Table of contents

- Acknowledgements (p. viii)
- Preface to the second edition (p. ix)
- Introduction (p. xi)
- Part 1 Airport design
- 1 The airport industry (p. 2)
- Ownership of airports (p. 3)
- How airports generate income (p. 4)
- Growth in airport demand (p. 5)
- What is an airport? (p. 6)
- How airports grow (p. 9)
- Accommodating growth at airports (p. 11)
- The air transport industry: future trends (p. 12)
- Economic impact of airports (p. 14)
- Limits to airport growth (p. 15)
- Flexibility and the sense of the whole (p. 16)
- **Planning for growth** (p. 17)
- Air travel and sustainable development (p. 18)
- The capacity of airports (p. 18)
- The airport interchange (p. 21)
- **References** (p. 25)
- 2 The airport as a unique twentieth-century building type (p. 26)
- The role of meaning, function and form in defining the architecture of terminals (p. 30)
- The maturing of airports as a building type (p. 33)
- **References** (p. 34)
- 3 Relationship between airports, terminals and aircraft design (p. 35)
- Structure of the air transport system (p. 37)
- **References** (p. 38)
- 4 Layout, growth and access to airports (p. 39)
- Airport as communication node (p. 39)
- Forecasting airport growth (p. 40)
- Airport types (p. 41)
- Gaining access to airports (p. 42)
- Rail links to airports (p. 43)
- The life of assets at airports (p. 45)
- **References** (p. 46)
- 5 Masterplanning airports (p. 48)
- Intermediate plans (p. 50)
- Compiling the masterplan (p. 50)
- Airport layout (p. 51)
- Runway layout (p. 52)
- Physical elements of the masterplan (p. 53)
- The Importance of geometry (p. 55)
- **Site choice** (p. 56)

- Energy and resources (p. 57)
- Environmental problems at airports (p. 58)
- A physical strategy for sustainable development (p. 61)
- Reducing environmental Impacts: a case study of the original design of Heathrow's Terminal 5 (p. 61)
- Extent of the masterplan (p. 63)
- **References** (p. 64)
- Part 2 Terminal design
- 6 The terminal as part of the airport system (p. 66)
- Aircraft types and passenger terminal design (p. 66)
- Energy consumption, payload and the effect upon terminal design (p. 68)
- Relationship between the mission of BAA and terminal design (p. 69)
- Redressing the balance between passenger and airport needs (p. 72)
- **References** (p. 74)
- 7 Procurement and management of terminals (p. 75)
- Design standards and briefing: the example of BAA (p. 75)
- Managing terminals (p. 77)
- Manipulation of space and time in the terminal (p. 81)
- Terminals in the developing world (p. 82)
- **References** (p. 82)
- 8 Flexibility and permanence in airport design (p. 83)
- Flexibility and terminal design (p. 84)
- How terminals expand (p. 89)
- **How terminals adapt** (p. 90)
- **References** (p. 95)
- 9 The terminal as a movement system (p. 96)
- Passenger movement (p. 96)
- Principles of passenger flow at large complex airports (p. 99)
- Assisted passenger flow (p. 103)
- Passenger-loading bridges (p. 106)
- **10 Baggage handling** (p. 109)
- The baggage-handling system (p. 111)
- Security controls and baggage handling (p. 113)
- **Baggage reclaim** (p. 116)
- **References** (p. 116)
- 11 Terminal design concepts (p. 117)
- Changing typologies (p. 118)
- Alternative terminal design layouts (p. 118)
- Changes in level (p. 124)
- Choosing between single-level and multilevel terminals (p. 127)
- Standard plans, irregular sections (p. 128)
- **References** (p. 129)
- 12 Conflict between function and meaning in the design of terminals (p. 130)
- Design characteristics of passenger terminals (p. 130)
- The four key functions of the terminal (p. 131)
- **Key qualities** (p. 136)

