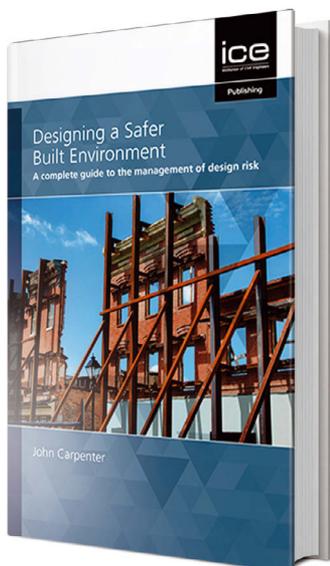


Review

Allan Mann wholeheartedly endorses this guide to the management of design risk, which will be of benefit both to those new to the topic and those already well versed in the subject.

Designing a Safer Built Environment: A complete guide to the management of design risk

Author: John Carpenter
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ALL DESIGNERS HAVE obligations to manage risk. Yet there is plenty of evidence that designers remain puzzled by the concepts and fail to look at all the risks accompanying their designs – which is why we still have many failures. Some of these are truly disastrous.

Even if we don't have failures, we have designs that may function inadequately or put workers at risk during the construction phase, and may endanger, or fail to assure, the health and safety of those who use them. And we have many examples of projects that just fail to meet cost and programme targets, often because inherent risks were not foreseen.

The concept of risk is both simple and familiar, yet at the same time complex. John Carpenter's book refers to the 2017 Grenfell Tower fire in London, which was an appalling disaster that ending up killing 72 innocent occupants, plaguing their families and scarring the nation.

If we look wider than Grenfell itself, we find that many more tall buildings were at similar risk; so other design teams also failed to identify the safety flaws inherent within their designs. That same pattern of wider error frequently repeats itself after every scandal. This is not supposed to happen and it should not happen if we consciously ask ourselves: what might go wrong and thence how do we conduct our affairs to minimise the likelihood of the worst happening?

None of this is easy. We tend to work in silos with one of those in structural engineering separating 'design' from 'construction', when in reality the two are intimately connected. It's all too easy for structural engineers to fall into the habit of believing they conduct a purely mathematical discipline.

In reality, we deal with uncertainty on a grand scale. And one of the biggest uncertainties in the chain of what we do lies with people: people in the team who do not interact properly with other disciplines; people who miscommunicate; people who have limited competence and so on.

Over his career, John has spent a great deal of time thinking and talking about these fundamental problems. He was a practising civil/structural engineer for many years and secretary of SCOSS (the Standing Committee on Structural Safety) for a long period. During his tenure, the CROSS confidential reporting scheme was launched.

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IF YOU KNOW NOTHING ABOUT RISK MANAGEMENT, START WITH THIS BOOK

After that, John was a founding member of the Temporary Works Forum (TWF), which complements his safety interests since many accidents and injuries are associated with temporary works on site.

John's book crystallises all his thoughts on how to manage risk. There are chapters giving the background to legislation (including CDM Regulations); the benefits of proper risk control; practical guidance on design risk management; some background on failures; and a chapter on temporary works.

John ends with a chapter on 'communication' and I quote: 'After some 50 years' experience in the construction industry if anyone was to ask the author, "What word represents the single most important benefit to design-related risk management?" the author would have no hesitation in saying: communication'.

The book closes with appendices giving more practical guidance.

If you know nothing about risk management and don't know where to start, start with this book. If you do know about risk management, read it anyway. You will find your ideas reinforced, challenged and widened. The book will guide you, as a designer, on your duties under the CDM Regulations.



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Allan has been an active member of the Institution of Structural Engineers for most of his 'engineering' life. He was awarded the Gold Medal in 2011. He is a former colleague of John Carpenter on the SCOSS committee and remains active on CROSS.