



City - Culture - Catastrophe

THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION

HORIZON 2020



# Cities, cultures, catastrophes

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# Dis-aster: the stars are misaligned



- Giving meaning to the incomprehensible: Act of God, act of Nature, revenge/retribution
- Social ordering but also: comfort and consolation
- Indonesia: natural upheaval presages social upheaval

# Disaster is constructed.....

<b>Event meets disaster criteria =&gt; Declaration of disaster</b>	<b>Yes</b>	<b>No</b>
<b>Yes</b>	Yes, yes	Yes, no
<b>No</b>	No, yes	No, no

Disaster = Stress

challenge > coping capacity

So: - reduce challenge or  
- increase coping capacity

Hypothesis: Cultural awareness increases coping capacity

# Why does culture matter?

## Some reasons:

- An awareness of culture fosters misunderstanding between 'worlds': civil-military, urban-rural
- Pitfall of treating people as irrational or apathetic individuals in emergency -> expect pro-social behaviour
- Treating people 'tabula rasa' ignores their cultural (tacit) knowledge
- Indiscriminate 'one size fits all' planning ignores taboos, codes, informal communications
- Social networks save lives, safety culture prevents accidents => identify formal / informal civil society

# Disaster and Culture

- Effect of disaster culture on preparedness, response, recovery
- Culture as barrier and challenge vs. Culture as asset and opportunity
- Culture at the level of organisations (subcultures), communities, countries

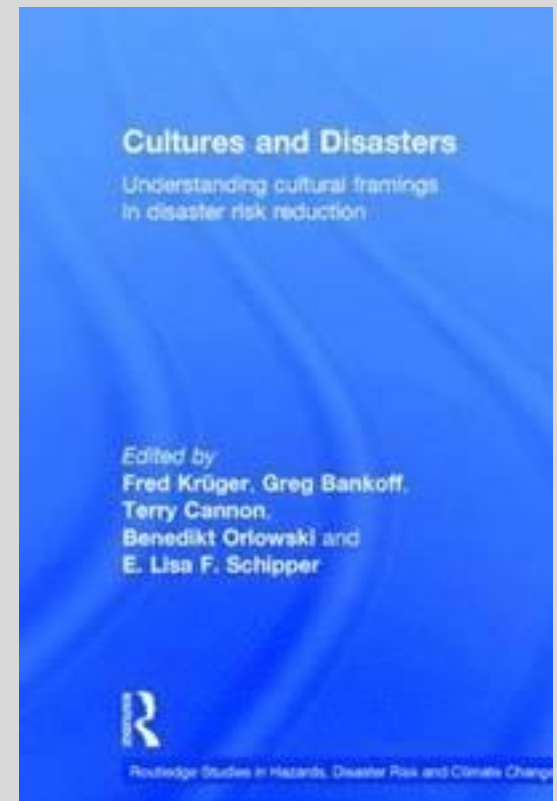


# Revival

2014 Red Cross World Disaster Report/Kruger book  
revives Culture & Disaster theme

Largely Political economy perspective

2015 Engel et al. Agency. Culture not a blueprint but  
always (re)negotiated





# Inclusive disaster planning

‘Whole-of-the-Nation’ in the USA

‘Whole-of-Society’ in Sweden

.... advocate network governance and collaboration between societal actors  
(Lindberg and Sundelius, 2012)

