





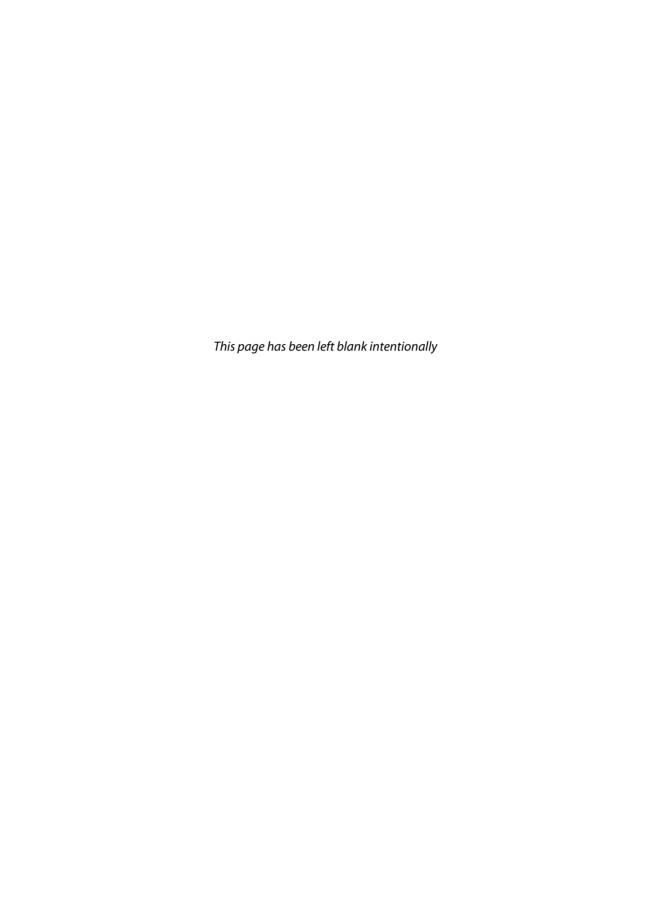
Edited by Murray Fraser and Nasser Golzari

ARCHITECTURE AND GLOBALISATION IN THE PERSIAN GULF REGION

The Persian Gulf, possessing half of the world's total oil reserves, has over the centuries become a major centre of global attention and conflict. Recent architectural and urban development in the Gulf has been equally dramatic. The so-called culture of 'Dubaisation' in the last decade or so is now ringing alarm bells among different professions. A 'free-for-all' approach to architectural development is seen by many as creating surreal cityscapes which deny real reference to place, climate or cultural identity.

This is the first book ever to examine the architecture and urbanism of the Persian Gulf as a complete entity, dealing equally with conditions on the eastern Iranian shoreline as in Arabic countries on the western side. By inviting a range of architects and scholars to write about historical and contemporary influences on 14 cities along both Gulf coastlines, the book traces the changes in architecture and human settlement in relation to environmental factors and particularity of place. It provides an innovative contribution to the study of architecture and globalisation through a detailed investigation of this particular region, investigating how buildings and cities are being shaped as a result.

A set of thematic essays at the end offer important insights into issues of globalisation, urbanism and environmental design, drawing from the experience of the Persian Gulf. The outcome is a unique record of the Gulf in the early-21st century at a point when global capitalism is making major inroads and yet questions of architectural design, climate change, ecological sustainability, cultural identity and so-called 'Facebook Democracy' are likewise shaking up the Middle Eastern region. The book thus offers a fresh reading of the architecture and urbanism of a fascinating and often contradictory region, while also showing how globalisation can be analysed in a more engaged and integrated manner.



Architecture and Globalisation in the Persian Gulf Region

Edited by

Murray Fraser University College London, UK

Nasser Golzari University of Westminster, UK



First published 2013 by Ashgate Publishing

Published 2016 by Routledge 2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN 711 Third Avenue, New York, NY 10017, USA

Routledge is an imprint of the Taylor & Francis Group, an informa business

Copyright © The editors and contributors 2013

Murray Fraser and Nasser Golzari have asserted their right under the Copyright, Designs and Patents Act, 1988, to be identified as the editors of this work.

All rights reserved. No part of this book may be reprinted or reproduced or utilised in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

Notices:

Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library.

Library of Congress Cataloging-in-Publication Data

Architecture and globalisation in the Persian Gulf Region / [edited by] by Murray F and Nasser Golzari.

p. cm.

Architecture and globalisation in the Persian Gulf Region Includes bibliographical references and index. ISBN 978-1-4094-4314-8 (hardback : alk. paper)

raser

1. Architecture and globalisation--Persian Gulf Region. 2. Group identity--Persian Gulf Region. 3. City planning--Persian Gulf Region. I. Fraser, Murray, editor of compilation. II. Golzari, Nasser, editor of compilation. III. Title: Architecture and globalisation in the Persian Gulf Region.

NA2543.G46A69 2013 720.953'09051--dc23

2013020840

ISBN 9781409443148 (hbk)

Contents

List of Illustrations		vii
List of Tables		XXXV
Notes on Contributors		xxxvii
Ackno	wledgements	xli
1	Introduction Murray Fraser	1
PART	I WESTERN COASTLINE OF PERSIAN GULF	
2	British Architects in the Gulf, 1950–1980 Tanis Hinchcliffe	23
3	Kuwait City, Kuwait Gwyn Lloyd Jones	37
4	Dammam, Saudi Arabia Mashary Al-Naim	57
5	Manama, Bahrain Ali A. Alraouf	77
6	Doha, Qatar Robert Adam	105
7	Abu Dhabi, UAE Olivia Duncan and Sonny Tomic	129
8	Dubai, UAE Kevin Mitchell	155
9	Shopping Malls in Dubai Nicholas Jewell	173

10	Sharjah, UAE Hassan Radoine	197
PART	II EASTERN COASTLINE OF PERSIAN GULF	
11	Abadan and Khorramshahr, Iran Nasser Golzari	213
12	Bushehr, Iran Semra Aydinli and Avsar Karababa	243
13	Kangan and Banak, Iran Reza Shafaei	265
14	Kish Island, Iran Tim Makower	287
15	Bandar Abbas, Iran Widari Bahrin	311
PART	III CONTEMPORARY DESIGN APPROACHES	
16	Sustainable Identity: New Paradigms for the Persian Gulf Nader Ardalan	329
17	Reflections on a Wind-Catcher: Climate and Cultural Identity Susannah Hagan	347
18	Doha Renaissance: Msheireb Reborn Tim Makower	359
19	The Scale of Globalisation Murray Fraser	383
Index		405

Illustrations

COLOUR PLATES

- Burj Khalifa in Dubai by SOM Architects (2004–2010)
 Source: Murray Fraser
- Aerial view of the new blocks and landscaping around the Burj Khalifa in Dubai Source: Murray Fraser
- 3 Ghani Palace Hotel (2002) by Saleh Al Mutawa in Kuwait City Source: Gwyn Lloyd Jones
- 4 National Assembly Building (1978–1982) by Jorn Utzon in Kuwait City Source: Gwyn Lloyd Jones
- General view of the city of Dammam, Saudi Arabia
 Source: Al-Anoud bin Al-Saud / Linda Paul
 [Courtesy of Al-Anoud bin Al-Saud / Linda Paul]
- 6 Luxury villa-type dwelling in Dammam, Saudi Arabia Source: Al-Anoud bin Al-Saud
- Renovation of Manama Souk
 Source: Bahrain Ministry of Municipalities and Urban Planning
 [Courtesy of Bahrain Ministry of Municipalities and Urban Planning]
- 8 Religious festivities in Manama, Bahrain, on the evening of the Day of Ashura Source: Ali A. Alraouf
- 9 In Manama, Bahrain, continuous land reclamation is changing the urban morphology at an unprecedented pace, here showing the

northern coastline from the BFH Tower to the Al Seef district in the distance $\,$

Source: Ali A. Alraouf

10 The Msheireb project in Doha, Qatar, by AECOM/Arup/Allies and Morrison

Source: AECOM/Arup/Allies and Morrison [Courtesy of AECOM/Arup/Allies and Morrison]

- 11 The coastline of Abu Dhabi, UAE, as seen from on high Source: Lukas Sokol [Courtesy of Lukas Sokol]
- 12 Grand Mosque (Sheikh Zayed Mosque) in Abu Dhabi, UAE Source: Olivia Duncan and Sonny Tomic
- 13 'Cityscape Dubai' real-estate and development trade fair Source: Kevin Mitchell
- 14 Wind-tower motifs at the Madinat Jumeirah in Dubai, UAE, with the Burj Al Arab Hotel beyond Source: Nicholas Jewell
- 15 'Chinese' section of the Ibn Battuta Mall in Dubai, UAE Source: Nicholas Jewell
- Development phases of Sharjah, UAE, from 1822–2000 Source: Drawing by Hassan Radoine
- Houses built by the Anglo-Iranian Oil Company for local workers in Abadan, Iran
 Source: Nasser Golzari
- 18 Brickwork and glazed tiles in the hybrid dwellings of the Bawarda Garden Suburb, as reminiscent of central and southern Iran from the 1930s to the 1950s

 Source: Nasser Golzari
- 19 The urban pattern and housing typology in Bushehr, Iran Source: Drawing by Avsar Karababa
- 20 Window of the Iranology Institute in Bushehr, reflecting some fragments of Iranian Islamic identity Source: Semra Aydinli and Avsar Karababa
- 21 Traditional house in Banak, Iran, with courtyard built out of local materials
 Source: Reza Shafaei

