

Richard Weston

E WestonR1@cardiff.ac.uk

Adam Sharr

E Sharr@cardiff.ac.uk

The Welsh School of Architecture

Cardiff University

Bute Building

King Edward VII Avenue

Cardiff, CF10 3NB, UK

T +44 (29)20874431

F +44 (29)20874926

Wavne Forster

E ForsterW@cardiff.ac.uk

Stephen Kite

E kites@cardiff.ac.uk

Juliet Odgers

E OdgersJ@cardiff.ac.uk

Charles Rattray

School of Architecture University of Dundee

Perth Road

Dundee

DH1 4HU

T +44 (0)1382 345231

F +44 (0)1382 203631

E c.rattrav@dundee.ac.uk

Samuel Austin

Edward Wainwright

E arq@cardiff.ac.uk

Art Editor + Design Angela Ashton

E design@angelaashton.co.uk

Thomas Fisher University of Minnesota, Minneapolis, USA

Tony Fretton Tony Fretton Architects, London, UK

Elizabeth Hatz KTH Arkitekturskolan, Stockholm, Sweden

Louisa Hutton Sauerbruch Hutton Architects, Berlin, Germany

Mari Hvattum Oslo School of Architecture and Design, Norway David Leatherbarrow University of Pennsylvania, Philadelphia, USA

Hannah Le Roux University of the Witwatersrand, Johannesburg, South Africa

Tarla MacGabhann MacGabhann Architects, Letterkenny, Republic of Ireland

Mary McLeod University of Columbia, New York, USA

Simo Paavilainen Helsinki University of Technology, Finland

Alan Powers University of Greenwich, London, UK

Mohamed Sharif Koning Eizenberg Architecture, Santa Monica, CA, USA

Simon Allford Allford Hall Monaghan Morris, London, UK

Andrew Ballantyne University of Newcastle, UK

Peter Blundell Jones University of Sheffield, UK

Peter Carolin University of Cambridge, UK

Richard Coyne University of Edinburgh, UK

Brian Ford University of Nottingham, UK

David Jenkins Foster and Partners, London, UK Niall McLaughlin Architects, London, UK

Jane Rendell Bartlett School of Architecture, UCL, London, UK

Jonathan Sergison Sergison Bates Architects, London, UK

Koen Steemers University of Cambridge, UK

Robert Tavernor London School of Economics, UK

Jane Wernick Jane Wernick Associates, London, UK

lain Boyd Whyte University of Edinburgh, UK

arg: Architectural Research Quarterly (ISSN 1359-1355) is published four times a year in March, June, September and December. Four parts form a volume. The subscription price which includes print and electronic access (but excluding VAT) of volume 14 is £193.00 (US \$320.00 in USA, Canada and Mexico) for institutions; £43.00 (US \$66.00 in USA, Canada and Mexico) for individuals and £31.00 (US \$52.00 in USA, Canada and Mexico) for students, which includes print only, ordering direct from the publishers and certifying that the journal is for their personal use. Single parts are £51.00 net (US \$82.00 in USA, Canada and Mexico) plus postage. EU subscribers (outside the UK) who are not registered for var should add var at their country's rate. VAT registered members should provide their VAT registration number. Japanese prices for institutions (including ASP delivery) are available from Kinokuniya Company Ltd, P.O. Box 55, Chitose, Tokyo 156, Japan. Orders which must be accompanied by payment, may be sent to a bookseller, subscription agent or direct to the publisher: Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge CB2 8RU; or in the USA, Canada and Mexico: Cambridge University Press, Journals Fulfillment Department, 100 Brook Hill Drive, West Nyack, NY 10994-2133. Copies of the journal for subscribers in the USA. Canada and Mexico are sent by air to New York to arrive with minimum delay.

Copying

The journal is registered with the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, USA, Organizations in the USA who are also registered with C.C.C may therefore copy material (beyond the limits permitted by sections 107 and 108 of U.S. Copyright law) subject to payment to C.C.C. of the per-copy fee of \$16. This consent does not extend to multiple copying for promotional or commercial purposes. Code 1359-1355/2009/\$16.

ISI Tear Sheet Service, 3501 Market Street, Philadelphia, PA 19104, USA, is authorized to supply single copies of separate articles for private use only.

Organizations authorized by the Copyright Licensing Agency may also copy material subject to the usual conditions.

For all other use, permission should be sought from Cambridge or from the American Branch of Cambridge University Press.

Information on **arq**: Architectural Research Quarterly and all other Cambridge journals can be accessed via http://www.journals.cambridge.org/

This journal issue has been printed on FSC-certified paper and cover board. FSC is an independent, non-governmental, not-for-profit organization established to promote the responsible management of the world's forests. Please see www.fsc.org for information.

© Cambridge University Press 2009

Printed in the United Kingdom at the University Press, Cambridge



linking practice and research

arq aims to publish significant, original research and design offering new insights into architecture.

Contributions are welcomed from practitioners, academics and students. Submissions may cover either the totality of design, as in critiques or evaluations of buildings; or significant sub-areas such as history, theory, construction, structures, environmental design, materials, information technology and practice.

contents

design	200	55/o2: A manufactured architecture in a manufactured landscape Bob Shiel
criticism	220	$\textbf{Admirably perverse: tectonic expression and the puzzles of Galerie Goetz} \ \ Peter Blundell Jones$
theory	231	Illuminating quality in architectural reveals Marcia Feuerstein
history	241	The renewable tradition: Le Corbusier and the East Emre Demirel
	251	The tectonically extroverted space of Mies van der Rohe Ransoo Kim
	261	$lem:modern tropical architecture: medicalisation of space in early twentieth-century Philippines \\ Estela Duque$
	273	Britain's first steps in Modernism: Cressing Road and the Clockhouse Way estate 1918–20 Finn Jensen and Ellen Thorogood-Page
environmental design	285	Sun, wind, rain and the sewer: outward form opportunities in a degraded landscape Timothy Stenson
urbanism	295	Urban catalysts in theory and practice Juliet Davis
education	307	Knowledge in the making Inge Mette Kirkeby
	315	Self-identity, rationalisation and cognitive dissonance in undergraduate architectural design learning Christine and Leonard Bachman
arq reviews	325	The English House reviewed by Colm Moore
	328	Modernity and Reinvention: The Architecture of James Gowan reviewed by Andrew Peckham
insight	332	The thickness of paint Jonathan Woolf

arq is independent. It has no connection with any institution or organisation.



