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An expedition to Vietnam's recently discovered Son Doong, the largest cave in the world

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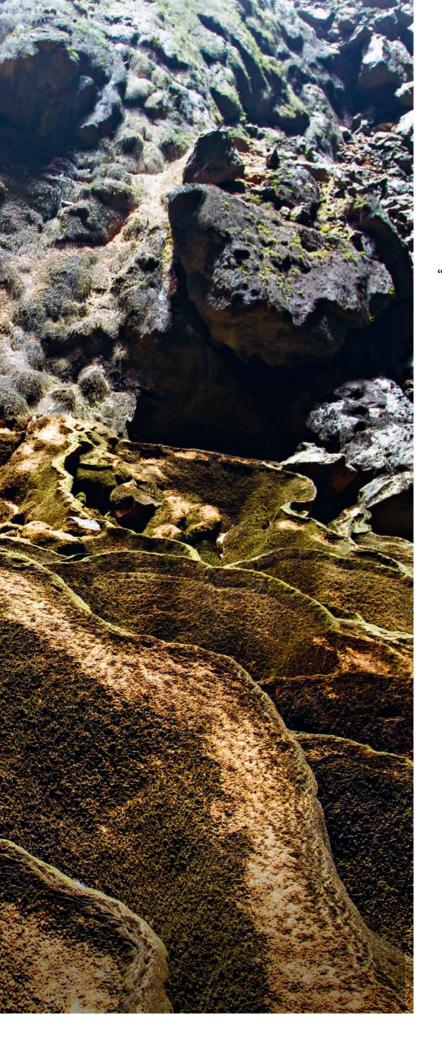


Journey to the Undersonation

An expedition through central Vietnam's Son Doong, the world's largest cave

Words by Joshua Zukas Photos by Ryan Deboodt

Previous spread The "wedding cake" stalagmite formation in the first cave collapse This page An expedition member gazes out from the edge of a gour pool



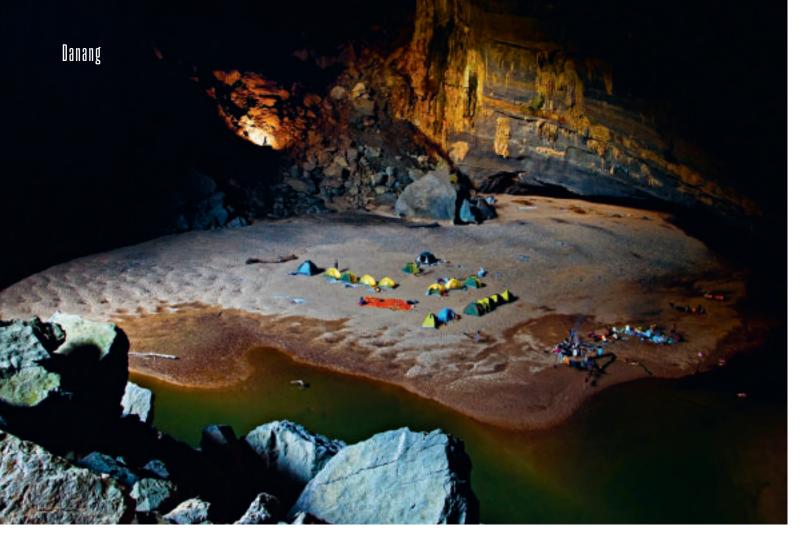
on't step there," our guide says, pointing to a dubious area of brown sludge. "We might lose you." He's grinning but only half-joking: A previous wrong step pulled me deep into the gunk, inviting an unwelcome gush of cold water into my underpants.

It's pitch-black – or would be if it weren't for our trusty headtorches – and we're traipsing through a narrow canyon flanked by mansion-sized mounds of mud. At times, the path is wide enough for the oozing water from the sodden walls to create murky ponds, concealing traps beneath the surface. But mostly the trail is narrow, and I need to grip the mud with outstretched fingers to maintain balance. Meanwhile, our lean and lithe 29-year-old guide, Ho Trung Hieu, sails ahead with cavalier grace and spotless hands.

