2022 INTERNATIONAL CODE COUNCIL®
CONFERENCE | HEARINGS | EXPO

Codes, Cracks and a Search for Hope

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Gill Kernick is the author of Catastrophe and Systemic Change: Learning from the Grenfell Tower Fire and Other Disasters. It combines her decades of experience consulting organisations in high hazard industries to build the leadership and culture to prevent catastrophic events, with a deeply personal connection to the 2017 fire.

From 2011 to 2014 Gill lived on the 21st floor of Grenfell, seven of her immediate neighbours were among the seventy-two deaths.

In April 2022 Gill joined Arup University as Transformation Director working to shape a university that enables Arup and its clients to create a sustainable world.

An afternoon that changed me…

I want to start in the same place that I will end.

In a regular building in West London…

I steal myself as the guards guide me through the security checks.

It is the last day of the Grenfell Inquiry Hearings.

This final module sets out the individual circumstances surrounding each death.

I am here to attend the hearings of my former neighbours, the El Wahabi's. They all died in their home - flat 182 on the 21st Floor. Abdulaziz's sister Hanan, lived on the 9th floor and escaped from the tower with her husband and two children.

The conditions on floor 21 were rapidly deteriorating and changing. It is against that backdrop that we hear about the numerous emergency calls that were made, and the advice given to stay in their flat and wait for the fire service.

One call to a Control Room Operator lasted for 59 minutes. Beginning at 1:38 (less than an hour after the fire started). The operator repeatedly tells the family to stay in their flat saying that the firefighters would be coming soon and would have oxygen. As the conditions worsen, she tells them to close windows, cover their faces and move to the bedroom.

Just after 2:21, the control room operator was told by the family that the fire was in the corridor of the flat and that the smoke was coming into the bedroom. She told the family to cover their mouths and to get as close to the floor as they could.

In another call at 2:47 the family say they are now under the bed. Nur Huda says "We are dying, and we can't get out". They are told the fire service is on its way. Abdulaziz says "I could have got out a long time ago, we could have but they said stay in the flat, stay in the flat. We stayed in the flat; we didn't leave."

In the final calls with the control room the family are advised to leave but they say it is too late as there is too much smoke and they cannot breathe.

According to the archaeological records, they all died in one of the bedrooms. They were lying close together.

…

Juxtaposed with these calls, outside the tower, Hanan and other members of her family were having desperate phone calls with the El Wahabi's, pleading with them to 'get out'. They stood outside the tower, watching the horror of the spreading flames unfold, they could see Abdulaziz and his family inside their flat at the windows.

According to protocols, Flat 182 should have been a priority for evacuation as it was known that there were children present.

There were no firefighter crews deployed or making it to that floor.

In the words of counsel Mary Monroe: One branch of the family survived: Hanan, her husband, her children. They did not make any emergency calls, they evacuated and survived. They live to mourn and question why.

I struggle to reconcile the faith the El Wahabi's placed in the control room operator's advice. Listening to them over their own families.

That afternoon has changed me in ways I do not yet understand.

It has made me think very differently about the burden of leadership.

About the advice we given and the decisions we take.

About the very real consequences of our failure to learn from tragic events.

This dialogue today, about learning from disasters could not be more important.

Transcript 21 July 2022_0.pdf (grenfelltowerinquiry.org.uk), pp 89-120.

Abdulaziz (52) was the glue to the family. He kept the gears running. He was the number one guy.’ *Zak, Abdulaziz’s nephew*

Faouzia (42) was like a sister. She would smile and be cheerful and be kind with everyone in the family and with neighbours and friends. *Amina, Abdulaziz’s sister*

Yasin (20) was described as a local celebrity. To know Yasin was to love Yasin. He was like a brother. *Zak, Yasin’s cousin*

Nur Huda (15) was a warm and good−spirited 15−year−old. She loved playing football, and she was incredibly skilled, aggressive and agile. *Nur Huda’s teachers*

Mehdi (8) had an infectious laugh. He was so funny. Amazing imagination, storyteller, non−stop talking like his dad, with added imagination. *Sara, Mehdi’s cousin*

Grenfell Tower Inquiry Hearings, 21 July 2022

Intention

My **wish** is that this session sparks **kernels of thoughts and ideas** that, after we leave, flower and bloom in unexpected ways.

