

The Deepest Man-Made Hole Ever Created Was Sealed Up And Abandoned – Due To An Astonishing Event

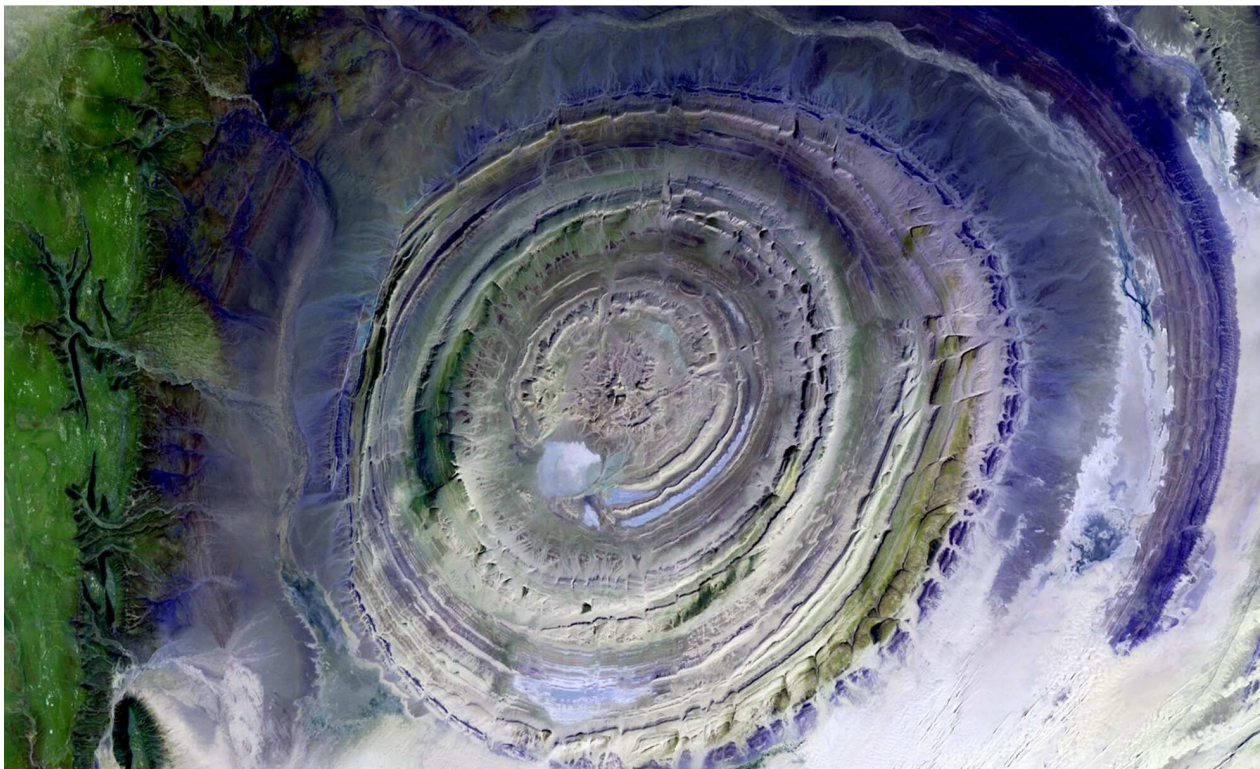


On a remote peninsula in north-west Russia, scientists have spent decades drilling down towards the center of the earth. At over 40,000 feet, their borehole is the deepest that man has ever gone. Then, however, something unexpected happens, and the researchers are forced to seal up their experiment for good.



Unsurprisingly, humans are fascinated with what lies deep below the surface of the earth. But ever since the first artificial satellite was sent into space in 1957, humans have also been infatuated with looking high up to discover the secrets of the stars. And now, with the help of global space agencies and private companies, we know more about the universe than ever before. But as we continue to stare skywards in wonder, are we overlooking another equally mysterious world back on Earth?

Shockingly, some believe that our knowledge of space is now greater than our understanding of what exists beneath Earth's surface. And while many people know about the space race that gripped the United States and the U.S.S.R. during the Cold War, few remember the equally fascinating battle to conquer our subterranean world.



Beginning in the late 1950s, competing teams of American and Soviet scientists began organizing elaborate experiments designed to penetrate Earth's crust. Thought to stretch as far as 30 miles towards the center of our planet, this dense shell eventually gives way to the mantle – the mysterious inner layer that makes up a staggering 40 percent of our planet's mass.

