

**Brian Edwards**

# **The Modern Station**

**New approaches to  
railway architecture**



**E & FN SPON**

An Imprint of Chapman & Hall

London · Weinheim · New York · Tokyo · Melbourne · Madras

**Colour illustrations appear between pages 84 and 85**

<b>Preface</b> . . . . .	vii
<b>Acknowledgements</b> . . . . .	viii
<b>Introduction</b> . . . . .	ix

## **Part One: Perspectives on station architecture**

<b>1</b> The politics of railways . . . . .	3
Railways and economic well-being . . . . .	3
Relaxing political control of railways . . . . .	5
From road to rail investment: changing governmental priorities . . . . .	7
Integrating rail and car use . . . . .	11
Funding urban railways . . . . .	13
The station as economic magnet: the example of EuroLille . . . . .	17
Environmental benefits of railways . . . . .	18
References . . . . .	19
<b>2</b> Design types . . . . .	21
What is a railway station? . . . . .	21
The station as urban gateway and landmark . . . . .	25
International termini, mainline and airport stations . . . . .	27
Suburban stations . . . . .	35
Rural stations . . . . .	41
Underground stations . . . . .	43
Light rail . . . . .	50
References . . . . .	55
<b>3</b> Station layout and design . . . . .	59
The design and planning of railway stations . . . . .	59
Station design: practical considerations . . . . .	64
Station types, facilities and standards . . . . .	72
References . . . . .	83
<b>4</b> Technical issues . . . . .	85
Assessing the environmental impact	

of railways and stations . . . . .	85
Stations and urban design . . . . .	87
Passenger reassurance and station design . . . . .	93
Station design and building services . . . . .	99
Canopies: technical considerations . . . . .	101
Civil engineering matters . . . . .	105
Advertising and public art . . . . .	109
The client view: Railtrack Property . . . . .	112
Interior design . . . . .	116
References . . . . .	122

## **Part Two: Some recent station projects**

<b>5</b> International and mainline stations . . . . .	127
Lille-Europe . . . . .	127
Bilbao Abando Station, Spain . . . . .	130
Waterloo International Station, London . . . . .	131
Victoria Station, London . . . . .	133
The Channel Tunnel UK terminal, Folkestone, Kent . . . . .	134
References . . . . .	135
<b>6</b> Airport stations . . . . .	137
Roissy Station at Charles de Gaulle Airport, Paris . . . . .	137
Lyon-Satolas Station . . . . .	141
Kowloon Airport Station, Hong Kong . . . . .	143
References . . . . .	143
<b>7</b> Town stations . . . . .	145
Stadelhofen Station, Zurich . . . . .	145
Woolwich Arsenal Station . . . . .	146
Station architecture in the Netherlands . . . . .	147
References . . . . .	155
<b>8</b> Underground stations . . . . .	157
Bilbao Underground . . . . .	157
Genoa Underground . . . . .	158
Berlin U5 Bahnhof line . . . . .	159
Hammersmith Station, London . . . . .	160
CrossRail, London . . . . .	161
References . . . . .	163

## Contents

<b>9</b>	Light rail . . . . .	165	The station as urban element . . . . .	175
	Bangkok transit system. . . . .	165	The station as structure. . . . .	176
	Docklands Light Railway: Phase 1. . . . .	166	The station as a fusion of design skills. . . . .	178
	Docklands Light Railway: Phase 2. . . . .	168	The station as architecture and engineering . . . . .	179
	Sheffield Supertram. . . . .	169	The station as a bridge across the millennia . . . . .	180
	References . . . . .	170		
<b>Part Three: Reflections</b>				
<b>10</b>	The station of the future: ideas and perspectives . . . . .	173	<b>Selected bibliography</b> . . . . .	182
	What is a station? . . . . .	173	<b>Illustration acknowledgements.</b> . . . . .	183
			<b>Index</b> . . . . .	184