Push technology

NL: NL Alert

SE: Din Säkerhet

# Example: South Limburg flood culture

People used to helping each other evacuate, even if they can't stand each other

Being used to floods means higher tolerance - people may evacuate (too) late

But new arrivals (e.g. Polish farmer's wife) scared even by low water level

Arrival of embankments reduces flood awareness and preparedness

from high *p*, low *i*

to low *p*, high *i*

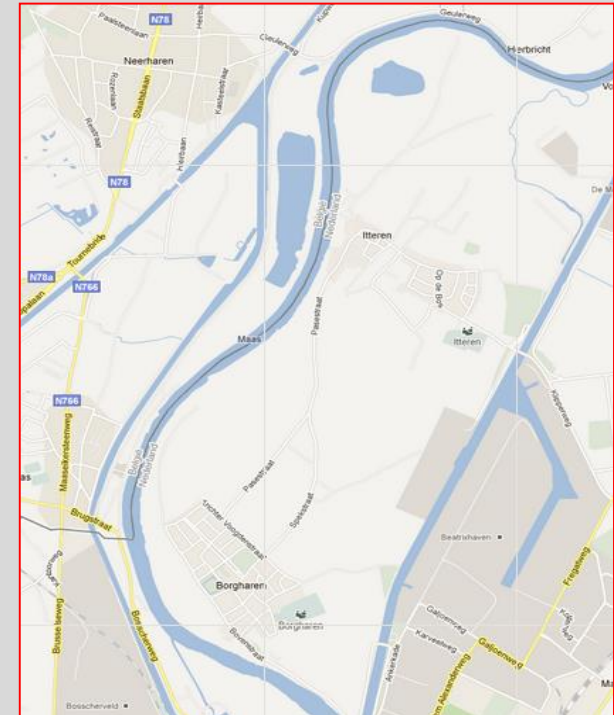
# 1993 and 1995: Floods in Southern Limburg



# Subcultural difference: Zooming in on two parishes

Borgharen and Itteren: part of Maastricht Local Authority domain

Parish councils - informal voluntary councils



# Differences despite proximity

## Borgharen

Pop: 1610 (in 2013)

45.37m NAP

0.5 – 1 m flood depth

Urban Civil Defence legacy

Good relationship with Local Authority

River as foe, environment has to be lived with

Often no architectural adaptation

No landscape symbols to remember flooding

## Itteren

Pop. 820 (in 2013)

44.83m NAP

1 – 2 m flood depth

History of self-help

Antagonism with Local Authority

River as disorderly neighbour who 'visits' now and then

Ground floor above historic flood level

Several landscape symbols

Buildings :

Borgharen vs. Itteren



# EDUCEN

Not a research project, but all about 'learning loops';  
process documentation is key

Workshops, games, stories facilitating local intercultural  
communication on DRR

Call: culture as challenge in DRR delivery

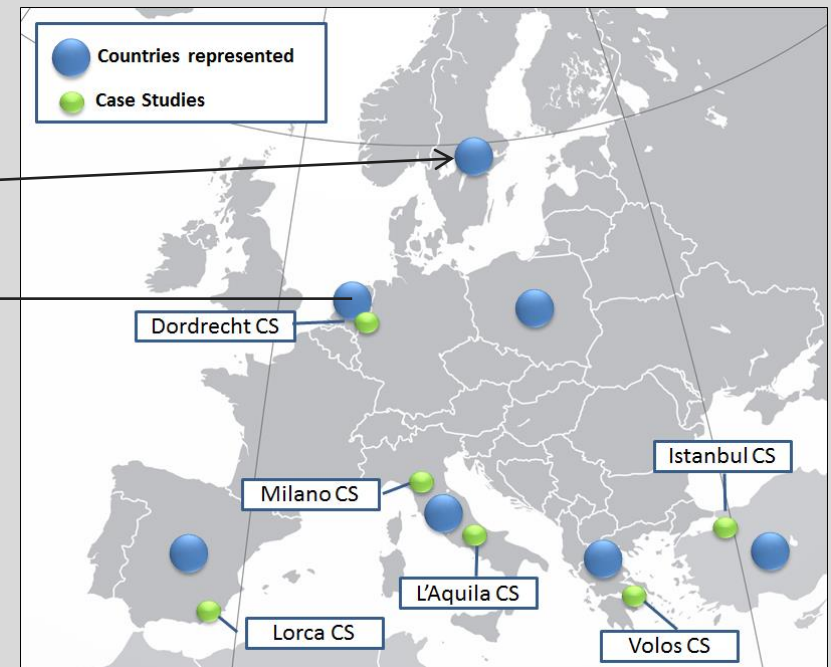
Our proposal: culture is just as much as of an asset!

Treat people as social actors rather than individuals

Soft infrastructure & green infrastructure = vital  
infrastructure

# European disasters in urban centres: a culture expert network

- Urban disaster and the role of culture
- Consortium: **11** organisations, **5** city pilots – academics and practitioners
- Beneficiaries: **7** cities + defence actors
  - 1<sup>st</sup> D-NL Corps of Army Engineers
  - Scandinavian angle: SEI
- Lead: Wageningen University, Netherlands





# Themes and cities

- Culture and memory (Volos, Dordrecht, Lorca)
- Cultural and social networks (l'Aquila, Lorca)
- Culture and infrastructure in urban areas (Milan, Umbria)
- Cultural learning
- Cultural empathy: simulations and serious gaming

