

## THE CAVE of CEMENT: ADVENTURING in UNDERGROUND MEGHALAYA

Yoav Bar-Ness

One early winter's morning, I stood before a stern building of grey, on the edge of India's Meghalaya plateau, awaiting the sunrise. Below, and beyond, the prodigious waterfalls spilled their bounty of raindrops over the edge and down to the marshlands of Bengal. Behind me, the grey cube brooded silent, taking an early morning pause from its rock-grinding. It was a cement factory, devouring its raw materials from the limestone rock. Farther along the escarpment, the tourist town of Cherrapunjee served as a gawking-point for waterfall-viewers and cliff-enthusiasts.



*Overlooking the cement works above Cherrapunjee Cave.*

A young man approached me, with the bright smile and laughing eyes of the Khasi people. He carried a large plastic bag, and walked with strength and agility. He was to be my guide and companion within the darkest wilderness in Meghalaya. He was Toby, and we were to embark on a small excursion under the flag of the Meghalaya Adventurer's Society.

A few days before, in Shillong, I had sought out a connection with this august band of trekkers and cavers. I had been given the contact details for the General Manager, one Brian Kharpan Daly. On the telephone, he invited me to the State Bank of India branch that he managed. Threading through the pedestrian mall of Police Bazaar, and down towards the vegetable market, I found the building and was promptly sat down with a cup of tea.

Brian, an established Khasi man in his fifties, told me of the origins of the Society as a children's excursion club. As the point of contact for several European expeditions, it had become a keystone network for the exploration and study of India's caves. Meghalaya, in

particular, was famed for its caves. Some of the longest and deepest of the world's caves were to be found here, but there were very few local people with the skills, equipment, inclination, or ability to explore them. The Society, as gracious hosts and local experts, had been the recipients of a wealth of caving expertise and gear. Brian, and his nephew Toby, had at first been guided, and then later been the guides, on a series of ambitious and valuable caving expeditions.

Brian told me how the plateau was unique place: geologically, culturally, and biologically. But the landscape was threatened by rampant mining of coal and cement. Mines both legal and illegal had chewed into the wildest and most fragile places of Meghalaya, and showed little sign of stopping. The Adventurers' Society had lodged complaints, launched lawsuits, and advocated tirelessly for the preservation of both cave and wilderness. But they could only forestall the legal mining operations, and those, unfortunately only temporarily. I had tasted, literally, this ravaging of the rock: on the road from the Assamese lowlands, I had breathed the airborne dust of a cement quarry. The limestone brought a sting into the air; it had the taste of a sharp thorn.



*The cement works above Cherrapunjee Cave.  
Photo: Yoav Bar-Ness*

I told him of my travel plans towards Cherrapunjee to see the living root bridges, and he graciously offered to invite Toby to guide me underground. Toby, it turned out, was glad for the caving companionship, and we would be going to a cave he knew well. It was no problem for him. So, by telephone from the bank office, I arranged the skills and friendship of this Khasi brave, and, a few days later, there he was at the steps of the cement factory.



*Toby points towards Cherrapunjee Cave.*

*Photo: Yoav Bar-Ness*

There is a special type of companionship that cavers have, and a special knowledge. We know about the heartbeats in the darkness, and the whispers of breaths in the inky blackness. We know about the isolation, and the responsibility, and what it means to return to the living blue sky.

Toby and I were, instantly, friends within the Society, and we swapped short stories about our adventures below ground as we walked around the back of the cement factory. I heard of the teams of motivated Europeans that had become addicted to the Meghalayan caves, and who returned regularly. I mentioned the underground waterfalls and hidden chambers beneath the Tasmanian mountains, and of the limestone of Chhattisgarh and Arkansas and China, and of the lava tunnels, and wind caves - and then stopped, mid-sentence, in surprise as we stumbled upon the river.

The scene was grim, at odds with the graceful waterfalls visible in the distance. The cement factory towered mournfully above us, looming above pools of water. It was the dry season, and upstream the water was diverted: it flowed only sullenly along the wide channel. A stone ridge across the watercourse was covered in dusty vegetation. The factory was of the drabest grey cement, with tearful stains leaking from the too-small windows. It radiated claustrophobia and poison dust. Corrugated iron panels seemed poorly anchored, and windows hung raggedly open. Moss covered walls were topped with rusting barbed wire. Toby saw my surprise, and told me that it was even uglier on the other side of the ridge.

He led onwards, and we hopped across the pools of water. As we moved closer to the ridge, we could see a faster channel of water, which moved along the base of the stone to disappear into a dark rift. This chasm in the earth was our destination- an entrance to the limestone caves within the ridge.