My **hope** is that you are left with:

- **insights** as to why we are failing globally to prevent disasters,
- an **increased awareness** of our moral obligation as leaders to influence new ways of thinking and give voice to those that are currently not heard, and
- some **new questions and thoughts** about what might be done differently.

Four questions

- Why does our **failure to learn** make sense?
- How can we explore **systemic change**?
- Will the **global response** to façade fires lead to systemic change?
- Where can we find **hope**?

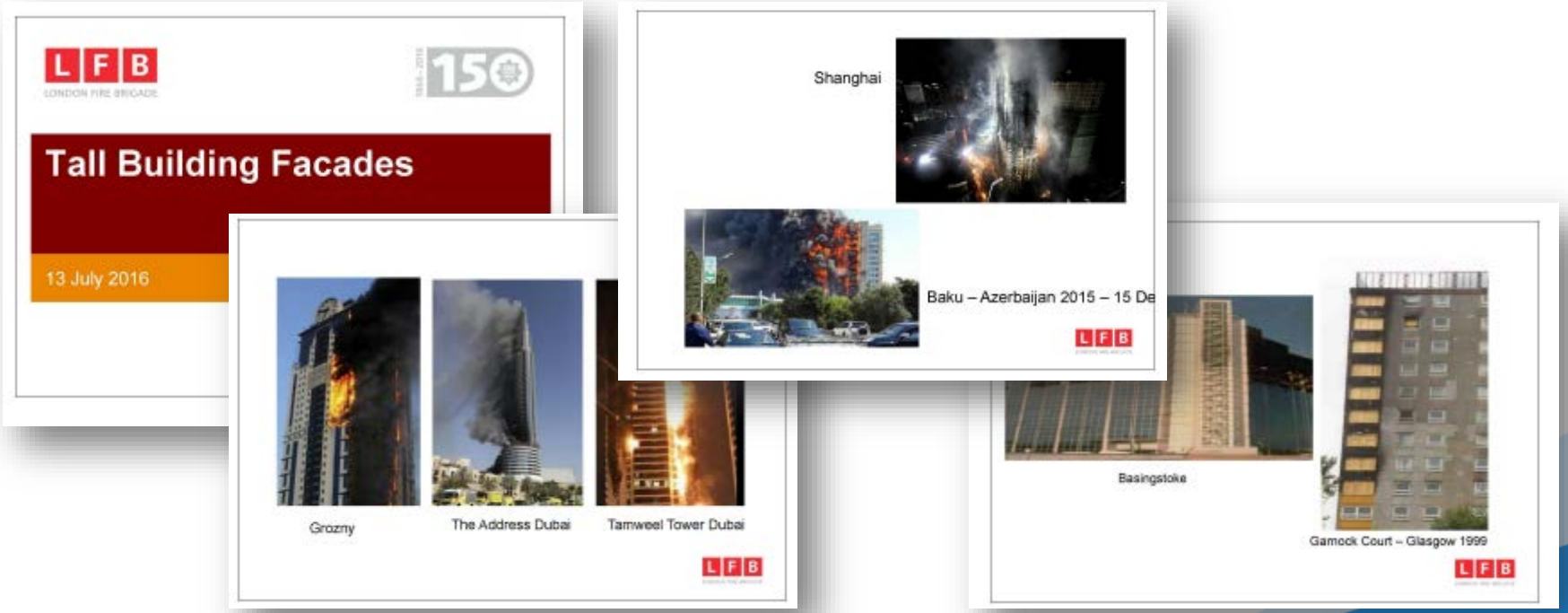
> …what solves problems, what moves things forward is asking the right questions.
>
> *Edgar Schein*

Why does our failure to learn make sense?

The primary risk therefore of a cladding system is that of providing a vehicle for assisting uncontrolled fire spread up the outer face of a building, with the strong possibility of the fire re-entering the building.

FBU Evidence, Environment Sub-committee, June 1999

Why does our failure to learn make sense?



