



Official Geography Newsletter Autumn 2022

Written by the Geography Subject Leaders: *Charlotte King, Emilie DeCharenteray, Lyra Thackeray, Tami Ekunola and Naomi Parsons*

University Destinations 2022!



Here are the destinations of last year's Geography students:

Geography *Durham University*

Geology *University of Southampton*

Psychology *City, University of London*

Clinical Physiology *University of Plymouth*

Architecture *Loughborough University*

Biology *University of Sheffield*

Politics and International Relations *University of Bath*

Design Engineering *University of Brighton*

Combined Honours in Social Science *Durham University*

Philosophy, Politics and Economics *University of Southampton*

Economics *University of Cambridge*

Archaeology and Classical Civilisation *University of Nottingham*

Law *London School of Economics and Political Science, University of London*

Law *University of Oxford*

English Literature *Durham University*

Biomedicine *Lancaster University*

Economics and Politics *University of Bath*

Economics *University of Bath*

Psychology and Psychological Practice *University of Birmingham*

Psychology *University of Exeter*

Gap years

Field Trips







Year 9 went to the Migration Museum in Lewisham to explore how the movement of people across the globe has become a contemporary issue in the 21st Century.





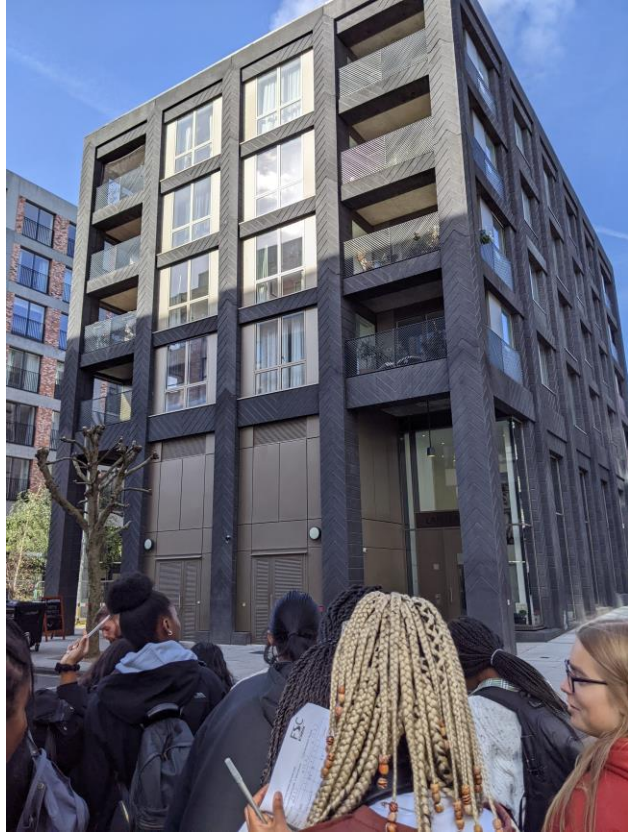


Year 11 AS Environmental Management students visited Ightham Woods to investigate biodiversity as part of their ecosystems practical activities.





