## **Ten Unbelievably Unnatural Natural Formations**

Among the landscapes that we see, it is easy to spot humankind's influence. Straight lines, sharp edges, smooth circles, towering feats of engineering—these are all hallmarks of our intervention in the natural world. Except nature has a few tricks up her sleeve, and sometimes what we think of as natural formations are impossibly unnatural. These examples are sure to leave you second-guessing your ability to distinguish human from nature.

#### 1. Moeraki Boulders

Located on the Koekohe Beach of New Zealand, these large, spherical boulders were deemed by the Māori to be the flotsam washed ashore from the wreckage of the legendary canoe, Āraiteuru, which was said to have borne their ancestors to the island. In fact, these boulders are concretions, precipitate of mineral cement that formed within the mudstone cliffs of the beach. As the cliffs eroded away, the harder concretions were exposed.

The boulders range in size from less than two feet to over six feet in diameter, and they can weigh as much as seven tons. They formed between 13 to 60 million years ago, and today they are a popular tourist destination on New Zealand's North Otago coast.

More Info: <a href="http://www.moerakiboulders.com/">http://www.moerakiboulders.com/</a>,
<a href="https://www.priweb.org/outreach.php?page=edu-prog/earth101/concreations">https://www.priweb.org/outreach.php?page=edu-prog/earth101/concreations</a>,
<a href="https://www.doc.govt.nz/parks-and-recreation/places-to-go/otago/places/moeraki-area/">https://www.doc.govt.nz/parks-and-recreation/places-to-go/otago/places/moeraki-area/</a>

## 2. Giant's Causeway

Made of basalt columns that appear very regular in shape, Scottish legend holds that this natural formation located in Northern Island is the remnant of a passage built across the North Channel to enable a duel between an Irish giant and a Scottish giant. Although it is tempting to believe something other than geology put these columns in place, they are actually formed by the cooling, contraction, and subsequent cracking of lava that becomes basalt rock.

These columns are the result of an ancient volcanic eruption, and even after over 50 million years of erosion, today they still reach up to 40 feet tall. The Giant's Causeway is a UNESCO World Heritage Site and managed by the UK's Natural Trust for Places of Historic Interest or Natural Beauty.

More Info: <a href="https://www.nationaltrust.org.uk/giants-causeway">https://www.nationaltrust.org.uk/giants-causeway</a>, <a href="https://blogs.agu.org/georneys/2012/11/18/geology-word-of-the-week-c-is-for-columnar-jointing/">https://blogs.agu.org/georneys/2012/11/18/geology-word-of-the-week-c-is-for-columnar-jointing/</a>

# 3. Turkish Fairy Chimneys

The Cappadocia region of Turkey is home to these aptly-named fairy chimneys, enchanting rock structures that are also known as hoodoos. The chimneys are formed in dry, low-lying areas due to the geological interaction of lava, erosion, and volcanic tuff—a porous rock made of fused volcanic ash and detritus. The tuff is softer, and cracks in the overlying cooled lava allowed the lower layer to erode away. A hard cap remains behind, protecting a spire of tuff below, until a mushroom like structure is revealed over millions of years. The Turkish volcanoes Hasan Dag and Erciyes provided plenty of material for these fairy chimneys, some of which reach as high as 130 feet!

Natural chimneys aren't the only feature of this region either. Fleeing persecution, locals created hand-dug cave networks in the remaining tuff that large enough for thousands of refugees. The bonding of man-made and nature-made formations created a striking site, which has been designated as a World Heritage Site in Cappadocia.

More Info: <a href="http://www.smithsonianmag.com/travel/fairy-chimneys-turkey-180956654/">http://www.smithsonianmag.com/travel/fairy-chimneys-turkey-180956654/</a>, <a href="http://www.cappadociaexclusive.com/geological.html">http://www.cappadociaexclusive.com/geological.html</a>

### 4. The Richat Structure

Not only is this ringed blue structure remarkably circular, but it is also enormous—large enough to be seen from space! Nearly 30 miles in diameter, and located in the otherwise undistinctive Sahara Desert, it an easily recognizable landmark for shuttle crews in orbit, where it appears like a giant bull's-eye.

Due to its circular nature, the Richat Structure was originally thought to be an impact crater from an asteroid, but its composition wasn't consistent with an impact structure. Geologists now theorize that it is a collapsed geological dome that has eroded over the past hundred million years. Some people like to claim that it is a relic of Atlantis, but there is certainly no evidence for that!

More Info: <a href="https://www.nasa.gov/multimedia/imagegallery/image\_feature\_528.html">http://www.nasa.gov/multimedia/imagegallery/image\_feature\_528.html</a>, <a href="http://www.gigalresearch.com/uk/mystery-of-the-giant-blue-eye-of-africa-in-mauritania.php">http://www.gigalresearch.com/uk/mystery-of-the-giant-blue-eye-of-africa-in-mauritania.php</a>, <a href="https://www.businessinsider.com/the-eye-of-the-sahara-is-still-a-mystery-2016-7">https://www.businessinsider.com/the-eye-of-the-sahara-is-still-a-mystery-2016-7</a>

#### 5. Ice Towers of Mount Erebus

Fire and ice are an unlikely mix, but they combine at Mount Erebus to form beautiful, eerie sculptures. Mount Erebus, located on Ross's Island in Antarctica, is an active volcano. As gas and heat seep out from the volcano, the ice above melts into hollow caves. Steam that enters the caves is funneled upward, where it freezes as soon as it hits the air.

The resulting towers of frozen steam, called fumaroles, can reach as high as 60 feet. As the fumaroles are hollow, and steam leaks from the tops, they look like giant ice chimneys, but it's just nature at work.