22	Shop window in a brand new store in Kangan, Iran
	Source: Reza Shafaei

23 The abandoned casino on Kish Island, Iran

Source: Tim Makower

24 Wind-towers on the reconstructed Ab Ambar well on Kish Island, Iran

Source: Tim Makower

25 Local street bazaar in Bandar Abbas, Iran

Source: Widari Bahrin

26 Desert Retreat aerial view, proposed design for Al Ain in the UAE

Source: Ardalan Associates with KlingStubbins

27 Masdar City eco-town in Abu Dhabi, UAE, by Foster + Partners

Source: Foster + Partners [Courtesy of Foster + Partners]

28 Master-plan for the Msheireb project in Doha, Qatar,

showing its fine urban grain

Source: AECOM/Arup/Allies and Morrison [Courtesy of AECOM/Arup/Allies and Morrison]

29 Organic urban form mixing new and old in the Msheireb project

Source: Allies and Morrison
[Courtesy of Allies and Morrison]

30 Msheireb project in Doha as seen from the south-east

Source: Uniform [Courtesy of Uniform]

31 Close-up of 'mashrabiya' screen on the Al Bahar Towers, Abu Dhabi

Source: Aedas Architects Ltd
[Courtesy of Aedas Architects Ltd]

32 View of chauffeur's house in the Villa Anbar in Dammam,

Saudi Arabia (1992–1993) Source: Peter Barber Architects [Courtesy of Peter Barber Architects]

BLACK AND WHITE FIGURES

1 Introduction

1.1 Map of the Persian Gulf showing the countries and cities covered in the book

Source: Map redrawn by Murray Fraser

1.2	Relief map showing the mountainous eastern side in Iran contrasted with the flat desert-like Arabic side to the west Source: Map redrawn by Murray Fraser	3
1.3	Reminder of an older way of life, close-up of an Iranian <i>dhow</i> in Dubai Creek Source: Murray Fraser	4
1.4	View across Dubai Creek to the heavily Iranian district of Deira Source: Murray Fraser	5
1.5	Typical old streetscape in Bushehr in Iran Source: Murray Fraser	10
1.6	Iranian-style wind-catchers in buildings in Deira district of Dubai Source: Murray Fraser	10
1.7	Hotel developments on Kish Island, Iran Source: Murray Fraser	11
1.8	Aerial sketch of the old urban fabric of Bushehr Source: Drawing by Murray Fraser	12
1.9	Sketch of the layering of urban development in Kharaba Street in Doha, Qatar Source: Drawing by Murray Fraser	12
1.10	Aerial sketch of the urban texture in Khobar in the Dammam Metropolitan Region, Saudi Arabia Source: Drawing by Murray Fraser	12
1.11	Sketch from a car driving along the Sheikh Zayed Highway in Dubai Source: Drawing by Murray Fraser	13
1.12	New office towers along the Sheikh Zayed Highway in Dubai Source: Murray Fraser	14
1.13	Aerial view of the new blocks and landscaping around the Burj Khalifa in Dubai Source: Murray Fraser	14
1.14	The Dubai Mall next to the Burj Khalifa Source: Murray Fraser	15
2	British Architects in the Gulf, 1950–1980	
2.1	Plan of Baghdad by Minoprio and Spencely and F.W. Macfarlane Source: <i>Architectural Design</i> , vol. 27, no. 3, March 1957, p. 76 [Courtesy of <i>Architectural Design</i>]	25

2.2	Doha State Hospital in Qatar, bird's-eye view, by John R. Harris and Jill Rowe Source: <i>The Architect and Building News</i> , vol. 211, 14 March 1957, p. 343	26
2.3	Doha State Hospital, main entrance view Source: <i>The Architect and Building News</i> , vol. 211, 14 March 1957, p. 349	26
2.4	Tehran Hilton Hotel by Raglan Squire Architects Source: <i>The Architect and Building News</i> , vol. 223, 27 March 1963, p. 464	28
2.5	Bahrain Hilton Hotel by Raglan Squire Architects Source: <i>Building</i> , vol. 224 no 6779, 4 May 1973, p. 69 [Courtesy of <i>Building</i>]	28
2.6	Conference Centre and Hotel in Riyadh, Saudi Arabia Source: Trevor Dannatt and Partners, in <i>The Architectural Review</i> , vol. 157, no. 938, April 1975, p. 193 [Courtesy of <i>The Architectural Review</i>]	29
2.7	Conference Centre and Hotel in Riyadh, Saudi Arabia, by Trevor Dannatt and Partners Source: <i>The Architectural Review</i> , vol. 157, no. 938, April 1975, p. 198 [Courtesy of <i>The Architectural Review</i>]	30
2.8	Advertisement for Syston Rolling Shutters Source: <i>RIBA Journal</i> , vol. 84, no. 10, October 1977, p. 438 [Courtesy of Syston Doors, Syston, Leicestershire]	33
3	Kuwait City, Kuwait	
3.1	Postcard of Kuwait City Source: Gwyn Lloyd Jones	38
3.2	Ghani Palace Hotel (2002) by Saleh Al Mutawa Source: Gwyn Lloyd Jones	43
3.3	Interior atrium of the Ghani Palace Hotel Source: Gwyn Lloyd Jones	43
3.4	Sketch map of the road network of Kuwait City Source: Gwyn Lloyd Jones	44
3.5	View of the skyline of Kuwait City Source: Gwyn Lloyd Jones	44
3.6	View of remnant of old fort wall on Al Soor Street Source: Gwyn Lloyd Jones	45

3.7	Kuwait Water Towers (1979) by VVB, a Swedish engineering company Source: Gwyn Lloyd Jones	46
3.8	Viewing platform in the Kuwait Water Towers Source: Gwyn Lloyd Jones	47
3.9	Crescent Opera House for Baghdad by Frank Lloyd Wright (1957–1959) Source: Bruce Pfeiffer, <i>Master Drawings from the Frank Lloyd Wright Archives</i> (London: Thames & Hudson, 1990) [Courtesy of ARS, New York and DACS, London 2012]	48
3.10	National Assembly Building (1978–1982) by Jorn Utzon Source: Gwyn Lloyd Jones	49
3.11	Seif Palace, Kuwait City Source: Gwyn Lloyd Jones	50
3.12	View from car of suburban dwellings in Kuwait City Source: Gwyn Lloyd Jones	51
3.13	Tareq Rajab Museum Source: Gwyn Lloyd Jones	51
3.14	Mile-High Tower by Frank Lloyd Wright (1956) Source: Bruce Pfeiffer, <i>Master Drawings from the Frank Lloyd Wright Archives</i> (London: Thames & Hudson, 1990) [Courtesy of ARS, New York and DACS, London 2012]	52
4	Dammam, Saudi Arabia	
4.1	Dwellings in the Dhahran 'camp' formed by the Aramco oil company Source: Al-Anoud bin Al-Saud / Linda Paul [Courtesy of Al-Anoud bin Al-Saud / Linda Paul]	58
4.2	House in the Dhahran 'camp' Source: Al-Anoud bin Al-Saud / Linda Paul [Courtesy of Al-Anoud bin Al-Saud / Linda Paul]	59
4.3	House in the Dhahran 'camp' Source: Al-Anoud bin Al-Saud / Linda Paul [Courtesy of Al-Anoud bin Al-Saud / Linda Paul]	59
4.4	General view of the city of Dammam Source: Al-Anoud bin Al-Saud / Linda Paul [Courtesy of Al-Anoud bin Al-Saud / Linda Paul]	60

4.5	General view of the city of Khobar Source: Al-Anoud bin Al-Saud / Linda Paul [Courtesy of Al-Anoud bin Al-Saud / Linda Paul]	61
	[Courtesy of Al-Anoud Din Al-Saud / Linda Paul]	61
4.6	Apartment block with shops below on King Saud Street, Dammam	
	Source: Al-Anoud bin Al-Saud / Linda Paul	
	[Courtesy of Al-Anoud bin Al-Saud / Linda Paul]	62
4.7	Apartment block on King Saud Street	
	Source: Al-Anoud bin Al-Saud / Linda Paul	
	[Courtesy of Al-Anoud bin Al-Saud / Linda Paul]	62
4.8	Close-up view of apartment balconies on King Saud Street	
	Source: Al-Anoud bin Al-Saud / Linda Paul	
	[Courtesy of Al-Anoud bin Al-Saud / Linda Paul]	62
4.9	Luxury villa-type dwelling in Dammam	
	Source: Al-Anoud bin Al-Saud / Linda Paul	
	[Courtesy of Al-Anoud bin Al-Saud / Linda Paul]	66
4.10	Villa-type dwelling in Dhahran	
	Source: Al-Anoud bin Al-Saud / Linda Paul	
	[Courtesy of Al-Anoud bin Al-Saud / Linda Paul]	66
4.11	Dammam's urban development along the coastline	
	Source: Al-Anoud bin Al-Saud / Linda Paul	
	[Courtesy of Al-Anoud bin Al-Saud / Linda Paul]	67
4.12	General urban development in Dammam	
	Source: Al-Anoud bin Al-Saud / Linda Paul	
	[Courtesy of Al-Anoud bin Al-Saud / Linda Paul]	68
4.13	High-rise apartment blocks in Dammam	
	Source: Al-Anoud bin Al-Saud / Linda Paul	
	[Courtesy of Al-Anoud bin Al-Saud / Linda Paul]	68
4.14	Western-style supermarket in Dammam	
	Source: Al-Anoud bin Al-Saud / Linda Paul	
	[Courtesy of Al-Anoud bin Al-Saud / Linda Paul]	69
4.15	New office block under construction in Dammam	
	Source: Al-Anoud bin Al-Saud / Linda Paul	
	[Courtesy of Al-Anoud bin Al-Saud / Linda Paul]	70
4.16	Recently completed housing blocks in Dammam	
	Source: Al-Anoud bin Al-Saud / Linda Paul	
	[Courtesy of Al-Anoud hip Al-Saud / Linda Paul]	70

