

# **cross-cultural data visualisation**

project 2

## **developing a narrative**

with Martha & Marieke

During project 2 you will work on several assignments that will lead you to **the design of a physical data visualisation in a public space in order to convey a story to a target group.**

The subject of your data visualisation is: ***the impact of rising water levels on humans***. Your startpoint is soft data behind the storytelling of a photographic reportage around the consequences of global climate change. For this purpose you will make use of Kadir van Lohuizen's book "After us the Deluge". *(If you don't have access to the book you can use this site: <https://www.noorimages.com/lok-where-will-we-go>)*

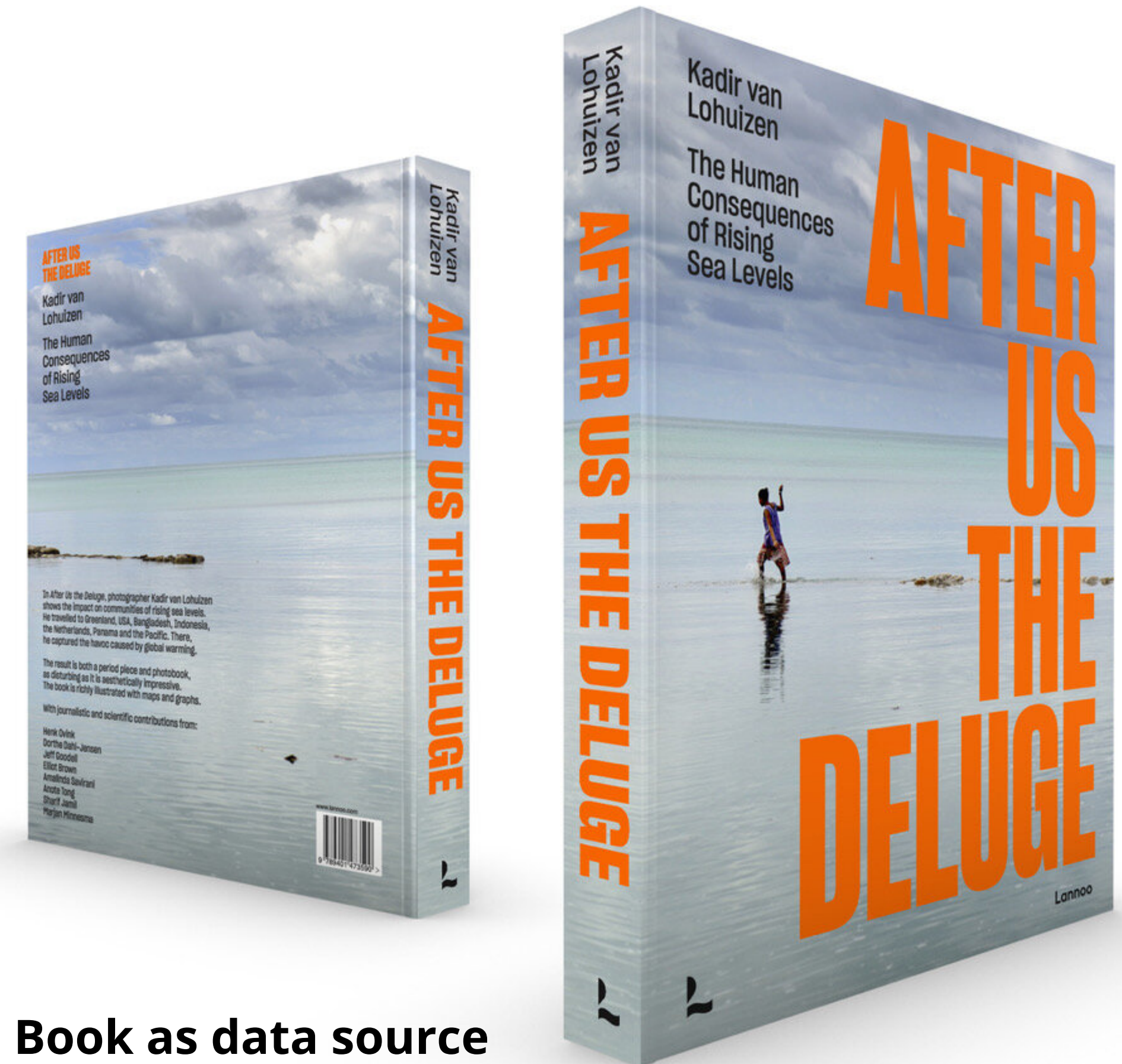


# SEE THE WORLD AS A DATA COLLECTOR



**Kadir van Lohuizen - Photographer**

Source: World press photo



**Book as data source**

**Dutch students, watch documentaries: "Na ons de zondvloed"**  
[https://www.npostart.nl/na-ons-de-zondvloed/10-11-2019/VPWON\\_1289033](https://www.npostart.nl/na-ons-de-zondvloed/10-11-2019/VPWON_1289033)

Source: After us the deluge  
Kadir van Lohuizen



New York

Sea level + 1.0 m

New York

Sea level + 2.0 m

THE UNITED STATES: MIAMI AND NEW YORK • JEFF GOODSELL

59

NEW YORK

In a world of rapidly rising seas, New York is better prepared than many coastal cities. As anyone who has seen the rock outcroppings in Central Park knows, much of Manhattan is built on 500-million-year-old schist, which is impervious to saltwater. There is plenty of high ground, not just in Upper Manhattan, in Washington Heights, but also along a ridge that runs diagonally through Queens and Brooklyn, including places like Park Slope and Jackson Heights. Finally, the city has brains, money and attitude – New York is not going to go down without a fight.