We're on the final stretch of an extraordinary journey through Son Doong, five hours north of Danang by car and the biggest cave on the planet. In less than half a kilometre, we'll reach the so-called Great Wall of Vietnam, a 90m-high calcite barrier that in 2009 forced the first survey team back due to a lack of the necessary climbing equipment.

Anticipation builds as each squelch brings our group closer to the ascent that will transport us up and out of the darkness after 48 hours spent in the belly of this 9km cave.

This is day four of an adventure through two gargantuan underground domains. To get here, we've crossed fast-flowing rivers, camped on subterranean beaches, scrambled down rocky gaps and drifted through cave collapses so huge that underground jungles have sprouted from the rubble.



"Only the third-largest"

Our first encounter with these extraordinary caves comes on the afternoon of day one. We're crossing a broad valley in Phong Nha-Ke Bang, a national park larger than Singapore, when the first cave, Hang En, materialises behind the foliage. "It's only the third-largest cave in the world," declares Ho with a cheeky grin. It's about 3km away from where we're standing but the cave's monstrous size distorts the distance. It looks as if a giant scooped out a handful of rock millions of years ago, only for lofty trees and clinging vines to swarm into the empty space. The muffled rumbles of an approaching storm quicken our pace.

The cave looms larger as we approach, until it completely dominates our field of vision. Instead of entering the rocky opening, we follow the river and skirt around to a smaller entrance on the right. Given the opportunity, water will usually find the least arduous path. We file in like ants escaping through the crack of a door, a gap that would be rendered impassable by rushing water during the wettest months of October and November.

Once inside, a small, dry tunnel takes us up and away from the river, and we scramble over

truck-sized boulders for our first views of the night's campsite: a pristine sandy beach disconnected from the entrance by a semicircular pool. High above is a cacophony of chirps from thousands of swifts as they dive into the cave after the day's hunt. The cave opening invites enough light that birds – not bats – rule this underground chamber.

Remarkably, Hang En is even bulkier on the inside than it appears on the outside. The entrance is over 100m high; if New York's Statue of Liberty were with us, she'd stand proud with room to spare. A small collection of tents rests on the beach and the cooks are already hard at work preparing our dinner: a welcome feast of grilled chicken, stir-fried beef, green beans with garlic, crunchy morning glory and a mountain of hot white rice.

This is the first time our team is gathered all in one place, and I'm impressed by the extent of the operation. Other than Ho, the two cooks and the 10 guests, there are five safety assistants, 18 cave porters and one caving expert, Adam Spillane. "Hang En is about three million years old, the same age as Son Doong," Spillane tell us. "Pretty young in the grand scheme of things." »

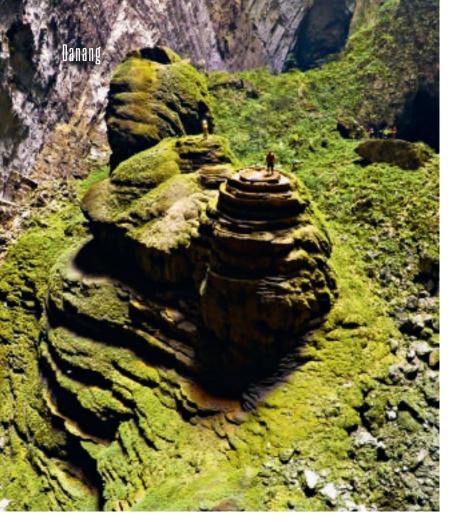
Above

The first campsite in Hang En, the third-largest cave in the world

Right

A powerful sunbeam streams into the entrance of Hang En

"My headtorch illuminates the size of the chamber – large enough to park a Boeing 747"



It wasn't until the spring of 2009 that he was successful, this time with the support of a survey expedition led by the British Cave Research Association. Their survey concluded that within its largest chamber, the cross-section of Son Doong is larger than that of any other underground passage in the world.

Finally, it's our turn to explore this little-known realm. One by one, we scale down the wall behind the entrance, and, in less than an hour, encounter the largest segment of the cave. I've lost the light from the entrance, but my headtorch illuminates the near-incomprehensible size of the chamber – large enough to park a Boeing 747. If the Statute of Liberty were holding London's Big Ben, she wouldn't even scratch the cave ceiling.