LFB Powerpoint presentation on Tall Building Facades V2_0 LFB00003521.pdf (grenfelltowerinquiry.org.uk)

Why does our failure to learn make sense

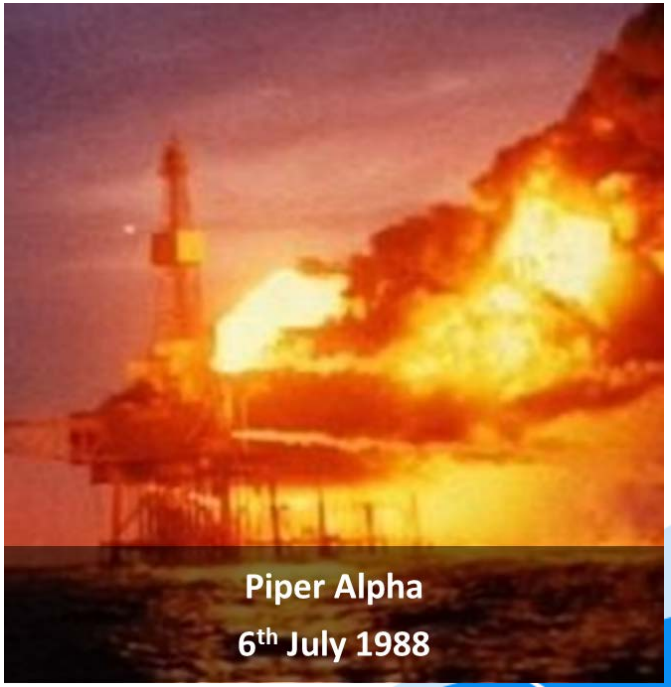
A failure to:

- View **low probability events** distinctly,
- Embrace **complexity**
- Differentiate between **piecemeal and systemic change**.

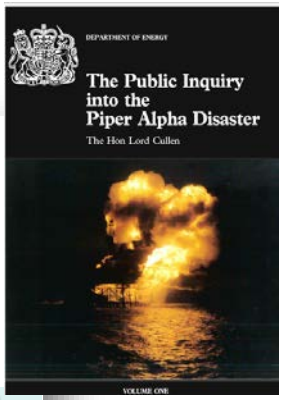
…We have to get beyond blame to the systemic, leadership and cultural issues that actually led to decisions being made'