We found a dry place to arrange our equipment, and a crack in the rock to hide our possessions. From the European caving sack he was carrying, Toby produced coverall suits, rubber boots, helmets, and, critically, torches. All of it was high quality gear, donated by friends and co-Adventurers that had collaborated with the Society. We stripped off our dry clothing and donned the caving suits. My camera, fragile but essential, was wrapped in several plastic bags. The torches shone brightly, we looked directly at the sun to remember its warmth and love, and then, without hesitation, dove into the chasm.

On whatever continent, in whatever terrestrial landscape, limestone caves are both familiar and unique. The familiarity comes from the recognizable patterns of the limestone dissolution features like stalactites, stalagmites, and flowstones are congruent in all grottos of similar geology. The unique identity comes from the infinite ways in which these familiar patterns are manifested. The unexpected and wondrous combinations of stone, mud, and water can, for some people, become an obsession and an addiction.

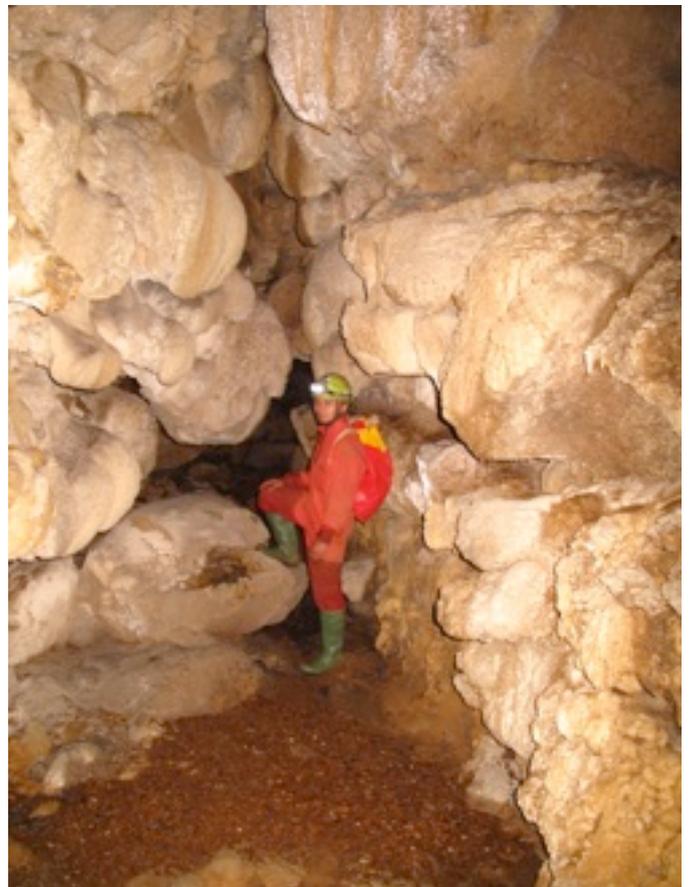
Entering this wild cave was for me like greeting a long-lost friend. I knew the feel of wet limestone and flooded



*Above. Just west of Cherrapunjee Caves is Nohkalikai falls, one of the world's tallest.  
Below. L & R. Deep inside Cherrapunjee Cave.  
Photos: Yoav Bar-Ness*

gumboots, and it brought my memory back to dark caves in other lands. I remembered to move my head to track the beam of the head torch, and to never to blind Toby by pointing it at his eyes. We followed the water channel, straddling it as we walked with wide steps through a tunnel. In here, the trickle of water that had entered this cave was a raging torrent, bellowing and roaring in a liquid frenzy.

We passed through a side portal from the waterway, and entered the chambers of the cave. In ancient time, water



had dissolved these hollows from the living rock, and as



*Above. Sta-rag-tites! Pollution in Cherrapunjee cave.*

*Below. More pollution.*

*Photos: Yoav Bar-Ness*



the acidic mixture had dripped from the roof, fantastic formations of white crystal had formed. Stone flowed like melting ice into blades and fins. Narrow straws and rods hung delicately, or lay shattered where a previous visitor had accidentally shattered them.

In one slanting tunnel, streamers of colourful scraps were caught on the ceiling. The shredded clothing and plastic rubbish of the Cherrapunjee town, and the settlements upstream, had been discarded into the stream. It was pollution, and the complex structure of the cave had netted it as it flowed toward the ocean. Our pockets were not deep enough to collect this rubbish. We had no way of knowing how much more plastic was trapped in unknown chambers deeper underground. So much energy had gone into removing the fossilised fuels from the Earth, and now, it was being sequestered for another eternity. We marveled at the surreal display, disgusted.

