

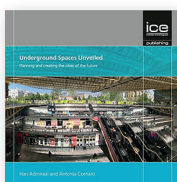
MONITOR BOOKS

ice publishing

Books

REVIEWS

Underground spaces unveiled: planning and creating the cities of the future



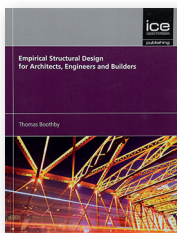
by Han Admiraal and Antonia Cornaro, published by ICE Publishing, 2018, £70, reviewed by **Loretta von der Tann**, University College London, UK

Often written in the first person and building on selected references, this book is a personal account of the role that the urban underground plays, could play or should play in finding solutions to what drives the world and its cities – both now and in the future.

The authors make a compelling case for consideration of the underground in spatial analyses and planning of cities. Based on case studies from all over the world, they illustrate how this consideration could help cities to become more resilient, deal with challenges like climate change and make cities more liveable for growing populations, while pointing out the legal and organisational obstacles in achieving this.

The book covers a lot of ground: legal, environmental, economic and social issues are touched on. It makes a complex topic accessible to non-specialists and provides a comprehensive overview and an inspiring basis for many much-needed discussions.

Empirical structural design for architects, engineers and builders



by Thomas Boothby, published by ICE Publishing, 2018, £40, reviewed by **David Oloke**, Progressive Concept Consultancy Ltd, UK

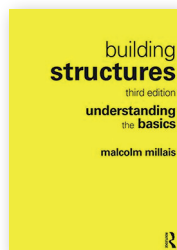
In the author's words, 'empirical design is characterised by reliance on observation and on past history to

determine which design strategy to be adopted and a willingness to test the design strategy that is chosen'.

Commencing with a rich glossary of relevant words, the empirical rules proposed in this book are then laid out in a simple, logical manner over the next ten chapters. In each case, the book presents key issues relating to the structural element, load paths and then the various types of structure in each category.

Each chapter also concludes with a list of standard references, examples and exercises. This particular format thus makes the book a worthy companion of any professional built-environment designer and a good reference book for students. Civil and structural engineers preparing to sit for professional reviews and interviews may also find the book a valuable reference text.

Building structures: understanding the basics (3rd ed.)



by Malcolm Millais, published by Routledge, 2017, £39.99, reviewed by **Alpa Sheth**, VMS Consultants, India

This book takes readers on a journey from basic structural concepts to building design, arousing their curiosity while subtly imprinting engineering basics along the way without recourse to formulae and calculations.

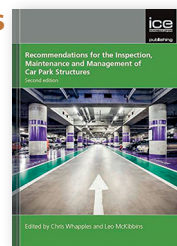
Interspersed in the engineering narrative is a history of structural engineering and the great engineers who led its evolution. The author has curated and critiqued a selection of projects over the centuries, engaging the reader in a delightful, direct conversation of structural stability, load path and structural behaviour.

In an increasingly nuanced world, the strong positions taken by the author are refreshing. New chapters in the third edition include foundations and

building retrofit, dynamic behaviour and progressive collapse, plus (finally) some calculations.

This very broad book does a marvelous job of drawing the reader into the world of structural engineering – from seemingly simple concepts to increasingly complex issues. It deserves a place on any architect's or engineer's bookshelf.

Recommendations for the inspection, maintenance and management of car park structures (2nd ed.)



edited by Chris Whapples and Leo McKibbins, published by ICE Publishing, 2018, £55, reviewed by **Amrit Ghose**, Waterman Infrastructure and Environment, UK

This second edition contains many updates since the original publication in 2002, notably references to further case studies and knowledge of the subject through failures and defects that have occurred in the interim. A new section on action for car park owners and operators provides clear guidance on best practice for inspections, condition surveys, action in respect of reported damage and the need for life-care plans.

Updated references to new UK legislation and standards are provided, as well as a completely revised and comprehensive chapter on repair and rehabilitation options including residual life assessment. New guidance is provided on risk-based evaluation techniques reflecting changes in asset management strategies and reduced budgets. Appendices include a life-care plan example with whole-life cost model.

In summary, this book remains essential reading for all those involved in car park structure asset management and provides best-practice guidance to help ensure car park structures are safely maintained.