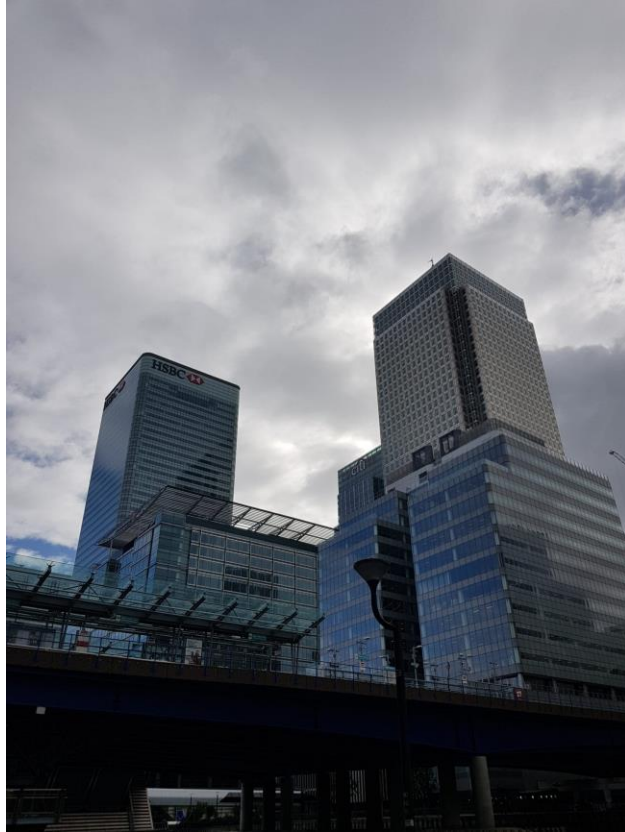


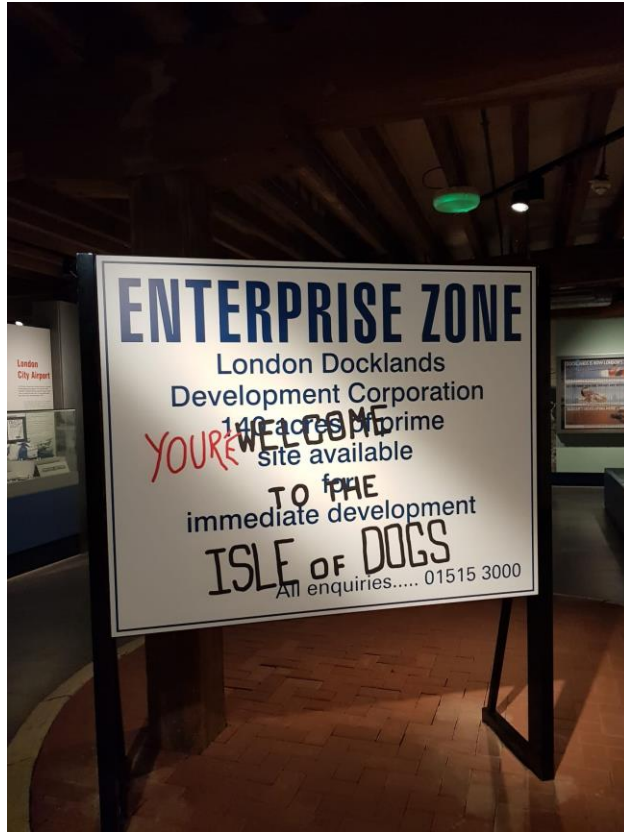




Year 11 went to Stratford to collect data and to learn about the significant economic change due to the Olympics and its impacts on the surroundings.













Year 12 visited the London Docklands to study the effects of regeneration in the area and visited the Museum of London Docklands to learn about its history.

Year 12 went to Devon to collect data for their NEAs (non-examined assessments), researching rural regeneration in the transition town Totnes, urban regeneration at the Ocean City of Plymouth, and measuring beach profiles, collecting sediment, and measuring coastal processes at Slapton Sands and Torcross. (Pictures are in order)





























Prominent Geographer - Marie Tharp

The Mid-Atlantic Rift and the Theory of Continental Drift



In the 1950s, when very little was known about the structure of the ocean floor, Marie Tharp collaborated with fellow geologist Bruce Heezen to produce the first scientific profiles that mapped the Atlantic ocean floor, including the mid-Atlantic ridge.

When analyzing the depth of the water (bathymetry), she identified a v-shaped valley that ran continuously from the north to south. She proposed that this might be a rift valley formed by the pulling apart of tectonic plates.

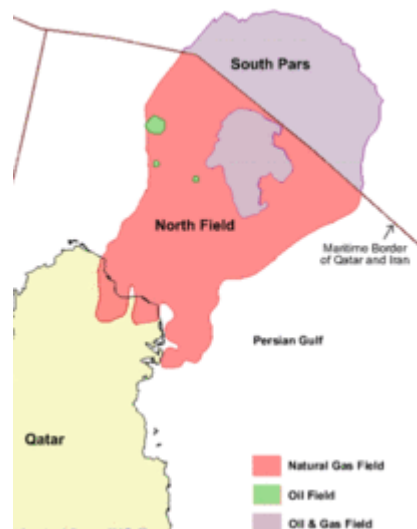
Her theories were initially dismissed as "girl talk". But by overlying secondary data of the location of the epicenters of earthquakes over Tharp's profiles, the clear alignment prompted the scientific acceptance of Tharp's theories of continental drift and tectonics.

Why has Qatar taken extreme measures to host the 2022 World Cup?

FIFA's decision to host the 2022 World Cup in Qatar, a tiny Gulf nation of only 3 million people, seemed a strange, impractical choice. When FIFA announced it in 2012, the country had no historical passion for football, no existing infrastructure, and a sickening human rights record. But Qatar has gone to great lengths by spending 12 years and \$200 billion to ensure that its flag will be plastered over global screens.