- Functional elements of the terminal building (p. 137)
- The approach of Meinhard von Gerkan to terminal design (p. 139)
- **References** (p. 142)
- 13 Passenger types, space standards and territories (p. 143)
- Principal terminal territories (p. 143)
- Passenger types (p. 145)
- Types of terminal user other than passengers (p. 146)
- Passenger space standards (p. 147)
- **Terminal facilities** (p. 147)
- Commercial versus facilities management (p. 148)
- Types of shop and their location (p. 149)
- Other sources of commercial revenue (p. 151)
- Strategy for the selection of construction materials (p. 151)
- The choice of finishes (p. 153)
- The check-in hall (p. 155)
- The departure lounge (p. 156)
- Identity and check-in design (p. 157)
- First class, business class and VIP passengers (p. 157)
- Provision for disabled passengers (p. 158)
- Way-finding through terminals (p. 159)
- **Signage** (p. 161)
- **References** (p. 162)
- 14 Technical standards (p. 163)
- Fire safety and airport design (p. 163)
- **Lighting** (p. 165)
- **Heating** (p. 167)
- Safety and security (p. 169)
- Increased security after 11th September 2001 (p. 172)
- **References** (p. 173)
- Part 3 Case studies
- 15 Major international airport terminals (p. 176)
- Kansai Airport, Osaka, Japan (p. 176)
- **Denver Airport** (p. 180)
- Kuala Lumpur Airport, Malaysia (p. 181)
- Charles de Gaulle Airport, Paris, France (p. 183)
- Terminal 2, Hall F, Charles de Gaulle Airport, Paris (p. 185)
- Chek Lap Kok Airport, Hong Kong (p. 187)
- Copenhagen Airport, Denmark (p. 189)
- Gardermoen Airport, Oslo (p. 190)
- Terminal 2, Helsinki Airport, Finland (p. 191)
- Airport design: Fifth International Biennale of Architecture, Venice 1991 (p. 192)
- Terminal 5, Heathrow, London: initial design (p. 194)
- Barajas Airport, Madrid, Spain (p. 203)
- Revised design for Terminal 5: Heathrow (p. 198)
- Bangkok International Airport, Suvarnabhumi, Thailand (p. 201)
- **Beijing Airport, China** (p. 202)

- San Francisco Airport: International Terminal (p. 205)
- Refurbishment and extension of Eero Saarinen's design of Dulles International Airport, Washington (p. 206)
- **References** (p. 207)
- 16 National airport terminals (p. 209)
- Stansted Airport, UK (p. 209)
- Stuttgart Airport, Germany (p. 217)
- Hamburg Airport, Germany (p. 218)
- Cologne/Bonn Airport, Germany (p. 220)
- Seville Airport, Spain (p. 222)
- Palma Airport, Majorca (p. 223)
- Sondica Airport, Bilbao, Spain (p. 224)
- King Abdul Aziz International Airport, Jeddah, Saudi Arabia (p. 227)
- The Haj Terminal at King Abdul Aziz Airport, Jeddah, Suadi Arabia (p. 227)
- Shenzhen Airport, China (p. 228)
- Jakarta Airport, Indonesia (p. 229)
- **References** (p. 230)
- 17 Regional airport terminals (p. 231)
- Southampton Airport, UK (p. 231)
- Two Australian airports: Brisbane and Rockhampton (p. 233)
- **Guadeloupe Airport** (p. 235)
- **References** (p. 236)
- 18 Other airport structures (p. 237)
- Transportation Centre at the International Airport at Inchon, Seoul, South Korea (p. 237)
- Airside Centre, Zurich Airport (p. 240)
- Air traffic control towers (p. 241)
- Control Tower, Arlanda Airport, Stockholm (p. 243)
- Munich Airport Centre, Germany (p. 244)
- **Reference** (p. 246)
- Part 4 The airport of the future
- 19 Characteristics of twenty-first-century airports (p. 248)
- Land-use diversity (p. 249)
- Intermodal transport integration (p. 250)
- Environmental sensitivity (p. 252)
- Sustainable development and the airport: the example of BAA (p. 254)
- Green thinking at Stansted (p. 256)
- Green thinking at the International Airport at Inchon, Seoul, South Korea (p. 256)
- **References** (p. 258)
- **20** The terminal of the future (p. 260)
- The airport as a new type of city (p. 260)
- The search for place in terminal design (p. 262)
- Culture and meaning through design (p. 264)
- Reconciling technology with ecology (p. 266)
- Terminals and tectonic expression (p. 266)
- **References** (p. 271)

- Glossary (p. 272)
 Bibliography (p. 274)
 Illustration acknowledgements (p. 275)
 Index (p. 276)