how you can help.” First impression: another scam for money; but then the phrase “we have big caves” jumped out at me. Caving in Haiti had never breached my speleo-radar—until that day on August 11, 2003.

Haiti had always seemed to me a place of political unrest and uncertainty and according to the expedition reports from the few reconnaissance trips of years past, logistically difficult. As I was less concerned about the politics and more so for logistics my reply to the Haitian stranger was that if someone would be willing to provide a place to stay, transport from the airport to the cave and delivery back to airport, then an American caving contingent would come. Expecting no answer I was completely surprised to get a positive and encouraging invitation. Because this was initially to be a cave assessment only, I aimed to keep the American contingent small for now—just one more person. I invited Mike Lace, a fellow island cave fanatic who always seems to be ready to head back to the Caribbean on a moment’s notice.

A few more e-mail exchanges and we had 2004 dates and plans to visit a cave named Grotte Marie-Jeanne. The cave, listed as Grotte de Port-à-Piment in the Atlas of Great Caves of the World (Courbon et al. 1989) was reported to be 1000 meters in length but had no map. Only seven other caves were noted for Haiti in the Atlas which to me spoke to the unrealized potential of a country made of 70% limestone. But 2004 brought civil unrest, a failed coup, and the hasty exit from Haiti of then President

Jean-Bertrand Aristide. The political climate became dark and cloudy and we postponed the trip indefinitely. For the next couple of years we kept an eye on Haitian politics and watched the country move toward stability. By 2006 Rene Preval became the new president and order seemed to be restored. And even if it wasn’t, the limestone and our Haitian contacts, who claimed that it had always been safe to travel in Haiti, pressed for our visit...and soon!

HAITIAN RECON 2007

Despite friends and relatives likening a trip to Haiti hosted by total strangers as equivalent to an online arranged blind date with potential kidnappers, Mike and I bought tickets to Port-au-Prince for the end of August 2007. Before I left, at the behest of many, I agreed to have a “surface watch”—just in case we didn’t come back. So I left Haitian contact information with one of my co-workers at the Geography and Geology Department at Western Kentucky University. My brothers assured me that they would instigate a covert international rescue should I fail to call them when I returned. A caving acquaintance who shall remain unnamed asked if I would will him my gear (I have a lot of gear).

It took two days to get to Port-au-Prince due to the airline schedule. On touchdown in Haiti, it was hot and humid but all arrivals into Toussaint L’Overture International airport were greeted with a blast of figurative coolness: a live Kompa band serenaded passengers on their way into the terminal. Someone holding a sign with our names quickly whisked us through customs. On the other side we finally met face to face with Dr. Ernst Joseph, a dentist and teacher

at University of Haiti’s school of Dentistry. Enso, as he is called, graciously took us to his home for lunch and then transported us to a local airport. We would fly to Les Cayes on the southern coast of Haiti and be driven the remainder of the way to Enso’s family home (chez Dumas or House of Dumas) in Port-à-Piment, municipality Côteaux Arrondissement, Departement du Sud. The thirty-minute flight carried us over the mountainous backbone of southern Haiti toward the sandy coastal plain at Les Cayes and the Caribbean Sea where an SUV awaited our arrival.


In 2007, there were few good roads on the southwest coast of Haiti and no bridges to cross the meandering rivers that drained the high mountain peaks of the Massif du Sud. The three-hour trip traversed rugged 4-wheel drive roads and forded big, bridgeless rivers. The road cut through a patchwork of geologic units, some volcanic, but most a hodgepodge of faulted and folded limestones of different ages, attesting to the complex geology of Haiti. We passed through many small towns and villages where women gracefully carried any and everything on their heads, colorfully-painted buses crowded with people went to market, and lines of school children in color-coded uniforms signifying their grade rank, walked home from school. This Haiti was very different from the media images that only showed the down-and-out side of Port-au-Prince.

Finally, the SUV reached the eastern outskirts of Port-à-Piment, located on a narrow coastal plain that quickly rose into a series of low plateaus that abutted high mountain ranges—“*dèyè mon gin mon*”—behind mountains are more mountains as noted in Brian Oakes’ introduction. As we



Young cavers of Port-à-Piment Photo: P. Kambesis



Ben Miller and Dan Nolfi at LaBaye Spring 



**Chambre Principale, western section of GMJ
Photo : Mike Lace**

pulled into the Dumas compound Enso looked to a distinct plateau a kilometer or so behind the house. “The cave, it is up there” he said, waving toward a flat, tree-covered area. We were warmly greeted by members of Enso’s family. “Bonsoir and welcome!” said a very gracious Tante Elvire, Enso’s aunt. An impeccably set table awaited our arrival and we were served the first of many wonderful French Creole dishes during the course of our stay. Enso told us that he expected his brother-in-law and other co-host Brian Oakes, who also lived in Port-au-Prince, to join us in the next day or so.

Despite the two days of exhausting travel, we were anxious to see Grotte Marie-Jeanne (GMJ) and after a short rest, Enso hustled us through town to the trailhead. We followed him up a well-trodden footpath that snaked its way to the top of the plateau. The trail was shared with farmers herding their animals, and took us past small huts where women looked up from their cooking pots and waived as we passed. Little children playing in their yards called to us: “Blanc!” they said with a shy smile. In their delight, Mike and I waved, nodded our heads and answered, “Oui, nou a Blanc!” The trail ended at a small red filigreed gate and a set of wooden steps that started down the edge of a large, jungle-filled sinkhole collapse. With Enso in the lead, we descended the steps and two large cave entrances skirting opposite sides of the collapse came into view. He pointed toward the southeast entrance and stepped on and over breakdown boulders draped with soil and small vines. Between them were small bushes and large trees on an ever-steepening rocky slope leading to

the flat floor of a large entrance chamber. Stalactites poured off the edges of the drip line and large cream-colored columns seemed to be holding up the ceiling.

Upon entering the cave, instead of the expected darkness, we were instead surprised with a piece of lush green forest that appeared to be floating below a large open-air dome pit. Enso explained that this was *Les Jardins Suspendus*, which translates to The Hanging Gardens. This wonderful place held a variety of tropical plants and trees alive with birds and small lizards. The slow, lazy drone of bees reminded us not to get too close to the garden perimeters. The low branches of small trees and bushes were tipped with paper wasp nests which we avoided as if they were small suspended land mines

At the far side of the Hanging Gardens another big cave entrance sucked us into its 15-meter-tall by 8-meter-wide fissure passage. The route traversed up flowstone-covered breakdown and passed over a thick pile of rodent and bird bones—the meal spoils of a large owl that lived in the entrance. We sped past an inviting side passage that Enso noted led to another entrance. A short little flowstone-coated climb led to a large chamber (La Chambre d’étoile) loaded with more speleothems and small side passages that were overshadowed by yet another big entrance. Once outside we realized that we had just done a loop trip!

Turning toward the stairs we hiked to another gaping entrance that was set back into the sinkhole such that we didn’t even notice it earlier. This led to more passages, large chambers and lots of bats. This whole series of cave entrances and related passages was later named Galerie Superieur because its passages were the uppermost level of the



**Ben Miller in Le Refuge section of GMJ Photo:
P. Kambesis**



**Entrance Chamber in Galerie Superieure
section of Grotto Marie-Jeanne Photo: Mike
Lace**

cave. By now, we had already blown through twice the 1000 meters of passage reported in the Atlas and hadn’t even looked at the western entrance. But it was late, we were tired and had four more days—so consensus brought us back to the Dumas house for some R&R.

The agenda for Day Two was to scout the western entrance of GMJ and to visit another cave close by. Enso introduced us to Eliovil Jean-Baptiste, who was the local cave guide for GMJ and would accompany us. Eliovil was a school teacher and a strong and very enthusiastic caver. In addition to his native French Creole, he also spoke some Spanish and a little English—my attempted conversations with him usually included a combination of all which he seemed to understand with no problem. We made quick work of the trail and Eliovil diverted us to a narrower path that led to a cave entrance within a small brushy sink. He stopped and pointed to some bushes near the entrance and said “*gep*.” Enso translated that *gep* means wasp and one should be careful as they are abundant in the cave entrances of the area; we would eventually learn this first hand. A short climb down a talus slope opened into a nicely decorated circular chamber. cursory inspection found evidence of Taino use of the cave. Taino were the indigenous indian group living in Haiti at the time of Columbus’ arrival. Later, the Spanish attempted to enslave the Taino but they would not be subjugated. Those who did not succumb to the diseases brought by the Spanish, vacated their mountainous island home. Throughout caves of Haiti and the

rest of the Caribbean are scattered remnants of Taino use and habitation including rock art, lithics, pottery sherds, and conch and other shell material as discussed in Mike's accompanying article.

Enso told us that a Belgian speleologist had visited the cave some 30 years ago and reported it connected to GMJ. The possibility of connection pulled our attention to a slippery downclimb at the back of the chamber. The climb led to a very steeply descending passage, perhaps a pit, leading into darkness. If there really was a connection we would find it with survey tape on another trip. We made a quick map of the chamber, noted the leads, and named the cave Grotte Belgique in honor of its earlier explorer, his name and date (ca. 1970s) etched on the cave wall in faded pencil. We then headed out to the western entrance of GMJ.

Large blocks that obviously fell from the ceiling littered the entrance area at the western end of GMJ which we called Galerie Inferieur because it is lower in elevation than the eastern section of the cave. We followed as Eliovil and Enso scrambled down the rock pile to the other side of the entrance chamber and ducked into a small, sloping passage. Within minutes we came to a hole in the floor that led to Chambre Principale, a gateway room that opened to more decorated corridors and chambers. Enso showed us historical signatures that included one left by a relative who had visited the cave decades ago—it was obvious that GMJ was an important cultural part of the local community.

The tour ended at the top of a sediment slope leading to a constriction. Enso said it opened to a deep hole that no one had ever descended—they called it L'Abyss. It looked a little too steep and slick to check without a handline and we added it to the lead list.

Once back at "chez Dumas" we met



Tarantula Hall, lower level in Grotto Marie-Jeanne photo: Mike Lacey

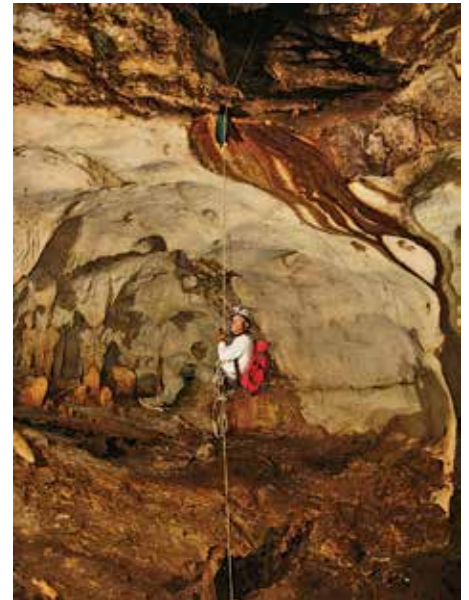
Brian Oakes, who was Enso's co-conspirator in inviting and hosting us for this trip. "So, what do you think," Brian asked with a sly smile, "is Grotte Marie-Jeanne of interest?" That was obviously a rhetorical question considering that we were wide-eyed from just having seen several kilometers of sizeable, richly decorated cave and no real end in sight! "Are there other caves or maybe springs in the area?" I asked. Brian nodded affirmative and said "We will see LaBaye tomorrow." This would be one of many stops that Brian wanted to show us over the next few days to showcase the natural and cultural features of southern Haiti

LaBaye is three things: the name of the local coastal town, its namesake spring, and a cave. We visited the cave first and that involved hiking up a steep, cobble-floored limestone valley and finding a small, unobvious entrance obscured by tall grass and bushes. Though the valley was currently dry, up-valley a stream flowing off the higher mountains sank into the cobbles—a good sign. The cave turned out to be a large chamber that narrowed to a tight, wet fissure. Big mounds of bat guano covered the floor and a few bats swooped down from the ceiling. Taino usage was in evidence near the entrance giving us archeo-site #2. Because of our schedule we did not have time to map this cave.

Our last stop in the area was LaBaye Spring which serves as the local fresh water source. Clear, cold water resurges from rock and alluvium making a blue rise pool that upwells into a spring run and flows to the Caribbean Sea. Perhaps this was the same water that sank several kilometers up the valley.

For our last days in Port-à-Piment, Mike and I tried to get as much survey as we could in GMJ and managed to pull down almost 500 meters. L'Abyss called to us at the end of a survey day and with some very skinny hand line we rigged a safety to take a look and make one more survey shot. The small passage at the bottom of the steep slope opened up into a domed chamber. We had only enough rope to get to the edge of the slope. I looked around for rocks to drop in the pit; obviously others had the same idea since we had to go up the slope quite a way to find any loose material. We finally found something to toss in the hole; it hit bottom almost immediately and then rolled down a slope. I estimated an 8-10 meter drop at the most with a handline and that was duly noted.

Ultimately, our stay in Haiti was over too soon but we committed to return next year. Once back in the States (after which I immediately called all friends and relatives to avoid an international incident and keep my gear), we processed cave data, drafted maps, transcribed inventories and other



Jim Goodbar on first descent of L'Abyss, Grotte Marie-Jeanne Photo : Olivier Testa

notes, and assembled a photo archive. All were compiled into a preliminary assessment report for ecotourism development of Grotte Marie-Jeanne. Included in the report were a cave and resource management plan and cave development recommendations. Once that was posted on the Port-à-Piment community development website by our Haitian hosts, we began making plans in earnest to return the following year.

NEW FRONTIERS IN 2008

The return trip to Haiti was in December of 2008 and included Ben Miller and Dan Nolfi, two avid cavers and graduate students from Western Kentucky University. Though they were initially dubious about Haiti, some support from WKU's Hoffman Institute and a deft suck-in from me with stories of big cave, virgin leads, and people who treated us like family—and they were in. What to bring they asked? Camping gear was not necessary but mosquito netting and malarial prophylaxis were. There were no poisonous snakes but wasps and bees could be vicious. Cave temps were on the warm side and for the most part dry since GMJ is NOT a river cave and is located kilometers from the sea. With L'Abyss in mind, I suggested some of us bring vertigear and I packed webbing and 40 meters of rope, though that seemed bit overkill for a 10-meter pitch.

