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WOW! MOMENTS

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Realities of a rebreather holiday

WRECKS OF 1915

Dark origins of some
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DIVE IT, EAT IT

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possible with my camera. I soon found some good diving friends willing to join me on a photo excursion to the phosphate mine of Mons.

Stefan Panis and Karl Van Der Auwera are regular dive-buddies and Michael van Dijck had lots of cave-diving experience. In advance of the second dive I spent half a day preparing my camera and readying the flash units.

Stefan and I would be diving with APD Inspiration rebreathers and the other two divers would be using open-circuit.

Our intention was to light up as much of the long tunnels as possible, using remotely operated flashlights. We would head towards the clearest part of the mine and take the photographs there.

Michael's assignment was to guide us safely back to the entry-point and not lose sight of the guideline. I would be too occupied with the photography to pay attention to the guideline, so Michael was my safety-diver.

SEVERAL MINUTES after leaving we reached the clear water and I started to shoot. We had agreed not to swim too close to the bottom, so as not to disturb the sediment and reduce visibility.

On this second dive I could see that the height of the main tunnels was at least 6m and they were 4m wide. At some points the struts designed to prevent collapse were still visible. And in several places the iron tracks of the mining carts and locomotives were still recognisable.

Keenly aware of how easy it would be to become lost in this maze we paid keen attention to the placing of our markers. After a 500m swim we decided to return, scoping some of the side-tunnels on the way back. These were much lower than the main ones, and gave the impression that some had been dug above each other.

After some final shots we returned to the starting point, trying to form a mental image of the numerous tunnels of this underwater city. Surfacing at the exit after more than 80 minutes all the divers were euphoric about this dive-spot. It would take many more diving hours to map this beautiful, enigmatic place.



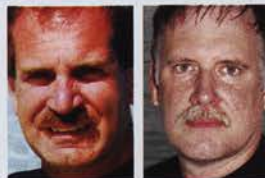
Above: Various artefacts used by the phosphate miners remain strewn about.

Below: There is a lot of sediment on the surface at the entry-point.

Below right: Who would imagine the wondrous subterranean world accessed through this Missouri doorway?

Missouri's Billion-Gallon Lake

Bonne Terre Lead Mine
Michael Salvatoreza
& Christopher P Weaver



HOW WOULD YOU LIKE to walk down an old mule trail to reach a dive-site about 50m below the ground, then choose from 24-plus trails in an underground lake the size of a small town, diving in 14°C water with at least 30m of visibility?

That's one prospect in the heart of America, 60 miles south-east of St Louis.

In the early 1700s, prospectors surveyed the Bonne Terre area of Missouri for gold and silver. They found none, but they did identify large surface deposits of lead.

In 1864 the area's first mine-shaft was dug, and three years later St Joe Lead was formed. Soon the company owned and operated most of the area's mineral mines and was extracting a steady stream of lead ore, cobalt, nickel and silver.

It became one of the few truly successful mining operations of its time.

The Bonne Terre mine continued to operate productively for nearly a century, as the hard-working Missourians employed in the operation created a huge, multi-level cave and cavern system.

This plunged more than 160m beneath the surface at some points and stretched for more than four miles at its widest point. The entire town of Bonne Terre could easily fit within its confines.

As mining activities finally ended in

1962, the gigantic pumps that had kept the area dry for so many years were turned off, and clear, pure water began to fill the cavernous mine.

Some of the big rooms and connecting tunnels were completely flooded; others remained only partially submerged. The flooding stopped when the water level matched that of the surrounding water table. The mineral mine was about to begin the next phase of its existence – as a dive resort.

In 1975 Doug and Cathy Goergens, owners of a St Louis area dive-shop, took their first look at Bonne Terre Mine. It was being operated as a tourist attraction, but they felt it would make an ideal location for open-water diver training.





Eventually the Goergens developed this area into a full-blown dive resort, complete with shop, guided tours, equipment rental, nitrox and bed and breakfast accommodation to appeal to north-eastern US divers seeking an inexpensive year-round getaway, because when the coasts are cold, air temperature in the mine stays at around 16°C and water temperature 14°

Diving at Bonne Terre begins with a map-assisted briefing and mandatory safety video.