Qatar is a nation that is built on oil. Discovery of the largest gas field in the world, the South Pars gas field, within its' marine borders prompted an economic explosion in the 1970s. The tumultuous flow of wealth did not have many hands to be shared among though considering only 11.6% of Qatar's 3 million inhabitants are citizens who benefit from the padded social safety net that fossil fuel money provides. Qatar is among the world's most unequal countries with the top 10% owning 54% of wealth and poorest half owning just 10%. Such stark inequality has revealed itself in the World Cup preparations.

All these non-Qatari inhabitants are the people who have really allowed Qatar to host this year. They are migrant workers, many of whom are young men from South Asia and Africa, who move to this supposed land of oil and prosper to financially support their families. Subsequently, its distinct population pyramid seemingly leans in the direction of working aged men.



In order to reel in their cheap construction fleet for stadiums and roads, Qatar predatorily targeting isolated village communities with huge upfront loans and the promise of wages that Qatari employers ended up withholding. Their tactics were extremely effective and in 2007 alone, total population increased by 17.5% with most of this figure constituting of expatriate workers. A lack of labour laws at the time facilitated worker’s rights abuses and inhumane working conditions that forced people into heat exhaustion. Unfortunately, 6,500 people died in the construction of the World Cup. The U.S. State Department referred to this labour as ‘*involuntary servitude*’ – or more simply, slavery.

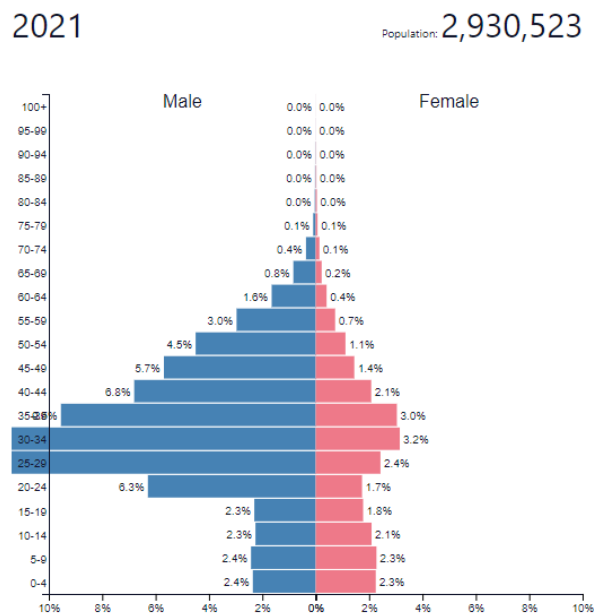
But why would a country invest so much into an event? Obviously, money is no issue for Qatar and the monarchy have no ethical qualms with bribery in order to get what they wanted. The main purpose for having a Christmas-themed World Cup this year is diversification. Essentially, Qatar needs more revenue streams to be economically stable.

Qatar remains reliant on the same gas it has exploited for 50 years and with the rise of environmentalist policies set to restrict the limits of fossil fuel industries, large sectors of Qatar’s economy will collapse. In an attempt to broaden its streams of revenue Qatar now seeks soft power, a global influence through culture and presence in the zeitgeist. Neighbouring nations like Dubai have succeeded in this by investing their oil money in megastructures that wow tourists. Hosting an event like the World Cup guarantees global awareness and tourist money for years after the trophy is won.

Qatar also hopes that the impressive sporting infrastructure will attract FDI (foreign direct investment) to precipitate more growth in the knowledge economy.

Organisation of prestigious sporting events has consistently been geopolitically desired and with this, corruption and greed allow certain countries, like Qatar, a huge advantage thus allowing only the wealthiest to reap the benefits of the socioeconomic World Cup legacy.

Written by Emilie DeCharentenay



Greenwashing and Its Consequences

In 2022, Coca-Cola partnered with Bill Nye (the Science Guy) in order to [“demystifying recycling”](#) - **‘the good people at Coca Cola company are dedicating themselves to addressing our global plastic waste problem’**. Through a chipper animation, Coca Cola simplifies the process of recycling plastic and promising their consumers that all plastic bottles they purchase will be completely reused, “closing the loop” Furthermore, Coca Cola also sponsored this year’s COP27, truly showing how sustainable they plan to be - what’s not to like?

