CARTOGRAMS

THE WILD SPACES

BY BENJAMIN HENNIG

In a globalised world, distance appears to have become almost irrelevant. Transport and communication technologies have changed our interaction with distant places considerably, and there appear to be few remote or even undiscovered spaces left on our planet.

Earth's surface has an extent of approximately 510 million sq km of which almost 30 per cent (149 million sq km) is land area. And yet, despite humans having become such a dominant factor, 106 million sq km of the land surface remains unoccupied or unused.

Only very small amounts of people are living in sparsely populated areas, which is an expression of the strong organisation of human societies to maximise those living in close relative proximity. 95 per cent of the world's population lives on just ten per cent of the land area. However, the remaining 90 per cent of space is far from being uniformly remote. Some of the spaces unspoiled by human occupation are quite inaccessible even in our interconnected world. In a study conducted for the World Bank's World Development Report, Uchida and Nelson looked at the accessibility of places by calculating the travel time from the nearest large city of 50,000 or more people using land- or water-based travel.

Ten per cent of the land area is so remote that it is more than 48 hours travel time from a large city. In wealthier countries, only 15 per cent of people live more than an hour of travel time from a large city, while the same applies to 65 per cent of people living in the poorer regions of the world.

This cartogram shows the land surface transformed according to the absolute travel time that is necessary to reach the nearest large city using a gridded cartogram projection. The larger a grid cell appears, the more remote it is, highlighting the least accessible spaces on the planet (Antarctica has not been included in the transformation and appears in its original shape).

More than half of the world's population according to UN estimates now lives in cities. This map shows those places that most of the people living in the world need the longest time to get to. It draws an image of the areas that are almost disconnected from the often-quoted 'shrinking' effects of globalisation. This world map is the striking opposite representation of our image of a globalised and interconnected world, of those vanishing places that we thought do not exist anymore.

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ENVIRONMENT

BACK FROM THE DEAD

Declared biologically dead in 1950s, the Thames is now home to hundreds of species of fish, seals, porpoises and more

According to a ten-year marine mammal survey by the Zoological Society of London, there have been more than 1,000 harbour seal (pictured below) sightings along the river Thames over the past decade, along with dozens of harbour porpoise sightings and even the occasional whale. 'People look at the Thames and see murky water,' says Sofia Castello y Tickell, co-author of the study, 'but in fact, it is full of life ranging from invertebrates to fish and top predators such as seals.'

The tidal Thames had been used as the London's drainage system for centuries before it was declared biologically dead by the Natural History Museum in 1957. The waters around the most developed areas of the city had become anaerobic – devoid of oxygen and unable to sustain life. Following the introduction of tough legislation in the 1990s, the 'big stink' began to make a biological comeback. Most harmful effluents are now prevented from entering the Thames and its tributaries, while sewage is treated and exported elsewhere. Given this chance, 400 invertebrates and 125 species of fish, have returned to the grey-green waters. 'Marine mammals are most likely following their food,' says Joanne Barker, marine biologist at the ZSL and co-author of the study. 'Harbour seals have been seen at Hampton Court, porpoises and dolphins at Teddington Lock and whales as far as Gravesend.' Canary Wharf is the best place to see marine species as more sightings were reported there than anywhere else along the Thames estuary.

While the water quality has improved, harmful pollutants are still adrift in the form of plastics. A study by Royal Holloway found 70 per cent of flounder had plastic in their guts. Plastics are thought to cause the bioaccumulation of toxins in marine species. 'Although much cleaner than in the 1950's,' says Barker, 'the Thames still has a number of problems and has a long way to go before I would describe it as being clean.'