4.17	Zamil House office block in Khobar Source: Al-Anoud bin Al-Saud / Linda Paul [Courtesy of Al-Anoud bin Al-Saud / Linda Paul]	71
4.18	Another new office block complex in Khobar Source: Al-Anoud bin Al-Saud / Linda Paul [Courtesy of Al-Anoud bin Al-Saud / Linda Paul]	72
5	Manama, Bahrain	
5.1	Map of Bahrain showing its contextual relationship Source: Bahrain Ministry of Municipalities and Urban Planning [Courtesy of Bahrain Ministry of Municipalities and Urban Planning]	80
5.2	Distinctive urban and architectural features of traditional Bahraini settlements Source: Ali A. Alraouf	82
5.3	Aerial photograph showing the contrast of Manama's old urban fabric to newer modern planning Source: Ali A. Alraouf	84
5.4	Details of Manama's traditional architectural vocabulary Source: Ali A. Alraouf	84
5.5	The old and the new in Manama, showing the distinctive Bahrain World Trade Centre (BWTC) and the reclaimed land for the Northern City Source: Ali A. Alraouf	85
5.6	Bab Al-Bahrain Mosque as a representation of Islamic regionalism in a modernizing city Source: Ali A. Alraouf	87
5.7	Aerial photo showing Bab-Al-Bahrain, Bahrain Financial Harbour and the renovated Manama Souk Source: Bahrain Ministry of Municipalities and Urban Planning [Courtesy of Bahrain Ministry of Municipalities and Urban Planning]	88
5.8	Manama's old core being 'invaded' by expatriate communities imposing their cultural references and hybrid lifestyles Source: Ali A. Alraouf	89

5.9	Renovation of Manama Souk opposite to Bab Al Bahrain Mosque and the waterfront Source: Bahrain Ministry of Municipalities and Urban Planning [Courtesy of Bahrain Ministry of Municipalities and Urban Planning]	90
5.10	Manama's emerging urbanity of vertical towers, shopping malls and financial centres Source: Ali A. Alraouf	90
5.11	Spectators waiting for the main procession on the Day of Ashura Source: Ali A. Alraouf	93
5.12	Religious festivities change Manama's urbanism radically especially in the evening of the Day of Ashura Source: Ali A. Alraouf	93
5.13	Dubai's coastline showing the built and proposed iconic development islands of 'The Palm 1, 2 & 3' and 'The World' Source: Dubai Municipality [Courtesy of Dubai Municipality/Al-Nakheel Properties]	94
5.14	The 'Palm 1' project is already a major manifestation of Dubai's new urban brand Source: Dubai Municipality [Courtesy of Dubai Municipality/Al-Nakheel Properties]	94
5.15	Bahrain Financial Harbour (BFH) emerging close to Manama's old traditional core Source: Ali A. Alraouf	95
5.16	The fast-changing Manama waterfront and with the iconic BWTC and BFH towers dominating its skyline Source: Ali A. Alraouf	96
5.17	Manama's reclaimed north shoreline, adding new urban centres such the Northern City and Al Seef commercial area Source: Ali A. Alraouf	96
5.18	Durrat Al Bahrain, a new iconic resort development on the south-eastern coast of the main island Source: Durrat Al-Bahrain [Courtesy of Durrat Al-Bahrain]	97
5.19	Continuous land reclamation is changing Manama's urban morphology at an unprecedented pace, here showing the northern coastline from the BFH Tower to the Al Seef district in the distance Source: Ali A. Alraouf	98

117

6.13

Strip mall in the suburbs of Doha

Source: Robert Adam

6.14	Post-modern suburban houses behind high walls with uncared for residual space Source: Robert Adam	118
6.15	'Aspire Tower' for 2006 Asian Games, now with link to Villagio Mall Source: Robert Adam	118
6.16	Villagio Mall with its Italianising details making a vast suburban mall Source: Robert Adam	119
6.17	Interior of Villagio Mall with its painted sky ceiling and imitation Italian street Source: Robert Adam	120
6.18	Education City campus with various US university outposts Source: Robert Adam	121
6.19	Education City Convention Centre by Arata Isozaki; the concrete structure imitates the Sida Tree, symbol of the Qatar Foundation Source: Robert Adam	121
6.20	Museum of Islamic Art by I.M. Pei Source: Robert Adam	121
6.21	Qatar Centre for the Preservation of Islam by Husan Al-Ahmadi Source: Robert Adam	122
6.22	Souk Waqif, a complete recreation of the old souk on the same site Source: Robert Adam	123
6.23	Typical street in the outer section of the old town which is to be demolished for the Msheireb project Source: Robert Adam	123
6.24	The Msheireb project by AECOM/Arup/Allies and Morrison Source: AECOM/Arup/Allies and Morrison [Courtesy of AECOM/Arup/Allies and Morrison]	124
6.25	'The Pearl' development on the northern edge of the city Source: Robert Adam	124
6.26	Lusail district planned for the north of Doha Source: Lusail Developments [Courtesy of Lusail Developments]	125
7	Abu Dhabi, UAE	
7.1	Map of Abu Dhabi in context of the Persian Gulf Source: Map redrawn by Olivia Duncan and Sonny Tomic	129

7.2	Sheikh Zayed poster in Abu Dhabi central business district (CBD) Source: Olivia Duncan and Sonny Tomic	133
7.3	Abu Dhabi Island Source: Olivia Duncan and Sonny Tomic	134
7.4	Continuous refurbishing of street layouts in Abu Dhabi Source: Olivia Duncan and Sonny Tomic	135
7.5	Average building height in Abu Dhabi's CBD Source: Olivia Duncan and Sonny Tomic	136
7.6	Canyon-effect produced by the typical building threshold in CBD Source: Olivia Duncan and Sonny Tomic	136
7.7	The coastline of Abu Dhabi seen from on high Source: Lukas Sokol [Courtesy of Lukas Sokol]	137
7.8	Pseudo-traditional architecture in Abu Dhabi Source: Olivia Duncan and Sonny Tomic	138
7.9	Dhow boat with Abu Dhabi skyline behind Source: Olivia Duncan and Sonny Tomic	138
7.10	Grand Mosque (Sheikh Zayed Mosque) in Abu Dhabi, UAE Source: Olivia Duncan and Sonny Tomic	139
7.11	Continuous demolition in Abu Dhabi Source: Olivia Duncan and Sonny Tomic	140
7.12	Threshold matrix – Layer 01 Source: Olivia Duncan and Sonny Tomic	142
7.13	Contextual globalisation in Abu Dhabi Source: Shwan Alhashimi [Courtesy of Shwan Alhashimi]	144
7.14	Fairy-tale contextualism Source: Olivia Duncan and Sonny Tomic	145
7.15	Some more fairy-tale contextualism in Abu Dhabi's CBD Source: Olivia Duncan and Sonny Tomic	146
7.16	Threshold matrix – Layer 02 Source: Olivia Duncan and Sonny Tomic	147
7.17	Interface 1	147

7.18	Interface 2 Source: Olivia Duncan and Sonny Tomic	148
7.19	Corniche panorama in Abu Dhabi Source: Olivia Duncan and Sonny Tomic	149
7.20	Aerial view of Masdar City on the edge of Abu Dhabi Source: Masdar [Courtesy of MASDAR, a Mubadala Company]	149
8	Dubai, UAE	
8.1	Male-dominated urban space in Dubai Source: Kevin Mitchell	156
8.2	Palm Jumeirah Island Source: Kevin Mitchell	156
8.3	Dhows along the Dubai Creek Source: Kevin Mitchell	158
8.4	Dubai Metro Source: Kevin Mitchell	159
8.5	Park and commercial buildings near Dubai Creek Source: Kevin Mitchell	160
8.6	Urban space near to the Dubai Mall Source: Kevin Mitchell	162
8.7	Mall of the Emirates Source: Kevin Mitchell	164
8.8	Typical suburban villas in Dubai Source: Kevin Mitchell	165
8.9	Madinat Jumeirah hotel resort and mall Source: Kevin Mitchell	166
8.10	'Cityscape Dubai' real-estate and development trade fair Source: Kevin Mitchell	167
8.11	Residential development along Jumeirah Beach Source: Kevin Mitchell	167
8.12	International City development Source: Kevin Mitchell	169

8.13	Burj Al Aarb Source: Kevin Mitchell	169
8.14	Burj Dubai and Business Bay development Source: Kevin Mitchell	170
9	Shopping Malls in Dubai	
9.1	Atrium roof in Bur Juman Gardens Source: Nicholas Jewell	177
9.2	Modern extension to the Bur Juman Centre Source: Nicholas Jewell	178
9.3	Original mall at the Bur Juman Centre Source: Nicholas Jewell	179
9.4	Main pedestrian concourse at the Dubai Mall Source: Nicholas Jewell	182
9.5	Public art installation in the Dubai Mall Source: Nicholas Jewell	183
9.6	Gold Souk at the centre of the Dubai Mall Source: Nicholas Jewell	185
9.7	Indoor ski slope at the Mall of the Emirates Source: Nicholas Jewell	186
9.8	Historic wind-towers in the Bastakiyah Quarter of Dubai Source: Nicholas Jewell	187
9.9	Bastakiyah's textile <i>souk</i> Source: Nicholas Jewell	187
9.10	Malls at the Madinat Jumeirah resort development Source: Nicholas Jewell	188
9.11	Wind-tower motifs at the Madinat Jumeirah in Dubai, UAE, with the Burj Al Arab Hotel beyond Source: Nicholas Jewell	188
9.12	Advert within the malls of the Madinat Jumeirah resort Source: Nicholas Jewell	189
9.13	'Chinese' section of the Ibn Battuta Mall in Dubai, UAE Source: Nicholas Jewell	190