7 months later, Break Free From Plastic announced that Coca Cola is the [world’s worst plastic polluter for the fifth year in the row](#) and also doubled their annual pollution in this time period. The Coca-Cola Company has also increased plastic packaging by [almost 9%](#) from a reported 2.96 million metric tons in 2020 to 3.22 million metric tons in 2021. Is Coca Cola, and other companies with these adverts, really “closing the loop”?

Many people have referred to this phenomenon as “greenwashing”, which is when companies attempt to convince consumers that their products are environmentally-friendly, with no adequate evidence or proof. With the ongoing threat of climate change and other environmental disasters, multimillion companies have pressure from consumers to make their products more sustainable, however, they use greenwashing to play into a consumer's desire to live a green life without necessarily changing these products. Therefore, companies use tactics to convince customers that their products are "green" without actually altering the product.



Buzzwords and Branding

There are many words tossed around to talk about sustainability: green, eco-friendly, biodegradable, natural, and carbon-neutral are some of the many labels advertisers can put on a product legally without actually matching what it claims. For example, in 2008, Fiji launched a promotion campaign with the slogan "every drop is green", marketing the bottled water as a exotic and a green product compared to others in the market. However, in reality, the plastic bottles are still created from the extraction of fossil fuels, the water is taken from Fiji which has [12% of locals without access to clean drinking water](#) and transported all across the globe through vehicles that emit greenhouse gases. The campaign was simply a marketing tactic to convince potential customers that their water is eco-friendly compared to others, even though their methods of production are the same as other bottled water companies, or worse.

Throughout almost all supermarket aisles, these subtle methods such as including words related to sustainability or simply making packaging green, makes the customer think that said product is "eco-friendly" when there is no difference made.



False Promises

In this decade, many companies are aware of the climate crisis and have a demand to become more sustainable so they do not receive backlash. As a result many businesses include phrases such as "becoming net-zero by 2030" as part of their goals as a company. Unfortunately what many consumers do not know is that these companies, especially bottled water brands, realise that they have not achieved their sustainability goals in time, and further extend their deadlines without anyone noticing. Recently, there is a occurrence with many European Food and Drinks companies, failing to achieve their plastic waste goals.

Out of 100 pledges to reduce plastic waste from 24 different European companies, including Danone, Nestle, Coca Cola, and Ferrero, [2/3 of companies failed to complete their targets](#) set before 2022, or were never reported on again. In 2008 the French food giant Danone, known for brands including Evian, promised to incorporate 20-30% of recycled PET (Polyethylene terephthalate) by 2011 in their products, however, Danone did not achieve the goal, and in 2014, promised to have 25% recycled PET by 2020, which turned out to be 19.8%, and now they have created a new goal to have 100% recycled PET in their European plastic bottles by 2025. Although some progress has been made, there is no doubt that Danone has stretched out their goals by a decade and have shift goalposts to dodge accusations.

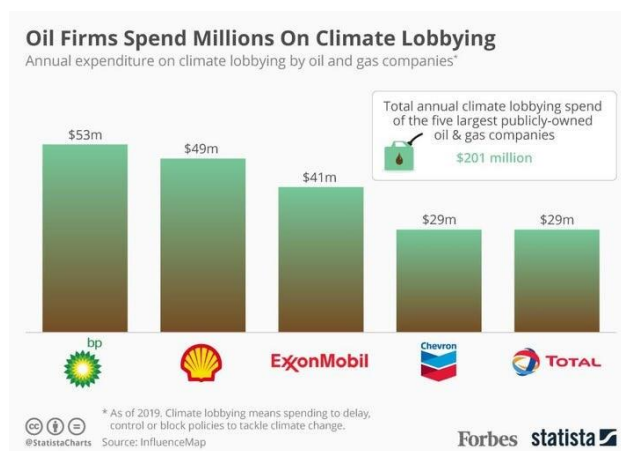
Furthermore, there is no point in making plastic recyclable if there are not enough facilities to disposed of them sustainably - globally, [only 9% of plastics are recycled](#). Even if all plastics used were recyclable, it would be useless without the infrastructure to properly recycle in practice, which ultimately causes companies to greenwash.