Recent construction had vastly improved the coastal road and travel time to Port-à-Piment now took just over an hour. Our arrival to the Dumas homestead felt like a family reunion. "Welcome Home!" exclaimed Tante Elvire who pulled us close to place a kiss on each of our cheeks. Neighborhood kids we met last time lined up to greet us. Eliovil beamed at us and pointed to the light I gave him on the last trip; he was



Dan Nolfi in Les Jardins Suspendus (The Hanging Gardens) Grotte Marie-Jean

ready to hit the caves when we were. Brian and Enso finalized plans for access to other area caves. Ah, the beginnings of another fine Haitian caving adventure!

We had already taught our Haitian caving friends how to survey so that the mapping efforts would be a joint Haitian-American endeavor. First priority of the trip was to map all of the known passages in GMJ. Additional to cave survey would be expanding the biological and archeological inventories and the photo archive. We hit all that pretty hard starting in the western sections of the cave.

Mike and his team worked the tall, north-trending fissures characteristic of this section and found bats and another *gep*-infested entrance. My group mapped side passages and chambers, making sure all connected to Mike's survey. Our team composition was fluid and at some point during the day I was following Dan Nolfi, and Gregory Gattereaux (the **CD** yor's son) as they dragged survey tape up a steep little slope that led into Le Refuge (according to the name on an old wooden sign). What started as mop-up survey turned into something more extensive: a large breakdown-floored chamber, up to 20 meters wide by 50 meters long, with several out-going passages. A narrow beam of light filtered in from a small skylight 10-12 meters overhead. We mapped the south exit that narrowed to a constriction and then opened into a series of small interconnected rooms. Several shallow pits in the floor overlooked known passage 8 meters below.

With survey tape we chased a breeze leading to a steeply descending, barely free-climbable rift that was fully expected to connect with known lower levels—except that it didn't. Instead, the bottom of the rift

dropped out into a 10-meter tall, vaulted chamber with sloping floor covered with thick, powdery sediment and “ending” at the edge of a large black hole. We were stunned! The featured actually had the look of a classic TAG pit, except there were no indications that down-flowing water had ever touched it. Three upper leads spanned across the top of the shaft and looked to require a bolt traverse for access. Since none of us brought rope or vertigear the best we could do was fling rocks up in the air above the shaft and time the free-fall. It took 2-3 seconds for rocks to hit bottom so depth was figured at between 20-35 meters. The most curious thing was a loud cyclical whoosh that sounded like surf hitting a sand beach. But that couldn't be possible as we were a couple of kilometers from the coast and way too high in elevation even with the potential for 35 more meters of depth.

The hour was getting late so we hustled back to the start of the Refuge Passage, arriving just in time to meet Mike and his team tying in to our survey. I opened the conversation with “You'll never believe what we found.” The virgin pit was the big topic at dinner that night and though we were extremely anxious to get back to explore and map, Brian had already arranged the next few days for guides to take us to other caves in the area, so the lead would have to wait. But there was no fear of being scooped as we had the only long-enough rope in town, not to mention that most folks thought deep underground holes eventually led to Hell!

Next day, Tante Elvire made sure we were filled with a good breakfast, had lunches packed for us, and sent us off on our first ridgewalking day on the steep, rocky escarpment above Port-à-Piment. Our initially small entourage grew as the day progressed and like pied pipers we attracted groups of curious and adventurous kids, and farmers who knew of more caves volunteered their input. We stopped at a well-known cave in the area called Grande Grotte. It was not located on top of the plateau but on its escarpment and matched its name at least at the entrance. The cave appeared to have formed as a void within the escarpment that was then exposed by uplift and erosional retreat meaning it was likely a flank margin cave. These types of caves form as mixing zone voids at the groundwater perimeter of carbonate coastlines typically in limestones of relatively young age. The voids form without entrances and are eventually exposed by the wasting away of the escarpment edge. Grande Grotte extended only a few tens of meters into the escarpment and our exploration stopped at a small pit overlooking a much bigger room. I kicked myself for leaving rope and vertigear back at the house—another addition to the lead list. The most striking finds in the cave

that even overshadowed the virgin pit were two very long femur bones; Mike was certain they were human. We had heard that the Papa Doc Duvalier regime, in power during the fifties and sixties, tortured and killed thousands of Haitian dissenters and urban legend had it that some of the bodies were thrown into caves. I was glad not to have the rope and vertigear along.

We spent the rest of the morning and afternoon being led to many small caves, some just spaces between talus; others were bona fide flankies (small flank margin caves). Our entourage now included many more local kids who were really curious to see what lurked in those dark holes and were much more courageous explorers since the “Blanc” had brought such bright lights. They were thrilled to pose for pictures, to hold the end of a survey tape, and to follow us into little crawlways and small chambers. By the end of the day everyone wanted to be a caver!

Another day we hiked along the coast looking for and mapping sea caves and we eventually stopped at LaBaye Cave to tour and map it. Back at GMJ we continued cleaning up the survey of known passage on the eastern end of the cave. The side lead off of the Hanging Garden that we noted on the recon trip led to a major, talus-floored fissure that on its low side ended in flowstone and on its high side led to another entrance. Dan Nolfi made the first serious contact with the vicious *gep* when he set a survey station to close to a nest. Ben, I and a group of local kids pushed and mapped leads off of La Chambre d'étoile, eventually finding another entrance. When I asked for a survey station to be set outside of the cave the kids flatly refused. I'd show them, I thought, and crawled outside into the sinkhole—only to see bushes thick with *gep* nests. The kids roared with laughter as I dove back into the cave.

Always in the back of our minds during that week was the big mysterious pit at the end of Le Refuge. Finally on the last caving day while Mike and team worked leads off Chambre Principal, Dan, Ben, Eliovil, and I returned to our big pit lead though enthusiasm was kept to a minimum so as not to jinx the outcome. The slope above the pit required a considerable amount of rock gardening and the 40 meters of rope plus another 10 meters of webbing seemed barely enough for rigging. If this were to become a trade route, bolts and some rebelayes would be in order. But today we had no hardware other than a few carabiners.

Since there were likely many more rub points than we could see, I suggested that only one of us descend the pit to clean the way and to make sure that there was enough cave at the bottom to merit a full survey assault; I nominated Ben to do the honors.

He cautiously stepped up to the task and took his time rappelling the virgin pit while dodging debris knocked down by the rope. He described the route as he descended, reporting a ledge about 10 meters down where he tried to redirect the rope. The rest of the rappel he estimated to be 12-15 meters after which he was standing at the bottom of a tall canyon passage with cave going off in all directions! "Look for water," I yelled, and the sound of his footfalls echoed and then faded into whichever lead he had chosen. Thirty minutes later he was up the rope with the report of a lake, more passage, and a huge bat colony. The swooshing noise we heard on the previous trip was the sound of the large colony of bats flying in and out of the pit area. That inspired the name Bat Pit which in French Creole sounds a lot sexier as Puit de Chauve-souris. After a little gear and attitude readjustment, we cautiously descended the Puit with the survey kit. We had to tread very lightly so as not to bring down more sediment and rock missiles. Since Eliovil did not have enough training or experience to descend the pit he waited for us on top.

The bottom of the pit was a junction between four passages. Dan checked the first righthand lead reporting that it went to a chamber with lots of bats. Since there was only time to map one of the leads we opted for the route leading to the lake. It was a tall canyon with bell holes festooning the ceiling, floored with bat guano, and populated with large black tarantulas; what could we name this area but Tarantula Hall? A side alcove led to another tall dome pit which we speculated to be the bottom of L'Abyss. A faint water line about a half-meter high was evident throughout this area.

It took a little rock scrambling and mud-slope skiing to get to the lake, a long narrow feature that continued into blackness. There was a dry side passage just beyond the shore that might be a cut around to the lake. Ben took a stab at wading the lake but quickly sank knee-deep into wet, goeey bat guano crawling with...well, we were not sure. The

yukkiness factor proved too high and we vowed to return with an inflatable boat—though not this expedition. Back to the pit, we finished the survey of the pit on ascent (26 meters total depth), derigged, and beat feet to the entrance and chez Dumas.

During the week-long "expedition" the Haitian-American teams added 1.5km of survey and 60 meters of depth giving GMJ an overall surveyed length of 2km and vertical extent of 101 meters. In addition to the survey, the biological and archeological inventories were expanded as was the photo archive. The lake lead was most intriguing and if it proved significant might also expand the biodiversity of the cave by providing habitat for stygobytes—a niche that is currently lacking since there really was no water anywhere in the cave other than in small, isolated, ephemeral pools. In honor of the original explorer of Grotte Marie-Jeanne, the lake was named Lac de Sourel. There were many leads in the new lower level extension and at Grande Grotte so once again plans were made to return the following year with more rope and an inflatable boat to cross the lake.

Once back in Port-au-Prince Brian informed us that we would attend a press conference to be interviewed by local media about our discoveries and future work in GMJ. It was a massively confusing affair with a room full of reporters waving microphones and tape recorders. The interview was in Creole but we did have the benefit of a very patient translator. Shortly after our return to the states our story was plastered in newspapers and websites all over Haiti. At home we compiled more data and produced a second report on the GMJ project. As was done with the first report, the second was posted on the community website.

BLUE WORMS, BIG SPIDERS AND CONNECTIONS – 2009 DISCOVERIES

An inflatable boat and more rope were top on the gear list for the 2009 efforts at GMJ. Unfortunately Ben and Dan were unable to make the October project dates

set for the trip but Jim Goodbar and Joel Despain jumped at the chance. This was great because not only were they rabid surveyors and fun companions, they were also cave specialists by profession, who could provide valuable input into the management and future development of GMJ and other area caves. Joining us was a French caver named Olivier Testa, who had just started working in Haiti, and Eliovil's brother Julian, another caving Haitian.

The four-way junction leads at the bottom of the GMJ were exciting prospects though I did not savor the idea of accessing that area via the rock-spewing Puit de Chauve-souris. Fortunately our survey showed that Tarantula Hall was indeed below L'Abyss so the first push trip of the season was La Sourel and the four-way junction via L'Abyss. Our international team of two Haitians (Eliovil and Julian), four Americans and a Frenchman, equipped with inflatable boat, ropes, webbing and some hardware, on top of personal gear, practically ran up the escarpment and into the cave. It took a little while to find a suitable rig point at L'Abyss. With a well-lit vantage point from the first ledge we could see that L'Abyss, like the Puit, was broken by sloping ledges. Eliovil and Julian, not vertically skilled, free-climbed to the first ledge with the aid of the rope for handline. But once off the slope, the drop beyond was mostly free. A visual recce revealed that there would be additional ledges that could be possible rub points so I asked Olivier to do the rigging—I figured Europeans were better riggers of rebelays.

When Olivier declared the top rigging was complete, I explained that it was American custom that the rigger go first and he was happy to oblige, making the first descent of the virgin pit. The rest of us took our turns with the rappel while Eliovil and Julian made themselves comfortable on the ledge since they planned to wait for us. On my descent I was surprised to find that Olivier had not set any rebelays or even a redirect. I anticipated this to be a problem when it came time to ascend since the rope had a



Lair of the Blue Worm – Lower level in Grotte Marie-Jeanne Photo: Mike Lace



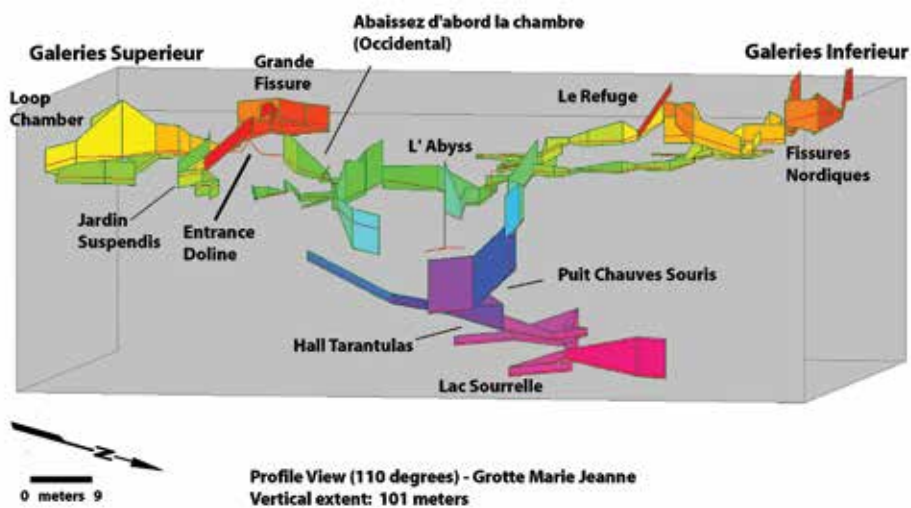
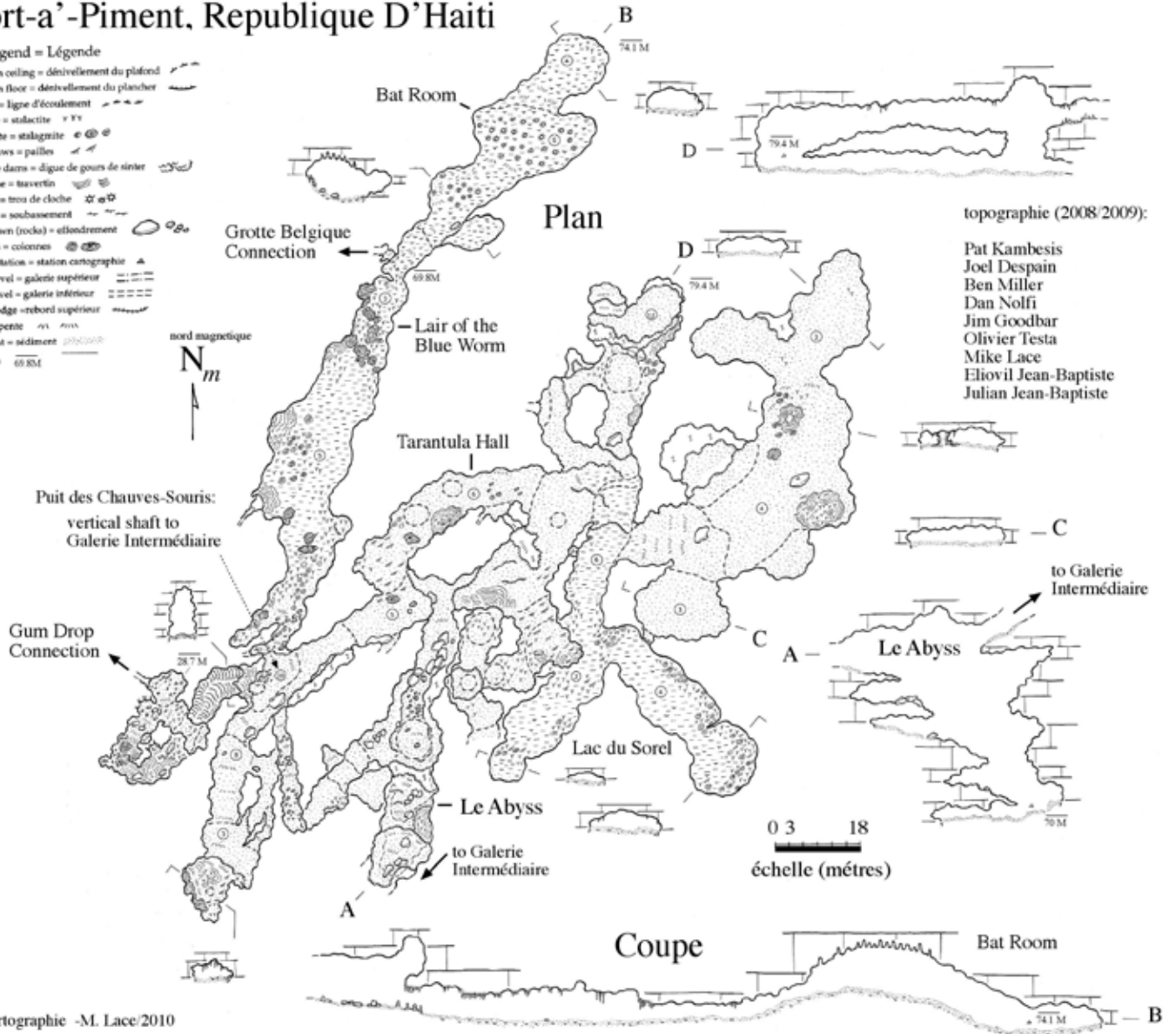
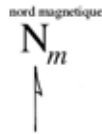
Lair of the Blue Worm – Lower level in Grotte Marie-Jeanne Photo: Mike Lace

