Questions for Thought and Discussion

- What have a skyscraper (like the Shard in London), a long span bridge (like the Golden Gate in San Francisco), a jumbo jet (like the A380), and a cruise liner (like the Queen Elizabeth) got in common?
- Why is structure important to you personally?
- What is the difference between natural and man-made structures?
- What is the difference between architecture and structural engineering? Why did the professions become separated?
- What different industries employ structural engineers?
- How do forces ‘flow’ through a structure?
- How do some structures find their own form?
- Why are structures naturally lazy?
- Why are triangles important in structural engineering?
- What is a tensegrity structure?
- Are structural failures only a recent occurrence?
- Who was the first man ever to be called ‘an engineer’?
- What did the Roman Vitruvius have to say about architecture?
- Who were the ‘artist engineers’?
- Why are the forces in some structures easily determined but not so in others?
- What is the difference between stable and unstable equilibrium?
- What is work and how can it be virtual and useful?
- How do structural engineers use computers to calculate forces?
- How can structures be resilient?
- How safe does a structure have to be to be safe enough?

Other Books by the Author


*Bridge: The Science and Art of the World’s Most Inspiring Structures*, (Oxford University Press 2010)


Further Reading