

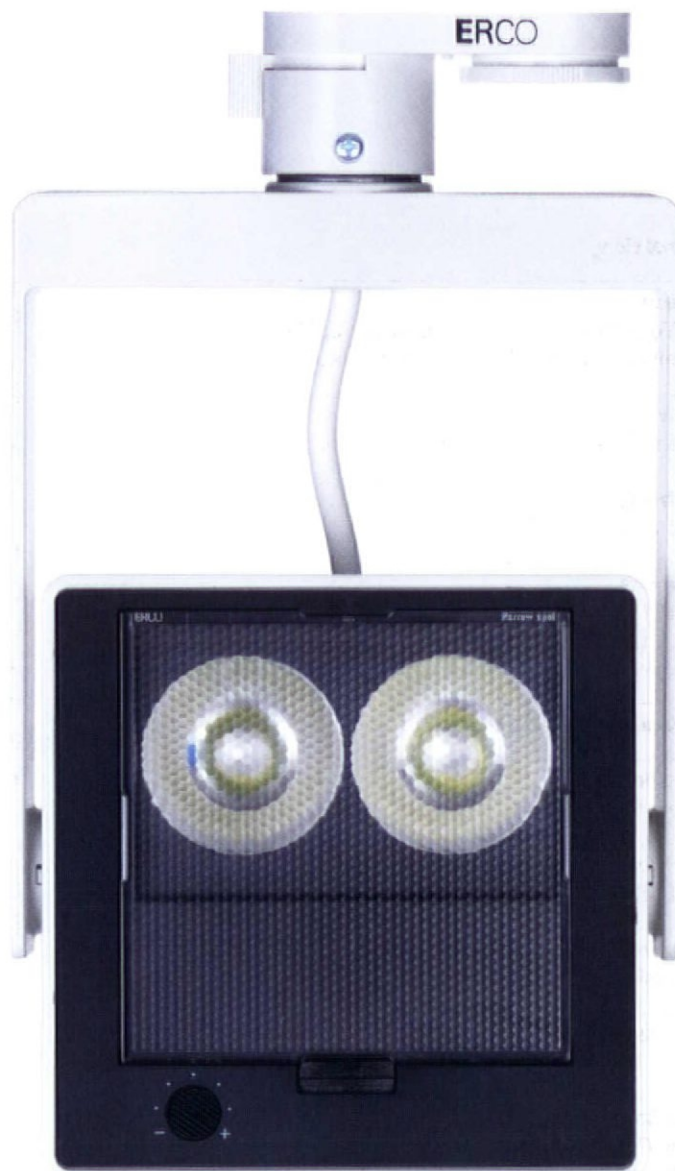
31



PPA - CURRENT ISSUE
PLEASE DO NOT REMOVE

EMERGING
ARCHITECTURE

tune the light



Logotec LED

Logotec LED spotlights, floodlights and wallwashers constitute ERCO's first range of spotlights designed exclusively for LEDs, the source of the future, with a design that gives expression to innovative lighting technology. The flat housing of cast aluminium integrates the control gear and ensures a long life through sophisticated

heat management. High-power LEDs in warm white or neutral white produce a luminous flux of 290lm to 1080lm with a connected load of 4.5W to 13W. The highly efficient LED lighting technology featuring collimators and Spherolit lenses is only available from ERCO – with six light distribution patterns from narrow spot through

to wide flood, oval flood and wallwash: For creative lighting concepts with efficient visual comfort.

www.erco.com/led

ERCO



17	Editorial view
18	Overview New York weathers the storm; Lebbeus Woods remembered; Masterplanning the future of China; Istanbul Design Biennial
26	Review The Arcaid Images Architectural Photography Awards
29	View from ... Atacama Desert, Chile
31	Viewpoints William JR Curtis
33	Your views
35	ar+d Awards for Emerging Architecture
40	Joint Winner Optical Glass House, Hiroshima, Japan
46	Joint Winner Red Bull Music Academy, Madrid, Spain
52	Joint Winner Friendship Centre, Gaibandha, Bangladesh
58	Joint Winner Bloc 10 Housing, Winnipeg, Canada
64	Highly Commended Cassia Co-op Training Centre, Sumatra, Indonesia; Infinite Landscape, Sapporo, Japan; M Building, Paris, France; Living Planter Chandelier; Kamoi Museum, Kurashiki, Japan; Water Cathedral, Santiago, Chile; Recycled Brick School, Tongjiang, Jianxi, China; House for Three Sisters, Murcia, Spain; Gubbio Cemetery, Italy; Umbrella Tea House prototype, Japan
91	Campaign: The Big Rethink Spiral Dynamics and cultural evolution
102	Reviews Rowan Moore asks why we build; Labrouste exhibition in Paris; Jonathan Meades' latest brickbat; MoMA explores ways of being political; the culture of concrete
108	Pedagogy KNUST, Kumasi, Ghana
110	Reputations Josep Maria Jujol
114	Folio Lebbeus Woods