Individual Actions and the Fossil Fuel Industry

A "carbon footprint", describes the total greenhouse gas emissions produced by a individual, group, business or other in its total lifetime. Many environmentally-conscious consumers use this phrase to

drastically change their lifestyle, such as driving less frequently, or using less heating in their household. Although these actions are positive in theory, their origins are not:

In 2004, British Petroleum, with help of public relations professionals [Ogilvy & Mather](#) created the BP personal carbon footprint calculator, as part of a marketing campaign for individuals to assess how their everyday actions contribute to the warming of the globe. From then, the term "carbon footprint" has exponentially grown in popularity. However in reality, British Petroleum has a much higher carbon footprint than millions of individuals combined. Furthermore, after the Gulf Coast oil spill in April of 2010, [BP had spent \\$5 million a week on advertising](#), in order to protect the company's image, and the oil spill continues to leak and damage ocean life to this day. The sustainable actions of giant corporations far outweigh a single person's decision to walk to work rather than drive, not to mention the oil firm's millions of dollars spent on climate lobbying (effort of companies to influence climate policies), rather than reducing their own carbon footprint.



What is being done?

The Clean Creatives is an initiative run by advertisers and agencies, in which creatives can [sign a pledge saying that they will not work with fossil fuel companies to produce adverts for them](#). Many fossil fuel companies rely on PR and advertising agencies to package a misinformed message towards consumers, therefore Clean Creatives believes that if fewer creatives partner with fossil fuel companies, less effective marketing campaigns are produced, and companies would be influencing public opinion less on how much they are doing for climate change. So far 1300 creatives and 465 agencies have partnered with Clean Creatives, in order to diminish the greenwashing of these industries, similarly to the decline of tobacco marketing during the 1960s due to its devastating health impacts.

It would be ironic to demand more individual action to prevent greenwashing, however for customers who personally want to stop giving money to these corporations, the easiest advice would be to pay attention to the labels on a product you are going to buy and do your research - for example a shirt cannot be sustainable, even it claims to be 100% natural, if it was produced in unethical working conditions. It is vital to note that sustainability is not only centered on the environmental impacts, but social and economic as well.

Written by Lyra Thackeray



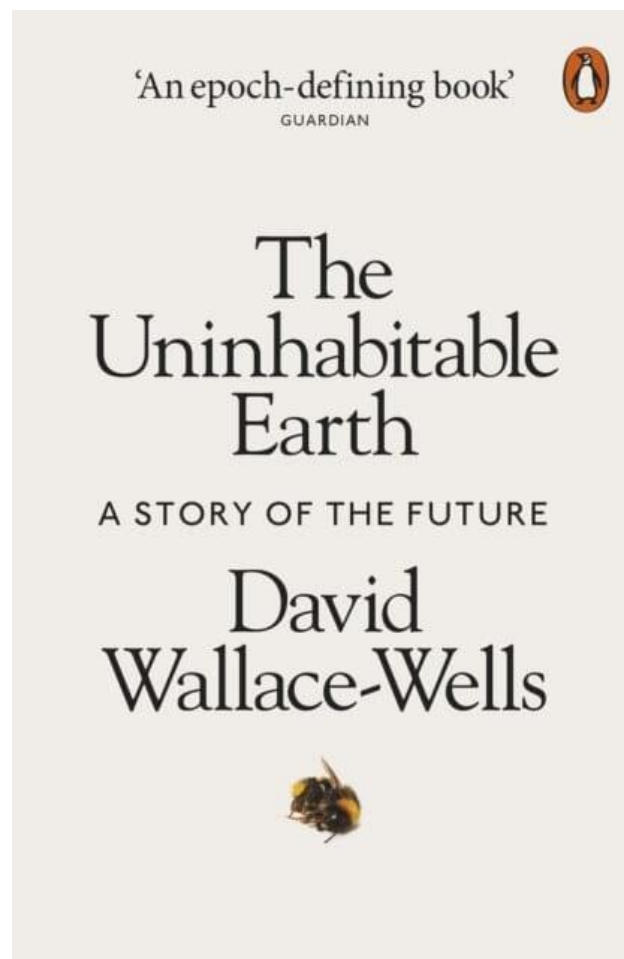
Reading list



There is a Geography reading list on Accessit.

<https://uk.accessit.online/nws00/#!resources/searchresult>

Book of the Season



The Uninhabitable Earth – A Story of the Future

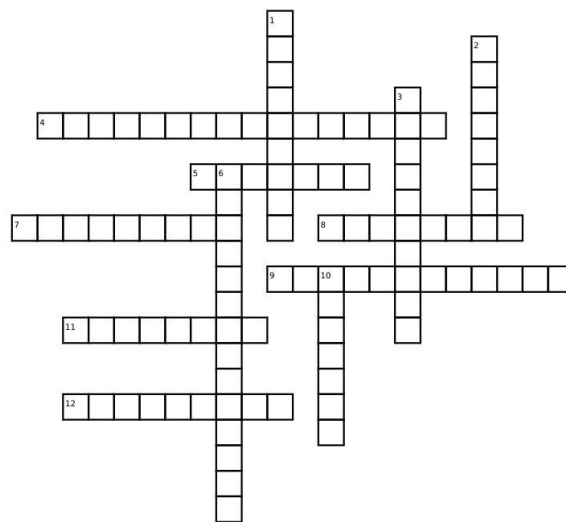
By David Wallace-Wells

After COP-27 it is important for us to remain well-informed of the impact of the present world's impacts on the future climate, but with a wealth of misinformation it can be difficult.