Gill Kernick, BBC, 16th June 2017

Low Probability, High Consequence events



Low probability, high consequence events

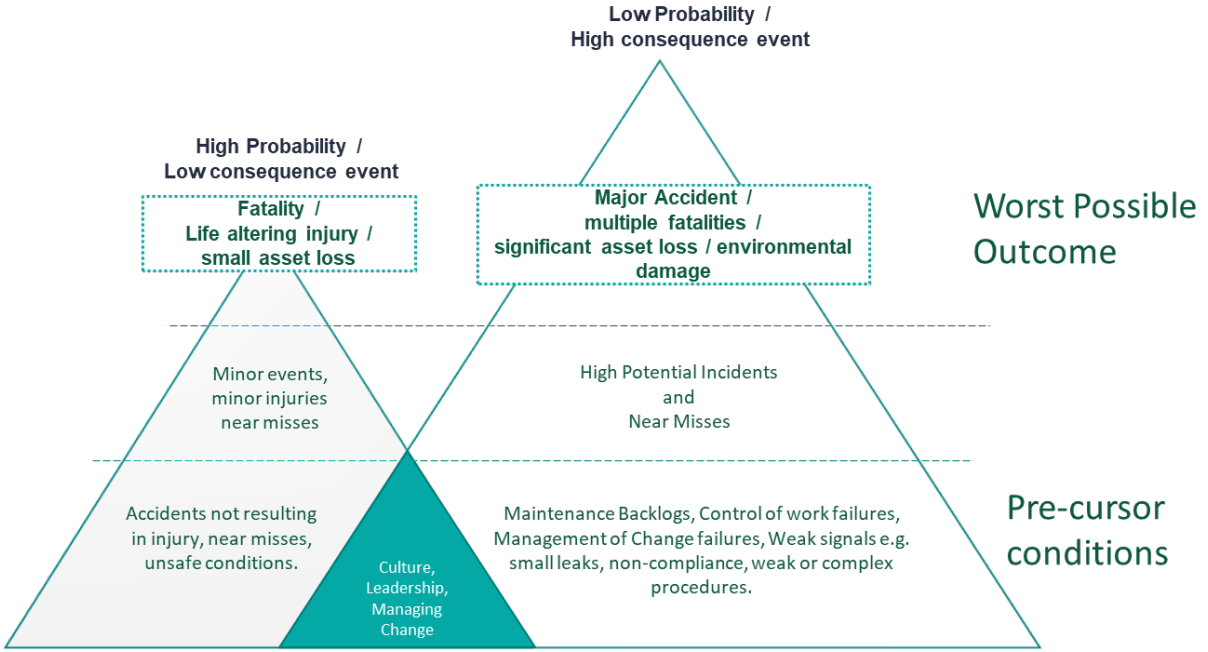


1.17 The disaster involved the realisation of a potential major hazard in that an explosion following a hydrocarbon leak led to the failure of gas risers which added very large amounts of fuel to the fire. Although such remote but potentially hazardous events had been envisaged Occidental did not require them to be assessed systematically; nor did the offshore safety regime require this. As I set out in Chapter 17, I am satisfied that operators of installations, both fixed and mobile and both planned and existing, should be required by regulation to carry out a formal safety assessment of major hazards, the purpose of which would be to demonstrate that the potential major hazards of the installation and the risks to personnel thereon have been identified and appropriate controls provided. This is to assure the operators that their operations are safe. However it is also a legitimate expectation of the workforce and the public that

3

Low probability, high consequence events

Does the built environment understand the nature of (and precursors for) low probability, high consequence events?



Complexity

- Change is **emergent**, rather than directed or controlled, interactions are non-linear and minor changes can have major consequences
- Complex systems are **not predictable**. Cause and effect are not tightly coupled, we can't predict outcomes or retrospectively assign cause.
- They involve a large number of **interacting elements** with distributed control
- They are **adaptive** and **co-evolve**.

Piecemeal versus Systemic Change

	Piecemeal Change	Systemic Change
Intent	Solving a piecemeal issue	Shifting the conditions holding the status quo in place
Question	What's wrong with a discrete part of the system?	What is the system perfectly designed for?
Assumption	Controllable, predictable world	Complex, emergent world
Access to change	Fix what is wrong	Make the Water Visible: grapple with the messy kaleidoscope
Approach to change	Technical Solutions *(if I do x, y will happen)*	Disrupting the status quo, experimenting *(if I do y, what will happen?)*
Leadership Style	Bureaucratic, command and control, rules based	Organic, emergent, values and principles based
Requires	Traditional Expertise	All Stakeholders - tacit expertise *(validating different ways of knowing)*

Systemic Change: Making the Water Visible

A fish is swimming along one day when another fish comes along and says:

Hey, how's the water?'

The first fish stares blankly at the second fish and then says, '

What's water'?

John Kania Mark Kramer Peter Senge, The Water of Systems Change

Photo by Kyaw Tun on Unsplash

Making the Water Visible: The Grenfell Model for Systemic Change

OBSCURE

OBVIOUS

RELATIONAL (Interacting)

How **interactions** between stakeholders contribute to catastrophic events.

E.g. regulatory capture, revolving door, speaking truth to power

CONTEXTUAL (Thinking)

The **contextual** aspects that impact our ability to prevent & learn.

E.g. culture, trust, bias, unquestioned assumptions & beliefs.

BEHAVIOURAL (Acting)

The mechanisms in place to **prevent** & **respond** to catastrophic events.

E.g. regulators, plan review and investigations, litigation

FOUNDATIONAL (Structural)

The elements in place to **prevent** catastrophic outcomes.

E.g. regulations, codes governance & accountabilities.

OPERATING FRAMEWORK

GOVERNING FRAMEWORK

Making the Water Visible: The messy kaleidoscope

RELATIONAL (Interacting)

Issues with Regulators (e.g., Regulatory Capture)
Issues with Institutions (e.g., Group Think)
Difficulty of Speaking Truth to Power
Weak Public Consultations
Using narratives that silence
Insufficient attention to relational issues
Failing to rebalance Power
Not tapping tapping & distributed knowledge

CONTEXTUAL (Thinking)

The web of Competing Tensions
Bias & Decision Making
Trust, Deception & Dissonant Action
Not tending to contextual elements
The role of Measurement & the Media
The role of grief in change.
Not effectively changing culture
Lack of Political Intent and Will
Lack of safe spaces to explore deeply held beliefs

BEHAVIOURAL (Acting)

Reactive Regulators
Failure to respond to Scrutiny
Weak Supply Chain management
Poor procurement practices
Inquiry recommendations not effectively implemented
Focus on blame and blame avoidance
Unfairly borne consequences
Outdated product classification, testing & marketing