9.14	'Indian' section of the Ibn Battuta Mall Source: Nicholas Jewell	190
9.15	'Persian' section of the Ibn Battuta Mall Source: Nicholas Jewell	191
10	Sharjah, UAE	
10.1	Development phases of Sharjah, UAE, from 1822–2000, showing the gradual move inland from the old port (top centre of map) Source: Drawing by Hassan Radoine	199
10.2	First master-plan for Sharjah as devised by the British firm of Halcrow & Partners in 1968 Source: Drawing by Hassan Radoine	201
10.3	Second master-plan for Sharjah drawn up in 1980 for implementation up to 2000 Source: Hassan Radoine	202
10.4	Aerial sketch showing the dramatic changes to just part of the old historic area of Sharjah by 2008 Source: Drawing by Nasser Golzari	203
10.5	Traditional and modern architecture together in Sharjah Source: Nasser Golzari	206
10.6	New office towers in downtown Sharjah Source: Nasser Golzari	207
11	Abadan and Khorramshahr, Iran	
11.1	Map of Abadan and Khorramshahr on the border with Iraq and close to Kuwait	
	Source: Map redrawn by Nasser Golzari	213
11.2	Abadan oil refinery in the early-1950s Source: Nasser Golzari	214
11.3	Flames of the oil refinery and petrochemical complex dominating Abadan's skyline Source: Nasser Golzari	218
11.4	American oil-worker families arriving in Abadan Source: Nasser Golzari	219
11.5	Half-demolished buildings in Abadan as reminders of the Iran/Iraq War, as photographed in 2009 Source: Nasser Golzari	221

11.6	Colonial-style dwellings sit empty and left to ruin in the Bawarda garden suburb in Abadan Source: Nasser Golzari	222
11.7	1950s Anglo-Iranian Oil Company dwellings by the British architect, James M. Wilson, in the Bawarda neighbourhood Source: Nasser Golzari	222
11.8	Current state of Arvand River on the edge of Abadan Source: Nasser Golzari	224
11.9	Sikh temple presents an appropriate alternative climatic model Source: Nasser Golzari	225
11.10	Sikh temple courtyard Source: Nasser Golzari	226
11.11	Private facilities for European engineers, managers and their families in Abadan Source: Nasser Golzari	228
11.12	Small one-bedroom houses built by the Anglo-Iranian Oil Company for local workers Source: Nasser Golzari	228
11.13	Walled garden courtyard house in Abadan with articulated brickwork and plants for shading Source: Nasser Golzari	231
11.14	Brickwork and glazed tiles in the hybrid dwellings of the Bawarda Garden Suburb, as reminiscent of central and southern Iran from the 1930s to the 1950s Source: Nasser Golzari	233
11.15	View of the '1000 Homes' project by the Anglo-Iranian Oil Company for Iranian oil workers in Abadan, as modified by Iranian architects from original designs by the British architect, James M. Wilson Source: Nasser Golzari	234
11.16	Plan and cross-section of a dwelling in the '1,000 Homes' project showing ventilation strategies Source: Drawing by Hamid Zendepir, NG Architects [Courtesy of NG Architects]	234
11.17	Elevation and longitudinal section of paired dwellings in the '1,000 Homes' project showing ventilation strategies Source: Drawing by Hamid Zendepir, NG Architects	
	[Courtesy of NG Architects]	235

11.18	Beautifully crafted modern tower in the Miras Farhangi building in Abadan Source: Nasser Golzari	237
12	Bushehr, Iran	
12.1	Geographical location of Bushehr at different scales Source: Semra Aydinli and Avsar Karababa	245
12.2	Current municipal master-plan for Bushehr Source: Maps redrawn by Semra Aydinli and Avsar Karababa from data provided by Bushehr Municipality	246
12.3	Saadat High School, Bushehr Source: Semra Aydinli and Avsar Karababa	249
12.4	Various cultural centres around Bushehr Source: Semra Aydinli and Avsar Karababa	249
12.5	The spatial character of Bushehr's urban pattern and housing typology Source: Drawing by Avsar Karababa	250
12.6	Everyday life in Bushehr Source: Collage by Avsar Karababa	253
12.7	The textures and rhythms of the city Source: Semra Aydinli and Avsar Karababa	254
12.8	Regeneration scheme for the Old Quarter of Bushehr Source: Map redrawn by Semra Aydinli and Avsar Karababa from data provided by Bushehr Municipality	255
12.9	Ongoing regeneration work in the Old Quarter Source: Drawing by Avsar Karababa	255
12.10	Major edifices currently being restored Source: Semra Aydinli and Avsar Karababa	256
12.11	Omaret-e-Malek, as now owned by M. M. Malekaltujjar Source: Semra Aydinli and Avsar Karababa	256
12.12	Sheikh Hossain Chahkutahi Tomb Source: Semra Aydinli and Avsar Karababa	256
12.13	Window of the Iranology Institute in Bushehr, reflecting some fragments of Iranian Islamic identity Source: Semra Aydinli and Avsar Karababa	258

12.14	Old Quarter of Bushehr within the context of globalisation Source: Drawing by Avsar Karababa	259
13	Kangan and Banak, Iran	
13.1	Linked cities of Kangan and Banak on the eastern coastline of the Persian Gulf Source: Map redrawn by Reza Shafaei	266
13.2	Palm trees as the main greenery in the area Source: Reza Shafaei	267
13.3	Impact of recent droughts on the local environment Source: Reza Shafaei	267
13.4	Old and new generations reflected in their attitude and clothing Source: Reza Shafaei	268
13.5	Pottery as a traditional local micro-industry Source: Reza Shafaei	269
13.6	National gas industries are turning Kangan-Banak into a heavily industrialised area Source: Reza Shafaei	269
13.7	Example of a self-made shop built by local merchants Source: Reza Shafaei	271
13.8	Newly-built market using concrete and steel which is very quiet during the day as it is so hot Source: Reza Shafaei	271
13.9	Vendor creating his shop under the shade of a tree Source: Reza Shafaei	271
13.10	Traditional narrow pathway providing shade as well as a human-scaled space for social interaction Source: Reza Shafaei	272
13.11	A new wide asphalt street which provides no shade and divides the community Source: Reza Shafaei	273
13.12	Woman selling fish under a self-made shade in front of the formal marketplace behind	273

13.13	The formal structure for the marketplace is left unused by local people Source: Reza Shafaei	274
13.14	Elderly resident of Banak smoking his water-pipe in the evening in front of his house Source: Reza Shafaei	277
13.15	Young girls playing in the street in Banak Source: Reza Shafaei	278
13.16	Traditional house in Banak with courtyard built out of local materials Source: Reza Shafaei	280
13.17	New air-conditioned apartments in Banak Source: Reza Shafaei	281
13.18	Palm tree with adjacent windmill used in past times to pump up ground water Source: Reza Shafaei	283
14	Kish Island, Iran	
14.1	Author's annotated sketch map of Kish Island Source: Drawing by Tim Makower	288
14.2	A typical Kish road scene Source: Tim Makower	288
14.3	The abandoned casino on Kish Island Source: Tim Makower	289
14.4	The romance of the Persian Gulf is omnipresent on Kish Island Source: Tim Makower	289
14.5	Female visitors to the Pardis Mall on Kish	
	Source: Tim Makower	290
14.6		290 291
14.6 14.7	Source: Tim Makower The old fortified house at Harireh Source: Tim Makower Ruins of Harireh port with new Damoon rising on the horizon	
	Source: Tim Makower The old fortified house at Harireh Source: Tim Makower	

14.9	Wind-towers on the reconstructed Ab Ambar well Source: Tim Makower	293
14.10	Traditional house in Safein Source: Tim Makower	294
14.11	Safein Mosque in 1980 before the new park was built Source: Tim Makower	295
14.12	Mr Daryobar in conversation with the author Source: Tim Makower	295
14.13	Bicycle track at the main beach Source: Tim Makower	297
14.14	Typical sloped-wall architecture in Kish's 'city centre' Source: Tim Makower	298
14.15	Map showing the old village of Mashe in 1967 Source: Map redrawn by Tim Makower	299
14.16	Urban plan showing the contrast between Old Safein on the left and New Safein on the right Source: Map redrawn by Tim Makower	300
14.17	The decaying Greek ship Source: Tim Makower	301
14.18	Damoon rising out of the ground Source: Tim Makower	302
14.19	Typical street view in Mir Mohanna Source: Tim Makower	303
14.20	Sadaf Tower Source: Tim Makower	304
14.21	Urban master-plan by Drees and Sommer in 2004 for Kish Free Zone Organization, indicating the inner-ring road and main development areas Source: Map redrawn by Tim Makower	305
15	Bandar Abbas, Iran	
15.1	Boats taking visitors to nearby islands during the off-peak season Source: Widari Bahrin	313
15.2	Slum areas in the northern part of Bandar Abbas Source: Widari Bahrin	314

