

## CONTENTS

IX	<b>PREFACE</b>	
XIII	<b>ACKNOWLEDGMENTS</b>	
XV	<b>FOREWORD</b> Architecture and the Human Condition by David Cook, Behnisch Architekten	
XIX	<b>INTRODUCTION</b> European Green Buildings in Context	
	XX Driving Forces in Europe	
	XXIII Driving Forces in the United States and Canada	
	XXVI Impressions from Designers	
1	<b>CHAPTER 1</b> The PassivHaus Concept and European Residential Design	
	2 What's a PassivHaus?	
	6 What Can We Learn from the PassivHaus Approach?	
15	<b>CHAPTER 2</b> European Design Innovators	
	15 Foster and Partners, U.K.	
	16 David Lloyd Jones and Studio E, U.K.	
	16 Thomas Herzog and Partners, Germany	
	16 White Design, U.K.	
	18 Bennetts Associates Architects, U.K.	
	19 Hopkins Architects, U.K.	
	20 Make Architects, U.K.	
	21 Arup Associates, U.K.	
	22 Short and Associates, U.K.	
	22 Ingenhoven Architekten, Germany	
	23 Behnisch Architekten, Germany	
	23 Atelier Dreiseitl, Germany	
25	<b>CHAPTER 3</b> European Green Buildings Today: What Do They Know That We Don't?	
	26 The U.K. Example	
	30 Germany Goes Green(er)	
	34 The French HQE System	
	37 Green Building in Switzerland	
	38 Green Building in Italy	
	40 Green Building in The Netherlands	
43	<b>CHAPTER 4</b> Green Buildings in the United Kingdom	
	43 Beaufort Court, Hertfordshire	
	46 30 St. Mary Axe ("The Gherkin"), London	
	47 40 Grosvenor Place, London	
	48 Brighton and Hove Central Library, Brighton	
	48 Wessex Water Operations Centre, Bath	
	49 New Street Square, London	
	51 City Hall and Greater London Authority Headquarters, London	
	51 The Inland Revenue Centre, Nottingham	
	51 New Parliamentary Offices, Portcullis House, London	
	52 Noho Square, London	
	52 Plantation Place, London	
	53 Stratford City, East London	
	53 Corporate Campus for Sky Television, London	
	53 School of Slavonic and East European Studies, University College, London	
	55 University of Coventry	
	56 Natural Ventilation at Queens Building, DeMontfort University, Leicester	
	57 The Helicon, London	
	59 Wolseley Sustainable Building Centre, Leamington Spa	
	60 The Green Office at Thorpe Park, Leeds	

63	<b>CHAPTER 5</b> Sustainable Buildings in Germany	109	<b>CHAPTER 8</b> Green Building in the Retail Sector
	63 Lufthansa Aviation Center, Frankfurt		110 Multi Development, The Netherlands
	65 Commerzbank Headquarters, Frankfurt		112 Sonae Sierra, Portugal
	66 European Investment Bank, Luxembourg		114 Shopping Center Technologies
	68 Norddeutsche Landesbank, Hannover		115 SES Development, Austria
	68 RWE Tower, Essen		116 Lessons Learned
	69 Ozeaneum, Stralsund	119	<b>CHAPTER 9</b>
	70 Uptown Munich Office Tower, Munich		Looking to the Future
	70 Main Train Station, Stuttgart		120 The 2,000-Watt Society
	71 Therme, Bad Aibling		122 Tackling the Problem of Existing Buildings
	72 Debis Tower at Potsdamer Platz, Berlin		123 Life-Cycle Design Tools
	73 Prisma Nürnberg		124 Soft Landings for Green Buildings
	74 New German Parliament, Reichstag, Berlin		125 EPCs and DECs
	75 GSW Building, Berlin		126 Zero-Carbon Homes and Buildings
	75 Free University, Berlin		130 Smart, Slim Buildings
	76 Trumpf International, Ditzingen		131 European Green Design Goes East
77	<b>CHAPTER 6</b> Green Engineering in Europe	135	<b>CHAPTER 10</b> The Challenge and Promise of Green Buildings: Lessons from Europe
	79 European Systems Already in Use in the United States and Canada		135 Lessons Learned
	79 Transsolar and the New Science of Climate Engineering		139 What Will We Need to Change to Use the European Experience?
	84 Schüco E-Squared Façade Concept		140 Where Should We Be Heading?
	85 Technology Overview	143	<b>DESIGN AND DEVELOPMENT FIRMS AND PROJECTS</b>
	92 What's on the Horizon?	145	<b>NOTES</b>
	94 What Can We Use Today?	151	<b>BIBLIOGRAPHY</b>
97	<b>CHAPTER 7</b> Eco-Towns	153	<b>INDEX</b>
	97 Freiburg, Germany		
	99 Linz, Austria		
	99 Malmö, Sweden		
	101 Vaxjö, Sweden		
	101 Greenwich Millennium Village, U.K.		
	102 The Carbon Challenge Project		
	103 U.K. Eco-Towns Project		
	104 Tallinn, Estonia		
	105 Ecotowns Spread Beyond Europe		