



Dispatches From The Wild, Weird World Of Humanity And Its Biosphere

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## Massachusetts



The waters around Cape Cod, Massachusetts, have grown warmer in recent decades, attracting sea turtles from species ranging from the titanic loggerheads to the critically endangered Kemp's Ridley. However, New England fall and winter still pack a punch, and ocean temperatures sometimes drop very quickly. The turtles, having

evolved for warmer climes, then become "cold-stunned," their [ectothermic \(i.e. cold-blooded, unable to warm themselves internally\)](#) metabolisms rendering them completely paralyzed. Fortunately, they still float, often washing up on beaches with the tide, and can survive a long time in this immobile, cold-stunned condition. This has led the New England Aquarium to form a team of noble-hearted guardians at their [Sea Turtle Rescue Center](#), dedicated to combing the Cape Cod beaches from October through December, retrieving stranded turtles, and gradually moving them through sequences of colder to warmer water to safely wake them from their paralyzed cold-stunned state. Each turtle also gets a medical checkup and X-ray, and receives more intensive care with bloodwork and antibiotics if necessary. ([Pictured: a rescued cold-stunned sea turtle receiving supplementary oxygen at the New England Aquarium](#)). Over [80% of the turtles survive](#)-a very impressive recovery rate for wild animal rehabilitation!

Once the turtles have sufficiently recovered at the aquarium, they can't be ethically released in New England: it's too cold now and

they'd die. (This would be especially damaging for the [Kemp's Ridley sea turtles](#), a critically endangered and very slowly recovering species with only a few thousand left). So an amazing volunteer organization, [Turtles Fly Too](#), has sprung up, in which pilots volunteer their skills and time to fly these rescued sea turtles south to partner aquariums in Georgia, Florida, and South Carolina, where they are released into more hospitable waters. (Pictured: prep for transport). This is a large-scale operation, too: so far in autumn 2021, [the team has cared for 119 cold-stunned sea turtles, 109 of them Kemp's Ridleys](#), and 40 have already been flown south. This is a truly heartwarming example of humanity at its best, really stepping up to the role of a caretaker "older sibling" species willing to expend great effort to care for our companions on this planet. Great news!



## South Korea, the Arctic, and Madagascar



For years, architects, engineers, and dreamers have talked about building floating ocean-going cities, or seasteading. The [few real-world attempts so far](#) have been very small-scale, often funded by eccentric grouplets trying to start utopian states, and generally ended in soggy failure. Now, for the first time it looks like an actually credible entity is planning to build floating habitats. **Busan, South Korea**, a shipbuilding hub and industrial port city with over 3.4 million people, has [signed a deal](#) with UN-Habitat and Dutch architecture firm OCEANIX to build a prototype floating city, composed of limestone hexagonal platforms hosting homes and businesses on top and food-producing aquaculture systems on the underside. The [new floating neighborhood](#) will be a stationary seagoing extension of the city of Busan, with specific size and placement to be unveiled in April 2022 after consultation with local stakeholders, and construction of the first prototype set to be complete in 2025. (Pictured: [OCEANIX concept art](#)).

“Sustainable floating cities are a part of the arsenal of climate adaptation strategies available to us. Instead of fighting with water, let us learn to live in harmony with it. We look forward to developing climate adaptation and nature-based solutions through the floating city concept, and Busan is the ideal choice to deploy the prototype,” said [Maimunah Mohd Sharif](#), the Executive Director of UN-Habitat. This is a fascinating project that could be the first wave of an entirely new type of living space for humanity (imagine if every major coastal city extended itself into floating neighborhoods offshore!), and this writer very much looks forward to seeing what arises in Busan in the late 2020s!

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As ice recedes in the **Arctic Ocean**, the ecosystem is rapidly "Atlanticizing," becoming [more like the warmer waters to the south](#). [A new study has found](#) that **orcas**, the highly intelligent, predatory giant dolphins misleadingly also called "killer whales," are showing up in Arctic waters that they had previously avoided due to sea ice, as far north as the northern Chukchi Sea. They're likely following prey, such as seals and other marine mammals.

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In an important clarification, new research has found that the deadly drought and famine currently affecting far-southern **Madagascar** is, unlike many other recent wildfires, storms and droughts, likely *not* due to climate change, [with no statistically significant likelihood that increased global temperatures are the cause of the reduced rainfall in this region](#). This is a "normal" drought that would probably have still caused famine and suffering if we hadn't spent the last century pumping carbon into the atmosphere. ([For an amazing interactive map showing the results of dozens of similar studies on extreme weather events in the last ten years, evaluating which are likely due to climate change or would probably have happened anyway, click here](#)).

Before this new research came out, *The Weekly Anthropocene* had previously reported on this as a climate change-influenced famine, following early estimates from the World Food Programme. This new data underscores the importance of ending global poverty. Even without climate change, most of human history has been filled with mass suffering from famine, plague, and war, and it's [only in the last few decades that billions have risen out of extreme poverty](#). (This is one of the most important and yet most little-known facts about human history and the world today). The people Madagascar need-and deserve, as our fellow human beings-continued and expanded famine relief and development aid.