Although 'The Uninhabitable Earth' can be a heavy read, Wallace-Wells synthesises decades worth of modelling and research into precise and blunt chapters. Wallace-Wells explores 11 domains of society in which climate change will have significant impacts. The entangled social, economic and environmental possibilities and projections are explained with an expert clarity and backed up by a lot of facts.

Review by Emilie DeCharentenay

Geography Crossword!



Down:

1. Vertical lines that form the geographical coordinates
2. A group of people who don't live in their original country but still maintain their heritage in their new land.
3. The total number of species in an area.
6. Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.
10. Model showing the evolution of tourism over time.

Across:

4. A phenomenon where neighbourhoods become dominated by a high student population
5. Where rivers connect to the ocean.
7. Shedding leaves seasonally
8. The third largest tectonic plate on Earth.
9. The population shift from rural to urban areas.
11. A landform made of resistant rock that extends into the sea.
12. When rocks repeatedly knock into each other, causing them to break, becoming smoother and smaller.

Fair Trade Stall



FAIRTRADE

The Fair Trade Stall is up and running. Every Thursday at lunch by the art block. Please do come along and bring money!

Interesting Infographics



THE EARTH'S VOLCANOES

Discover more about the most well-known manifestation of geothermal energy.

Volcanoes

A volcano is formed when hot molten rock, ash and gases emerge from a fracture in the Earth's crust.

Magma and lava are two sides of the same coin. Molten rock is called magma while it is located under the Earth's crust, and lava when it surfaces. Magma rises because it is lighter than the solid rocks surrounding it.

An eruption is an outflow of lava. During an eruption, in addition to lava, gases and pyroclastic material are released into the air. These include ash, lapillus and volcanic bombs (also called lava bombs) of various sizes.

Despite its tiny size, volcanic ash can cause even more damage than other volcanic material because it can remain in the air for years and may travel very far from the original site of the eruption. As lava surfaces from eruptions and solidifies, volcanoes are shaped.

TYPE OF ERUPTION

Explosive



Acidic lava
Viscous magmas
Slow-flowing

Effusive



Basic lava
Runny, low viscosity
Fast-flowing

Some volcanoes can take thousands of years to form, while others grow overnight. An example of this is the Mexican volcano **Parícutin**, considered the youngest volcano in the world.

Parícutin

Parícutin is a cinder cone volcano located in the Mexican state of Michoacán.

On the morning of February 20, 1943, this volcano suddenly surged from the cornfield of a local farmer. After just one week, it was already more than 100 meters high.

Since its last eruption on March 4, 1952, having reached a height of 424 meters (1,391 ft), its activity has ceased.

VOLCANIC LANDFORMS

Volcanoes come in many shapes, formed by the geological processes that spring them in the first place. By observing the different shapes, geologists are able to explain each volcano's original formation process. Most volcanoes can be grouped into four main kinds.

1. SHIELD VOLCANOES

Shield volcanoes are built up slowly by the accretion of thousands of highly fluid lava flows called basalt lava that spread widely over great distances, and then cool as thin, gently dipping sheets. Their name comes from the fact that they look like a shield when viewed from above.

The tallest volcano on Earth, Hawaii's **Mauna Kea** with an elevation of 4,207 meters (13,800 ft) above sea level, is a shield volcano. Its top is over 10,203 meters (33,474 ft) above the deep ocean floor, higher than Mount Everest.

2. STRATOVOLCANOES

Stratovolcanoes, or composite volcanoes, alternate explosive lava eruption with emissions of pyroclastic products (ash and rocks). They have a relatively narrow base, fairly steep slopes and they easily reach great heights. Some of the most beautiful mountains in the world are composite volcanoes, including **Mount Fuji** in Japan, **Mount Cotacapi** in Ecuador, **Mount Shasta** in California, and **Mount St. Helens** in Washington. **Stromboli**, a stratovolcano located off the western coast of southern Italy, is called the "Lighthouse of the Mediterranean". It has been erupting almost continuously for over 2,000 years.