15.3	Slums along the coast providing shelter for migrant fishing communities Source: Widari Bahrin	315
15.4	Waste-water drainage from slum housing Source: Widari Bahrin	315
15.5	A local seller transporting his produce to the bazaar Source: Widari Bahrin	316
15.6	Typical public space found under a shaded canopy in a slum area of Bandar Abbas Source: Widari Bahrin	316
15.7	Typical new public space concentrated along the waterfront Source: Widari Bahrin	318
15.8	Bustling public space in the centre of Bandar Abbas Source: Widari Bahrin	318
15.9	Open-air exercise machines in a park at night Source: Widari Bahrin	319
15.10	Giant television screen for park users Source: Widari Bahrin	319
15.11	Local residents smoking water pipes along the shore Source: Widari Bahrin	319
15.12	Shading structures for public picnicking Source: Widari Bahrin	320
15.13	Fishing boat passing through the breaks in the park network that give access to the water Source: Widari Bahrin	320
15.14	Children's play area with inflatable devices Source: Widari Bahrin	320
15.15	Display of different wind-catchers near to the seafront picnic areas Source: Widari Bahrin	321
15.16	Everyday street life within neighbourhoods Source: Widari Bahrin	321
15.17	Ali Lashgari, septuagenarian local resident of Bandar Abbas Source: Widari Bahrin	321
15.18	Inside the Galladari bathhouse today Source: Widari Bahrin	322

15.19	Porous sea stone as a traditional building material that is no longer being used Source: Widari Bahrin	322
15.20	Multi-storey apartments under construction in Bandar Abbas Source: Widari Bahrin	322
15.21	Disused Hindu temple in the city centre Source: Widari Bahrin	323
15.22	A typically busy local street bazaar in Bandar Abbas Source: Widari Bahrin	324
16	Sustainable Identity: New Paradigms for the Persian Gulf	
16.1	Relief map of the Persian Gulf region Source: ROPME [Courtesy of ROPME]	331
16.2	Bathymetry, ports and oil installations in the Persian Gulf Source: ROPME [Courtesy of ROPME]	331
16.3	Fire plumes of Kuwaiti oil fires in 1991 Source: ROPME [Courtesy of ROPME]	334
16.4	Desert Retreat aerial view, proposed design for Al Ain in the UAE Source: Ardalan Associates with KlingStubbins	337
16.5	Desert Retreat elevation Source: Ardalan Associates with KlingStubbins	338
16.6	GOIC Intelligent Tower for the Doha Corniche, Qatar Source: Ardalan Associates with KlingStubbins	339
16.7	Typical office floor section for the GOIC Intelligent Tower Source: Ardalan Associates with KlingStubbins	340
16.8	Diagram showing the wind turbines and solar panels on the GOIC Intelligent Tower Source: Ardalan Associates with KlingStubbins	340
16.9	Lucite concept model of the GOIC Intelligent Tower Source: Ardalan Associates with KlingStubbins	341

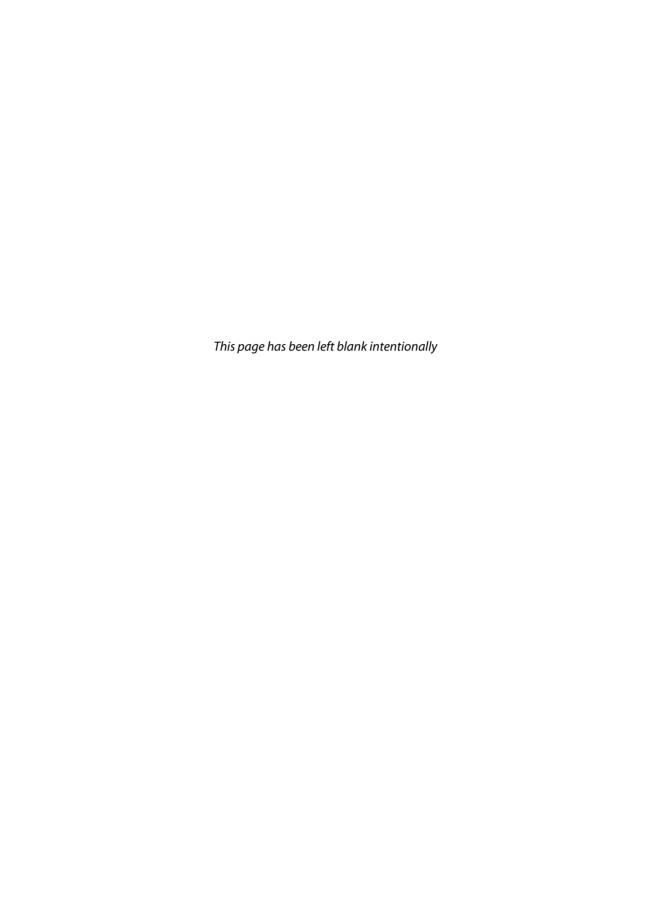
17	Reflections on a Wind-Catcher: Climate and Cultural Identity	
17.1	A typical traditional wind-catcher in Iran Source: iStock [Courtesy of Tanuki Photography/iStock]	347
17.2	Roman classical remains in Syria Source: Susannah Hagan	348
17.3	Traditional sun-dried bricks in Egypt Source: James Steele, <i>Hassan Fathy</i> , Academy Editions/ St Martins Press, 1988, p. 30 [Courtesy of James Steele/Wiley and Aga Khan Trust for Culture]	350
17.4	Torrent Research Laboratories in Ahmedabad, India, by Brian Ford and Associates (1997) Source: Brian Ford and Associates [Courtesy of Brian Ford]	354
17.5	Plan of Torrent Laboratories showing the PDEC ventilation system Source: Brian Ford and Associates [Courtesy of Brian Ford]	354
17.6	Seville Expo (1992), external areas installed with 'cooling towers' Source: Brian Ford and Associates [Courtesy of Brian Ford]	355
17.7	Rapid urban development under construction in Dubai, UAE Source: Fotolia [Courtesy of Philipus/Fotolia]	356
17.8	Masdar City eco-town on the edge of Abu Dhabi, UAE, by Foster + Partners Source: Foster + Partners [Courtesy of Foster + Partners]	357
18	Doha Renaissance: Msheireb Reborn	
18.1	Location map of Doha, Qatar, within the Gulf Source: Map redrawn by Tim Makower	359
18.2	General city plan of Doha showing the denser old centre next to the <i>corniche</i> Source: Map redrawn by Tim Makower	360
18.3	The tree: rooted in the past, flourishing into the future Source: Drawing by Tim Makower	360

18.4	West Bay in Doha from the air Source: Tim Makower	361
18.5	West Bay at street level Source: Tim Makower	361
18.6	The Museum of Islamic Art by I.M. Pei, with the new city rising behind Source: Tim Makower	362
18.7	The floating structure of the Msheireb Enrichment Centre, by Allies and Morrison, with the backdrop of West Bay Source: Tim Makower	363
18.8	Solidere in central Beirut, Lebanon Source: Tim Makower	363
18.9	Model of the Msheireb master-plan showing its fine urban grain Source: Tim Makower	365
18.10	Continuity as expressed by the Al Mana House in Doha Source: Tim Makower	366
18.11	Sketch of Doha in 1952 showing its space and form Source: Drawing by Tim Makower	366
18.12	The <i>fereej</i> housing cluster redesigned for the 21 st century in the Msheireb project Source: Allies and Morrison [Courtesy of Allies and Morrison]	367
18.13	Communal gardens as part of the new Qatari urban living Source: Allies and Morrison [Courtesy of Allies and Morrison]	368
18.14	Solid walls provide privacy in the dwellings, yet the interiors are still flooded with light Source: Allies and Morrison [Courtesy of Allies and Morrison]	368
18.15	Privacy and shade are achieved with the use of <i>mashrabiya</i> screens Source: Allies and Morrison [Courtesy of Allies and Morrison]	369
18.16	The dwellings have ample space for cars but are set within a walkable city Source: Allies and Morrison [Courtesy of Allies and Morrison]	360
	IN CHILLERY OF ARREST AND INCOMESCENT	ากเ

18.17	Al Kahraba Street North, Msheireb, by Adjaye Associates and Burton Studio Source: Adjaye Associates + Burton Studio	
	[Courtesy of Burton]	370
18.18	Malqaf, or 'breathing wall', in a traditional Qatari house Source: Tim Makower	370
18.19	The play of shadow and light on old Qatari buildings Source: Tim Makower	371
18.20	A traditional <i>naqsh</i> pattern as a screen Source: Tim Makower	372
18.21	New door motif based on a Qatari mangrove pattern Source: Allies and Morrison [Courtesy of Allies and Morrison]	372
18.22	Model of the Msheireb Mosque by Allies and Morrison Source: Allies and Morrison [Courtesy of Allies and Morrison]	372
18.23	Msheireb Enrichment Centre by Allies and Morrison Source: Allies and Morrison [Courtesy of Allies and Morrison]	373
18.24	Organic urban form mixing new and old in the Msheireb project Source: Allies and Morrison [Courtesy of Allies and Morrison]	373
18.25	Diwan Amiri Quarter (Msheireb Phase 1), by Allies and Morrison, seen from the north-east Source: Allies and Morrison [Courtesy of Allies and Morrison]	375
18.26	Covered street within the Diwan Annex Source: Allies and Morrison [Courtesy of Allies and Morrison]	376
18.27	New colonnade along the Al-Rayyan Road Source: Allies and Morrison [Courtesy of Allies and Morrison]	376
18.28	CNC-cut pattern in marble, which is then photographed, hand-traced and digitized to create the stone finish for the Diwan Annex Source: Allies and Morrison	
	[Courtesy of Allies and Morrison]	377