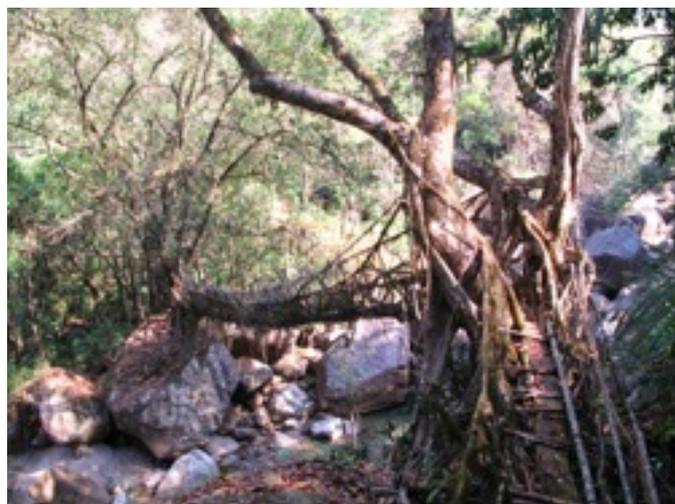
In another chamber, we stood on a gravel beach, looking across the grotto to a flat tongue of white crystal, flowing across a shelf in exactly the same fashion as an ice glacier. In yet another chamber, I found a standard electric light switch lying in the mud. I knelt down and hit the switch, but no lights turned on. I found this immensely funny, and could only wonder as to where the original light bulbs were located.

A small piece of wood lay on a stone surface, washed in by the monsoonal floodwaters. From its decaying corpse,



*Waterfalls below the Meghalaya escarpment.*

*Photos: Yoav Bar-Ness*



*Meghalaya is famed for its living roots bridges*

a star-like spray of fungal fuzz radiated outwards. It sought more biomass to eat, but it would die in this cold and dark cave.

We entered a high-ceiling, narrow tunnel, of dark red stone. It was solid, and jagged. The floor had been dissolved away in a terrifying network of holes and bridges, and we tiptoed gently across them. We reached a new chamber, crowded and messy, where the stalactite formations had fallen to the floor in a spiked jumble. The once-graceful masses sat in a strange and sad angle.

A slot canyon, decorated with bulbous flowstones jutting from the wall like cauliflowers, led to our exit. Here, for the only time in this cave, we had to squeeze between the rounded blocks. With held breath and slippery thoughts, we approached an impossibly bright and narrow hole. The sky outside glimmered, and as we exited the cave into the green living world, I was overcome with the familiar post-speleological feeling of rebirth and hope.

We were on the side of a steep sinkhole, which dropped down to a tumble of boulders. The cave exit was hidden in jagged rocks; it would have been impossible to find without knowing where to look. Ferns grew over the entrance, and moss softened the rocks. It was a blessing to feel the warmth of the sun, and even better to breathe the fresh air of Meghalaya. I gulped down the vital essence, but there was a slight taste of stone dust.

We started hiking out of the sinkhole, scrambling with some difficulty on the confused boulders. At the top, we were in an obviously degraded landscape of weeds and stone, which ramped away from us. I had lost all sense of direction, and followed Toby, blinking in the brightness. We spoke about the things we had seen below, and the joys of returning to the world of the living, but again, I lost my words in sudden shock at the ugliness of the scene beneath.

At the top of the ramp, we had come to the edge of a vast scar. It was the open face of the cement mine, cut away into terraces. The mountainside had been scoured away to bare rock. Its revealed shades of grey, brown and

white were stark and naked under the sky. The chunks of cave - stone were lying under the sun, bleached and ravaged. The factory could be seen in the distance, far larger than our initial view from the roadside. Towers and steel frames were clustered together, malevolently. Below us, an entire mountainside had been converted into powder for building materials. Thick green water pooled in depressions, and the tracks of truck tires marked the stepped terraces of the open pit mine.

Darkly, Toby told me of the Society's battles to save the caves, and its worries that they would, one day, be ground into dust. Beyond the factory, we could see the dull brown grasses of the deforested and overgrazed plateau, and the waterfalls sliding limply over the escarpment edge. We traversed the highest terrace, and picked our way down the weed-choked edge. We walked past the barbed wire fence to the plastic-polluted river, and fetched our equipment.

We resolved to meet again in Shillong, and hoped to one day in the future adventure in other caves underground. We were both sobered by the damage to the landscape, and the thought that the wild space below could be turned into cement dust. It saddened me that there were too few Adventurers, and too many building projects.

This Meghalayan cave was only one of a handful of Indian caves I had the good fortune to visit, and like the others, it showed me extreme ends of the spectrum. It is not just a wild cave, but also a severely impacted cave. It is not a tourist cave, but is located near Meghalaya's most famous escarpment holiday town.

Should you travel to India, consider visiting Meghalaya for its forest wilderness, its unique living bridges of banyan roots, and its wonderful geological diversity. The Khasi people, matrilineal, Christian, and educated, are a distinct and welcoming community in India's Northeast. Like the British expeditioners, I was delighted to connect with the Meghalaya Adventurer's Society, and hope to explore more of this underground wilderness.