GROTTE MARIE-JEANNE (Galerie Inférieure)

Port-a'-Piment, Republique D'Haiti

Legend = Légende

- change in ceiling = dénivellement du plafond
- change in floor = dénivellement du plancher
- dripline = ligne d'écoulement
- stalactite = stalactite
- stalagmite = stalagmite
- soda straws = pailles
- rimstone dams = digue de gours de sinter
- flowstone = travertin
- bellhole = trou de cloche
- bedrock = sous-bassement
- breakdown (rocks) = effondrement
- columns = colonnes
- survey station = station cartographique
- upper level = galerie supérieur
- lower level = galerie inférieur
- upper ledge = rebord supérieur
- slope = pente
- sediment = sédiment
- elevation 69.8M



Descent of L'Abyss Photo : M. Lace



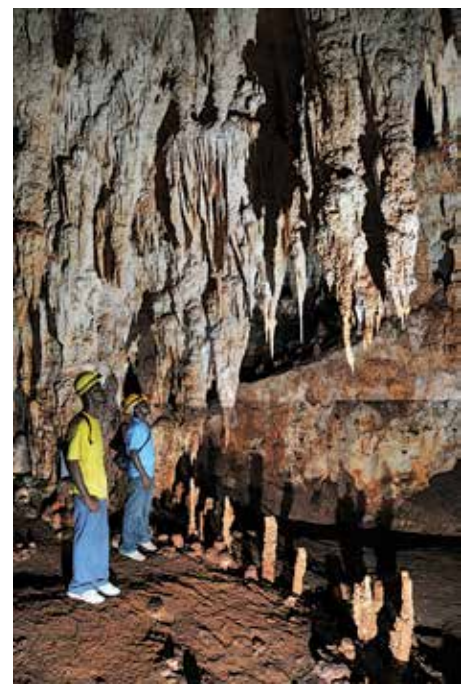
Chambre L'étoile eastern section of GMJ Photo : Mike Lace

tendency to slip into cracks in the ledges. I confronted Oliver about this once we were all on the bottom. "You are Americans, so I rigged it American style" was his reply. No point in stressing over it now, I thought, since we had a lot of cave to survey.

First order of business was to go to the lake and inflate the boat. But when we reached that destination there was no lake. In the intervening year since discovery the water had drained away and all that remained was a lot of very muddy-floored virgin passage. Thinking back on last year, I remembered the high water line that Dan Nolfi had seen, and that there had been a hurricane not too long before we arrived—so the lake and high water line in other areas probably form only because of extreme weather events.

We happily spent the rest of the day mapping and photographing the dry lake bed (which was still pretty muddy) and the hundreds of meters of passage associated with it. Groups of cream-colored stalagmites and tites that perched on sections of the dry lake bed were likely beautiful little islands when the lake was full. However, all passages eventually and definitively ended in rounded, cusped walls chambers. [*Ed. Cusped walls are common in mixing zone caves, and refer to broad, deep pockets, somewhat like huge scallops but more irregular in size and with less sharp edges*].

As we checked off other leads in the area we began noticing what looked like very faint boot prints, possible torch-marks, and small metal items. It became apparent that



Two guides in training view the flood line formed during the rainy season in the lower level of GMJ. Photo: Carole Devillers.

we were not the first to explore the lower levels of GMJ, and whoever did came via another route. There had to be another way to access the lower levels that did not require rope, perhaps by one of three good leads at the Puit junction or maybe all of them?

After mapping all the leads in the lake area we returned to the four-way junction and split the remaining leads. Of the two that Jim and I worked, the first ended within a few shots. The second required a little climbing and led to a steeply ascending slope carrying good air. Near the top it narrowed to a constriction where we found ourselves climbing into a jumble of breakdown and losing the air. The way on was not obvious so Jim tied a big bow of flagging on the last station. Of note in this area was a distinctive conglomerate deposit that we had also seen on the surface. It plugged what used to be a side passage which may at one time have led to an entrance. Lace, Despain, and Testa mapped the bat chamber passage that Dan Nolfi pushed last year, finding it terminated in an easy climb.

At the end of the day came the thing I dreaded: ascending the not-so-free-hanging, crack-clinging rope. Yes, indeed, once the rope was loaded it jammed into narrow crevices in the ledges making it a real pain to push up one's ascenders. I was able to get on one of the ledges, unload the rope and redirect it, which made everyone else's climb much easier. Eliovil and Julian greeted us at the top, anxious to hear what we found.

Our discoveries were great dinner conversation over a wonderful, home cooked meal and good wine. Brian believed that there could be more entrances into GMJ so



Marie-Jeanne's blue eyes shows a ceiling covered in bellholes in the lower levels near Lake Sor. Photo credit: Jean-François Fabriol with assistants P.Orchamp and E.Jean-Baptiste

he proposed to take a team out to ridgework the plateau and escarpment the next day.

Joel, Olivier and I returned to the eastern side of the GMJ sinkhole to map the last big entrance on that side of the cave and to connect the surveys between the east and west branches. Luckily there was enough dripline to unite both sections of cave into one. The remaining entrance led to the big bat chamber that Enso showed us in 2007. We also found more Taino evidence in an obscure lead off of the big chamber. The ridgewalking crew scored success as well, finding several more potential new entrances.

As the week wore on more objectives fell. Mike led a team into Grotte Belgique. They rigged the pitch at the back side of the entrance chamber and mapped their way down a jumble of breakdown and into a chamber filled with bats. Jim estimated the population to number in the tens of thousands. Amongst the usual critters observed crawling around in the bat guano were bright blue earthworms that inspired naming the bat chamber "Lair of the Blue Worm."

We also concluded that the mysterious boot prints in the dry lake area likely belonged to the Belgium caver and possibly his accomplice, who had originally pushed the back end of Grotte Belgique. Though a bit dicey, he could have free-climbed the traverse and pitch that was currently rigged.

Goodbar, Despain, and Kambesis descended one of the entrance leads that Brian's team had found and named the Gum Drop, since it is an open-air pit located at the base of a gum tree. The eight-meter pitch dropped into a segment of trunk passage that seemed to terminate in breakdown. I followed air down into the big pile of rocks and was able to squeeze around some key boulders and into an area I recognized from the survey with Jim several days ago. I looked for our bow-tied survey station which I eventually found to be obscured by a fist-sized

brown tarantula. I shot the last station using spider eyes as a survey point.

On another day Mike, Jim, Joel, and I returned to Grande Grotte with rope and a bit of dread of what might lay at the base of the virgin pit. The bones that we photographed last year were confirmed to be human. My worst nightmare was that we would find an ossuary at the bottom of the pit. Jim did the honors of first descent, and to my relief, found only a soft sediment floor and lots of bats. Jim and I surveyed the pit and the underlying chamber. A short stoop-way led to another, and larger, bat chamber. The sheer number of bats prevented us from taking more than a cursory survey shot before we riled them up into a circling frenzy. That room still remains unpushed.

By the end of the week we had collectively added over two km to the GMJ survey and with the exception of some climbing leads, all of the passages that we knew of in the cave were now mapped. The final survey tally was 4.8 km, making Grotte Marie-Jeanne the longest cave in Haiti. It has six entrances and a vertical extent of 102 meters. This was cause for celebration at the Dumas household and we toasted the accomplishments of the Haitian-American team. It was also exciting news to the Haitian media who broadcast the story throughout the country, making Grotte Marie-Jeanne the country's most famous cave.

Back in the States we compiled another report with an expanded biological inventory thanks to Joel, and detailed recommendations on ecotourism development and tourist trail plans compliments of Jim. Things were moving forward for GMJ to become an important ecotourism site in Haiti (see Brian's article). Then on January 12, 2010 a devastating earthquake paralyzed Haiti and initially shut down all communications with our Haitian family. A few tense days later we were so relieved to hear from Brian who reported that our Port-au-Prince friends were okay. The earthquake epicenter was in Léogâne, situated 25 km west of Port-au-Prince, and that entire region suffered the brunt of the seismic damage. The southern coastal towns of Haiti, including Port-à-Piment, were not directly affected by the earthquake though the massive administrative infrastructure shutdown in Port-au-Prince was certainly felt indirectly throughout the country. Brian insisted that



A guide in training observes some spectacular formations in Marie-Jeanne cave. Photo: Carole Devillers

things would recover enough for a spring 2011 Haitian-American collaboration. Mike and I returned in May of that year and with Brian we began reconnaissance of Haiti's other caves and karst areas. Our continued work initiated the formation of a speleological survey called the Recensement Speleologique d'Haiti (RSH), where the study and documentation on Haitian caves is catalogued. See Joel Despain's article on the latest RSH reconnaissance in fall 2013.

A non-caving humorous aside: In May 2011 while sitting at the airport bar waiting to depart Port-au-Prince, I watched the televised inauguration of Haiti's new president Michel Martelly. The airport was packed with missionary aid groups from the US who had been working on various rebuilding projects for Haiti after the earthquake. A guy from one of the groups said loudly "Do you believe these people have elected a musician to lead their country?" (The new president was, in the past, a popular Kompa musician who went by the name of "Sweet Micky"). I couldn't resist reminding him that two of California's previous governors were movie stars and one of them went on to become the 40th president of the United States. The guy's wife bought me a drink.

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Eliovil Jean-Baptiste in Grotte Marie-Jeanne Photo: Jim Goodbar

Cave Reconnaissance in Grand-Anse, Haiti

Joel Despain

Haiti is arguably one of the most interesting and distinctive countries in the Western Hemisphere. With a unique religion, unusual cuisine (have you ever had pumpkin soup for breakfast?), beautiful fashion, prevalent art, and the most mountainous landscape in the Caribbean, it is a rich and fascinating country. Haiti is also the poorest country in the Western Hemisphere and has had many great challenges with hurricanes, the recent earthquake and its aftermath, including an outbreak of cholera.

Mike Lace and Pat Kambesis first visited the country in 2007, hosted by the Damas Family. My first trip was in 2009 to assist with mapping Grotte Marie-Jeanne. See the article by Pat Kambesis.

In June 2013 Brian Oakes, Mike, and Pat had just completed a reconnaissance of the west end of the country's southern peninsula in search of caves and archaeological sites. On the return drive the road took them into the highlands of the Grande-Anse Department through the town of Beaumont. The landscape was fantastic: grand sinks, sinking rivers, and mountains of Cretaceous and Eocene limestone. This area clearly had great potential for caves, but the trio's time was limited and they vowed to come back. I talked to Pat shortly after her return to the States and there was excitement in her voice. She, Mike and Brian would go back to Beaumont for a reconnaissance trip to determine if a full-scale expedition was warranted. Plans were made and mid-October dates were chosen. It was going to be a short trip; we would only have a few days. But it would be enough time to assess just how much potential for cave development there was in the area.

We arrived in Port au Prince after red-eye flights on Friday the 11th of October. That afternoon we slept and rested in Brian and Madeleine's comfortable home decorated with fine Haitian art. Saturday we got to work. Mike and Brian braved traffic and the post-earthquake road construction to buy food. Pat and I scanned Google Earth and local topographical maps in detail looking for objectives. That afternoon we packed the truck and began the five-hour drive to the southwest corner of the country. As usual Brian deftly drove us through numerous obstacles: road construction, roadside markets, lumbering trucks, herds of goats, river crossings, and makeshift soccer games to name a few. Just after dark we arrived at the family home in Port-à-Piment on the south coast for a quick dinner and bed. Sunday morning we headed for the regional city of Les Cayes for ice, purified water, and



School & limestone hills east of Beaumont. Photo: Joel Despain

a few final provisions and then we were off to the limestone mountains above. An hour along Highway 7, above Camp Perrin, and we were up at a few hundred meters with sinkholes everywhere. We stopped and checked a few but the rock was heavily fractured in the area and the sinks were choked with rubble. The road was being widened, improved, and paved. At Icy River (Rivière Glace) we forded the stream adjacent to a new bridge under construction. From here the road climbed steeply and we got great views of the river gorge and off to the north the multiple-kilometer-wide sinkhole where this prominent stream sinks.

