Pyrotechnic Cities: Architecture, Fire-Safety and Standardisation
Adam Jasper

Sometimes it is better not to go to the theatre. The Great Lafayette, whose real name was Sigmund Neuberger, was once one of the most sought after performers in Europe. He put on a tremendous show that was part magic act, part spectacle, with fire-eaters, contortionists, midgets, a live lion, and a mechanical teddy-bear operated by a 15-year-old girl. At the climax of his legendary performance, known as «The Lion's Bride» a young woman in oriental dress entered the lion's cage. The animal, approaching the woman, appeared about to pounce upon and maul her, but at the last moment the costume fell away to reveal Lafayette himself, to the feigned surprise and relief of the young woman. On the 9th of May, 1911, at the climactic moment, a lantern seemed to fall from the rigging of the Empire Palace Theatre, creating the appearance of fire in the draperies of the stage, a fittingly dramatic climax to the show. Except that the fire was real and unscripted, and began to rapidly consume the heavily decorated stage.

The quick-witted conductor, realising what had happened, immediately broke off the musical performance, to play God Save the King, the English anthem that usually preceded, sometimes ended, but was never played in the middle of a theatrical performance. The audience, totally confused, was roused by the patriotic music to immediately stand, and, realising that the show was, for the moment (and, as it happened, definitively) over, they filed out of the theatre in an orderly fashion. Women and children first, then the gentlemen, then the band, until the last musician, having wheezed out the last notes, escaped just in time as the theatre collapsed into a pile of cinders behind them. The cast — contortionists, midgets and 15-year-old girl included — were trapped by Lafayette's precaution of barricading the fire escapes so that no one might discover the secrets of his performance. Their deaths ultimately revealed it: His own charred remains were discovered twice, revealing that he had used a body double in his act.

I have paraphrased this story more or less as it appears on pages 45 and 46 of Liam Ross' quite extraordinary «Pyrotechnic Cities: Architecture, Fire-Safety and Standardisation. This particular story is gripping, with its rich weave of orientalism, magic, fate and death in a world that was, unbeknownst to anyone, about to disappear in the much greater conflagration of the First World War. One might ask what it has to do with architecture.

In newspaper reports following the terrible fire, much was made of the fact that the audience had managed to escape, unharmed — in the time it takes to sing the national anthem. This detail led to a curious piece of legislation: No part of any future building was to be further from a fire exit than can be traversed in two and a half minutes. In regulations, this is called «clearance time,» and in Scotland, it is defined by Building Standard 2.9.3 (Ross 49). The 1911 tragedy informed the scope of 1952 rules, and were in turn picked up by the UK engineering firm ARUP. When ARUP went on to design buildings internationally, it took that rule with it, baked in, as it were, to the internal intelligence of the company. So it is that the maximum uninterrupted interior volume of contemporary buildings is constrained, from Dubai to Tianjin, to the time it takes to hum God Save the King from beginning to end.

Liam Ross rightly identifies this constraint as a significant one in that history of architecture that is concerned with the law and its material consequences. Like the well known stories of the fire-escapes that are to be found across tenement buildings in New York and Chicago (and have earned the nickname «iron ivy»), the story of the origins of clearance time is one of those that determines the shape and appearance of contemporary cities. Such regulations, by-laws, ordinances, and codes are cumulatively enormously powerful. The manifold petty rules that determine setbacks, or building materials, that decide the size of entrances, or determine the angle of ramps, collectively do more to shape the appearance of our cities than the work of any architect. And of these constraints, fire rules are perhaps the most significant. Wherever you are, you can certainly find, if you look for them: fire-exit signs, escape routes, fire-doors, sprinklers, alarms. The space in which you are, its material, the width of the doors, the size and position of windows, all have had to somehow take into account the matrix of rules and standards around fire. Even the definition of art is influenced by them. The red kiosk in the foyer of the HIL building, reliable sources have told us, would count as an obstruction if it was a permanent fixture. In order to stay in the building, it needs to be classified as a sculpture and not as a room. In obedience to this, it is moved ten centimetres every month by a manual forklift. The ritual of its repeated slight movements has become part of its ontological claim to be art.

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A «Pyrotechnic Cities» by Liam Ross, cover image of the book. Image: Liam Ross

Ross' anecdotes offer material beyond the limits of architecture. The fate of the Great Lafayette reminds us that historical causality is not the same as physical causality. Certain kinds of events, such as dramatic and tragic deaths, can carry consequences far beyond their immediate scope. The more absurd the chain of events, and the more tragic its consequences, the more likely it is that the collective consciousness will fix on one link in that chain and grant it disproportionate importance. The idea that two and a half minutes is a safe time in which to evacuate a burning building is a talismanic belief, or as Ross writes, «a spectral re-production of Neuberger's swan-sing, a real event, fossilized into norms and coefficients.» The fact that this rule is the result of a monarchical song suggests that even in rational systems, the dead body of the king still provides the metrics. But that's part of the nature of rules: a rule is not a good rule because it is reasonable, it is a good rule because everyone abides by it.

The other thing that needs to be noted — because even in non-fiction books, it is a matter of significance — is that Ross is a wonderful writer with a slightly evil sense of humour. In his due diligence regarding the origins of the national anthem itself, he reminds the reader that it was itself first sung at theatres, that the music is usually attributed to a German, Handel, and the original text is based on another, written to celebrate Louis XIV's survival of an operation to remove an anal fistula.

An evil sense of humour is significant because it shapes an understanding of history. And Ross has a feeling for the way that history, as it is written, tends to double back on itself, to rhyme and echo, as if events have a tendency to flow towards positions of maximal irony.

This is not the only case study in Ross' book, but it is perhaps one of the easiest to retell in isolation. Ross is otherwise expansive, including close readings of fire legislation, its causes and consequences, in Edinburgh, Lagos, Tokyo and London. His motivations are of the best kind: he is not seeking some kind of specious globalism in his approach, but rather, his choice of cities is shaped by their flammability. The history of all four cities is marked by accidental fires, but how they unfold, and the civic response to them, is also a crucial index of government control. Said slightly differently, each fire starts by chance, but how it unfolds, and how it is responded to, is a matter of state. In the case of Lagos, it is a mechanism of British imperial control. In the case of Tokyo under the Shogun, the fragile interior of the cities is designed to burn, neighbourhood by neighbourhood, each catastrophic but local fire serving as a salutary reminder to the population of their ultimate dependence upon the generosity of the emperor, who each time rebuilds for them their flammable houses (but you can read about that in Liam Ross' article for «gta papers» 4, «Spectres of Edo Castle»).

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