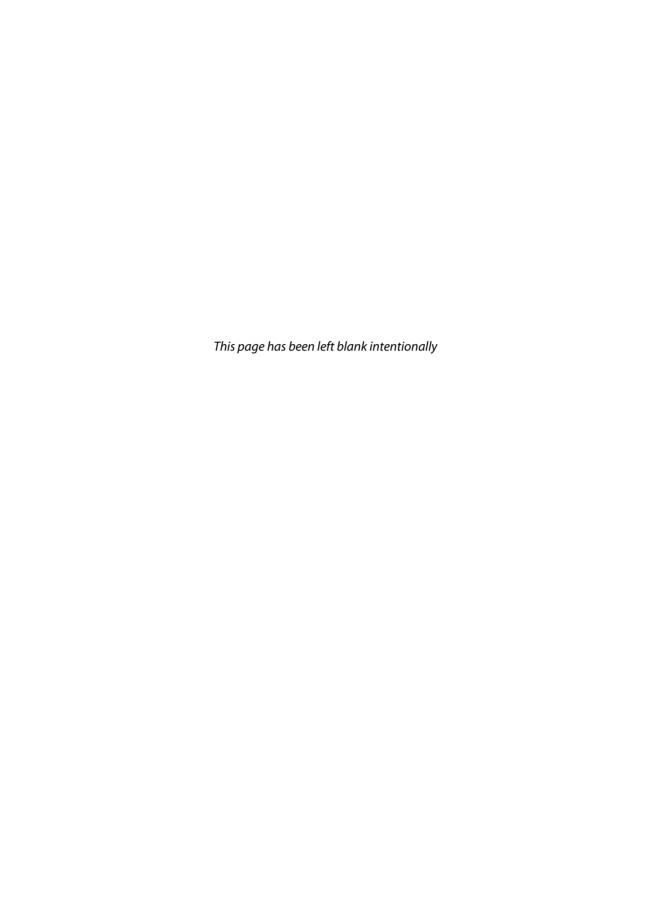
18.29	North facade of the Amiri Guards Headquarters by Allies and Morrison Source: Allies and Morrison [Courtesy of Allies and Morrison]	377
18.30	Courtyard of the Amiri Guards Headquarters Source: Allies and Morrison [Courtesy of Allies and Morrison]	378
18.31	National Archive of Qatar seen from the Eid Ground Source: Allies and Morrison [Courtesy of Allies and Morrison]	379
18.32	Msheireb seen from the south-east, above Souk Waqif Source: Uniform [Courtesy of Uniform]	380
19	The Scale of Globalisation	
19.1	Hong Kong and Shanghai Bank in Hong Kong by Foster + Partners (1983–1986) Source: Murray Fraser	384
19.2	Guggenheim Museum in Bilbao by Frank Gehry (1993–1997) Source: Murray Fraser	384
19.3	CCTV Building in Beijing by Rem Koolhaas/OMA (2004–2012) Source: Murray Fraser	385
19.4	SOHO Galaxy in Beijing by Zaha Hadid (2010–2012) Source: Murray Fraser	386
19.5	Burj Khalifa in Dubai by SOM Source: Murray Fraser	391
19.6	Al Bahar Towers in Abu Dhabi by Aedas Architects Source: Edward Denison/Aedas Architects Ltd [Courtesy of Edward Denison/Aedas, 2012]	395
19.7	Close-up of 'mashrabiya' installation on the Al Bahar Towers Source: Aedas Architects Ltd [Courtesy of Aedas Architects Ltd]	395
19.8	Villa Anbar in Dammam, Saudi Arabia by Peter Barber (1992–1993) Source: Peter Barber Architects [Courtesy of Peter Barber Architects]	396

19.9	Entrance pool in the Villa Anbar				
	Source: Peter Barber Architects				
	[Courtesy of Peter Barber Architects]	396			
19.10	View of chauffeur's house in the Villa Anbar				
	Source: Peter Barber Architects				
	[Courtesy of Peter Barber Architects]	397			
19.11	Rooftop view to the local mosque				
	Source: Peter Barber Architects				
	[Courtesy of Peter Barber Architects]	398			
19.12	Interior of maid's room on the rooftop				
	Source: Peter Barber Architects				
	[Courtesy of Peter Barber Architects]	398			
19.13	Dubai Hub project by StudioNova Architects				
	Source: George Katodrytis/StudioNova Architects				
	[Courtesy of George Katodrytis/StudioNova Architects]	400			
19.14	View from within the Dubai Hub				
	Source: George Katodrytis/StudioNova Architects				
	[Courtesy of George Katodrytis/StudioNova Architects]	400			



Tables

	1	Introduction	
	1.1	Outline information on the 14 selected towns or cities Source: Murray Fraser, using data from the various essays in this book	16
•	4	Dammam, Saudi Arabia	
	4.1	Construction materials used by Aramco's employees in 1962 and 1968 Source: Mashary Al-Naim	65
	4.2	Population statistics for the Dammam Metropolitan region (2007), based on data from the Central Office of Statistics and fieldwork by the author Source: Mashary Al-Naim	69
	5	Manama, Bahrain	
:	5.1	Urban development in Manama and Bahrain – main paradigms and transformations Source: Ali A. Alraouf	97
	7	Abu Dhabi, UAE	
	7.1	Classification of design approaches and building features in Abu Dhabi Source: Olivia Duncan and Sonny Tomic	150



Contributors

Robert Adam is co-founder of ADAM Architecture, the largest traditional practice in the world, and a Visiting Professor of Urban Design at Strathclyde University in Glasgow, UK. His contribution to the classical tradition is internationally acknowledged, and he has recently written *The Globalisation of Modern Architecture* (Cambridge Scholars Publishing, 2012).

Ali A. Alraouf is Professor of Architecture, Urban Design and Planning Theories in the Department of Humanities at Qatar University in Doha. He is the Principal of Environmental Design Group, and has contributed extensively on Gulf architecture and urbanism. He is also the co-editor of *Knowledge Cities* (Scholar Press, 2007).

Nader Ardalan is an architect and planner with over four decades of award-winning international experience. He is President of Ardalan Associates and an expert in environmentally sustainable design. He is also Senior Research Associate and Co-Editor of the *Gulf Encyclopedia for Sustainable Urbanism* at Harvard University in Cambridge, Massachusetts, USA.

Semra Aydinli is a Professor in the Faculty of Architecture at Istanbul Technical University, Turkey, where she teaches design studio and architectural theory. She has written widely on her research interests, which include design education and philosophy, aesthetic experience, cultural identity, and critical issues related to interdisciplinary studies in architecture.

Widari Bahrin is an architect at DP Architects in Singapore and the co-author of *The Dubai Mall: Sand to Spectacle* (DP Architects, 2012). She studied at the Architectural Association, London, and took the MA in Architecture, Cultural Identity and Globalisation in the Department of Architecture at the University of Westminster.

Olivia Duncan is an Associate Urban Designer in the Abu Dhabi Urban Planning Council, UAE, where she has been working extensively with large scale master-

plans and planning policies since 2009. She is a qualified architect and recently completed a MSc in Sustainable Urban Development from the University of Oxford, UK.

Murray Fraser is Professor of Architecture and Global Culture at the Bartlett School of Architecture at University College London, and currently serves as the Faculty's Vice-Dean of Research. He has published extensively on design, architectural history and theory, urbanism, and cultural studies, including *Architecture and the 'Special Relationship'* (Routledge, 2008).

Nasser Golzari is a Director of Golzari Sharif Architects in London, UK, and a senior lecturer at the University of Westminster, and leads a design studio in the Department of Architecture at Oxford Brookes University. He has also set up the Palestine Regeneration Team (PART) with Murray Fraser and Yara Sharif.

Susannah Hagan is Director of R_E_D (Research into Environment + Design) and also the Research Leader in the School of Architecture at the Royal College of Art, London, UK. Her books include *Taking Shape* (Architectural Press, 2001) and *Digitalia* (Routledge, 2008), and her current research is on urbanism and ecology.

Tanis Hinchcliffe was until recently Reader in Architecture in the Department of Architecture at the University of Westminster, London, UK. Now retired, she continues to be the author of books and essays on a wide variety of architectural themes, including, along with John Bold, *Discovering London's Buildings* (Frances Lincoln, 2009).

Nicholas Jewell is a practicing architect in London, UK, and recently completed a PhD at the Bartlett School of Architecture, UCL, on shopping malls and urbanism in China. He won the RIBA Dissertation Prize in 2000 for an essay on British malls, subsequently published in *The Journal of Architecture* (2001).

Gwyn Lloyd Jones works for Weston Williamson Architects in London, UK, and is completing a PhD at Westminster University on the influence of Frank Lloyd Wright outside America. He won the RIBA Dissertation Medal in 2001 for an essay which retraced Wright's annual pilgrimage from Taliesin North to Taliesin West.

Avsar Karababa is a PhD student at Istanbul Technical University, Turkey, and she also works as a senior architect at ETUD Architecture. Previously she was an architect at SE Architecture, and has carried out research into topics that include cultural and power relations as manifested in architecture and urban space.

Tim Makower is the principal of Makower Architects, a practice specializing in large-scale urban projects, with offices in London and Doha. A former partner of

Allies and Morrison, his work has included the King's Cross masterplan, Bankside 123, Liverpool 1, St Andrew's Bow, and Msheireb and Sidra Village in Doha.