In another hour we were in Beaumont with sinkholes and limestone mountains all around. It was pleasantly cool compared to the coast even though our elevation wasn't much over a thousand meters. Flowers and fruit abounded in the area. Breadfruit and oranges, bananas and pineapple, hibiscus and brugmansia, orchids and avocados, and much more were everywhere. The landscape was green and lush. Brian called the Mayor, Andre Oreste, and soon we had hotel rooms organized and the promise of a guide to the many local caves in the morning. With time on our hands we headed to the north coast near the town of Corail where Pat and I had noted a huge resurgence from the topographic maps. It was a slow drive due to the rough road. We circumvented a truly enormous sink more than 10 km long that

may be a *polie* and descended to the coast. We spotted a few entrances in the cliffs and below the road that looked promising and recorded their locations. Sure enough a large stream suddenly appeared on the left just as the road flattened out onto the lowlands on the coast. We were short on time as it would be best to drive the rutted rocky road out in daylight. After a stop at the beach in town we headed back to the hotel.

Monday morning was cave time. About eight we met Lionel Louise-Jean, an accountant with the mayor's office. Brian (who speaks perfect Creole) and Lionel made plans for our day and we were off. We drove west of town and down a smaller road toward the village of Mouline. Lionel knew the general location of the cave entrance and found a few men in town who would take us right to it. Not far off the road we entered a deep and steep sink with cool air, two entrances, and the sounds of a stream. The cave is called Grotte Makingue. I headed one way and Pat, Mike, and Brian another. I found several nice rooms with bats and an upper-level gallery with breakdown and nice speleothems. After about 200m I emerged into daylight at a cliffside entrance with the resurgence of the cave stream some 20m below me.

Once back at the main entrance I learned that the other branch of the cave continued about 100m to a breakdown choke that might be bypassed by a climb. The



Owners of Trou Baskin at entrance. Photo: Joel Despain



Mike Lace at the entrance to Grotte Makingue. Photo: Brian Oakes

passage had good air, but we doubt this cave can be too long as the cave stream appears to be the same one seen on the surface. Not the borehole to the center of the Earth, but a nice cave well worth a survey in the future. We were also told of a “better” cave past Mouline.

We drove back to Beaumont right past our hotel and south of town. After parking Lionel again found a few local people to show us a cave entrance. We walked down into another sinkhole with an obvious hole 8m wide and 3m tall. A passage descended steeply and Pat climbed down first, gardening a few loose rocks as she went. It was probably 20m to the initial bottom and after I had followed her down she went left and I headed right. Several prominent holes dropped down against the wall and I could hear a stream below. Down I went after a minor squeeze to the creek. I went downstream and within 15m the passage again dropped steeply. I clambered down breakdown and climbed down small waterfalls with a gentle but steady breeze from the entrance at my back. On it went down and down in a passage about 10m wide and 5m tall. I kept thinking, where was the pitch? At one point the breakdown reached the ceiling but there was an obvious route through and still it went down. Finally the passage flattened out and reduced in size, but in 20m it again opened up at the top of a pit perhaps 15m deep and 15m in diameter. I could go no further and headed back. I was hot, sweaty, and dehydrated by the time I got back up to entrance 20 minutes later. Including the pit we judged the cave to be nearly 100m deep and 250m long so far. Upstream Pat had gone to a hands-and-knees-sized passage that continued with the stream. Unfortunately the creek has a lot of trash such as plastic and old clothing so we assume that another entrance lies up Pat’s lead. The cave is named Grotte Ti-jardin, or little garden cave.

Next we headed north out of town to Trou Casto, a well decorated cave that was but a single steeply floored room. Pat and Mike made quick work of the survey and Brian fended off the large crowd of townfolk that had followed us to the cave.

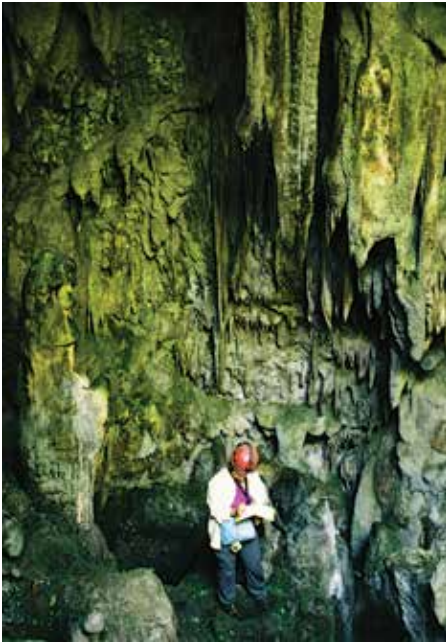
Finally we drove east out of town a couple of kilometers, parked and again walked down into a large sinkhole at the head of an extended valley of depressions. Steep slopes led to a sheer dropoff into a pit 10m across. Lionel had been down this pit years before using ladders, and he reported that it continued past where he had turned around. We cleared the thick vegetation and Pat dropped a few rocks. The first pitch was not deep, probably less than 10m, but Lionel assured us there were more pitches. We would be back. It had been a good Monday.

Lionel had told us that the “good” cave in the area with big rooms and passages that went and went was a three + hour hike south of town. Tuesday we were game. We drove east of town and turned south onto a dirt track that was more trail than road. Brian was up for trying it as the further he drove the shorter our walk. We drove over giant rocks, up steep slopes and through dense grass and shrubs. On the passenger side Lionel and Mike began to hear a hissing sound outside of the pickup. Oh no! Sure enough that tire was rapidly going flat. Brian found a flat stretch of road and we all bailed out to fix the problem. With local assistance the flat was off and the spare lowered in no time. But we still had a problem. A bracket held in place by a square nut kept the lowering cable from separating from the spare. We could not get it off. An hour or more went by and finally Brian sent the flat back to Beaumont to be repaired and then returned. We were going to be here awhile. In the meantime Lionel had been walking through the neighborhood inquiring about caves and not surprisingly had heard of one nearby. Brian stayed with

the truck, and we headed off with Lionel as a few sprinkles of rain began to fall. We walked down the hill into an enormous sink with a dry stream bed and to a house. The residents eagerly joined us and took us to their cave.

It was a small entrance above the stream bed. Pat and I crawled in and the passage went right and down. I bypassed a steep and breezy climb via a muddy crawl and Pat stayed at the top to help me back up. I walked around a corner into a 25m diameter room with two more entrances. Nice! I headed downstream in a scenic passage 5m wide and 10m tall with scalloped white limestone and nice speleothems all about. After a couple of breakdown downclimbs I reached a muddy room 30m long and 15 wide with three drains each about a meter in diameter in the floor that exited the room. To the right the main stream passage reduced in size but continued with dimensions of about five meters of width by three of height. I headed back to the largest entrance and surprised our team at the small entrance up above the dry stream channel. Soon all joined me at what was actually the main entrance to the cave. While Mike worked the GPS, Pat and Lionel headed in for a look. All agreed it was a promising cave and it has the name of Trou Baskin.

After mint tea and oranges at the home of our new cave-owner friends we headed back up the hill to meet up with Brian as the rainfall increased. By this time Lionel had heard of two more nearby caves. It was clear we would not see the tire for awhile and so off we went again. But now the rain was really coming down. After only 100m Lionel ushered us into a home with very friendly and accommodating residents and down came the rain. We relaxed in the home for probably 45 minutes as it poured and poured. We agreed that we were glad we were not in the cave down the hill that might now be starting to flood. At a break in the



Sketching in Trou Castor. Photo: Mike Lace

rain we thanked our guests and headed back to check on Brian. We all now waited on the porch of the closest house to the truck. It was abandoned and held numerous wasp nests. But we stayed calm and so did they. Perhaps a half an hour later the tire appeared in the driving rain upon the head of the man Brian had employed to get it fixed. Haitians carry everything upon their heads with great skill and balance. The two of them quickly had it on the truck. At the next break in the rain we got the truck turned around and headed for home. It had not been the day we had hoped, but we had been shown a fine cave and had avoided an eight-hour hike through torrential rain.

Wednesday we drove east out of town to explore the area near the Rivière Glace sink. Pat had developed stomach problems overnight but accompanied us anyway as Brian and Lionel navigated us to a small community where the coffee harvest had

started, and we were off with local assistance to find caves and approach the giant marshy sink. We were pleased to hear that up the hill nearby was an entrance that “made fog.” Up a steep and rocky hill we climbed to a small and improbable hole in the epikarst. Well if it made fog Pat climbed in first and I followed her into the low passage. I took a left turn into a small canyon and she went straight through some small stal. My canyon quickly dropped into a larger passage. I jumped down the last bit and found myself in a 5m diameter passage headed downslope. Quickly I realized that the floor had a few holes dropping probably 20 m into another room below. I continued on this level past many formations and soon spotted Pat perched up high on the wall. The level ended at more descending holes headed into the mountain below. Mike gave me a hand back up where I had jumped down to avoid a fall into the 20m drop. Another good lead known in the community as Trou Dokin.

Next we were taken to a pit buried in dense vegetation. Rocks tossed in did not fall far but kept on rolling and falling for tens of seconds. This one was Trou Milet. We were shown two other small pits, both of which appeared to be blind. From there we continued on toward the sink past many homes and up and over a few rocky limestone hills. We reached the sink where Rivière Glace goes underground. Soon I was standing in knee-deep water surrounded by lush plants. The cliffs above looked promising for cave entrances but it would have to wait for another day as it was getting late. Pat was waiting for us at the truck as she continued to not feel well and the rain clouds were building again. The deluge hit us on our return just a few hundred meters from the house where we had left the truck and we slid and skied the last bit on the red clay soils. We waited for the rain to abate as Brian and Mike enjoyed the freshest coffee possible, picked and roasted that day.



Mike Lace gets the GPS at Trou Baskin. Photo: Joel Despain

Thursday morning it was already time to head home. We hoped to make some contacts and maybe spend a couple of hours looking for caves at the small town of Duchity on the way back. But that did not work out as Lionel’s friend in the area was not available. It had been a very successful few days, and we drove for Port au Prince quite content with our new contacts and leads. Lionel promised to continue asking around town about other nearby caves, and we promised to return in the dry season in the spring of 2014. It was an uneventful trip back and that night we had a great dinner with Madeleine and her brother Enso and his wife Gina. Madeleine took us to the airport Friday morning and we all headed home with dreams of Haitian caves and memories of our Haitian friends in our minds.



Grotte Ti Jardin. Photo: Mike Lace



Trou Castor entrance. Photo: Mike Lace

The Cultural Significance of the Caves of Haïti

Mike Lace

The complex karst landscapes of Haiti have always been indelibly linked to its equally complex cultural landscape. Its nearly 2000 km of coastline (much of it coastal karst) would shape human settlement patterns just as the mountainous interior (both karstic and volcanic) would define long-term land uses and an evolving Haitian culture spanning archaic, colonial, and modern periods. This overview of the work accomplished to date by American and Haitian cavers is intended to illustrate both the emerging complexity of cultural resources documented in the karst of Haiti to date and the potential scope of what remains to be revealed.

THE GEOARCHAEOLOGY OF HAITIAN CAVES.

The cultural sequence in Haiti is complex and in many areas poorly defined to date. Some of the oldest dated Lithic-age workshops and Archaic-age settlements in the Greater Antilles were documented in the southwestern peninsula of Haiti, nearby Ile a Vache and the Dominican Republic, placing the first inhabitants on the island several thousand years ago (Rouse and Moore, 1985). On a smaller scale, the unique structures of cave sites also seem to have influenced associated ritual and utilitarian uses. Figure 1 illustrates a small sampling of archaeological materials (e.g. tools, pottery and ceremonial objects) recorded in cave sites from a broad geographical cross section that includes the southern and northern peninsulas, the north-central plains, and one the offshore islands. Cultural remnants documented in the caves of Haiti are proving to be diverse and abundant, including a range of lithics, shell materials, ceramics, and spectacular examples of rock art.

In terms of rock art studies, Haiti is



Figure 1. Pre-Columbian materials documented in Haitian caves. All materials were photodocumented and left in situ.

one of the least documented areas in the Caribbean. Efforts to date have revealed a diverse and abundant array of rock art forms that speak to long-term ritual uses of cave sites across Haiti. Petroglyphs form a key component of the rock art inventory (Figures 2C, 3, and 4) dominated by anthropomorphic images but pictographs are also prominent. Rock art examples in Haiti also includes zoomorphic and geometric motifs as single images or as complex panels containing multiple types. The precise criteria for rock art site selection, i.e. which caves were

used for specific ritual activities, remain undefined but a clearer understanding relies on a more complete record of both surface and subterranean sites across Haiti. Such thorough site documentation can reveal patterns of rock art distribution, as shown on other islands in the region (Lace, 2012).

HISTORICAL AND CONTEMPORARY RITUAL CAVE USE IN HAITI.

The rugged karstic landscapes of St. Domingue-Haiti played a key role in the colonial period as its caves provided shelter to escaped slaves in establishment of maroon (a term used for descendants of escaped slaves in the Caribbean) sites and the logistics of slave revolt (Managot, 2006). Karst topography also served as an important tactical component in periods of revolt from Haiti's struggle for independence from French colonial rule in 1804 to the U.S. occupation in the beginning of the 20th century. Historical materials documented in the caves of Haiti will continue to define the range of activities during these periods (Figure 5). Caves would continue to be used during more modern periods of political upheaval, such as the Duvalier era where several sites were rumored to have been used for the disposal of the bodies of those victimized by the political regime.