Harder-to-reach groups (Istanbul) – physically handicapped, street dwellers, orthodox religious groups

# Learning within EDUCEN

- Intraconsortium learning and transferability
  - Learning loops



- Goal and end users
- Output of the project

# Limburg, Netherlands



# Dordrecht: Remembering the storm surge of 1953



# Ethics within ‘coordination and support activity’

- Europe has stepped up guidelines within ‘coordination and support’ action
- ‘Kitchen doctrine’: Clear separation between research and project activities





# Position Itteren (dike ring 91) and Borgharen (dike ring 92)



# Disaster as fun?

Wenger / Weller: disaster can be like carnival

Borgharen clergyman confirmed this: no work and all play, just drinking beer on flood days

Elderly lady: never had so much attention as when I was evacuated in 2011

# Simulation Lorca, Spain





# Simulation games

<https://www.youtube.com/watch?v=2ZmG5Qh7MqU>

EN English (United Kingdom) United States-International ? Help

https://www.youtube.com/watch?v=2ZmG5Qh7MqU




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6:36

2:02



# Hard & Soft Infrastructure

Soft infrastructure makes hard infrastructure work

Formal and informal infrastructure

Kirschenbaum: most disaster victims are saved by their relatives, friends, neighbours, passers-by

Edzold & Keck: informal social networks keep the city going when formal infrastructure breaks down



## Emerging New Roles for Designers and Planners: *Articulating Soft and Hard Infrastructures*

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**Hard infrastructure are often purposed by urbanists to facilitate further economic and societal development. However, the recent protests in Brazil and Turkey against the urban plans told the other side of the story of infrastructure: the design of hard infrastructure alone is not enough. Roberto Rocco, an assistant professor of TU Delft and also a Brazilian, reviews the underlying causes of the protest in Brazil, from which he stresses the importance of soft infrastructure and the political role of urban planners and designers.**

The idea explored in this edition of *Atlantis*, that cities are composed by "hard" and "soft" infrastructure, immediately caught my attention. I was initially not familiar with the work of Edward Malecki, for whom both "public and private sectors, and their interactions, are sustained by networks. To be effective, these networks must operate at the global, national, regional and local scales, gathering knowledge via social interaction, that is, through 'soft' networks".

Of course, these expressions are open for interpretation. Hard infrastructure is easily understandable as the physical environments and places where life occurs. But what is "soft infrastructure"? An understanding of soft infrastructure could perhaps include culture, political structures and institutions or the way these things are articulated and bound together by values, rules, traditions and conventions. Together they conceivably form the soft infrastructure that inhabit (and produce) physical space.

In urban planning and design studies, however, there is a specific way to understand these relationships. We try to understand how governments (and most specially formal spatial planning systems and spatial intervention practices) interact with civil society and the private sector for the production of space. This is called "governance". Governance is perhaps an effective shorthand to express the complexity of soft infrastructure in urbanism. The relationships among the public sector, the private sector and civil society happen within formal institutions (of which the rule of law is the best expression) and informal institutions (cultures, traditions and customs).

As I hinted in the first paragraph, the correlation between hard and soft infrastructure in the production of space is diachronic and mutual. Hard infrastructure simultaneously produces and is produced by soft infrastructure. Space is socially constructed, as Henri Lefebvre so masterly argued in his 1974 book "The production of space". Here, I argue that one of our roles as Urbanists is to try and understand the complex relationships between the hard infrastructure and the soft

one in order to be able to effectively and responsibly act and intervene in space.

The interactions between society and space are complex and to a large extent indomitable, as they cannot be fully understood and managed. However, in times of "big data" and "smart cities", we must still acknowledge the importance of governments and formal planning as steers of urban development. We must also acknowledge the role of politics in urban development and accept that urban planners and designers have a political role. Bringing politics back to design and planning studies is crucial in order to avoid the irrational belief some designers and planners seem to have on the effectiveness of architectural and urban designs and plans to "solve" social conflict by themselves; without an understanding of and without real connections to the larger social and economic processes and decision-making structures.

Urban space is essentially the space of politics, as Plato and a host of other thinkers have stated. It is the space of dispute and conflict, but also of negotiation, cooperation and cross-fertilization of ideas (as Jane Jacobs has brilliantly theorized in her book "The Economy of Cities and new economic geographers have been busy investigating ever since). All decisions concerning urban development are political decisions, since they must be negotiated among different parties that often hold conflicting views.