More Info: <a href="http://erebus.nmt.edu/index.php/icetowers">http://erebus.nmt.edu/index.php/icetowers</a>, <a href="http://www.smithsonianmag.com/travel/antarctica-erupts-140405968/">http://www.smithsonianmag.com/travel/antarctica-erupts-140405968/</a>, <a href="https://blog.shermanstravel.com/2013/inspired-travel-mount-erebus-ice-towers/">https://blog.shermanstravel.com/2013/inspired-travel-mount-erebus-ice-towers/</a>

# 6. Wave Rock

It looks like an enormous art project, a sculpture capturing the sweep of a wave crest just before it breaks, but in fact this rock is an entirely natural formation. Located in Australia's Outback, Wave Rock rears almost 50 feet upwards and stretches for more than 300 feet. The characteristic wave shape comes from a combination of subsurface chemical weathering and fluvial erosion, creating what geologists call a flared slope. The distinctive vertical pattern is caused by chemical deposits of carbonates and iron hydroxide.

Wave Rock is part of Hyden Rock, which is almost 2.7 billion years old (yes, billion). The ancient rock was formed into its current dramatic shape only about 100 million years ago. Today, it is protected as part of the Hyden Wildlife Park nature reserve and draws hundreds of thousands of visitors every year.

More Info: <a href="http://www.7wonders.org/oceania/australia/western-australia/wave-rock/">http://www.7wonders.org/oceania/australia/western-australia/wave-rock/</a>, <a href="http://www.atlasobscura.com/places/wave-rock-2">http://www.atlasobscura.com/places/wave-rock-2</a>

### 7. Tasmanian Tessellated Pavement

On Eaglehawk Neck in Tasmania, the ground is covered in flat blocks that look like pavement. Nothing too unusual about that, except that it isn't pavement at all! The tessellated pavement is a completely natural but unusual effect caused by the erosion of sedimentary rock. The once-flat siltstone cracked along straight joins, and many years of further erosion from salt in the tidal water created an exaggerated effect, breaking the stone into many rectangular blocks.

Because the rocks are repeatedly exposed to salt water as tides come in and out, there is a variation among the blocks based on how close they are to the water. The areas where water dries the fastest receive the most salt crystallization and therefore increased erosion, resulting in a concave surface to the block, called "pan-like." The blocks closer to the water erode mostly in the joins, and their slightly convex surface is called "loaf-like." Both types of blocks are mesmerizing examples of geology!

More Info: <a href="http://www.atlasobscura.com/places/eaglehawk-neck-tessellated-pavement">http://www.atlasobscura.com/places/eaglehawk-neck-tessellated-pavement</a>, <a href="http://exploringtheearth.com/2016/01/13/tessellated-pavement/">http://exploringtheearth.com/2016/01/13/tessellated-pavement/</a>

## 8. Cave of the Crystals

This cave, or rather system of caves, in Mexico looks like something straight out of a science-fiction story. But this is no Fortress of Solitude—it is a stunning display of crystallization on a massive scale. Miles below the caves, a pool of magma provided heat to evaporate groundwater that had seeped into the caverns and flooded them. The water was rich in gypsum minerals, and over half a million years, the gypsum crystallized into selenite undisturbed. The largest crystal structure in the cave is over 36 feet high and weighs 55 tons.

The cave is perfect for its enormous crystal occupants, but close to inhospitable for humans. Temperatures reach up to 150 degrees Fahrenheit and humidity is almost 100%. It was discovered only by accident, thanks to its proximity to a silver mine. At least one unfortunate soul has died trying to access the cave illicitly, so it's best to abide by the restrictions in place, even though they make this awe-inspiring site tough for tourists to visit.

More Info: <a href="http://news.nationalgeographic.com/news/2007/04/070406-giant-crystals.html">http://news.nationalgeographic.com/news/2007/04/070406-giant-crystals.html</a>, <a href="http://www.beautifulworld.com/north-america/mexico/cave-of-the-crystals/">http://www.beautifulworld.com/north-america/mexico/cave-of-the-crystals/</a>

### 9. Pravčice Gate

Europe's largest natural bridge is located in the Elbe Sandstone Mountains in the Czech Republic. It soars almost 50 feet high and spans over 85 feet. With a width of at least 9 feet, it looks like it was carved for convenience of residents of the adjacent chateau, but this arch is completely natural.

The chateau, once host to royal guests, is now a museum and restaurant, and the arch is no longer accessible due to damage from many years of tourists. However it still stands tall, a symbol of the beauty of the Bohemian Switzerland.

More Info: <a href="http://www.czechtourism.com/c/pravcicka-brana/">http://www.czechtourism.com/c/pravcicka-brana/</a>, <a href="http://www.pbrana.cz/en/">http://www.pbrana.cz/en/</a>

## 10. The Stone Forest

This forest gets its name from what looks like the petrified remains of tree trunks. In fact, they are limestone formations left behind from the erosion of an ancient seabed that used to cover the region more than 270 million years ago. Located in the Yunnan Province of China, the "forest" covers more than 180 square miles with its fanciful cones, towers, and limestone outcroppings. It is an exquisite example of a distinctive type of landscape called karst topography.

The Stone Forest, called Shilin in Chinese, was discovered several centuries ago and is the setting of myths and legends in the area and is sometimes nicknamed the "First Wonder of the World." Today, parts of the "forest" are UNESCO World Heritage Sites and the entire area is a popular tourist attraction.

More Info: <a href="https://www.travelchinaguide.com/attraction/yunnan/kunming/stone\_forest.htm">https://www.travelchinaguide.com/attraction/yunnan/kunming/stone\_forest.htm</a>, <a href="https://weather.com/science/nature/news/amazing-places-shilin-stone-forest-20130507">https://weather.com/science/nature/news/amazing-places-shilin-stone-forest-20130507</a>