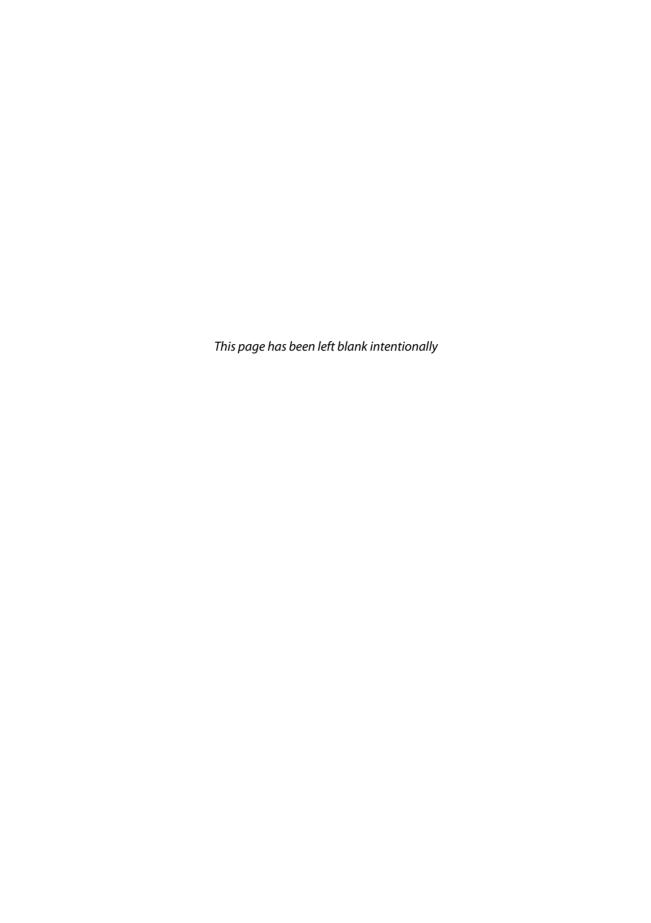
Kevin Mitchell is an Associate Professor of Architecture in the School of Architecture and Design and currently serves as Vice Provost for Undergraduate Affairs and Instruction at the American University of Sharjah (AUS) in the United Arab Emirates. He is well known for his extensive writing on Dubai's recent urban development.

Mashary Al-Naim is Professor in the College of Architecture and Planning in King Faisal University in Dammam, Saudi Arabia, and was formerly the Chair of the Department of Architecture there. He is currently also Vice-Rector for Business Development at the Prince Mohammed University, and writes about Saudi architecture and urbanism.

Hassan Radoine is Chair of the Department of Architectural Engineering in the University of Sharjah, UAE. He is a consultant on urban heritage development, and has written on Islamic architecture and urban design topics, including an essay in *Planning Perspectives* (2011) on the planning of old medinas in Arab cities.

Reza Shafaei is an Iranian architect currently living in the UK. After studying at the Art University of Tehran, he took the MA in Architecture, Cultural Identity and Globalisation in the Department of Architecture at the University of Westminster. His main research interest is in socio-cultural aspects of sustainable architecture.

Sonny Tomic is an award-winning urban designer, policy maker and educator with extensive experience in large scale planning projects in Europe, Canada, the Caribbean and the UAE. He is currently a Manager of the Centre City Planning and Implementation Division in Calgary, Canada, where he oversees policy and development applications.



Acknowledgements

This book started from a conference that we organised at the Royal Institute of British Architects back in September 2009, and from a process of fieldwork research carried out since then. In terms of the RIBA conference, we were extremely grateful for the input of UN-Habitat, International Art and Architecture Research Association in Tehran, and the University of Westminster. Jeremy Till, then Dean of Westminster's School of Architecture and the Built Environment, was especially encouraging of our project. It also helped up greatly that we had such an excellent organising team for the RIBA conference, consisting of Filiz Erol, Mahnaz Golzari, Sabba Khan and Yara Sharif.

Gratitude for the research stage must all go to the researchers who so diligently visited their allocated cities along both coastlines of the Persian Gulf. Those authors whose essays have now been included in this book will be easy enough to indentify. However, it was regrettably not possible to include all of the researchers' essays when turning our project into an edited book, and so we extend our gratitude to Ranjith Dayaratne, Wafa Al-Ghatam, Kelly Hutzell, Layla Karajica, Yasser Mahgoub, Torange Khonsari, Rami el Samahy and Jasper Startup. Others who had given excellent talks at the 2009 RIBA conference but who also unfortunately could not be included were Peter Barber, Diana Coramazana (UN-Habitat), Nabeel Hamdi, Ibrahim Al-Jaidah, Paul Finch, George Katodrytis, Tony Lloyd Jones, Souheil El-Masri, Pirouz Mojtahedzadeh, Aylin Orbasli, Samia Rab, Mohammad Radfar, Abeer Al-Saud, Nazaneen Shafaie, Peter Sharratt, Mohammad Tabarra and Nicholas You (UN-Habitat). We would also like to thank all the mayors, municipal officials, scholars, librarians and ordinary citizens who helped our researchers to carry out their studies around the Persian Gulf: however, there are too many of them to mention individually here.

In broader terms, there are also a number of people whom we would like to thank. Our unending appreciation goes to Valerie Rose, Publisher at Ashgate, who is responsible for their excellent emerging architectural list, and to her editorial team who worked on this book, led by Jacqui Cornish. We would also like to take this chance to say how much our loved ones have helped us during

the lengthy process of producing this book. In the case of Murray Fraser, this applies to Eva Branscome and to his sons, Callum and Liam; while in the case of Nasser Golzari, he is, as ever, deeply indebted to Yara Sharif.

Murray Fraser and Nasser Golzari

Introduction

Murray Fraser

This collection of essays addresses pivotal issues of architecture, urbanism, cultural identity and globalisation, and in doing so offers two original lines of investigation. Firstly, it is the first book in English (or any language) to look critically at the buildings and cities located around the entire perimeter of the Persian Gulf, not only from one perspective. This might seem a curious point to make, so is worth spelling out. Previous studies have tended to discuss the Gulf either from its western Arabic side or its eastern Iranian side. Cultural variants, ethnic divides and other enmities currently divide the two sides of the Persian Gulf – and yet, equally, it has been a singular entity for most of human history. Hence this book is innovative in that it examines the architectural and urban patterns along both coastlines, giving no pre-eminence to either. Instead the aim is to provide a vivid snapshot of the complex changes now occurring as result of cultural exchanges across the Persian Gulf and the wider processes of globalisation. The essays stem from a conference that I, along with my co-editor, Nasser Golzari, organised at the Royal Institute of British Architects in London in September 2009, as well as from fieldwork research since then. As in the RIBA conference, the book provides an inclusive overview of geographic, economic, political and cultural factors which have shaped, and are still shaping, the built environment around the Persian Gulf.

The book's second innovation is in the way it treats the concept of architectural globalisation, with this term being usually translated into Arabic as 'al-'awlama' and into Farsi as jahani shodan. The historiography of architectural globalisation will be discussed later, but it is worth pointing out here that this book presents a different kind of analysis – one that is deliberately not focussed on any one particular country, or particular type of architects, or particular building type. Instead, each of the authors has been invited to study a specific town or city on the Persian Gulf within a broader cultural continuum which retains strong urban differentiations. Too much writing about architectural globalisation tends to be overly hysterical, or else merely repeats ideological themes laid down by the operations of global capital. This book also wishes to sidestep the limitations in the notion of 'critical regionalism', which, as Adrian Forty points out, is merely a new form of 19th-century

architectural nationalism.¹ If anything, the book's approach is much closer to what is referred to as 'area studies', in which different disciplines drawn from across the social sciences and humanities examine together a specific geographical or cultural region of the world, with the aim of revealing underlying systems and forces. Previous writers have pointed out that the Persian Gulf 'provides a laboratory par excellence to assess and fine tune the theories of globalization.² This is precisely our intention.

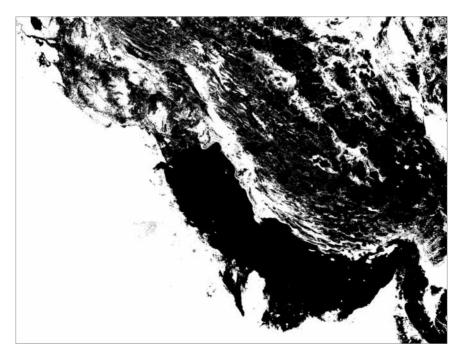
As with any cross-disciplinary investigation, however, there are some obvious problems with the 'area studies' approach.³ Perhaps the key criticism of many 'area studies' scholars is that they appear to think they can come up with a simple coherent summation of a given part of the world. Thankfully, there can be little chance of that mistake being made when looking at the Persian Gulf region. For a start, even the naming of the water channel is deeply controversial, reflecting the contrasting views of the countries around it.4 From the Iranian perspective, there is no question that it is Persian Gulf, whereas people on the Arabic side have from the 1960s referred to it as the Gulf, or sometimes the Arabian Gulf (somewhat confusingly, given that term has also long been used for the Red Sea on the western side of the Arabian peninsula). Other variants include the Arabo-Persian Gulf, Islamic Gulf, and Gulf of Basra. Google has recently got itself into serious trouble with Iran for dropping the name of the water channel entirely from its maps, so that clearly isn't an option either. We realise how sensitive this issue is for those involved, but for both the RIBA conference, and this book, we have reverted to United Nations nomenclature as that is the official neutral source – hence our predominant use of the term Persian Gulf, albeit alternating at times with the Gulf for brevity.



1.1 Map of the Persian Gulf showing the countries and cities covered in the book

We are keen not to take any fixed position in relation to these political controversies. The essays in this volume seek not to praise or condemn any part of the Persian Gulf region; rather, they hope to demonstrate that it is just as complex, contradictory and fascinating as any other part of the globe. There is no tendentious spouting about a 'clash of civilisations'. If anything, in the region around the Persian Gulf – where religion is still seen as central to social value systems – it is the ideological and cultural differences between the Sunni-majority Islamic countries on the Arabic side and the Shi'a dominance in Iran which are most notable. Today, increased involvement by new Asian economic giants like China and India is likewise beginning to problematise the geo-politics of the Gulf, reviving memories of the 'Silk Road' which was once so important for Europe and the Far East. Also highly significant are the tensions in the Middle East (and Northern Africa) which began to be expressed during the 'Arab Spring' in 2010–2011, revealing deeply varying views between generations and social groups about the role and purpose of the state, religious institutions, and other agencies.