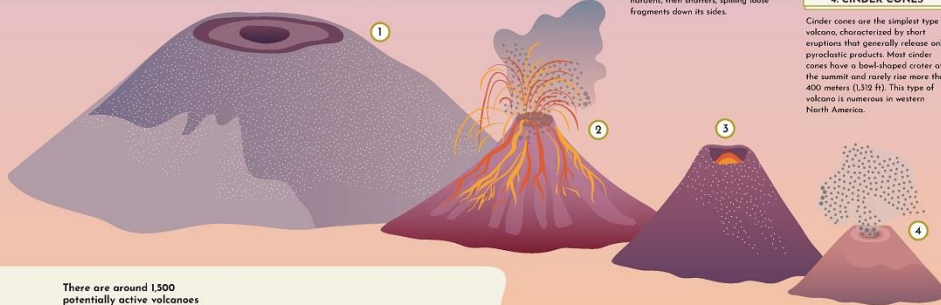
3. VOLCANIC DOMES

Volcanic domes, also called lava domes, are formed by relatively small, bulbous masses of lava too viscous to flow any great distance. On extrusion, the lava piles over and around its vent and a dome grows largely by expansion from within.

As it grows, its outer surface cools and hardens, then shatters, pulling loose fragments down its sides.

4. CINDER CONES

Cinder cones are the simplest type of volcano, characterized by short eruptions that generally release only pyroclastic products. Most cinder cones have a bowl-shaped crater at the summit and rarely rise more than 400 meters (1,312 ft). This type of volcano is numerous in western North America.



There are around 1,500 potentially active volcanoes around the world



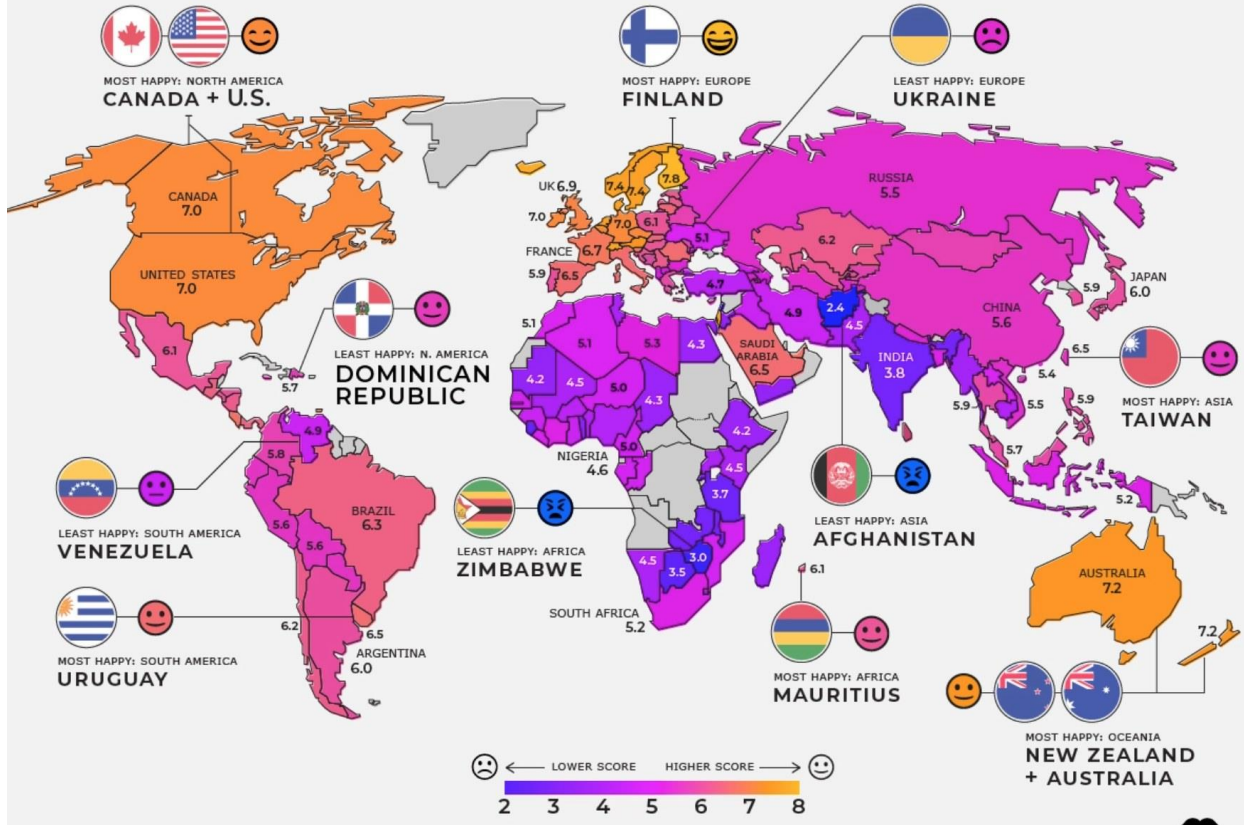
About 50-70 volcanoes become active every year