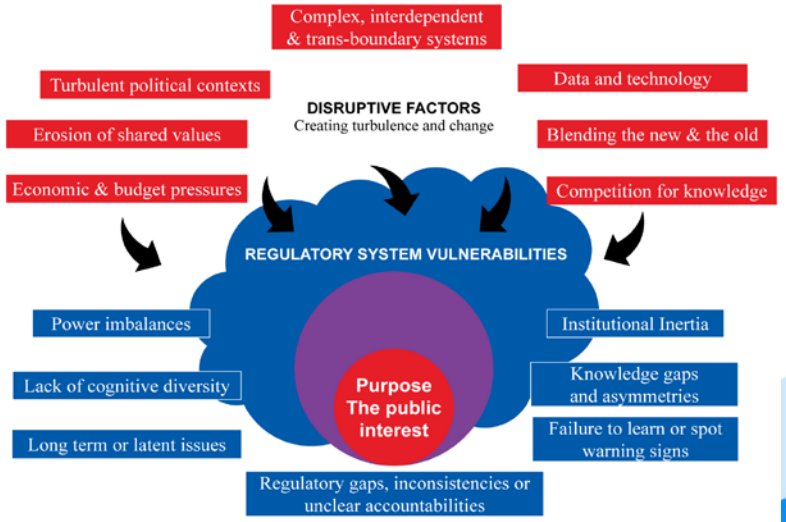
FOUNDATIONAL (Structural)

Regulatory Vulnerabilities
Weaknesses in Governance & Accountability
High turnover of ministers and civil servants
Complex delivery mechanisms
Increasingly complex Risks
Political agendas & the role of lobbying
Failure to distinguish low probability, high consequence risks
Lack of Competency to deal with risk, ambiguity & complexity

Foundational
The myth that regulations guarantee safe outcomes

- Regulations are **reactive**
- **Not** all regulation / code is good!
- Dealing with **historic failings** is difficult
- **Blind compliance** can increase risk
- The **nature of risk** is changing
- Regulations are **one input** to a complex socio-technical system
- Regulatory **vulnerabilities** are increasing

Disruptive future trends mapped onto regulatory system vulnerabilities

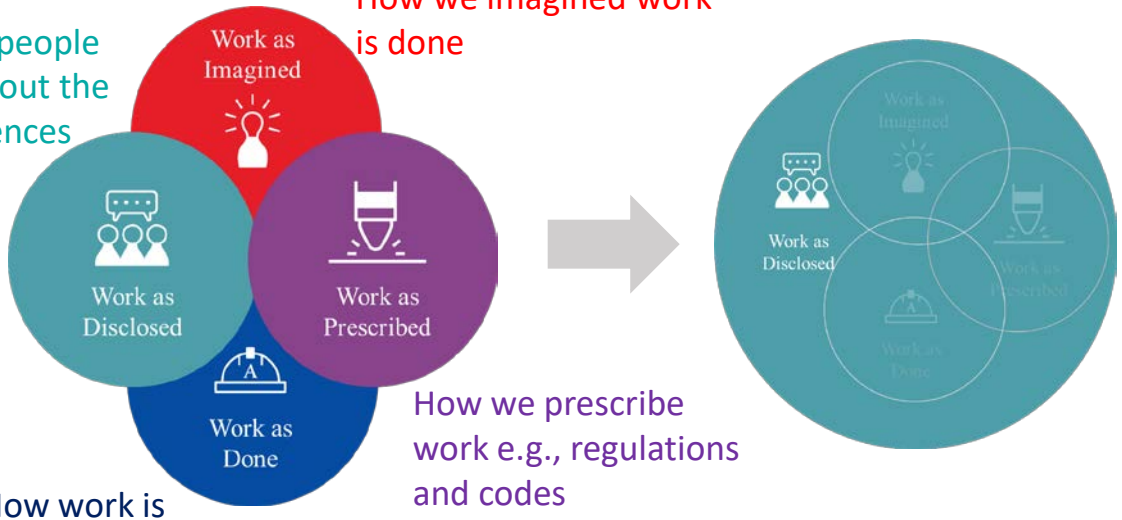


Judge, R and Elahi, S, March 2021, Foresight review of the future of regulatory systems: Regulating in a disruptive world.