Contemporary ritual use of caves has been documented worldwide although these

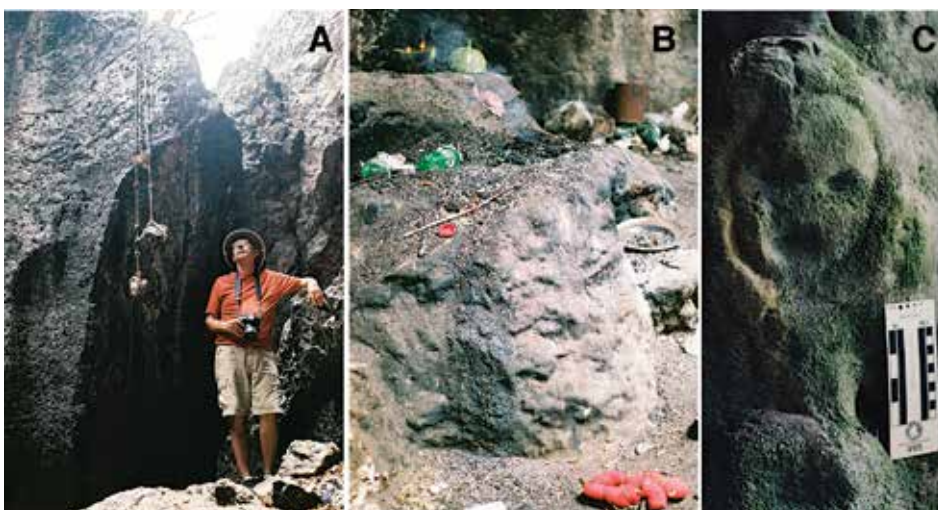


Figure 2. Ritual cave uses in Haiti. A) Ritual offerings hung from cave walls. B) Assemblage of voodoo offerings in Grotte San Fransisque. C) Pre-Columbian petroglyph in Voute a' Minguet.



Figure 3. Cave rock art examples. A) crudely-pecked petroglyph in a cave in the central plain (photo by Brian Oakes) B) Pictograph in a cave on the southern peninsula coast.

examples are relatively few compared to widespread past uses of such structures by cultures spanning human history (Moyes, 2013). Haiti presents one of the few examples in the Caribbean where modern ritual use is not only widespread in its caves but is a thriving, integral part of modern life. Many caves are spaces of reverence, spiritual power, and fear in many of these traditions. A diverse array of voodoo offerings are frequently placed in caves, as well as revered surface sites, as part of a complex structure of ritualized protocols that form a continuum of long-term cultural cave use deeply rooted in Haiti's heritage. Yet ceremonial cave use in Haiti is not limited to voodoo as other faiths also make use of these same environments.

CULTURAL CAVE RESOURCE MANAGEMENT AND PRESERVATION.

Preservation of cultural resources both on surface terrains and in cave environments requires a clear understanding of

the extent and complexity of such features. Documentation of cave sites within the multidisciplinary context of geomorphology, ethnology, archaeology and biology are critical to understanding past and present cave uses. Ongoing cave research in Haiti supports this approach, working with our Haitian colleagues and community members in joint efforts to better understand the role karst has and continues to play in the lives of the Haitian people in contrast to colonial approaches to exploration and research that have historically been applied in the region.

Land use practices in karst areas can have immediate and lasting effects on landform stabilities and water quality but also on cultural resource preservation. Limestone quarrying, commercial construction, mining, deforestation, cave vandalism and unstructured tourism development all have the potential to negatively impact cultural sites. As noted in other settings, fires can also impact a range of cultural sites, including rock art areas, thus slash and burn agriculture, which is still prevalent in Haiti, presents yet another clear complication to preservation strategies in karst settings. Legislation has long been in place to preserve the cultural patrimony yet, as is common in many areas with limited resources, enforcement of such statutes is a recurrent issue.

The work accomplished to date in Haiti barely scratches the surface of what promises to be a significant contribution to our collective understanding of how caves have shaped the cultural sequence on Hispaniola and the broader Caribbean region as well as how long-term human uses of Haitian caves and karst landscapes has influenced the progressive modification and future preservation of these invaluable cultural sites.

Figure 5. Historic period materials in the caves of Haiti. A) Metal bell found in Trou Doken. B) Remnants of early 20th century lamp in Grotte Belgique.



Figure 4. Complex petroglyph panel in Grotte Bassin Zim with modern graffiti damage.

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The Caves of Haiti – A Heritage Worth Preserving

Text and photos by Carole Devillers

NSS #61955, TAMPA BAY AREA GROTTA

When the name Haiti is mentioned, images of poverty, political strife, earthquake and cholera are quickly conjured up. That's unfortunate. Little known to the general public, the country's underground heritage contains wonders Haiti can boast about and which deserve to be revealed, as well as preserved.

Located South of Florida and East of Cuba, the island of Hispaniola shared by Haiti and the Dominican Republic is 70% karst terrain and its limestone constitution favors cave formation. Caves are an important element of the Haitian culture and many are used for mystical ceremonies and pilgrimages. A few centuries ago, the Taino Indians, who were the island inhabitants before the arrival of Christopher Columbus, used the caves for their religious rituals. During colonial times, some caves served as refuges to runaway slaves fleeing the atrocities of the slavery system. Since Haiti's independence in 1804, other cavities, together with forts, have constituted strategic points and hiding places during internal battles.

The political troubles of these past decades have not encouraged cave exploration in Haiti and aside from a few European expeditions in the 1970-80s and the Kentucky university's exploration and surveying these last few years of the Marie-Jeanne cave in Port-à-Piment in the South, research in that domain has remained very succinct.



Decorated with worship flags, the Rocher Saint-Grégoire also became a place of refuge during the 2010 earthquake



Karst in La Visite National Park, South-East department

In 2009 French speleologist Olivier Testa and myself organized and undertook the "Ayiti Toma 2009 expedition" to explore the country's southern peninsula cavities, with the support of two Haitian foundations: the Fondation Odette Roy Fombrun and Fondation Lucienne Deschamps as well as the patronage of the Fédération Française de Spéléologie.

Haiti, in all respects, is like a rough diamond that needs to be chiseled to reveal its beauty. I know that from having lived and worked there for twenty years as a photojournalist. It's not your typical tourist destination, and therein lies its uniqueness. Similarly in our cave explorations as my team mates and I crawl our way in, rub our butts on slippery ground, squeeze ourselves through tight openings and walk precariously on unstable rocks, cautiously descending into the bowels of the earth, I always feel like chiselers at work, discarding the rough parts while hanging on to the hope of a fantastic discovery. Therefore the day our torches illuminated in all their virginal glory the spectacular formations and draperies of the Bellony cave, located near the small harbor of Pestel in the Grand'Anse department, I knew we had reached the core of a magnificent diamond. We were left speechless by the awesomeness of it all.

Suspended from the ceiling, fragile translucent draperies, prosaically described by cavers as "bacon," hung down in wavy sheets of rust-colored calcite. Numerous glistening columns, stalactites and stalagmites and other strange peach-colored speleothems captured our gaze for the longest time. What surreal beauty!

Covered with an array of formations resembling angel wings, a spectacular 36-foot tall chimney made us arch our necks backwards to peer into its seemingly unending funnel-like shape and without hesitation, we named it the Chimney of Angels. The next chamber, displaying among its decorations an enormous mollusk-like formation with a scintillating eye looking straight at us, aptly became the Chamber of the Giant Squid. This naming game is just part of the fun of discovery.

To better appreciate the natural characteristic of the cave and to heighten our sense of awe, we turned off our torches. Now bathed in pure darkness and silence, we listened. Water droplets hit the floor or dripped into small shallow pools, here and there, at regular intervals: stalactites and stalagmites were being formed as we breathed. We were witnessing creation at work, slowly but surely, one droplet at a time, one hundredth of a millimeter at a time. Time seems suspended when confronted by eternity. An eerie quality of timelessness and spirituality permeated the atmosphere and strangely enough, although we were underground, I felt close to heaven and the Creator.

The Ayiti Toma 2009 expedition was my initiation to the wonders of the underground. The adrenaline-filled excitement of discovering this unknown section of the Bellony cave and of being the first ones to set eyes on the mineral treasures it contains, 140 feet below earth, left me wanting for more. From that very moment I was reeled into the world of speleology like a fish forever hooked, and caving became a passion.

The discovery of the magnificent Bellony cave as well as other caves badly degraded by unsupervised visits, prompted us to launch, over the years and in other southern departments, a program of exploration and conservation of the caves of Haiti. This was implemented through different projects as we garnered the support of other Haitian foundations such as Fondation Culture Creation via the Fondation de France, and Fondation Françoise Canez Auguste, under the supervision of the Bureau National d'Ethnologie which has the responsibility of the underground heritage in Haiti. The program has since then also earned the patronage of the National Haitian Commission of Cooperation with UNESCO.

Just as essential to us as exploration and discovery of unknown caves is the preservation of this rich underground heritage. In that respect, the members of our team (in most instances Olivier Testa, Jean-François Fabriol and myself, supplemented by Pascal Orchamp when engineering services are required) not only provide survey maps and photo documentation of the caves we explore but also technical services when caves with tourism potential worth developing need basic fittings for safe visits. The training of local guides for caves is another component of our preservation activities. The more knowledge that can be put forth about caves, their formation, their historical and cultural importance, the better it is for their conservation.

Kept secret until their protection, the spectacular formations in the Bellony cave are now preserved from wild visits by a locked iron gate we were able to install in the most fragile section with the support of the Haitian Fondation Macaya for Local Development and with financing by the Cooperation and Cultural Affairs Department of the French Embassy in Haiti. The gate limits access to the cave most beautiful chamber. Keys are

kept at the town city hall. When visitors arrive, a guide we trained is assigned to them who unlocks the gate and supervises the visit.

Hopefully that will prevent the Bellony cave to become like the Kounoubwa cave in Camp Perrin (South). What I saw there made me cringe. Forever scarring the walls of that enormous cave are myriads and myriads of names and graffiti bearing witness to the ignorance of generations of visitors that came and went. Encouraged by the first guides who, decades ago, warned visitors not to take more than one stalactite per person (!), people not only broke thousands of concretions but wrote their names on every surface to proudly show they were there.

Other degradations are currently happening elsewhere, as in the wild cave of Bassin Zim in the Central Plateau. In this superb cavity, it is the 600-year old petroglyphs carved by the Taino Indians that are being covered with contemporary graffiti and becoming increasingly difficult to recognize. A whole chapter of Haiti's history is slowly deteriorating, degraded by ignorance and lack of proper management of the country's natural resources.

Our most recent caving expedition took place in the South-East department, earlier in 2013. We spent a big portion of our time at La Visite National Park, covering a surface of 44 square miles, at an altitude of 5900 feet, near the small village of Seguin. The park is home to a very rich biodiversity with over 80 species of birds, grasslands and pine forests, springs and rivers, but most importantly for us cavers, it is set on a very unique karst terrain erupting here and there with fascinating rock formations and favoring a multitude of cavities.

At La Visite, we discovered what is to date the deepest cave in Haiti. With a depth of 860 feet for a length of 3077 feet, the cave dimensions may not be impressive by world standards, but for Haiti it represents



Marassa (Twins) Pothole – La Visite National Park

a record and justified a press conference—which gave us each time an opportunity to speak about preservation. The cave contains some very photogenic formations. The executive director of the Bureau National d'Ethnologie, Erol Josué, promptly named it the Marie-Louise Boumba cave, to honor the spirit of the same name worshipped by the wife of Jean-Jacques Dessalines, founder of the nation.

Many rumors and legends surround the caves of Haiti: some are said to reach Mexico, others are supposedly linked to one another forming an underground grid, Indians are believed to be still living in them, when it's not the devil himself... However far-fetched these beliefs may be, most Haitians we talked to agree that spirits of their ancestors, guardians of traditions,



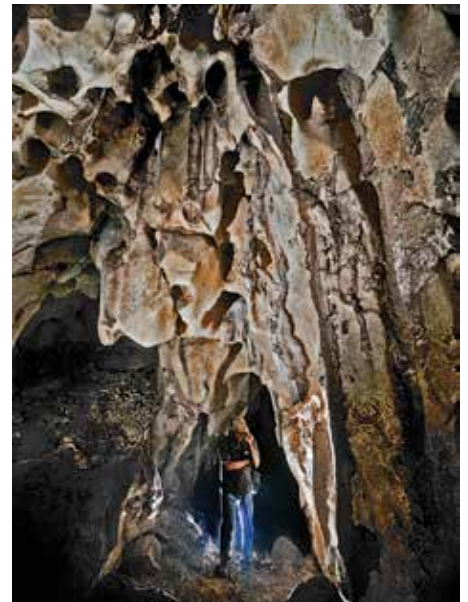
Bassin Zim Cave – Hinche, Central Plateau. This big river cave was used before 1500 by the Taino Indians who carved petroglyphs on the walls. These are barely noticeable nowadays as they're being covered by contemporary graffiti.



Guides in training listen to Olivier Testa's explanations during a practice visit at Marie-Jeanne cave.



Haitian local Celos Juslin finds a cozy niche by the portal of a chamber as we explore the Calebassier Cave.



Our Haitian driver Frantz Debrosse inside the Calebassier cave.

inhabit the caves, and most of the caves are considered sacred. They are used as a space for transmission of knowledge and as meeting places for many a vodou ceremony. In Fonds-des-Nègres, a site we explored in the Nippes department, a pilgrimage to Rocher Saint-Grégoire (St Gregory's Rock) brings thousands of devotees every year. The day we investigated there (not during the annual pilgrimage) we were invited to walk three times around the main column to receive the blessings of the residing spirit. I don't recall my team mates doing it, but I know I did!

Haiti's central plateau and northern region are next on our list. We've been told of many caves there, known since colonial times and receiving quite a lot of wild visits. I'm curious as to what we'll find—probably

much degradation. Fortunately the country's terrain is made up of so much karst, there is no doubt undiscovered beauty is yet to be revealed. And as cavers, this is a bait we cannot resist!

For the scientific interest they provide towards a better understanding of territories and their management, for their tourism and economic potentials and for the historical and cultural assets they represent, the caves of the Republic of Haiti constitute a beautiful and rich natural heritage well worth preserving.