A ghostly shaft of misty light cascades from the cave ceiling ahead. "That's our campsite," Ho signals. We're gazing at one of two tremendous dolines (ceiling collapses) that punctuate the cave, probably the result of a seismic shift half a million years ago, according to Spillane. Both collapses let in huge shafts of light that support lush underground jungles.

I amble towards the first doline, looping around stalagmites taller than the Leaning Tower of Pisa. The soaring structures are the stuff of lurid dreams, like millions of bones from an alien species compacted and stacked one on top of the other. My team and I arrive a few hundred metres short of the doline in time for a quick plunge into an icy water canyon the closest I get to a shower before bed.

The 46-year-old Briton was part of the team of around 20 that embarked on the first Son Doong expedition. When he tells me it might be possible to find a cave even bigger than Son Doong, my eyes widen. "There are plenty of older caves in the area, some dating back 15 million years," Spillane shares. "But we haven't found anything bigger than Son Doong – yet."

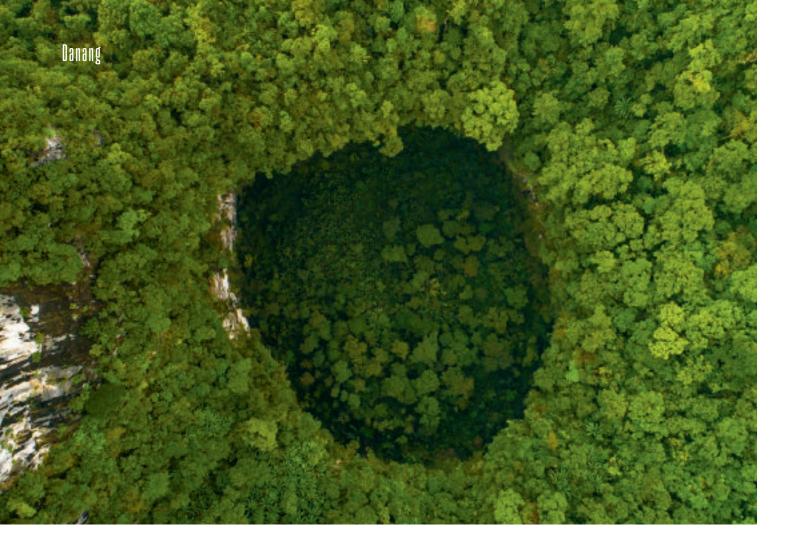
The belly of the beast

After lunch on day two, I feel a sense of thrill as we harness up for the precarious descent into this legendary cave. We'd passed through the gigantic exit of Hang En, bushwhacked through more jungle and passed Hang Khe Ry, the world's longest underground river passage. Finally I can see the tiny entrance to Son Doong behind a wall of thick jungle.

It makes sense now why such a colossal natural wonder took so long to find. Local villager Ho Khanh, our guide's uncle, first discovered the cave entrance in 1990 when a storm forced him to seek shelter. He only went a few hundred metres into the cave before returning home after the storm subsided. Ho Khanh longed to venture further into the unknown darkness, but he couldn't find the entrance again despite numerous attempts. Left An underground garden created by the first cave collapse

Right

Sometimes, a stalagmite connects with a stalactite to become a column, which is when the cave floor and cave ceiling are linked across a single formation



Subterranean jungles

Day three is doline day. The sun is right overhead, so when the clouds shift, lucid light beams blast into the cave, exposing pockets of lingering mist and arousing a translucent green from the underground garden. The effect is, quite literally, otherworldly. Following Ho, I cross the collapse and look back towards the "wedding cake", a stalagmite named for its fluffy layers sprinkled with a frosting of moss.

"This is the border with Hang Thung, which is very close to the cave diving expedition," announces Spillane, referring to an attempt in April to pass from Son Doong to Hang Thung via an underwater passage. Son Doong may be the largest cave by cross-section, but it isn't yet the largest cave by volume. Clearwater Cave in Malaysian Borneo currently holds the title. Unlike measuring cross-sections, calculating a cave's volume isn't as straightforward. "We accept that chambers are connected, and therefore part of the same cave, when a human has passed from one underground section to the other," Spillane explains.