Behavioural:
The myth of the perfect error free world

What people say about the differences

How we imagined work is done



How we prescribe work e.g., regulations and codes

How work is actually done

There is **always** a difference between work as imagined, prescribed, done and disclosed.

To fully understand risks, we must **expand work as disclosed**.

Relational:
The myth that softer relational issues aren't important

Investigation of March 15, 2018, Pedestrian Bridge Collapse at Florida International University, Miami, FL - July 2019 (osha.gov)

In safe cultures all lives matter and matter equally and all voices count.

The job of those with power is to make sure the voices of those with less power are heard and make a difference

Gill Kernick, BBC, Grenfell six month anniversary

Contextual:
The myth that we can create systemic change without shifting deeply held assumptions and beliefs


Photo by CoWomen on Unsplash

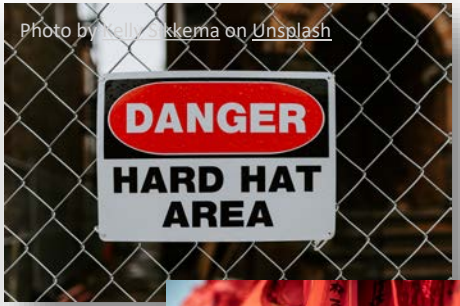


Photo by Kelly Sikkema on Unsplash


Photo by Isravel Raj on Unsplash


Photo by Jimmy Nilsson Masth on Unsplash


Photo by Jamie Street on Unsplash

Contextual:
The myth that we can create systemic change without shifting deeply held assumptions and beliefs

Global Megatrends

For example,

- *Growing cities*
- *Ageing populations*
- *Increasing inequality*
- *Continued disruption*
- *Political unrest*

The Global Response to Façade Fires

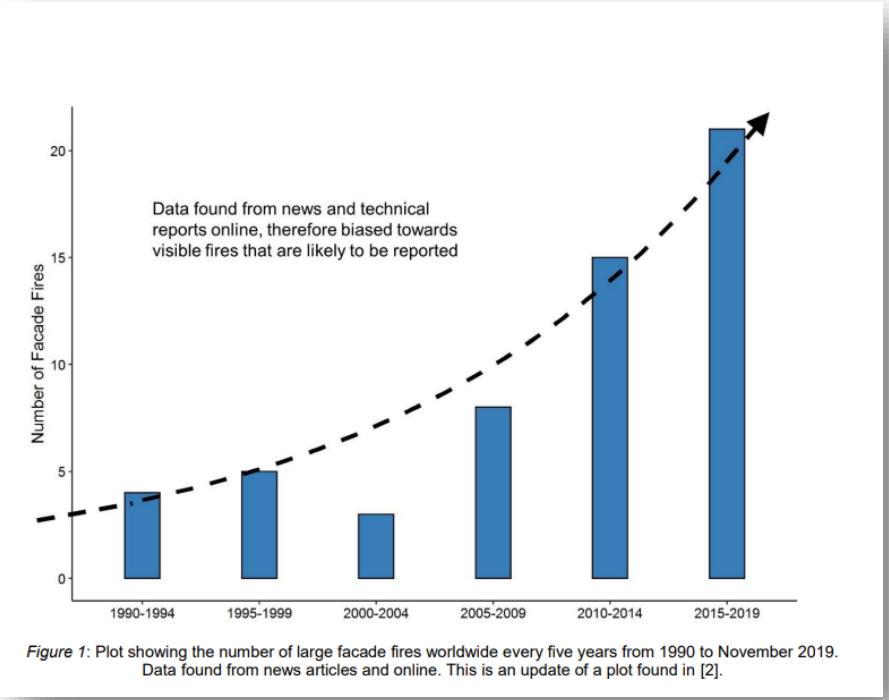


Figure 1: Plot showing the number of large facade fires worldwide every five years from 1990 to November 2019. Data found from news articles and online. This is an update of a plot found in [2].

- USA
- UK
- Australia
- Singapore
- UAE

KRESNIK: A top-down, statistical approach to understand the fire performance of building facades using standard test data Matthew Bonnera, Wojciech Wegrzynskib, Bartlomiej K. Papisb, Guillermo Reina'

The global response to façade fires

OBSCURE

OBVIOUS

RELATIONAL (Interacting)

?

Residents voices

CONTEXTUAL (Thinking)

?