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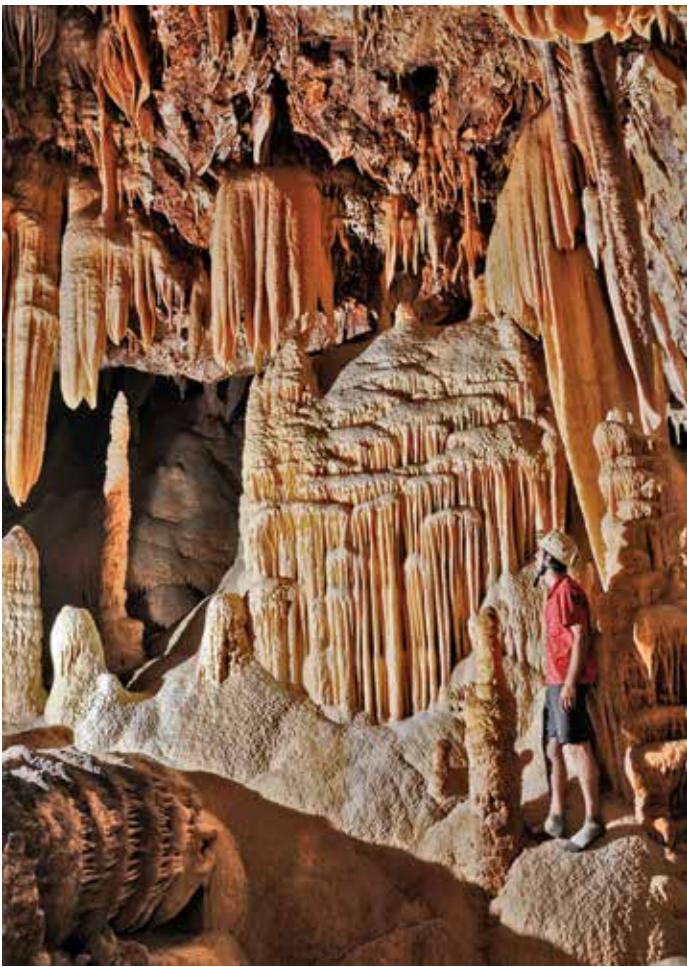
French speleologist Olivier Testa gazes at the beautiful bacon draperies decorating the Bellony Cave. Photo Devillers/Testa



Formations in Bellony Cave – Pestel, Grand'Anse department



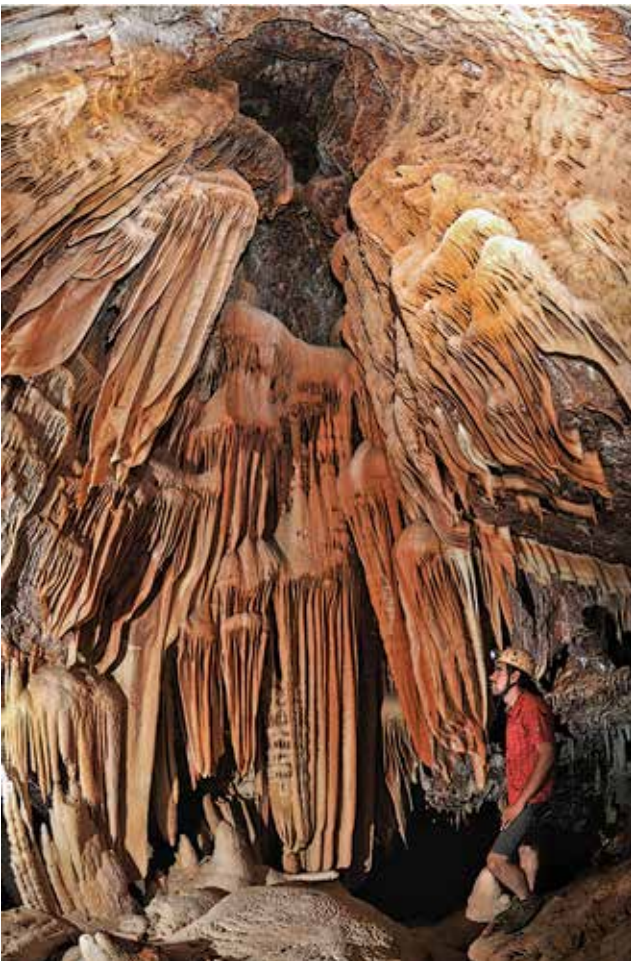
A houngan (vodou priest) addresses the residing spirit with a bottle of rum and a candle in hand at Doco cave, near Saut d'Eau, to intercede on our behalf so that we have a safe visit.



French speleologist Olivier Testa admires the stalagmitic concretions resembling church organs in Bellony cave. Photo Devillers/Testa



Olivier Testa wanders through the many concretions of Bellony Cave. Photo Devillers/Testa



Marie-Louise Boumba cave – La Visite, South-East department. A local, Wilfrid Exantus, climbs back up in Haiti's deepest cave.

Left: The Chimney of Angels in Bellony Cave, so named by Carole Devillers and Olivier Testa (standing). Photo Devillers/Testa

2014 NSS Convention Update: The Countdown Begins

**Julie Schenck Brown, NSS 30493 &
Michelle Vaughn, NSS 55064**

As remodeling continues at the new NSS Headquarters & Conference Center in Huntsville, Alabama, the staff of the 2014 NSS Convention is excited to welcome you home to the center of operations for the NSS. This will be the first time an NSS Convention has ever been hosted at the NSS Headquarters and the excitement is building as renovations are made to the new facility. We have a dedicated group of cavers from TAG and throughout the country who continue to plan for the 2014 NSS Convention to be held in Huntsville, Alabama.

The official dates of the 2014 NSS Convention are July 14-18, 2014 and detailed information for the event, as well as online registration can be found at nss2014.caves.org. A registration form is provided in this issue for those who want a paper copy to mail instead or just to consult now for pricing options.

The cost of pre-registration for NSS members (ages 18 years old and over) is \$160, while the cost for younger NSS members (ages 7-17 years old) is \$130 prior to the pre-registration deadline of April 30, 2014. A Guidebook is included in the price of adult registration, and JSS is included in the cost of registration for our younger NSS members. New members of the NSS receive a coupon for a discount on their first convention—bring this along when you show

up at the event and we'll trade it for a \$40 refund from your ticket price! After May 1, 2014, you must register onsite and prices will increase to \$200 for NSS members (ages 18 years old and over) and \$150 for younger NSS members (ages 7-17 years old). Registration prices for non-NSS members are \$210 before May 1, 2014 and \$250 onsite.

Registration for the 2014 NSS Convention will open at 12:00 p.m. CST on Saturday, July 12, 2014 at Lee High School in Huntsville, Alabama. You must register for the 2014 NSS Convention, including picking up your name badge, before you can access the campground at the NSS Headquarters & Conference Center. Please note that there will be no pre-camps at the NSS Headquarters and the campground will be closed until Saturday, July 12, 2014 at noon. If you arrive early, you will not be permitted to camp on the grounds of the NSS Headquarters & Conference Center.

Camping is included with the cost of your 2014 NSS Convention registration, and will be onsite at the NSS Headquarters & Conference Center. Please limit tarp sizes to 20' x 30' maximum. We are in the city limits and have residential neighbors, so fires, bombs, pyrotechnics, and four wheelers are not allowed. Pets are not allowed either at the 2014 NSS Convention.

If tent camping is not your style, there are a limited number of RV hook-ups with power and water that are available for \$200 on an advanced payment basis; please e-mail: registration2014@NSSConvention.com for reservations and payment information of RV sites. Also if you have an RV and do not require a hook-up, there will be an area for RV camping. We ask that you please limit the use of your generator during the day and understand no generators are permitted between 10:00 p.m. and 6 a.m. due to city noise ordinances.

You can purchase breakfast and that first cup of coffee in the campground, even if you're in a hurry to bounce a pit before attending a morning session. A local food vendor will be open from 6 a.m. until 10 a.m. in the campground. You can grab a biscuit and coffee on your way to that early morning destination or opt for a full southern breakfast platter. And although lunch and dinner options will not be available in the campground, a good meal is certainly within walking distance, or you can grab a bus to enjoy lunch or dinner downtown at a variety



of local establishments. The opportunities are endless!

Opportunity abounds on the weekend of July 12-13, 2014 after the campground opens for the 2014 NSS Convention. You can hang out at your new NSS Headquarters & Conference Center or even go hiking on the property's beautiful 94 acres, of which 60 acres is mature forest. There are several hiking trails and even two small caves on the property. The Huntsville area is also a world renowned caving region with 240 caves in the city limits and almost 4,000 caves within a 50 mile radius of the 2014 NSS Convention. Activities for the family are also available throughout the city of Huntsville.

On Sunday (July 13, 2014) a hydrology field trip, led by Dr. Warren Campbell, will explore hydrological and geological issues, as well as impacts from development to the urban karst terrain of Huntsville, Alabama and surrounding areas. The hydrology field trip will be offered for an additional fee, with pre-registration strongly encouraged. In addition, Nick Schaer and members of the Alabama Paleontological Society will lead a field trip to the Union Chapel surface mine in Walker County Alabama, just east of Jasper, AL. This field trip has no cost associated with it, but attendees will be responsible for their own transportation. Look for details on these field trips in an upcoming issue of the *NSS News*. As a special start to the 2014 NSS Convention, significant donors of the NSS will be invited to a reception Sunday evening at the NSS Headquarters & Conference Center.

Monday (July 14, 2014) is the actual start of the 2014 NSS Convention with the opening ceremony being held in the morning to officially begin the week. Join Wm Shrewsbury, NSS President, the NSS Board of Governors, and local dignitaries from the community, as we kick off the start of the 2014 NSS Convention. Sessions and other events such as the International Climbing Contest, Salons, Speleo Art and other



Kristen Boho

MOS dropping one of the many pits in TAG



**Above: Wide angle view of Neversink, the classic Alabama pit.
Left: Gerald Moni and Marion O. Smith during a TAG ridgewalk**

Workshops will officially open on Monday at Lee High School; look for details on the Vertical Workshop, Bat Workshop, Project Underground, Speleology for Cavers, and Speleo Art Workshops in a future issue of the *NSS News*. And if you're too busy caving that morning, plan to attend the Howdy Party at the auditorium of the NSS Headquarters & Conference Center that evening as we welcome you home to your NSS Headquarters under the rocking tunes of Kozmic Mama. During the Howdy Party and throughout the week, enjoy local craft beer from Straight to Ale, which will also offer free tours of their brewery to attendees of the 2014 NSS Convention.

As sessions, salons, workshops, Speleo Art and the climbing contest continue at Lee High School on Tuesday (July 15, 2014), another field trip will be offered that will visit a selection of Huntsville caves. This field trip, led by Lin Guy and Tom Whitehurst, will be detailed in an upcoming article of the *NSS News*, and involves strenuous hiking, but no



Avis Moni smiles as several pits are within walking distance of the NSS Headquarters

caving; there is an additional fee for this field trip and pre-registration is strongly encouraged as the number of participants is very limited. The NSS Fellows & New Members Reception will be held on Tuesday evening at the NSS Headquarters & Conference Center Auditorium, while Roland Vinyard will host an acoustical open microphone outside at the NSS Headquarters & Conference Center Pavilion.

Continuing through the week with sessions and workshops at nearby Lee High School, evening activities will also underscore an exciting week at the 2014 NSS Convention. Both the Speleo Auction and Campground Party will be held inside the NSS Headquarters & Conference Center. Join us in an air conditioned meeting room as the annual Speleo Auction, a major fund raiser for the NSS, promises to be lively and exciting as rare and special Speleo items from the past and present are auctioned off to the highest bidder. After the auction gets underway, the Terminal Syphons will take the stage and rock out inside the auditorium, as more craft beer from Straight to Ale is served and a light dinner is provided.

During the 2014 NSS Convention, the Salon Awards Show and Banquet will return to the Von Braun Center, which was the venue for both events during the 2005 NSS Convention. The Salon Awards Show will be held in the Mark C. Smith Concert Hall and will feature two showings, including the "short show" which is more of a dress rehearsal for the salon staff followed by the full Salon program. The Friday evening Banquet will be held in the South Hall of the Von Braun Center and promises to be an enchanting evening as members of the Society celebrate the accomplishments of their peers in a star-studded celebration hosted by Nancy Aulenbach. A cash bar will be available at the Salon Awards Show and Banquet. And while parking is available downtown for a small fee, there will be motor coaches providing free transportation from

the NSS Headquarters & Conference center to the Von Braun Center on both nights.

The Friday evening Banquet will culminate the activities of the 2014 NSS Convention and the event will officially close on Saturday, July 19, 2014. All attendees of the 2014 NSS Convention must vacate the premises by noon on July 19, 2014 to allow the 2014 NSS Convention staff to prepare the grounds of the NSS Headquarters & Conference Center for the next event.

So why wait until the April 30, 2014 pre-registration deadline? Register now for the 2014 NSS Convention at nss2014.caves.org and Welcome Home!

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2014 NSS Convention - July 14-18, 2014

NSS Headquarters-Huntsville, Alabama

nss2014.caves.org

Office Use: Reg #

Completed form must be received by May 1, 2014; after May 1, 2014 you must register on site.

One registrant per form. Please print clearly. Questions? Please e-mail: registration2014@nssconvention.com

Registration Information		
Last Name	First Name	
Age: (circle one): 0-6 7-17 18-20 21+		
Name to be listed on name tag:		
Grotto/Affiliation for name tag:		
NSS #	Sex: M <input type="checkbox"/> F <input type="checkbox"/>	
Contact Information		
Mailing Address:	Apt or Unit #:	
City:	State:	Zip Code:
Email Address:		
Primary Phone #:	Alternate Phone #:	
Emergency Contact		
Contact must be someone not at Convention		
Contact Name: _____		
Contact Phone # _____		
Special Needs		
<input type="checkbox"/> Vegetarian Meals Other Special Needs: _____		
Method of Payment		
<input type="checkbox"/> Check or Money Order (Payable to 2014 NSS Convention)		
<input type="checkbox"/> Credit Card (check one)		
VISA <input type="checkbox"/> MC <input type="checkbox"/> Discover <input type="checkbox"/> AMX <input type="checkbox"/>		
Card Number: _____		
Exp Date: ____/____/____ CVV#: _____		
Name on card:		
Signature of Cardholder:		
Names of others registering with same credit card:		
Billing address (if different from mailing address):		

Please send completed Registration form to:

2014 NSS Convention

Attn: Registration

P.O. Box 17066

Huntsville, AL 35810-5000

Register online at: nss2014.caves.org

Items	Cost	Quantity	Total
Adult Registration (18+)			
by May 1	\$160		
On Site	\$200		
Child Registration (7-17)			
by May 1 (With JSS, No Guidebook)	\$130		
On Site	\$150		
Child (0-6) (No Guidebook)	FREE		
Non NSS registrant add \$50 (Must be an NSS member or pay additional fee)	\$50		
Special Events			
Hydrology Field Trip	\$60		
Caves of Huntsville	\$30		
Vertical Workshop	\$25		
Bat Workshop	\$25		
Project Underground	\$30		
Speleology for Cavers	\$45		
Speleo Art Workshop for A&L (3 days)	\$25		
Speleo Art Workshop Non A&L (3 days)	\$30		
Speleo Art Workshop A&L (1 day only)	\$10		
Speleo Art for Non A&L (1 day only)	\$15		
Convention Symbolics			
*XXL t-shirts are \$2 extra			
T-shirt, Long Sleeved:			
S ___ M ___ L ___ XL ___ XXL* ___	\$20		
T-shirt, Short Sleeved:			
S ___ M ___ L ___ XL ___ XXL* ___	\$15		
Convention Patch	\$5		
Convention Pin	\$5		
Extra Convention Guidebook	\$20		
Subtotal		\$ _____	
Adjustments			
Discount: No Guidebook		(\$20)	
Discount: No Banquet		(\$30)	
New NSS Member Discount (Coupon must be submitted)		(\$40)	
GRAND TOTAL		\$ _____	

NEWS & NOTES

CAVE CONSERVANCY ANNOUNCEMENT

The Cave Conservancy Foundation has awarded its 2013-14 Karst Studies College Scholarships. The awards are:

Undergraduate (5,000): Linnea Carver, University of the South, Sewanee

Linnea's study is the reproduction, feeding and diversity of cave spiders in the Southern Appalachians.