Then, in 1958 the U.S. took the lead with the launch of Project Mohole. Located near Guadalupe in Mexico, the operation saw a team of engineers drill through the bed of the Pacific Ocean to a depth of over 600 feet. However, eight years later their funding was cut, and Project Mohole was abandoned. The Americans never got to the mantle.



Next, it was the Soviets' turn. On May 24, 1970, a team of researchers began drilling down into the earth below the Pechengsky District, a sparsely populated region on Russia's Kola Peninsula. Their goal was simple: to penetrate as far as possible into the planet's crust.



What's more, the Soviets aimed to reach a depth of some 49,000 feet under Earth's surface. And, using specialist equipment, researchers began to dig a series of boreholes forking off from a single principal cavity. But while they slowly made their way down, prospectors in America had made some progress of their own.



In 1974 the Lone Star Producing Company was drilling for oil in Washita County in western Oklahoma. In the process, the firm created the “Bertha Rogers hole” – a man-made marvel that reached over 31,400 feet, or nearly six miles, below the surface of the earth.



Although Lone Star did not find what it was looking for, its effort remained the deepest hole on the planet for another five years.

Then, on June 6, 1979, one of the Kola boreholes, dubbed SG-3, smashed the record. And by 1983, the hole, a mere nine inches wide, had traveled a staggering 39,000 feet into Earth's crust.

With this milestone achieved, researchers on the Kola Peninsula temporarily downed tools. For 12 months, they paused work on the borehole so that various people could visit the fascinating site. However, when the experiment was restarted the following year, a technical problem forced drilling to grind to a halt.

Not to be defeated, the researchers abandoned the previous borehole and began again from a depth of 23,000 feet. And by 1989, the drilling had reached a record 40,230 feet – an incredible 7.5 miles. Encouraged, those involved in the project were optimistic about the future, believing that the hole would pass 44,000 feet by late 1990.



Even more impressively, it was predicted that the borehole would reach its target of 49,000 feet by as early as 1993. But something unexpected was lurking beneath the remote Russian tundra. And bizarrely, as the drill inched closer and closer to Earth's center, a completely unexpected change occurred.



For the first 10,000 feet, temperatures inside the borehole had more or less adhered to what the researchers had expected to find. However, after that depth, the level of heat shot up much faster. And by the time that the drilling had begun to near its target, the hole had heated up to a whopping 180 °C (356 °F) – a full 80 °C (176 °F) hotter than anticipated.



That wasn't all, though. Additionally, the researchers discovered that the rock at these depths was far less dense than they had imagined. As a result, it reacted with the higher temperatures in strange and unpredictable ways. So, knowing that their equipment would not last under these conditions, the team at Kola abandoned the project. By then, it was 1992 – 22 years after drilling had first begun.



However, researchers were able to learn some fascinating things before sealing up what has been dubbed the Kola Superdeep Borehole. For example, at some four miles deep, they discovered tiny fossils of marine plants. These relics were remarkably intact given how long they had spent encased below several miles of rock – that itself was thought to be over two billion years old.

An even more exciting discovery was made at the farthest reaches of the Kola Superdeep Borehole, though. By measuring seismic waves, experts had previously predicted that the rock under our feet shifts from granite to basalt at around two to four miles beneath the surface. However, they soon found that this was not the case – at least not on the Kola Peninsula.



Instead, researchers found only granite, even at the deepest point of the borehole. Eventually, they were able to conclude that the change in seismic waves was the result of metamorphic differences in the rock, rather than a shift to basalt. But that wasn't it, either. Amazingly, they also discovered flowing water several miles beneath the Earth, at depths where nobody predicted it might exist.



But while some enthusiastic commenters have jumped on this discovery of subterranean water as proof of biblical floods, this phenomenon is believed instead to be the result of strong pressure forcing oxygen and hydrogen atoms out of the rock. Afterwards, impermeable rocks caused the newly formed water to become trapped beneath the surface.



The timing of the Kola Superdeep Borehole's closure coincided with the fall of the Soviet Union, and by 1995 the project was permanently shut down. Today, then, the site is flagged as an environmental hazard, although visitors can still see some relics from the experiment in the nearby town of Zapolyarny, some six miles away. And, impressively, researchers have yet to beat its record, meaning the borehole remains the planet's deepest man-made point.