Turning now to the geography of the Persian Gulf, there are eight countries which can be mentioned: Iran along the east and for much of the short northern coastline, where it abuts Iraq, and then the Arabic nations of Kuwait, Saudi Arabia, Bahrain, Qatar, United Arab Emirates (UAE) and Oman along the western side. However, the great bulk of Oman 'belongs' to the Gulf of Oman, Arabian Sea, and Indian Ocean beyond, and thus it is more oceanic in location. Oman is not economically dependent on the Persian Gulf, and only the tip of the Musandam Peninsula actually abuts onto it. Iraq does have a coastline on the northern Gulf, but it is an extremely small one with little human settlement. In this sense, Iraq's



1.2 Relief map showing the mountainous eastern side in Iran contrasted with the flat desert-like Arabic side to the west



1.3 Reminder of an older way of life, close-up of an Iranian *dhow* in Dubai Creek

hinterland is much further inland to the north. For these reasons, this book focuses on analysing the key coastal cities in the six countries that possess substantial Gulf coastlines.

These six countries are united in that they face each other across the Persian Gulf. While mountainous and greener on the eastern Iranian side, the western shoreline is flat and desert-like. The Gulf itself runs in a direction from north-west to southeast, and on plan it is crescent-shaped, even banana-shaped. As a water channel it varies from 200-300 km in width, and is 989 km in length, creating a surface area of 251,000 km². This makes it roughly the same size (but not the shame shape) as Romania or Ghana or the United Kingdom. Indeed, it's a useful comparison to get into one's head that the UK would more or less fit straight into the Persian Gulf. Seasonal water temperatures of between 16-32°C make the Gulf one of the very warmest seas in the world, plus it is also one of the saltiest. At the southern end of the Persian Gulf, the celebrated Strait of Hormuz acts as a de facto entry chamber, or lobby, from the Gulf of Oman (which then drops into the Arabian Sea before widening out even further as it joins the Indian Ocean). As a consequence of its geographical location, it is no surprise that the Persian Gulf has for millennia been of vital strategic and military importance. That role continues today: the US Navy 5th Fleet is based in Bahrain and the US Air Force runs a base with 9,000 personnel in Qatar, largely to offer protection to Arabian oil states and as part of an ongoing diplomatic stand-off with Iran on other side.

But of course it would be wrong to reduce the Persian Gulf to merely a strategic or military entity, given that it has other important facets. Most fundamentally of



1.4 View across Dubai Creek to the heavily Iranian district of Deira

all, it acts as the drain for the mighty Tigris and Euphrates Rivers, thus making it part of what is often referred to as the 'cradle of civilisation' (or at least one of the 'cradles' around the globe). The first settlements in the Gulf region are estimated to have been born around 3,200 BC.5 Soon it became a major trading route with ships heading in both directions to and from the Indian Ocean, setting up astonishingly rich networks of commercial exchange with Africa, India and the Far East. For its indigenous people, and the numerous immigrant communities who have come to live there, the Persian Gulf has long served as a metaphorical 'table' over which tribes and other cultural groupings on both sides can trade goods and services, share customs and diets, and at times fight each other outright. Indeed, a key function of the Gulf has often been to offer a route of refuge from conditions on the other side, such as in the case of the discontented Iranian merchants who sailed over to set up business in the 'free port' of Dubai. Cultural interchange has been profound. 'The result today is that the coastal populations of both sides of the Gulf contain a mixture of Arabs and Persians', as one commentator observes.⁶ For instance, there are now an estimated 10,000 Iranian businesses in Dubai, and the annual flows of money from Iran to Dubai (estimated at \$15 billion in 2007) easily make the latter Iran's biggest trading partner.7

In terms of environmental features, the Persian Gulf hosts a number of important natural habitats: the reed marshes of southern Iraq, harsh dry deserts along its western side, fertile mountain ranges close to the western shores of Iran, and an abundant collection of marine life and coral formations in what is a relatively shallow body of water. The Persian Gulf is only 90m at its deepest,

with 50m being the average depth (although it suddenly gets far deeper once one has left through the 'lobby' of the Strait of Hormuz). Today, however, the Gulf faces many ecological problems. It is one of the most polluted seas in world, with an estimated 66 per cent of its coral reefs and hundreds of its marine species now at risk. Causes of this heavy pollution include the presence of oil and gas industries along the Arabian side (on land and offshore), discharges from coastal desalination and power plants, residues from wars in the form of shipwrecks/ oil spills/oilwell fires, unchecked sewage waste, aggressive 'alien' marine species brought in inadvertently by international tankers, and - not least of all - the rapid urban development of cities like Abu Dhabi, Dubai, Doha or Kuwait City, each of which contains a staggering 80–90 per cent of their country's population. Given the need for copious cooling of buildings in this hot and dry part of the world – summer temperatures regularly rise over 40°C and there is virtually no rain for six months of the year – the demands placed on air conditioning and other building services, or for heavily cooled car transport, is immense. In 2008 it was estimated that the UAE, with an ecological footprint of 2.5 hectares per person, had at last ousted America as the largest consumer per capita of natural resources and the worst producer of carbon emissions.8

Politically and culturally, the countries along both sides of the Persian Gulf have long experienced phases of colonisation by imperial armies led by Persians, Ottomans, Portuguese, Safavids, British, Americans, etc. Each has left a lasting legacy. As one vivid example, every year more than 1 million people from Britain alone, mostly tourists, visit Dubai.9 As another concomitant of this complex history of colonisation in the Gulf region, for centuries there have been volatile relations between the largely Shi'a Persian and Sunni Arabic sides of the Gulf. Following the discovery of oil resources, a situation has arisen whereby American interests now prevail. Present-day intervention by western powers - generally neo-imperialist in intent and led by the USA with British backing - has over the past few decades maintained a status quo in the Persian Gulf to protect oil supplies. Historians duly point out that the previous 'Pax Britannica' has given way to a new 'Pax Americana'. As such, since the 1980s the region has experienced three major wars involving Iraq, one of them directly with Iran, the other two with America and its allies. Today there is widespread hostility to Iran from those on the Arabic side of the Gulf, not least because of the Iran's shift towards a Shi'ite theocracy after the 1979 Islamic Revolution, which makes it (at least officially) opposed to western capitalism and materialist values. The latest worry in the Gulf region, voiced largely by Israel as America's main ally in the Middle East, is that Iran is secretly building nuclear weapons to use on Israel. Iran has indeed opened its first nuclear-powered electricity station near to the city of Bushehr, amidst fears from some observers that its real purpose - somewhat ironically, given that this would follow the lead set by Israel's nuclear power station - is to produce enriched uranium for nuclear missiles.¹¹ In response to concerns about Iran's nuclear ambitions, a series of economic sanctions have been imposed by the USA and European Union, which are now creating serious hardship and political instability in Iran.12

Meanwhile, the traditional economic activities once carried out by people in the Persian Gulf (pearl diving, fishing, trading, farming, craft industries, etc) have been changed dramatically by the impact of western-style capitalism. With the advent of oil and gas extraction, surplus capital now abounds. In a clear example of the process described by David Harvey, there is immense competition for this surplus capital to be invested back into new showcase buildings in cities on the western coastline, most conspicuously in Abu Dhabi and Dubai in the United Arab Emirates, Doha in Qatar, Manama in Bahrain, and Kuwait City¹³ (see Plates 1 and 2). These development pressures are noticeably less intense in Iranian coastal cities, even if similar trends can be seen there too. Such differentials only add to the older rift between Persian and Arabian cultures. This is not to forget that there are deep social divisions inside Iran, as well as between Arabic nations despite the frequent expressions of pan-Arab sentiments. As an example of the latter aspiration, the Cooperation Council for the Arab States of the Gulf – usually shortened to the Gulf Cooperation Council – was founded in Abu Dhabi in 1981. It has had variable success since then. Disputes within the Arabic countries are often tribally based, with the presence of extended clans ruled by sheikhs remaining a strong social feature. On top, there persist tensions between nomadic Bedouin tribes and the settled majority population. The changes engendered were brilliantly captured in the Cities of Salt novels by Abdul Rahman Munif, as published from the 1980s. However, it should also be pointed out that divisions amongst the Arabic Gulf countries are no greater than those found between much of Europe or elsewhere around the globe.

The natural resources offered by the Persian Gulf represent significant economic assets, as it were one giant feeding bowl. Originally it was all about fish and pearls, more recently oil and gas reserves. Oil fields, which were first detected in Iran and Iraq in the early-twentieth century by British oil companies, and later developed on a far greater scale by US firms after the Second World War, have transformed life along both coasts of the Persian Gulf. As in other places like Texas, but in an even more intense and exceptional manner, oil became 'black gold' for many of the Arabic countries involved. As a consequence, from the late-1950s the Persian Gulf has served as the main petrol pump which fuels the world's automobiles. Staggering wealth fell upon Saudi Arabia, Kuwait, Qatar and the UAE, leading to increased global political power for their rulers after the Organization of the Petroleum Exporting Countries (OPEC) was created in September 1960. Of course there have been many historical ups-and-downs since then, such as the 'Oil Crisis' of 1973–1974, during which the Gulf nations were portrayed as greedily holding western economies to ransom. Following that was a period of steady growth that lasted until a noticeable tail-off in the early-1990s. The situation has since become more complicated, with oil output still rising slowly in Gulf countries and yet being heavily supplemented by the extraction of liquefied gas. Today, the Arabic countries of the Persian Gulf, taken together with Iran and Iraq, own around 62 per cent of the world's known crude oil reserves; in terms of natural gas reserves, Iran and Qatar are the second and third largest holders after Russia. 14 Widespread fears about 'peak oil' syndrome is, however, prompting serious efforts by Kuwait, Bahrain, Qatar and the UAE to diversify economically in a search for a post-oil future.