But in other ways, New York is surprisingly vulnerable. First, it's on an estuary. The Hudson River, which runs along the west side of the city, needs an exit. So, unlike a harbour city like Copenhagen, you can't just wall off the city from the rising ocean. Second, there are a lot of low areas in Brooklyn, Queens, and, most importantly, Lower Manhattan, which has been enlarged by landfill over the years. (If you compare a map of the damage from Hurricane Sandy in 2012 with a map of Manhattan from 1850, you'll see that they match pretty well – almost all of the flooding occurred in landfill areas.) The amount of real estate at risk in New York is mind-boggling: 71,500 buildings worth more than US\$200 billion stand in high-risk flood zones today, with thousands more buildings at risk with each foot (0.3 m) of sea level rise. In addition, New York has a lot of industrial waterfront, where toxic materials and poor communities live in close proximity, as well as a huge amount of underground infrastructure: subways, tunnels, electrical systems. And because of changes in ocean dynamics, as well as the fact that the ground beneath the city is sinking as the continent recovers from the last ice age, seas are now rising about 50% faster in the New York area than the global average.

LESSONS FROM HURRICANE SANDY

In the aftermath of Hurricane Sandy, a barrier system known informally as the 'Big U' was proposed that would loop around the entire bottom of Manhattan, from 42nd Street on the east to 127th Street on the west. The project, like many projects of this size and scale, ran into financial and legal problems. Instead, a smaller barrier system on the east side of Manhattan, known as the East Side Coastal Resiliency Project, is moving forward. The US\$1.5 billion project is an undulating 10-foot-high (3 m) steel-and-concrete-reinforced berm that will run about 2 miles (3.2 km) along the riverfront. There are plans in the works to build other walls and barriers in the Rockaways and on Staten Is-

land, as well as in Hoboken, New Jersey, across the Hudson River. And then there is the idea of walling New York off from the sea entirely whenever a storm approaches. Recently, the U.S. Army Corps of Engineers proposed a massive 6-mile-long (9.6 km) retractable barrier in New York's outer harbour to protect the entire city from Hurricane Sandy-like surges. The project, which would cost US\$149 billion and take 25 years to build, has already run into fierce opposition from New Yorkers who point out that the barrier would be ecologically devastating to New York's harbour, trapping sewage and toxins within. And given how fast sea levels are rising, and the uncertainty of what's to come, there is a good chance the barrier would be obsolete by the time it was completed.

BEYOND BARRIERS

In any case, fortifying New York will require more than just walls – it will require a radical rethinking of the relationship between the city and the people who live in it. If the central role of government is to keep people safe, what happens when people realize they are not safe? What is the government's role in keeping people out of harm's way? How does the government compensate people whose properties are under water? Adrian Geuze, a Dutch landscape architect who has done as much thinking about how to live with water as anyone, compares sea level rise to other transformative catastrophes such as the Dust Bowl, a partly human-caused natural disaster that profoundly changed the geography of America and also expanded the role that government plays in ensuring the long-term welfare of even the most vulnerable people. 'Dealing with sea level rise is going to require a rethinking of the social contract in America', Geuze told me.

In a world of rapidly rising seas, New York is fortunate. It has enough money and enough high ground to ride out whatever comes in this century. The question is, what kind of city will it be? Will it be a safe, livable place, alive with art and commerce, inspiring to the world? New York has always defined our idea of what a city is and can be. Now, as the water rises, New York may well define our idea of urban survival. 'I have the frame of 100 years', Geuze told me. 'Maybe 6, 9 feet (2.4 m to 2.7 m) of sea level rise. We can deal with that. But there will come a moment when no matter what you do, even a rich city like New York won't be able to do anything to protect itself. When is that moment? I don't know. But it is coming. What Mother Nature is telling us right now is, we are not in control.' •

Source: Climate Central (www.climatecentral.org)



80

THE UNITED STATES: NEW YORK

81

• Pages 78–79: A new apartment building on Park Avenue, Downtown Manhattan.

236

BANGLADESH

237

• Pages 234–235: Sadarghat is the main port in Dhaka. Many people from here navigate the route to the delta. Every day, many people arrive at the port of Dhaka by boat from the delta, migrating in the hope of a better life. Many lost their livelihoods due to frequent flooding.

A woman brings soil to the shore, which is being used to reclaim land to expand the area. Karail is a slum area in Dhaka next to the port of Dhaka by boat from the delta. Many of the people who live here have come from the delta, where they lost their livelihoods due to frequent flooding.



A video tour of Lohuizen's exhibition 'Rising Tide' at The National Maritime Museum (with English subtitles)



Source:  
<https://www.hetscheepvaartmuseum.com/whats-on/exhibitions/Scramble-for-the-Arctic-and-Rising-Tide/rising-tide/guided-tour-by-kadir-van-lohuizen>





*“Data is an abstract representation of our reality  
Therefore it’s a lens, a filter that we can use  
to see our world through.  
Any aspect of our world and especially our human  
nature. One aspect at a time.  
And I think that it is a particularly time for data  
to become a language that everyone  
should learn to speak and use.”*

Giorgia Lupi

# DATA HUMANISM

~~SMALL~~ ~~big~~ data

data ~~bandwidth~~ **QUALITY**

~~IMPERFECT~~ ~~infallible~~ data

~~SUBJECTIVE~~ ~~impartial~~ data

~~INSPIRING~~ ~~descriptive~~ data

~~SERENDIPITOUS~~ ~~predictive~~ data

data ~~conventions~~ **POSSIBILITIES**

data to ~~simplify~~ complexity / **DEPICT**

data ~~processing~~ **DRAWING**

**data** driven **design**

~~SPEND~~ ~~save~~ time with data

data is ~~numbers~~ **PEOPLE**

data will make us more ~~efficient~~ **HUMAN.**

@giorgialupi