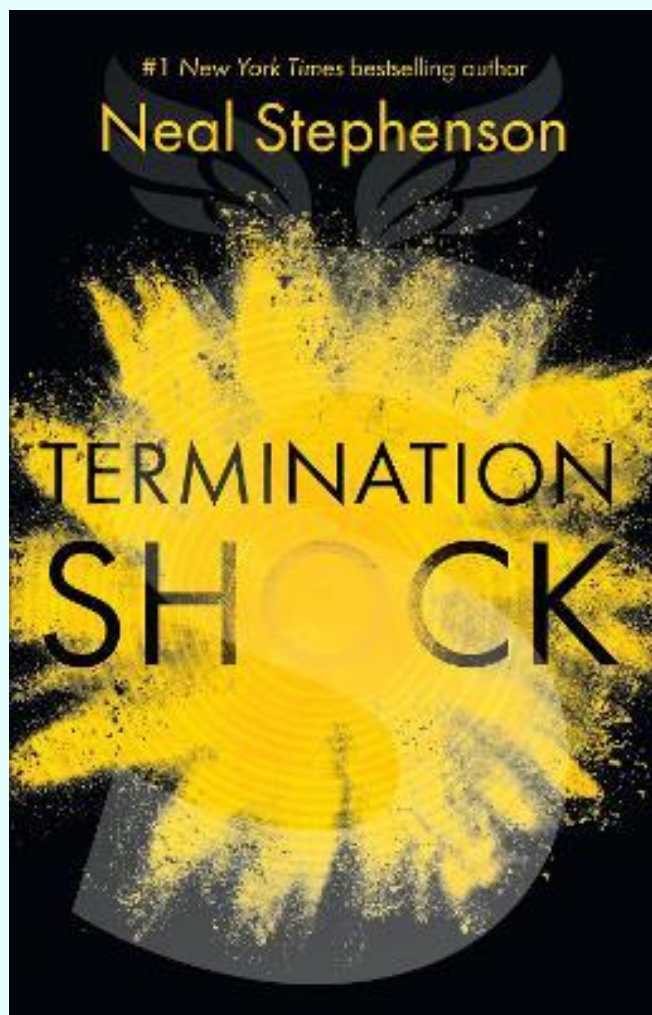


## The Weekly Anthropocene Book Review: *Termination Shock* by Neal Stephenson

[Neal Stephenson](#) is a grandmaster of science fiction, author of classics ranging from the virtual reality-pioneering *Snow Crash* to nanotechnology-inflected *The Diamond Age* to postapocalyptic space colonization in *Seveneves*. He coined the term "metaverse," his writing directly inspired Google Earth, and he was [an early technical advisor](#) for Jeff Bezos' rocketry company, Blue Origins. He's kind of a big deal. In his latest oeuvre, *Termination Shock*, Mr. Stephenson finally tackles climate change, in a novel focusing on a near-future scenario in which a charismatic billionaire develops and implements a program of [solar radiation geoengineering](#), a radical but possibly much-needed attempt to counteract some of climate change's effects by spreading light-reflecting sulfur dioxide in the stratosphere to mimic the cooling effects of the real-life [1991 Pinatubo eruption](#).. The international impacts, of course, are profound, with essentially every business and government power on Earth seeing an altered status quo.

However, this book is very, very far from a statistics-heavy, academic-focused climate science report (although *The Weekly Anthropocene* loves those, too!). It's just a heck of a lot of *fun* to read.

It's a near-future thriller of the Anthropocene as filtered through a James Bond novel, or perhaps a Marvel superhero movie. There's ample discussion of sea level rise, habitat shifts, climate refugees, heatwaves, and the ethics, science, and politics of geoengineering, including some impressively technically accurate discussion of the precise tradeoffs and risks involved in influencing the Southeast Asian monsoon. However, this is also a book that contains a skyscraper-sized stratosphere cannon, a very *Dune*-esque scene in which royals don "earthsuits" for extreme temperatures, an epic ongoing mixed martial tournament between Indian and Chinese champions to decide control of the Himalayas ([unbelievably](#), an extrapolation from real events!), Venetian separatists, cybernetically enhanced proprioception, a suave seventy-something social media-savvy superspy, and one man's Captain Ahab-like quest to hunt down and slay the



giant feral pig that killed his daughter.

If there's one complaint this writer has to make, it's that there's just so much going on in *Termination Shock* that the writing occasionally skips over really interesting stuff—a romantic arc could be wrapped up in a sentence or a character could be teased as making a big decision and then referred to in the next chapter as having made it and now be a few days or weeks into dealing with the fallout. However, much of this narrative space is happily filled by Stephenson's obvious glee at geeking out over the real-life facts he learned in his research. While reading *Termination Shock*, I learned a lot of fascinating stuff about the Dutch constitutional monarchy, the history of sulfur mining in New Guinea, the landscape of Texas' Chihuahuan Desert, the Sikh religion and culture, the unique legal status of the City of London, drone videography, rogue waves, and falconry. The action-packed climax, incredibly, brings aspects of almost all of the above together at once in pulse-pounding scenes worthy of any summer blockbuster. This book would be a superb holiday gift, not just for anyone interested in climate change, but for anyone interested in action and adventure novels. It's great!



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