'The more daring and artistic solutions of the human imagination are also the best riposte to nature's own terror'
Emmanuel Petit, p18

'Lebbeus Woods cast himself as a great outsider, unattached to any system of thought, any place, and any community, and a lonely crusader against them'
Nicholas Olsberg, p20

'Architecture schools today stumble around in a jumble of opinions posing as dogmas, and dogmas posing as opinions'
William JR Curtis, p31

'The AA has solidified its avant-garde status precisely by enclosing it in a studied vitrine of institutional rhetoric'
Jack Self, p33

'The Noosphere transcends and includes the Biosphere – mindboggling but irrefutable'
Peter Buchanan, p91

'Jonathan Meades' eye roves licentiously over buildings and places'
Jonathan Glancey, p106

Cover: Langarita Navarro's Red Bull Music Academy in Madrid is joint winner of this year's ar+d Awards for Emerging Architecture (see p46)

CONTRIBUTORS

Kazi Khaleed Ashraf is a Bangladeshi architect, urban planner and architectural author who is the professor of architecture at University of Hawaii. In these pages he writes about the Friendship Centre, Gaibandha, Bangladesh, joint winner of the ar+d Awards

Matthew Barac is a Senior Lecturer at London's South Bank University and also our *Pedagogy* correspondent. This month he writes an appraisal of the Kawme Nkrumah University of Science and Technology in Accra, Ghana

Chris Bianchi is a London-based illustrator who studied at the Royal College of Art where he co-founded the graphic design periodical *Le Gun*. His psychedelic portrait of Josep Maria Jujol decorates *Reputations* this month

Trevor Boddy is a Toronto-based consulting urban designer, architectural critic and curator. A columnist for *The Globe and Mail*, this month he reviews a joint winner of ar+d Awards, 5468796 Architecture

Peter Buchanan is a London-based architecture writer and lecturer. This month he expands on *The Big Rethink* with an explanation of the theory of Spiral Dynamics

Nigel Coates is an architect and prolific designer. Head of the Department of Architecture at the Royal College of Art 1995-2011, he is now RCA Professor Emeritus and the most recent recipient of the Annie Spink Award for his outstanding contribution to architectural education. His book *Narrative Architecture* (Wiley) was published this year. In these pages he reviews Rowan Moore's *Why we Build*

William JR Curtis is a historian of 20th-century architecture and author of the seminal texts *Modern Architecture Since 1900* and *Le Corbusier: Ideas and Form*. This month he advocates taking architectural education back to the buildings

David Cohn is an architecture critic and writer based in Madrid and frequent contributor in these pages. This month he reviews the Red Bull music academy in Madrid, joint winner of the ar+d Awards

Alastair Donald is an urban designer and researcher and associate director of the Future Cities Project. He reports on the *Masterplanning the Future* conference at XJTLU University, Suzhou

Hilary French is an architect and architectural historian at the Royal College of Art in London. Former head of the School of Architecture and Design at the RCA, she has published books about housing design including *Key Urban Housing of the Twentieth Century* (2008). She visited the Istanbul Design Biennial for us

Jonathan Glancey is an architectural critic and writer who cut his teeth as assistant editor on *The Architectural Review*, and was architecture and design editor at *The Guardian* from 1997 to February 2012. This month he reviews Jonathan Meades' *Museum Without Walls*

Jon Goodbun studied architecture at PCL, UEL and the Bartlett. A senior lecturer at the University of Westminster, in these pages he reviews Adrian Forty's *Concrete and Culture*

Rob Gregory is an architect, journalist and Associate Editor of the AR. He is also programme director for the Architecture Centre, Bristol. He contributes practice profiles of the winners of the ar+d Awards

Mark Major is an architect, lighting designer and a director of Speirs + Major. He co-authored *Made of Light: The Art of Light and Architecture*. He describes his view from the Atacama Desert, Chile

Rowan Moore is an architecture critic. He has been editor of *Blueprint*, and has written for the *Evening Standard* (London) and *The Guardian*, and been the Director of the Architecture Foundation. Here he contributes an article on the work of Josep Maria Jujol in *Reputations*; his new book is critiqued in *Reviews*

Nicholas Olsberg was chief curator of the Canadian Centre for Architecture in Montreal. In *Overview* he reflects on the life and works of Lebbeus Woods

Ken Tadashi Oshima is based in Seattle where he is associate professor of architecture at the University of Washington. He edited *Architecture + Urbanism* for over 10 years. This month he writes on Hiroshi Nakamura's premiated entry for ar+d Awards

Emmanuel Petit is a partner in the architectural practice Jean Petit Architectes and an Associate Professor of Architecture at Yale University. His forthcoming book *Irony, or, The Self-Critical Opacity of Postmodern Architecture* will be published in May 2013. In these pages he describes New York after Hurricane Sandy

Anthony Vidler is Dean and Professor of the Irwin S Chanin School of Architecture at the Cooper Union, New York and has published numerous books. A regular contributor, this month he reviews the Henri Labrousse exhibition at the Cité de l'Architecture et du Patrimoine in Paris