First-time divers must dive on Trail One first, and a portion of this dive is devoted to standard checkout procedures such as mask-clearing and air-sharing. Even a Cousteau dive-team that visited while filming a Mississippi River documentary were required to do this!

Trail One is however an exhilarating dive with plenty to see and explore, including 70m rock pillars, mammoth archways, an elevator shaft, staircases and structures, slurry pipes, calcium formations, ore-carts and other mining tools and artefacts.

Much of the finning may be over water that is 40m deep or more.

As divers become accustomed to the location, many other trails are available for more intense exploration. Some, such as Shark Tunnel and Fat Man's Ore Dump, lead divers through submerged passageways that connect the various rooms or underwater trails.

Others take divers through abandoned elevator shafts and along huge, vertical columns of rock carved out by mine-workers years ago.

MOST OF THE DIVES involve near-continuous swimming but the water surface is never too far away, and no overhead-environment experience is required. Average depth is 13-20m.

Divers are not allowed to take dive-lights (though camera-mounted focusing lights and video-lights may be permitted by the dive-guide) or knives on their dives. This is done to discourage people from wandering off into the many side-rooms and trails in the cavern.

Cameras are permitted on all trails



Above, clockwise from left: The end of the line for the underground rail-carts; timber from past mining operations is well-preserved; artefacts are easy to spot in the clear visibility; an overturned ore-cart.

Below: Visiting a section of the lift-shaft.

except Trail One. All the trails are illuminated from above by more than 500,000 watts of lighting, which casts an eerie glow.

Each dive is conducted as a guided tour of no more than eight divers by a lead diver, with a safety-diver following behind. They carry bright HD lights to further illuminate points of interest.

Divers will often come across artefacts abandoned when the mine was shut down and never recovered when the flooding began. Ore carts, still resting on their rail tracks, look all set to resume carrying their loads to the surface. Pick-axes, shovels, rail-spikes, lamps and miner's helmets are strewn about the bottom.

You can swim over small buildings and even a locomotive engine lying on its side, giving the diver a sense of flying over an active mining operation.

The artefacts are the property of the Bonne Terre Mine facility and divers are prohibited from removing them – they may be picked up and handled, but must be replaced where they were found.

EACH DIVE PRESENTS unusual vistas and experiences. On one, we swam up to an opening in a large rock wall that provided a view of an adjoining room. We rested on a rocky ledge and simply stared in amazement at the enormous chamber.

We gazed on huge rock columns shaped like hourglasses that stretched from the 30m-deep floor to the surface. We could see strange rock formations and several groups of artefacts, but the far side was barely discernible at the edge of visibility.





With the eerie green glow from the lamps above combining with the vastness of the room, we felt like visitors to an alien world. Memories of that dive remain with us to this day. National Geographic has ranked the Bonne Terre Mine as one of America's Top 10 Adventures.

The mine operates year-round for land and boat tours while scuba-diving is conducted at weekends, although on rare occasions special pre-arrangements can be made to dive on a weekday.

It's an excellent location for anyone wishing to experience cavern-diving in a unique and controlled setting.

Don't, however, be misled. Although the diving is supervised, these dives are challenging. Divers have to swim long distances and, because of the water

temperature, full 7mm wetsuits or drysuits are recommended.

To the first-time visitor, even the smaller trails can be disorientating. Some of the swim-throughs are just long enough to raise the heartbeat of

Above: The vintage locomotive still looks intact.

Below: Examining a drill abandoned in the rocks.

Bottom: View from above the surface.

experienced divers, and the depth of the water is considerable in many locations.

There's even a SSI Mine Diving Speciality Certificate (SSI) that divers can earn here – you too could be a Deep Earth Diver!



✦ *West End Diving of Bridgeton, Missouri offers a two-night package including lodging and three dives for US \$290pp. Bookings must be made in advance and divers must be at least 15 and bring c-cards, two forms of picture ID and log-books, www.2dive.com*

