

Catastrophic fires shape cities for centuries—Grenfell Tower is no exception

June 10 2019, by Stamatis Zografos



Grenfell Tower, one year after the fire. Credit: [Carcharoth/Wikimedia Commons](#), [CC BY-SA](#)

It's been two years since a disastrous fire broke out at Grenfell Tower, a residential block of flats in North Kensington, London, on June 14, 2017. The fire is believed to have started on the fourth floor, "[in and](#)

[around](#)" a fridge freezer. It escaped through a kitchen window, traveled rapidly upwards through the cladding—which had been fitted during recent regeneration efforts—and ultimately claimed the lives of 72 people.

The report from [the first phase](#) of the public inquiry into the [fire](#) has been delayed and [no criminal charges](#) will be considered until 2021 at the earliest. Yet [a number of households](#) affected by the fire are still in temporary accommodation and the [tower](#) remains standing, as a reminder of this disaster. The Grenfell Tower fire not only survives in the nation's collective memory—it will, like so many previous catastrophes—continue to alter the shape of British cities for years to come.

Evolving through history

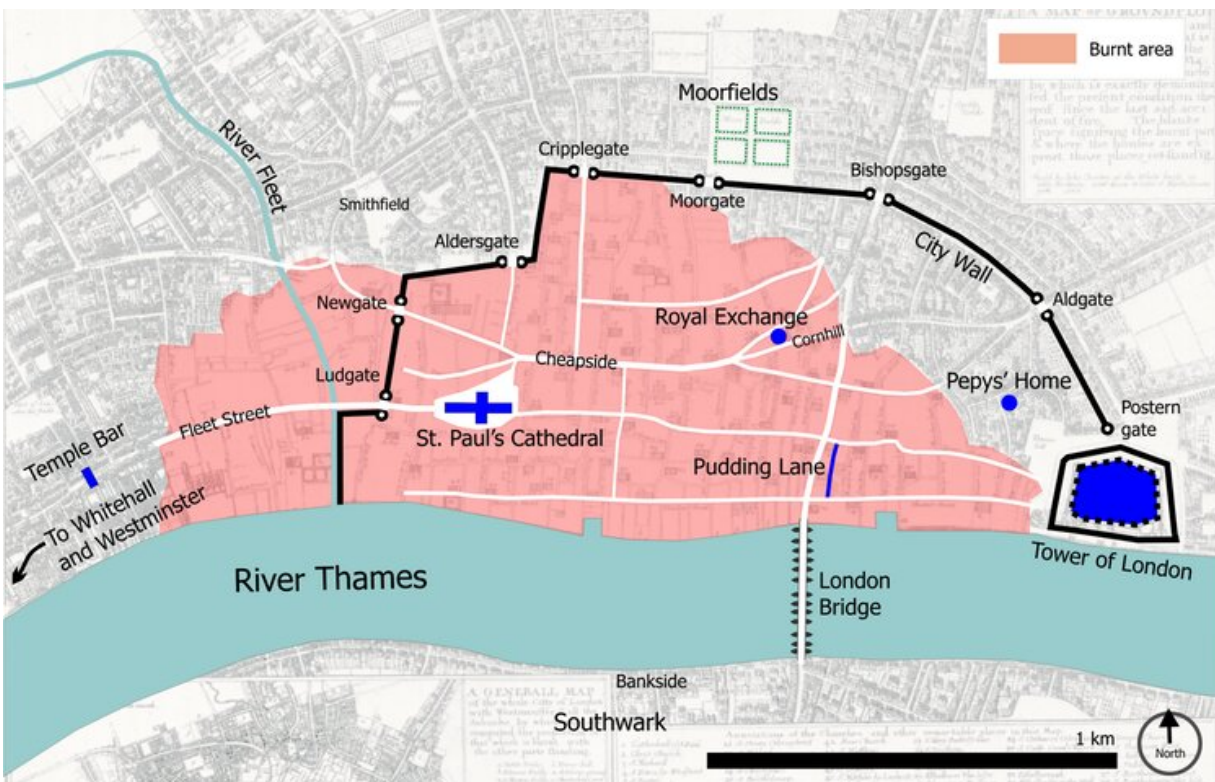
Buildings and the urban landscape evolve in response to past accidents and future threats. For example, long ago, devastating fires led to the establishment of organized fire services. The earliest historical record of organized fire fighting dates back to the Roman times. It was first the [Familia Publica](#) – a fire fighting force made up of slaves—and later the [Corps of Vigiles](#) that had stations throughout ancient Rome, from which they could attend fires.

