CONTENTS

Preface Introduction	ix xi
Section 1 Building Use and Safety Studies, Design Codes and Standards	1
Twenty Years of Building Use and Safety Studies Conducted by the National Research Council of Canada Jake Pauls, Hughes Associates Inc., Maryland, USA	5
Egress Time Criteria Related to Design Rules in Codes and Standards Jake Pauls, Hughes Associates Inc., Maryland, USA	18
Section 2 Evacuation of Public Buildings in Fires and Emergencies	31
An Evaluation of the Effectiveness of the Components of Informative Fire Warning Systems <i>Tim Geyer, Linda Bellamy, Richard Max-Lino, Paul Harrison, Zohreh</i> <i>Bahrami and Bharat Modha, Technica Ltd., London, UK</i>	36
The Timing of Escape: Exit choice behaviour in fires and building evacuations Jonathan Sime and Michiharu Kimura, Portsmouth Polytechnic, UK	48
When is a Door Not a Door? A study of evacuation route identification in a large shopping mall Andrew Sixsmith, Judith Sixsmith and David Canter, University of Surrey, Guildford, UK	62
Calibration and Validation of Computer Model BGRAF Filiz Ozel, New Jersey Institute of Technology, Newark, USA, and Bosphorus University, Istanbul, Turkey	75
Escape from Burning Buildings: A video-disc simulation for use in research and training James Powell and Chris Creed, The Video-disc Company and Portsmouth Polytechnic, UK Jonathan Sime, Portsmouth Polytechnic, UK	87

Section 3 Access and Egress in Buildings for People with Mobility Difficulties	99
Evacuation Safety in Dwellings for the Elderly Gunvor Hallberg, The Royal Institute of Technology, Stockholm, Sweden	103
Building Access and Safety for the Visually Impaired Person Romedi Passini and Guylène Proulx, University of Montreal, Canada	116
Section 4 Escape Route Lighting and Luminous Escape Systems in Buildings	131
An Introduction to Luminous Escape Systems Gunnar Krokeide, Permalux, Hamburg, West Germany	134
Movement under Various Escape Route Lighting Conditions Gerry Webber and Phil Hallman, Building Research Establishment, Watford, UK	147
Section 5 Accidents in Dwellings and on Stairs	159
Constituent Parts of Dwellings and Accident Processes Joost van Erdewijk, Consumer Safety Institute, Amsterdam, The Netherlands	164
Survey of the Incidence of Domestic Accidents in Japanese Dwellings Satoshi Kose, Ministry of Construction Hideo Naoi, Science University of Tokyo and Shinjuku, and Hidetaka Uno, Chiba Institute of Technology, Narashino, Japan	174
Accident Scenarios for Domestic Stair Accidents: Characteristics of households, stairs and dwellings as risk factors Paul Heimplaetzer, Louis Goossens, Yolanda Musson, and Robert Clement, Delft University of Technology, Delft, The Netherlands	186
Towards the Empathetic Stair John Templer and Deborah Hyde, Georgia Institute of Technology, Atlanta, USA	198
Section 6 Safety of Children at Home and in Playgrounds	209
Developing a Model of Families as Safety Management Systems for Children at Home Roger Hart and S. Selim Iltus, City University of New York, USA	213
Childhood Falls from Playground Equipment Resulting in Admission to Hospital: Descriptive epidemiology David Chalmers and John Langley, University of Otago, Dunedin, New Zealand	226

Section 7 Crime and Safety in the City: Locations of fear and danger	239
A Model for the Subjective Experiencing of Traffic Safety in Residential Areas	245
Benjamin Miedema, Hardy Menkehorst and Hugo van der Molen, State University of Groningen, The Netherlands	
Spatial Analysis of Crime and Anxiety – Research data from the Netherlands and implications for design Theo van der Voordt, Delft University of Technology, The Netherlands	257
Design Improvement of Problem Estates Alice Coleman, University of London, UK	270
Factors Affecting Perceptions of Safety in a Campus Environment Nana Kirk, University of Illinois at Urbana-Champaign, West Nevada, USA	285
Locations of Fear: Public places, fear of crime, and feelings of insecurity Adri van der Wurff, University of Amsterdam, The Netherlands, and Peter Stringer, The Queens University of Belfast and the University of Ulster, Northern Ireland	297
Section 8 Natural and Technological Disasters: Levels of risk acceptability for different populations	309
An Earthquake Alarm System Antony Mawson, Louisiana State University, New Orleans, USA, and John Reed, Mawson-Reed Inc., Texas, USA	314
Technological Disasters and Environmental Risk Acceptance in Mexico City: The San Juanico gas explosion case Javier Urbina-Soria, Antonieta Sandoval and Josefa Fregoso, National University of Mexico, Mexico	323
Psychological Aspects of Environmental Risk from Industrial and Nuclear Power Plants Jennifer Brown, University of Surrey, Guildford, UK	337
Towards a Political Economy of Building Safety Charles Gordon, Carleton University, and Brian Jones, National Research Council of Canada, Ottawa, Canada	348
Contact Names and Addresses	362