Masters (\$5,000): Flora Sperberg, University of Puerto Rico, Mayaguez

Flora's topic is reconstructing a record of hydroclimate variability over the last two millennia using speleothems collected from Puerto Rico and Venezuela.

Doctorate (\$15,000): Shahan Derkarabetian, San Diego State University

Shahan's study is to explore the genetic processes underlying cave adaptation.

The Foundation encourages scholarship applications. Interested parties should watch the *NSS News* or our website: www.caveconservancyfoundation.org/ or announcements.

NEW ROOM DISCOVERED HIGH IN THE CEILING OF CARLSBAD CAVERNS *NOVEMBER 15, 2013 / NEW MEXICO*

What began as a routine climb to a cave passage high inside the ceiling of the main cavern at Carlsbad Caverns National Park, turned into a night of excitement for two cavers who discovered a colorful new room on Halloween night.

Caver Derek Bristol, a volunteer with the Cave Research Foundation, and Shawn Thomas, a cave technician at Carlsbad Caverns, decided to climb to the "Spirit World" area to finish surveying as part of creating a new map of the cave. Once they were inside Spirit World, 77 meters (255 feet) above the floor of the Big Room, they traveled to an unclimbed ledge another 4.5 meters (15 feet above), which had been observed on previous trips but never explored. Although neither Bristol nor Thomas expected this one to pan out, they decided to explore anyway.

Going first, Bristol climbed up and over the ledge. To his surprise, it opened into a 9 meter 9 meter (30-foot) long passage.

"I remember being really shocked. I couldn't believe this was happening. There hasn't been a room this big discovered in decades," said Shawn Thomas.

Thomas and Bristol, who named their

find "Halloween Hall," were amazed at the room's beautiful colors and decoration. They found light-blue endellite clay, football-sized dogtooth spar crystal formations and, most surprisingly, thousands of bat bones. The room also was full of breakdown as well as a fabulous cascade of flowstone.

The most exciting part of the Halloween Hall discovery is that there may be much more to explore. Thomas and Bristol did not have time on Halloween night to go beyond the entry to the large room. They plan to return when their schedules allow, most likely in February, for more exploration, mapping and discovery.

From an NPS press release

GOVERNOR SIGNS CAVE PROCLAMATION

Wisconsin Governor Scott Walker has officially signed a SHOW CAVE & CAVING MONTH Proclamation recognizing the month of August to recognize the efforts of the Wisconsin Speleological Society in its efforts to aid and develop the show cave industry. The Official Proclamation reads:

WHEREAS; the Wisconsin Speleological Society, (WSS), a grotto of the National Speleological Society, is an organization dedicated to the exploration, study, and protection of caves, karst landforms, and landscapes throughout Wisconsin, and

WHEREAS; the WSS has continually supported all caving in Wisconsin to help promote the understanding of cave resources, and

WHEREAS; the WSS recognizes the economic, educational, and recreational benefits of the Show Cave industry and caves provide to the State of Wisconsin and to local community's tourism efforts; and

WHEREAS; the WSS has provided expertise and donated tens of thousands of documented volunteer hours in support of discovery, exploration, education, science management, search and rescue, conservation, and protection of caves and karst-related-like features; and

WHEREAS; the WSS is a principal contributor to an ever increasing body of knowledge and education about caves in Wisconsin;

NOW, THEREFORE, I Scott Walker, Governor of the State of Wisconsin, do hereby proclaim August, 2013, as

SHOW CAVE & CAVING MONTH

Throughout the State of Wisconsin, and I commend this observance to all of our citizens.

signed, Scott Walker, Governor

Many local Door County cavers have worked long and hard discovering, mapping,

researching, and opening up caves for the enjoyment of the public.

This includes the current ongoing efforts at hopefully developing and opening up a part of Horseshoe Bay Cave near Egg Harbor, as a walking tour for the public. This cave's gated entrance is in a bluff in the recently expanded Murphy County Park.

For more information visit wisconsin-caves.org

Also, two nice, local video presentations are on YouTube. Laddie Chapman taped Gary K. Soule of Sturgeon Bay as he gave a presentation on "Show Caves of the World."

Another YouTube video, taped by Kathy White, shows another presentation by Gary K. Soule on the "Caves of Door County."

We have six currently operating show caves in Wisconsin, with Cave of the Mounds and Crystal Cave being the most famous.

In the U.S. each year, over nine million people pay to go underground, and the income generated at just the top 142 show caves exceeds 144 million dollars! The secondary financial impact on the local tourist economy is enormous. Education is a big part of cave tours

Gary K. Soule.

SEQUOYAH CAVERNS MAY CLOSE AFTER 49 YEARS OF PUBLIC VISITATION

The Chattanooga Times Free Press reports that the famous and well loved Sequoyah Caverns near Valley Head, in Northeastern Alabama, may not open to the public next year after 49 years of operation. Its owner, John Jones, is retiring at the age of 79.

The cave has been known since prehistoric times. But it was not until 1963 that Clark Byers and Alva Hammond leased 57 acres of land to develop the cave.

Known at that time as Ellis Cave, the modern day Sequoyah Caverns is known for its beautiful formations, looking glass lakes, and even an underground waterfall in the cave!

The cave ground was the site of the TAG Fall Cave-In for years, with the event having first been held at the cave campground in 1978. Many tourists have fond memories of the place, not to mention the animal farm on the surface.

The cave was mapped in 1980-1981, by the Dogwood City Grotto and the Clayton County Cavers of the National Speleological Society. A total of 3,060 feet was mapped.

I sincerely hope that this very significant show cave will be taken over, or operated by a new owner, so as to prevent the vandalism that has taken place at so many other ex-commercial show caves all across America.

Gary K. Soule

UNDERGROUND UPDATE

Kelly
Smallwood

The Electric Cover

November 2013 Vol. 54, No 11
Greater Cincinnati Grotto (Ohio)

Inside this issue are two reports by Harry Goepel on cleanups. The first one was a roadside cleanup in Rockcastle County, Kentucky where eight volunteers participated in cleaning up a two mile stretch of roads near the Great Saltpeter Cave Preserve. The second cleanup had a turnout of 15 volunteers at the NSS-owned Wells Cave. Wells Cave has over 11 miles of surveyed passages and several entrances. The cave has been closed for several years due to WNS, however non-cavers have apparently been visiting the cave, leaving trash and spray painting the walls. To discourage the use of fire in the cave, volunteers also scattered the rocks that made up a fire ring and carried the burnt firewood out. Due to time constraints

they were unable to finish so a later cleanup will be necessary.

Speleonics

July 2013 Vol. 8, No. 1

Communications and Electronics Section
of the NSS

Rick Toomey from the National Park Service and Gary Gibula, an NSS member, provide a detailed report on a recent Cave Link Radio Communications Test that was conducted during the NSS Volunteer weekend at Mammoth Cave in March 2013. The system used ham radio UHF text messaging and position reporting APRS radios that can use each other as automatic relays. A string of fourteen radios provided continuous text and position reporting communications for nearly a mile underground. The purpose was to test the viability of using APRS VHF /

UHF walkie talkies for distance communications in cave passages by taking advantage of the radio's internal hop by hop linking capability for digital text messaging. Links up to seven or fourteen hops long are possible, which can extend the usual limited one hundred to five hundred feet radio range by an order of magnitude or over a mile.

Speleonics is published irregularly by the Communications and Electronics Section (CES) of the National Speleological Society. Primary topics include cave radio, underground communication, cave lighting, and data collection. The CES meets yearly during NSS Convention and you can become a member of the CES for a period of five years by simply signing the roster at a meeting during convention or by visiting www.caves.org/section/commelect/drupal.

UNDERGROUND ONLINE

Buford
Pruitt

The Southeastern Cave Conservancy (SCCi) announced on October 11 that it had acquired a 73-acre tract in Tennessee containing **Run to the Mill Cave**. The organization is soliciting contributions toward the purchase cost of \$200,000. This TAG classic had been closed for many years. It contains beautiful formation areas and an in-cave 167-foot pit, with a total depth of 445 feet and a length of more than 15,000 feet. Buddy Lane and Brad Tipton are working on the management plan, and some of Lane's photos of the cave can be found at tinyurl.com/kwby6q4.

An October online preprint article of the journal *Molecular Biology and Evolution* announces the finding that the **remipede, *Speleonectes tulumensis***, is venomous. Of the more than 70,000 species of crustaceans known, this is the first one ever found to have venom and the fangs to deliver it. It is hypothesized that their venomousness evolved to assist in quickly immobilizing frenzied prey in an entirely darkened environment. The venom contains a probably neurotoxic factor for immobilizing prey and a variety of enzymes for pre-digesting soft body tissues so that they can be sucked in like a bloody milkshake by the remipede (tinyurl.com/nb8d87u).

Science News on October 24 carried the message that *Pseudogymnoascus (Geomyces) destructans*, the WNS culprit, can survive on almost any complex organic matter that can be found in a cave. Some of

the potential feedstocks for *P. destructans* include guano, insects, cave fish, and dead fungi. Graduate student Daniel Raudabaugh, working under Dr. Andrew Miller at the Illinois Natural History Survey, said that *P. destructans* feeds on "all the different nitrogen sources and found that basically it can grow on all of them." Raudabaugh said that, in addition to the well-known weakness of the pathogen to temperatures above 20 °C, its cells are "leaky." This makes it hard for the organism to absorb and retain water, but the presence of degraded fats or free fatty acids allows the bacterium to draw up water more easily. Miller stated "This means that whether the bats are there or not, it's going to be in the caves for a very long time" (tinyurl.com/kh323bc).

From *Mother Nature Network* comes an article on the mysterious **Devil's Kettle Falls** and the presumed but unplumbed cave underneath it. Within Minnesota's Judge C. R. Magney State Park, the Brule River runs south over rhyolite rock, splitting into two forks immediately upstream of the edge of a cliff. On the east, water tumbles over a typical two-step waterfall, but on the west the water pours into a bowl eroded into the rhyolite and disappears. Boulders and trees have been known to disappear into the Kettle during high water. A car was once pushed into it. Investigators have dumped dye, logs, and (this is great!) ping pong balls into the Kettle in an effort to find out where in nearby Lake Superior the water emerges. They have so far failed to find any of these tracers and

divers have been skunked trying to eyeball up any resurgences in ol' Gitche Gumee. Cavers expect phenomena like this in karst, but the local rocks are rhyolite and basalt. One theory involves a lava tube in the underlying flood basalt, but that kind of volcanic rock is not known for tubes and no other tubes are known in the area. A second theory involves a crushed (by tectonic forces) layer of rock forming an aquifer, but that ought to clog up. A third theory invokes a fault line that has never been found. Looking for a new adventure? Try tinyurl.com/o4eh5kc.

Skip Kendrick of Middle Tennessee State University presented an NSS-hosted webinar on October 17 entitled **Life in Submerged Caves: Aquatic Cave Biology**. The presentation covers underwater cave life from biofilms (microbial mats) to fish, and habitats from entrances to the dark zone. It is designed for non-specialists, including cavers and anyone wanting to know something about the subject. The audio portion of the webinar is available at tinyurl.com/mgc98hg.

Cherney Maribel Caves County Park, Manitowoc County, Wisconsin was reported in Kasey Fiske's Wisconsin caving newsletter in August as being hit hard by a tornado. This cave park is popular with spelunkers and cavers, receiving many visitors annually. The damage resulted in the park being closed until perhaps the end of the year. All-day clean-ups are scheduled for cavers to help park staff every Sunday

from October 27 until at least the end of November.

Mark Ostrander posted to *Tag-Net Digest #6631* on October 29 a survey trip into **Twist of Fate Pit**, Jackson County, Alabama, in the Skyline Wildlife Management Area. This cave was pioneered by Jim Smith and Brad Long, but only a sketch map had ever been turned into the state cave survey (by Ostrander and Larry Foreman). Josh Moore, Julie Schenck Brown, and Ostrander had a smooth drive up the recently graded logging road and an easy walk to the entrance. The cave consists of four parallel pits, one on the left and three on the right in a short belly crawl. Getting to the deepest pit on the right (number four) involves a J-rappel over pit number two, walking across pit number three, and slipping through a narrow crack to reach the lip area of pit number four. Pit four starts out as a 90-foot deep "gunbarrel" tube that goes through a narrow slot to a 20-foot drop, then through a very narrow (blasted) hole to a 40-foot drop, and finally through another hole to the bottom at a depth of 160 feet. The cave's total length is 60.5 feet, total depth is 164 feet, and total depths of the four pits is 408 feet. Ostrander mentioned the difficulty in sketching in the vertical environment where a team cannot remain in close contact. He also noted an abundance of loose rock in precarious locations.