Safety Cases
Remediation

BEHAVIOURAL (Acting)

Increased scrutiny and oversight
Tightening of control over materials
Safety case and gateway paths
A focus on competence

FOUNDATIONAL (Structural)

Legislative, regulation and code changes
Clarity on accountabilities and roles

OPERATING FRAMEWORK

GOVERNING FRAMEWORK

Four questions

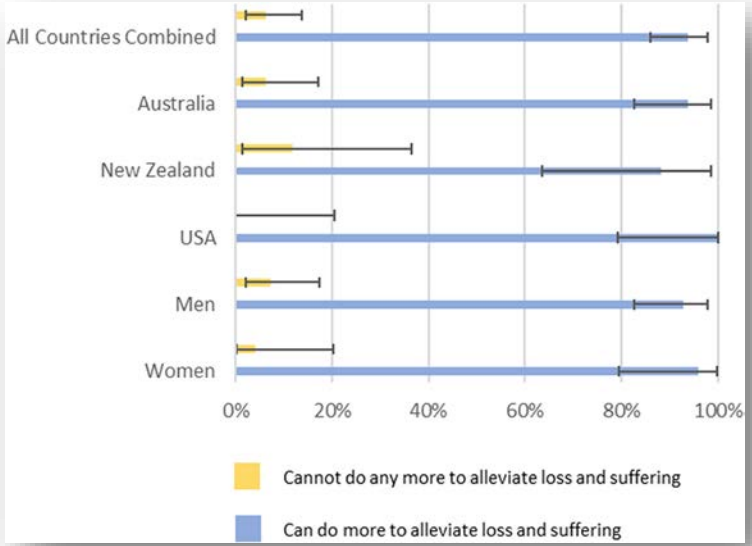
- Why does our **failure to learn** make sense?
  - **Low probability**, high consequence events
  - **Complexity**
  - Piecemeal versus **systemic change**
- How can we explore **systemic change**?
  - Making the **Water Visible**
  - The Grenfell **Model for Systemic Change**
  - **Myths**
- Will the **global response** to façade fires lead to systemic change?
- Where can we find **hope**?

> …what solves problems, what moves things forward is asking the right questions.
>
> *Edgar Schein*

Hope and Despair

Hope: The transformative Power of Grief

How well do disaster management leaders perceive loss, suffering, compassion and trust



https://www.sciencedirect.com/science/article/pii/S2590061722000357#f0010

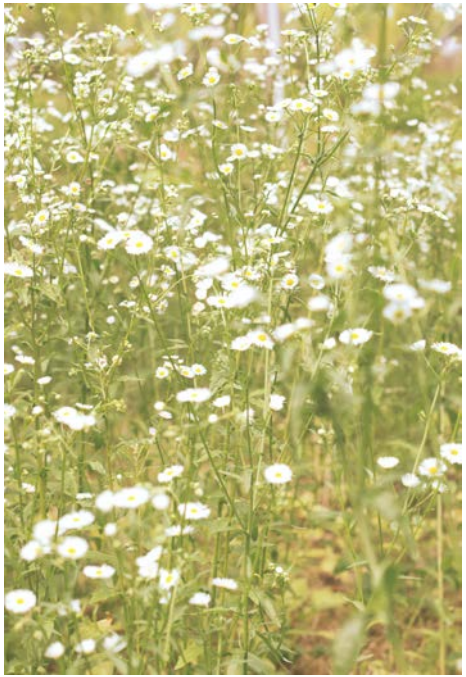
Characteristics that constitute the virtues of disaster management leadership.

Hope: The transformative power of grief

They didn’t treat us with respect or empathy or humanity, and if they had I wouldn’t be sitting here now.

Eddie Daffarn, Grenfell Survivor, Campaigner and Rebel Resident, Grenfell Tower Inquiry.

Hope: The democratisation of change



‘If you want to change things then you need to let a thousand flowers bloom, some will thrive, some will not you cannot determine in advance what will work… You want a wildflower meadow, not a formal garden’

Dave Snowden

Self Destructive Tendencies, 2020

... every decision, every act, omission, interpretation, understanding, practice, policy, protocol, affects someone somewhere, someone who is unknown and unseen, but who is an adored child, a beloved sister, a respected uncle, a needed mother.

Richard Millet QC, Counsel to the Grenfell Tower Inquiry, 21 July 2022

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