All this became evident to me while anxiously watching recent developments in Brazil and Turkey, where millions took to the streets because of spatial demands, which quickly turned to pleas for better democracies. It is revealing that both movements stemmed from two crucial urban demands: the demand for public space and green in the city and the demand for mobility. In Turkey, a peaceful protest against the construction of a shopping centre in one of the last remnants of green in the symbolic centre of Istanbul, quickly turned into a plea for real democracy when authorities turned a blind eye to legitimate demands from civil society and instead repressed demonstrations



Figure 1. Protest in Brazil 2013. ©<http://blogs.independent.co.uk>

*Once we have acknowledged  
hard infrastructures a  
is it possible that the design and planning of  
can help us at*

violently. A similar development took place in my native Brazil, where a peaceful movement for better public transportation was equally violently repressed by the authorities. Demonstrations multiplied and the nature of those movements changed into full-throttle pleas for better democracies, effective government, transparency and accountability.

What is the role of design and planning in all this? It seems evident to me that we, urban planners and designers, can contribute to the debate of what better democracies mean today through the understanding of how to act on urban space democratically and responsibly. Turkish urbanists can design good inner-city parks and Brazilian traffic-engineers are very good at planning bus and metro lines. But there is nothing good design can do against ineffective and corrupt governments or failures in negotiation and implementation. Or is there? Once

we have acknowledged that the design of hard infrastructure alone is not enough, is it possible that the design and planning of soft infrastructure can help us attain our objectives?

But before we try to answer that question, let's examine the events in Brazil more closely. What are people so angry about and what do they ultimately want? As I said, the initial demand concerned a plea for free public transportation. An organized movement called "Movimento Passe Livre" (roughly translated as "Free Pass Movement") argues that it would be feasible and even economically beneficial if public transportation were entirely subsidized by public money. They claim that mobility is a fundamental right and that by providing free transportation to the poor, the government would be greatly advancing their life chances, allowing them prompt access to jobs and services frequently

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# Culture needs preconditions to work

- People on the move like tourists, festival fans, holiday home owners, migrants, refugees may be cohesive as a group but
- may not speak the language (or mores)
  - are poorly informed/educated where they live/are
  - find themselves in poor/vulnerable accommodation

Responders/interveners are like that too!

# Some unexpected support

- Doomsday preppers
- Hobby clubs (electronics, cooking...)
- Schools, scouts
- Youth 'gangs'(?)
- (Spain, Italy): contracted professional volunteers

## Challenge:

- \* Accepting nonprofessional knowledge&skills as legitimate
- \* Finding acceptance/legitimacy from social groups

# Urban planning culture

Enschede, May 2000: in the middle of a residential area, right next to each other :

- a fireworks depot, including illegal Chinese explosives
- a wastepaper depot
- a beer brewer with a tank on top

Letters from concerned citizens were dismissed: wrong desk.

# Enschede 2000





## Enschede response

It started as a fire, so fire brigades were also caught unawares by the explosions

Local football association made their grounds available as refuge for hundreds of displaced people

Good news: rehabilitation/transformation with great social support, cohesive neighbourhood

Traumatised people 10 years later; Turkish population (1/3) felt neglected.

## Milan (It): reaching Turkish migrant population

- Polimi: how do you do action research among Turkish population on DRR?

Leaflets and roadshows do not work

- Solutions: visit religious and cultural feasts and mingle

Look for ambassadors, opinion leaders

Presence (familiarity) matters

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## The Relevance of Soft Infrastructure in Disaster Management and Risk Reduction

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The increasing frequency and severity of both natural and technological disasters in the world, especially but not exclusively in urban areas, put cities at the centre of discussion among practitioners and scholars alike, raising fundamental questions about nature and society, about development and technology. Disasters make evident the lack of sustainability of many societies and signal varying degrees of development failures. Scientific and political debates are

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### ABOUT THIS ISSUE

# Closing conference: a major networking opportunity

29-30 March 2017, Dordrecht (NL)

- Parallel sessions with serious games, discussions, presentations of likeminded European projects (CAPFLO, CUIDAR, PLACARD, CARISMAND)
- Exercise and field trip
- Until then: monthly disaster & culture **webinar**

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Any questions or suggestions?