In April this year, a trio of cave divers were invited to attempt the assumed underwater passage from Son Doong to Hang Thung. They made it down to 78m and confirmed that the two caves are indeed connected, but to make the journey, they would need to go deeper still, perhaps as deep as 120m. Until somebody makes the underwater journey from Son »

Above

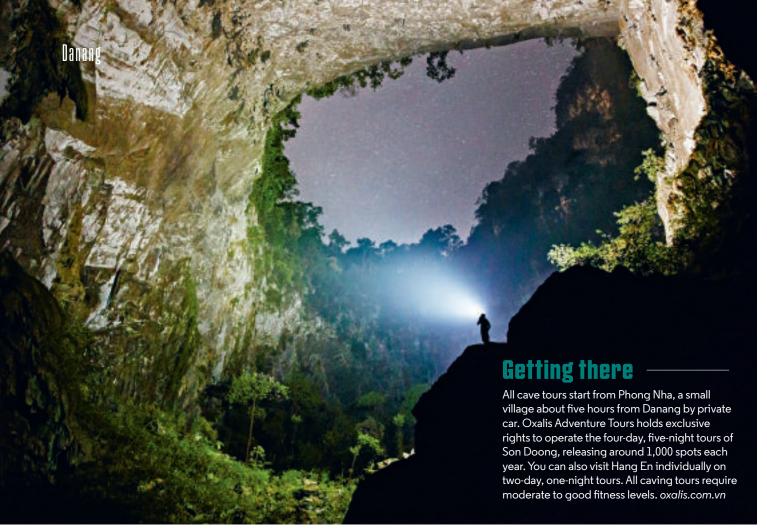
A bird's-eye view of the underground rainforest created by the second cave collapse



3 other caves to check out

The area around Phong Nha offers plenty of caving opportunities

A network of dry and wet caves, the **Tu Lan** cave system can be visited for one-, two-, three- or even four-day adventures with Oxalis Adventure Tours. On multi-day expeditions, you'll stay at campsites overlooking rock pools and small lakes. Closer to Son Doong is **Hang Va**, a cave with unique Christmas-treeshaped stalagmites that rise up from clear emerald waters. You can visit Hang Va together with Nuoc Nut, an underground water passage, on two-day expeditions. Only have half a day to spare? Pop into **Paradise Cave**, home to a captivating array of bizarre cave formations. A superb lighting system and wooden walkway allow you to absorb the structures without getting your hands and feet dirty.



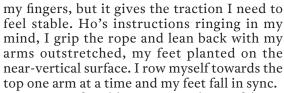
Doong to Hang Thung, they are still considered two distinct caves. The cave divers may return in 2020 for a second attempt. If they're successful, Son Doong will claim the title of largest cave in the world by volume as well as by cross-section.

We're only just past the first doline but can already see glimmers of light from the second. As we approach the second collapse, we're gradually enveloped by thick jungle with light-hungry trees stretching up towards the sky. If the first collapse conceived an underground garden, this doline birthed a rainforest. Across the jungle, our third and final campsite awaits. Tomorrow, we tackle the Great Wall.

The Great Wall of Vietnam

Much like the descent into the cave, we ascend one by one. The first chunk of the climb is up a 16m-long ladder before another 70m by rope and harness.

On my turn, I find my legs are a little shaky, but I'm ready. I start climbing the ladder, one rung at a time. When I've exhausted all the rungs, I resist looking down and instead clamber over and grab the climbing rope. Though I'm wearing gloves, the rope is coarse against



Now comfortable, I recover the confidence to look down, lean as far back as possible and look to my left, where I can make out the remaining headtorch lights from my team, perhaps 50m below. I continue for another sweaty few minutes that test the strength of my arms and back, but eventually I scramble over the top, wipe my brow and gaze across at the exit. The end is in sight; the literal light at the end of this remarkable tunnel.

Above

Underground stargazing beneath the second cave collapse

SilkAir flies daily between Singapore and Danang