MONITOR Books

NEW BOOKS

The ICE Library maintains one of the most comprehensive collections of civil engineering books in the world, including all titles from ICE Publishing (shown in bold below). New books received in the past 3 months include the following.

Arup Associates (twentieth century architects)	K Powell	£30-00
Bell Rock lighthouse: an illustrated history	M Strachan	£14-99
Bridge deck erection equipment: a best practice guide	S Harridge and M Meyer	£120-00
Building resilience for uncertain water futures	P Gober	£60-00
Concrete for modern age: developments in materials and processes	A Badr <i>et al.</i>	£110-00
Construction, demolition and disaster waste management: an integrated and sustainable approach	E Lauritzen	£115-00
Cross country pipeline risk assessments and mitigation strategies	A Aloqaily	£95-95
Cross-laminated timber: design and performance	Trada	£60-00
Design of low to medium rise buildings against external explosions (P415)	Steel Construction Institute	£60-00
Dynamic analysis of high-speed railway alignment: theory and practice	S Yi	£142-00
Effective project management	G Ward	£54-95
Engineering geology and geomorphology of glaciated and periglacial terrains	J Griffiths and C Martin	£122-22
Financing infrastructure projects: a practical guide (2nd ed.)	T Merna and F Al-Thani	£45-00
Flood resilience	M Escarameia and A Tagg	£125-00
Fundamentals of geoenvironmental engineering: understanding soil, water, and pollutant interaction and transport	A Mohamed and E Paleologos	£118-00
Fundamentals of ocean renewable energy: generating electricity from the sea	S Neill and M Reza Hashemi	£115-00
GCEC 2017: Proceedings of the first global civil engineering conference held in Kuala Lumpur, Malaysia	B Pradhan	£399-99
Geology: basics for engineers (2nd ed.)	A Parriaux	£155-00
Geotechnical correlations for soils and rocks	J Verbrugge and C Schroeder	£96-00
Hydraulic fracture modeling	Y Wu	£126-00
Introduction to finite element analysis and design (2nd ed.)	N Kim <i>et al.</i>	£99-95
Livable cities from a global perspective	R Caves and F Wagner	£40-99
Mechanical behaviour of soils under environmentally induced cyclic loads	C di Prisco and D Muir Wood	£179-99
Modeling of transport demand: analyzing, calculating, and forecasting transport demand	V Profillidis and G Botzoris	£95-95
Numerical methods in geotechnical engineering IX	A Cardoso <i>et al.</i>	£288-99
Performance and improvement of green construction projects: management strategies and innovations	B-G Hwang	£91-95
Pipeline leak detection handbook	M Henrie <i>et al.</i>	£107-00
POG Pod off-grid: explorations into low energy waterborne communities	J Pomeroy	£24-99
Principles of railway location and design	S Yi	£142-00
Reliability and maintainability of in-service pipelines	M Mahmoodian	£84-95
Site investigation using resistivity imaging	S Hossain <i>et al.</i>	£111-99
Steel building design: worked examples – open sections in accordance with Eurocodes and UK national annexes (P364)	Steel Construction Institute	£55-00
Structures of coastal resilience	S Seavitt Nordenson	£60-00
Sustainable heritage: merging environmental conservation and historic preservation	A Leifeste	£40-99
Sustainable retrofits: post-war residential towers in Britain	A Agkathidis and R Gutierrez	£39-99
The engineer's guide to plant layout and piping design for the oil and gas industries	G Barker	£114-00
The ethical engineer: contemporary concepts and cases	R McGinn	£43-00
The Severn estuary crossings	C Witts	£14-99
Transportation planning and public participation: theory, process, and practice	T Grossardt and K Bailey	£95-95
Urban living labs: experimentation and socio-technical transitions	S Marvin <i>et al.</i>	£32-99
Urban transportation and air pollution	A Venkatram and N Schulte	£95-95

All books can be borrowed from the ICE Members' Resource Hub on the second floor of 1 Great George Street, London, SW1P 3AA from 9.15 a.m. to 5.30 p.m., Monday to Friday. ICE Publishing titles can also be purchased from the ICE Members' Resource Hub or ordered by calling +44 1892 832299, emailing orders@icepublishing.com or by visiting www.icevirtuallibrary.com/content/books.