Contemporary cities are similarly designed to accommodate the risk of fire. Fire stations occupy key positions so that fires can be attacked within minutes. Fire hydrants are installed offering a constant supply of water to the fire brigade. The way buildings are designed has also changed over the centuries, to minimize the risks posed by fire.

They respond to flames using heat, smoke and flame detection systems, fire sprinklers and alarms. Active fire protection systems are often programmed to automatically inform the fire brigade of an event, as well

as to trigger fire doors to shut and mechanical smoke vents to operate.

They are also constructed with fire-resisting components, such as walls, floors, doors and so on. These create fire compartments within the [building](#) so that flames cannot spread, inhabitants have time to escape and the fire brigade can do their work. The escape of inhabitants is made through fire exits, which are dedicated, safe routes to be used only in case of an emergency.



This map shows how far the Great Fire of London spread. Credit: [Bunchofgrapes/Wikimedia Commons](#)

Buildings with memory

Buildings must meet fire standards and follow regulations, which have existed for a long time. The [first recorded evidence](#) is the rules imposed by Hammurabi, the Babylonian king of Mesopotamia in 1,750BC. Article 229 of his rules stated that: "If a builder builds a house for someone, and does not construct it properly, and the house which he built falls in and kills its owner, then that builder shall be put to death."

Building regulations first dealt with the protection of occupants, and in more recent years these rules have included the protection of the property itself. Major catastrophes played a large role in these developments. For example, in the UK, after the Great Fire of London in 1666, building regulations in the city became strict and complex. The use of [stone and brick became compulsory](#) and tiled roofs replaced thatched ones.

Considering their history, building regulations carry a type of memory that relates to past accidents and catastrophes. This memory gives shape to buildings and determines the choice of construction materials, methods and technology, as soon as building regulations are enforced. When new accidents happen, regulations are updated accordingly—and in this sense architecture is always informed by its own failings.

After Grenfell

Grenfell Tower was part of the modernist dream to replace slums with high quality social housing. But it was built during the early 1970s, at a time when funding for [social housing was under strain](#). Although towers were structurally safe, there were no thermal insulation requirements for this type of building.

The cladding that was added to Grenfell tower in 2015-16—aside from refining the appearance of the tower—was intended to better insulate the building. Yet this cladding is also suspected to have contributed to the

rapid spread of the fire. Like most major incidents, the Grenfell Tower disaster prompted the government to [update building regulations](#). Two years after the accident, the government announced: "A clear ban on the use of combustible materials on the external walls of new buildings over 18 metres containing flats, as well as new hospitals, residential care premises, dormitories in boarding schools and student accommodation over 18 metres."

Although the Royal Institute of British Architects (RIBA) welcomed this ban, it also [prescribed a thorough revision](#) of "outdated building regulations and guidance" that could increase fire safety. Earlier in 2019, the British government also allocated £200m towards the [replacement of combustible cladding](#) on all private tower blocks in England, to avoid similar accidents. In following the updated [building regulations](#) and new government instructions, buildings in London will soon carry the memory of the fire at Grenfell Tower.

Two years since the fire, much remains to be done to improve the safety of residents around the UK, and ensure justice for the survivors. Yet the memory of Grenfell Tower is already shaping to shape the evolution of UK cities, and will only become further embedded in the urban landscape, in the hope that future tragedies can be avoided.

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