On average, there are 90 volcanoes actively erupting on any particular day



THE MOST AND LEAST **HAPPY** COUNTRIES AROUND THE WORLD 2022



SOURCE: World Happiness Report 2022

SHAPE OF THE WORLD

Have you ever been surprised that accurate maps precede planes and satellites? Accurate world maps came about earlier than many think, yet they were a long, long way coming.

150 AD

Claudius Ptolemy, Alexandria, Egypt

The first to use projection of latitude and longitude based on astronomical observations. Ptolemy's book "Geographia" listed the positions of 8,242 sites and probably also included seas.

Used for centuries, but rediscovered and reconstructed from the list of coordinates in the 16th Century, we don't know the exact extent of the original maps.



1050

Unknown maker, Qatif-Samar, Mesopotamia, France

A classic Medieval T-O map, the depicts Asia (right half), Europe (lower left) and Africa (lower left). A minor objection, however, was not to explain the world but the Bible. More importantly, these cartographers of features Jerusalem and Calvary (center), the Biblical south, the Red Sea, Sinai, the Garden of Eden and Paradise.

Originally oriented with east up, Eden was at top center, closest to the heavens.



1154

Muhammad al-Idrisi, Palermo, Italy

All a time when most world maps were based on the Bible, al-Idrisi took his information from travelers' and merchants' accounts. Most evidence were based on the highly accurate method of connecting travel time. Still, compared to its contemporaries, the map resembled a recognizable and detailed Eurasian and Northern Africa.



1375

Abraham Ortelius, Middelburg, Spain

The world's first map based on ships' logs and a very accurate where distances and directions were well known. For areas outside the Mediterranean, the Black Sea and parts of the North Atlantic, however, it relies on hearsay and guesswork like earlier maps.



1489

Hernus Mercator, Florence, Italy

A milestone in depicting the Old World. Mercator's map used distance, like Ptolemy's, but it took an idea, and Bartholomew Dier's first circumnavigation of Africa. Dier's long journey inspired Mercator's latitude by the sun (his map incorrectly depicts the north pole as the Arctic) but did not get longitude, leading to distorted east-west distances.



1529

Diego Ribero, Seville, Spain

The Spanish Crown's official and exact world map, was updated by Spanish explorers under penalty of death. Based on an enormous number of ships' logs, it covered most of the world's coasts. Coasts of the Americas were based on port logs and dead reckoning from a few fixed positions (correcting compass and magnetic variations, and were not well suited for sailing into a larger sea).

Areas unknown by most Europeans, i.e., Northern Europe and North America, were depicted differently.



1599

Edward Wright, London, England

Wright perfected the 1569 Mercator projection, i.e. an actual grid for plotting positions. Using the Earth's circumference into consideration, although the new ships' logs were still approximate, the dots could now be presented more accurately and regularly.

Wright's map included new discoveries such as Henry Hudson's first voyage to Europe in 1609, Svalbard (1726), the Dutch Strait (1795), Japan (1792) and the Antarctic Area (1842).



1778

Jacques Nicolas, Berlin, Paris

With the invention of the marine chronometer in the 1760s, ships were able to correctly determine longitude, perfecting the east-west resolution of coast.

After the Cassini family successfully projected France's shape and size by triangulation in the 1740s, several European states set up triangulating bodies which in time generated accurate maps of land boundaries.

Although some coasts were still unexplored or needed larger data sets for correction, this was truly a modern world map.



1832

Adolf Stieler, Gotha, Germany

The "Stieler" was the leading European atlas since the early 1800s. In the second half of the 19th century, and independent Pacific regions are missing or depicted inaccurately, while the rest of the world's coasts are accurately portrayed. By now, ships' instruments were so accurate that a single journey could provide good maps of new lands.

The cartographer's interests, however, are a completely different story.



Thank you for reading and have a lovely Christmas!