Lesley Colton followed up on Mark Ostrander's trip survey report the next day in *Tag-Net Digest #6632* with a trip report written by Brad Long on the first exploration trip into **Twist of Fate** by Jim Smith and himself. Concluding their exploration for the day, Smith tied a reference knot on the rope so they could later "rough-measure" the depth of the pit, and then the two ascended. The rope snagged when they tried to pull it up, and after playing with it in vain for a while, Long resigned himself to descend and retrieve. The rope was found coiled around a previously-unseen knob, so he untangled it and then clipped himself to the line to start his ascent. Suddenly he heard a "snap," and realized instantly it was a rock breaking off above. Snatching his ascender from the rope, he threw himself toward the far wall at the risk of continuing over into the abyss, turned around, and watched a "perfectly round, beachball-sized killer rock" land where he had just stood. After landing, the boulder continued moving, rolling swiftly down the steep slope to finally bash into his shin painfully. Gathering himself, he re-checked the rope, decided he was never coming back so he untied Smith's knot, and pondered all the way up the pitch why a rock that was hanging nowhere near either caver had fallen just then and right there. On the subsequent trip, "Smith was also hit by a mystery rock while standing still in a horizontal part of the cave," causing another painful gash to the

bone. Thus the cave's name, **Twist of Fate**.

Also on October 29 in *Tag-Net Digest #6631* was the announcement of a **\$10,000 reward** "for information leading to the arrest and conviction of the individual(s) responsible for the manufacture, placement, and/or detonation of" a carbide bomb on a campground road at the TAG Fall Cave-In at 2:30 am. This and follow-on posts in subsequent *Tag-Net Digests* described the consequences of what hopefully was just a "joke" that turned bad. It exploded as the vehicle veered around it, "traumatizing" its occupants. It was mentioned that a former NSS member was kicked out of the society because of his carbide bombs. Jason Richards suggested that cavers might contribute to a fund to pay for the victims' deductible and other damages (the vehicle was "totaled" by the insurance company). Benjy von Cramen then offered to collect any donations cavers might want to make in his Pay Pal account at benjyvc@bellsouth.net.

The Triangle Troglodytes perform an annual cave clean-up, and according to Carlin Kartchner in an article on the TriTroggs blog dated October 30, this year they picked **New River Cave** in Virginia on a tip from Ken Walsh. Eleven cavers attended, cleaning up graffiti and trash: tinyurl.com/lfytmft.



SLACKLINING OVER A PIT-NOVEMBER

Thanks for the three pages of glossy print and color photos to show your support of this non-caving activity. I am sure that all landowners, state and federal agencies also support tight rope walking over sinkholes. Dave, are you certain that no ecological damage is sustained at pit rims by rigging these new, very rigid points? Are the real cavers in the pit below safe with this "wind walker" overhead? But, possibly, being seen doing it is in fact part and whole to this peacock dance. Does the NSS want to be seen supporting real caving activities and exploration or burn festival feats?

Slacklining might be good for working on balance. But seriously, most people do not have the Wallenda gene. I disagree with you as the current NSS Editor, giving credence to and vetting it as a bonafide caving activity. You have been selected to represent caving and cavers. It is patently wrong for you to support and condone slacklining over sinkholes. It is fine as an activity done separately in camp, like climbing competitions, blind carbide lamp

assembly, etc.

Perhaps this is the way it should be associated with caving: www.winteradventureweekend.com/trips-by-all.php I contacted one of the 2 persons listed and was assured that none of this slacklining occurred over sinkholes. It will be indoors.

Robert Slaten, NSS 41,182,

Editor's comments:

Robert, I respect your concerns. You won't be seeing a spate of slacklining articles in upcoming issues as I agree it's not caving, and would not be happy about it becoming popular at cave sites either. But it IS an activity that we may see being done at caves even by other cavers (the authors of this article are cavers as well), and we don't control all the cave. For this reason I thought it best to expose members to the concept for the very reason that they might sometime run into a group attempting this at a pit. Can you really condemn someone because their preferred mode of enjoying the pit is literally perpendicular to

your own? We don't want to start wars with other recreational groups, look at how well that worked with climbers in the Oregon lava tubes--cooperation worked better.

My biggest concerns were expressed at the beginning. Conservation, safety, landowners, should all be dealt with appropriately by anyone using a cave. Slacklining probably looks inherently less safe than normal vertical work, especially to landowners, and that use especially should involve seeking of permission. It uses two rig points which increases traffic at the edge but many pits have more than one that sees habitual use; direct people to those for instance if slackline they must. If would-be slackliners can address all 3 issues adequately we will have at least done caves and caving a favor by trying to get them to address our concerns..

(Letters continue on page 31)

OBITUARIES



Miles Hecker

Miles Hecker good friend and caver, died on October 7, 2013 at Villach, Austria while on a bicycle vacation with his wife, Nancy Patrick-Hecker.

He is survived by his wife of 12 years, Nancy Patrick-Hecker and children, Jena of Falls Church, VA, Katrina of Goodyear, AZ, stepsons John Mather of Iowa, and Jeff (Lisa) Mather of Massachusetts. He was preceded in death by his parents Bernard Hecker and Lorraine Meyer Hecker.

Miles was born in Brooklyn, New York on November 12, 1950. He graduated from The Cooper Union for the Advancement of Science and Art in 1971 with a Bachelor's Degree in Electrical Engineering and recognition on the Scholastic Honors List (1968, 1970, and 1971). He received his M.Ed. in Science education from the University of Wyoming in 1973.

Miles chose a path which took him from the subways of New York City to the mountains of Wyoming. Even while in New York he was an avid photographer, climber, and backpacker. He moved from New York City to Laramie, Wyoming for graduate school and then on Casper, Wyoming where he settled. Miles opened a bicycle outdoor shop in Casper and later became a teacher at Casper College, teaching computer technology. In Casper, he continued to expand his outdoor horizons with bicycling, skiing and caving.

After the Hole in the Wall Grotto posted a meeting notice at his outdoor shop, Miles joined the grotto and started caving. He

caved extensively in Wyoming, participated in several grotto trips to Mexico and was involved in cave exploration and mapping in several well know Wyoming caves.

Miles and Arch Swank dug open the crawl at the base of the Ice Waterfall in Fossil Mountain Ice Cave, which greatly expanded the cave and led to the eventual connection with the Wind Cave entrance. He participated in the exploration of Great Expectations Cave, the Horsethief/Bighorn Cave system, Holey Sheep Cave, Titan Cave, multiple caves in the Gros Ventre Mountains and many other Wyoming caves. After the discovery of Lechuguilla Cave in 1986, Miles was invited to participate in the exploration of that cave. He was a member of teams that explored and mapped the end of the Western Borehole, the discovery of the Far East, and many other areas in the cave. Miles was instrumental in the formation of the Northern Rocky Mountain Speleological Survey. He was the caretaker of the data and used his computer abilities to develop some of the first computer generated cave maps.

He engaged fully in life, marrying Patty Shannon, raising their children, Jena and Katrina. Later he met and married Nancy Patrick and out of that union came a renewed interest in photography. Together they formed WyoFoto LLC and Miles started yet another career as a professional photographer. Examples of his work can be seen at www.wyofoto.com.

His accolades included various top honors for his photography, and special recognition as a Fellow for outstanding contribution to the National Speleological Society.

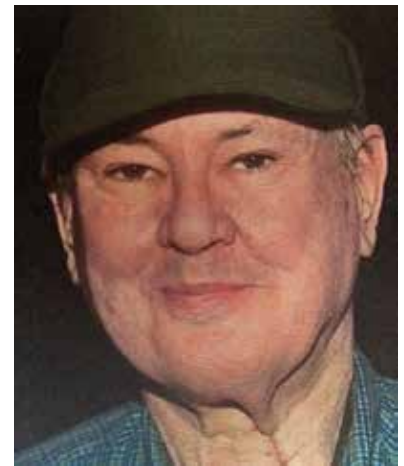
Miles was an interesting combination, part engineer and part artist. He held very firm to rationally-founded beliefs, which he'd strongly defend. He was a romantic at heart, taking great joy in nature, caring very deeply for family and friends. Miles' circle of friends was ever-expanding throughout his life, he was faithful to the old and always open to the new. There could not have been a better friend, mentor, son, and husband than Miles.

Those wishing to make a memorial contribution may do so to the Miles Hecker Scholarship Foundation at Reliant Federal Credit Union, 4015 Plaza Drive, Casper Wyoming 82604 (307) 234-1429, or a charity of the donor's choice.

It is sort of ironic that Miles frequently said that the NSS News would one day turn into the NSS Obituaries. Miles chose a path which took him from the subways of New

York City to the mountains of Wyoming. Even while in New York he was an avid photographer, climber, and backpacker. Moving to Laramie for graduate school and then to Casper, where he settled, he engaged fully in life, marrying Patty Shannon, raising their children, Jena and Katrina, and continued to expand his outdoor horizons with caving (including some record-breaking exploration). His circle of friends was ever-expanding throughout, faithful to the old and always open to the new.'

Bob Montgomery



William Henry Oldacre III

9/12/1944 - 10/27/2013

William "Bill" Henry Oldacre III died on October 27, 2013. He was the son of Marjorie Thorn (deceased) and William Henry Oldacre Jr., who died at Normandy two months prior to his birth. He is survived by his wife Sherleen Louise (Weaver) Oldacre, daughter Maria A. Mckay-Conkin of Lake Park Georgia, Sister Juliette Wilson, granddaughters Brianna, Brigitte, and Brooke, and several nieces and nephews.

He married Sherlee on June 28, 1969, and they were true soul-mates for 47 years. Bill cherished his friendships with his caver friends from 'back in the day' to the present. He was the kind of man who cultivated friendships and kept them all his life, and often spoke of his caver friends from the 60's.

Bill attended Santa Fe College in Gainesville before he went on to great things. Ultimately an engineer at heart, he invented, collaborated on, and contributed ideas and inventions to the National Institute of Agriculture and Food Science, the University of Florida Brain Institute, and Disney World. The Florida Museum of Natural History used his expertise on their Caves of Florida

display. One of his most notable inventions was a rechargeable emergency back-up light that was featured on the cover of *Popular Electronics Magazine*, July 1975.


Bill was the first recipient of the Southeastern Cave Conservancy's John Van Swearingen III Stewardship Award for his long term efforts to protect Florida's longest dry cave at the NSS-owned Warrens Cave Nature Preserve. He was named an NSS Fellow in gratitude for his numerous contributions to Florida caving and the Florida Speleological Society (FSS). He was also the Warrens Cave Nature Preserve property manager.

Bill was an icon in the Florida caving community. He was an FSS member for 47 years and was dedicated to preserving caves. He assisted in drafting the Florida Cave Protection Law. He created Florida's first and longest-lasting cave rescue organization. He served on the Board of the FSS for many years, including the offices of President and Board Member. When FSS membership dropped so low that there were fears that the grotto would collapse, Bill stepped in, took over the reins, and succeeded in bringing back old members and bringing in new ones. The FSS is one of the oldest and strongest of the society's grottos, in no small part due to Bill.

Bill was particularly involved with Warrens Cave Nature Preserve in Gainesville, Florida. His association with Warrens began in the late 1960's when it was an un-gated party cave. Numerous accidents and occasional rescues in the cave resulting from frequent visitation by inexperienced people precipitated the local Civil Defense chief to dynamiting the cave's entrance. The owner, a local businessman, stood his ground in front of the cave and the Civil Defense offensive caved in. Bill continued that tradition, albeit a little more diplomatically, when the local sheriff also decided to destroy the cave's entrance. Instead, Bill convinced the sheriff that he could build an entrance gate that would keep out the inexperienced yet allow access to scientists and *bona fide* cavers. His gate included the diabolical addition of leaf springs to frustrate trespassers bearing Come-Alongs. The gate has been damaged numerous times but never broken. Shortly thereafter, the owner decided to donate the cave and four acres of natural forestland to conservation, choosing Bill to accomplish that. Bill then spearheaded the property transfer to the Nature Conservancy, and then some years later to the NSS.

He will be greatly missed by numerous friends and family.

Kitty Markley, NSS 53146RE
Buford Pruitt, NSS 17920RL



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COMMENTS ON AUGUST CAVE CHRONICLES COLUMN ABOUT RIDICULOUS CAVE NAMES

At one time the NSS had, and cavers seemed to follow pretty well, guidelines for naming caves. Somewhere, years - decades - ago this seemed to slip away and some really ridiculous or vulgar names began to appear. Philip Rykwalder's column in the August *News* presents several cases-in-point. While perhaps, at least to some, this is all in good fun, it can become a problem later on when an important scientific or historic discovery is made or there is a well-publicized rescue in that cave. The image of cavers and the NSS that is presented to the public when that should happen is undesirable.

Joel M. Sneed, NSS 10137LF



Secret Cave in Tennessee is for sale. An NSS award winning video of it can be seen on Vimeo.com...type my name in on the home page to get the right "Secret Cave". It is considered one of the most beautiful in the state. It is located in Eastlake Subdivision in Cookeville and is on approximately 8.3 acres of totally wooded land at the end of a cul-de-sac on Cherokee Drive. It is a wonderful place to build a nice home with seclusion. I gated the cave 25 years ago to protect it. A 70 foot open air pit is 50 feet off the property and another cave with a pit is just 10 feet off. I will consider sectioning off just 2 acres and the cave. Asking price for the entire property is \$95,000. I also have 2, approximate 50 acre wooded plots with marketable timber and a quarter mile of road frontage for sale in neighboring Jackson County for \$125,000 each. I am willing to short term home-owner finance. Contact Albert Ogden (NSS 11233LF) if interested at aogden@mtsu.edu.

Firefly Slaves for cave photography: FF 2 (\$75) and FF 3 (\$110) for digital. CD "On Three: An intro to digital photography for cavers" (\$15). **New:** Cave Cards! individual (\$3.50) or sets of six cards (\$18) with stunning cave photos, envelopes. See newly updated website: www.pjcaver.com. V/MC/AMEX/Check. SITDCP, 80 Mountain St, Camden, ME 04843. 207-236-6112. pjcaver@gwi.net

COVER ART SALON CORRECTION

I have a correction for the December issue, Page 13, Cover Art Salon, Photographic Category, Honorable Mention Awards. The last one, Winy City Spelonews, Vol 52 No. 4 should have read (reversed):
Layout/Design: Ralph Earlandson
Photography: Adam Haydock
Both Adam and Ralph are excellent cave photographers.

Allen Goodcase, RE30093

PRESIDENTIAL CANDIDATES WANTED

The Executive Search Committee is looking for candidates to run for NSS President. If you are interested in running or can suggest a good candidate, please send a note to the committee at exec-search@caves.org or call the chair at 410-792-0742 in the eastern time zone

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Website: <http://www.clickstersminingartifacts.com>

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