Gwen Webber, a New York based architecture and design writer and US Correspondent for *Blueprint* magazine, reviews *9 + 1 Ways of Being Political* at the Museum of Modern Art

THE ARCHITECTURAL REVIEW

EDITORIAL

Editor
Catherine Slessor
catherine.slessor@emap.com
+44 (0)20 3033 2739

Deputy Editor
Will Hunter
will.hunter@emap.com

Art Editor
Heather Bowen
Editorial Assistant
Phineas Harper
phineas.harper@emap.com
+44 (0)20 3033 2740

Communications Director

Carol Raphael

Production Editors

Julia Dawson

Tom Wilkinson

Digital Editor

Simon Hogg

Editorial Interns

Phil Jackson

Kate Riggs

US Contributing Editors

Michael Webb

Mark Lamster

Associate Editor

Rob Gregory

Editorial Director

Paul Finch

PUBLISHING

International Account Manager

Bharat Joshi

+44 (0)20 3033 2942

bharat.joshi@emap.com

Group Advertising Manager

Amanda Pryde

+44 (0)20 3033 2945

amanda.pryde@emap.com

Business Development Manager

Nick Roberts

+44 (0)20 3033 2940

nick.roberts@emap.com

Business Development Manager

Ceri Evans

+44 (0)20 3033 2943

ceri.evans@emap.com

Commercial Director

James MacLeod

+44 (0)20 3033 2939

james.macleod@emap.com

Group Commercial Director

Alison Pitchford

+44 (0)20 3033 2949

alison.pitchford@emap.com

Senior Marketing Executive

Anthea Antoniou

+44 (0)20 3033 2865

anthea.antoniou@emap.com

Marketing Executive

Moya Mathias

+44 (0)20 3033 2871

moya.mathias@emap.com

Italian Advertising Sales Milan

Carlo Fiorucci

+39 0362 23 22 10

carlo.fiorucci@international.com

US Advertising Sales New York

Kate Buckley

+1 845 266 4980

buckley@buckleypell.com

List Rental

Jonathan Burston

+44 (0)20 8995 1919

jburston@uni-marketing.com

Group Managing Director

Conor Dignam

Emap Chief Executive

Natasha Christie-Miller

SUBSCRIPTION BASE RATES AND BACK ISSUES

Please visit
subscription.co.uk/ar/
arqi or call 0844 848 8858
(overseas +44 (0)1858
438 847) and quote
priority code asem
UK direct debit £99
UK credit card £110
UK student £76
Europe £169
Americas \$160
Japan £136
Rest of world £136
American copies are air
speeded to New York

Back issues
£10 in UK
0844 848 8858
£16 overseas
+44 (0)1858 438 847
are@subscription.co.uk

Non-delivery of issues and changes of address

AR Subscriptions
Tower Publishing
Tower House
Sovereign Park
Market Harborough
LE16 9EF, UK
+44 (0)1858 438 847
are@subscription.co.uk

US subscribers contact:
The Architectural Review
c/o PSMJ Resources
PO Box 95120, Newton
MA 02495, USA
+1 617 965 0055

The Architectural Review
(ISSN 0003-861x) is
published monthly for
\$199 per year by Emap,
Royal Mail International
c/o Smartmail, 140 58th
Street, Suite 2b, Brooklyn
NY 11220-2521 USA
Periodicals postage paid
at Brooklyn NY and
additional mailing offices.
Postmaster:
send address changes to
The Architectural Review
c/o PSMJ Resources
PO Box 95120, Newton,
MA 02495 USA

ABC average circulation for
July 2011–June 2012 11,089
© Emap Inform 2012

**The Architectural Review
Greater London House
Hampstead Road
London NW1 7EJ, UK
architectural-review.com
Twitter: @ArchReview**



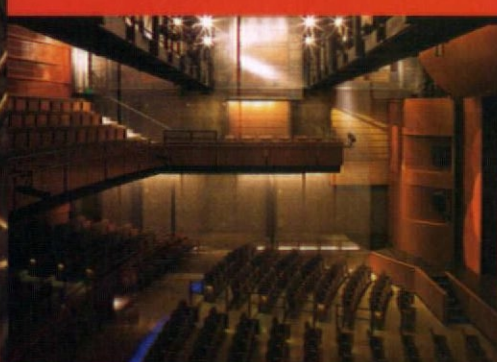
High Drama.

Tonight, "Ceiling" will be performed by a single panel of flexible Cambridge woven metal fabric, suspended in tension, perfectly flat.

The material's reflectivity, semi-transparency and texture blend exquisitely with its supporting cast of materials - wood, fabric and concrete.

Plus, it performs as a mask for plumbing, HVAC and electrical, while maintaining ventilation and acoustic transparency.

Perfect role.



Project: Cultural Arts Center,
Montgomery College

Location: Takoma Park, MD

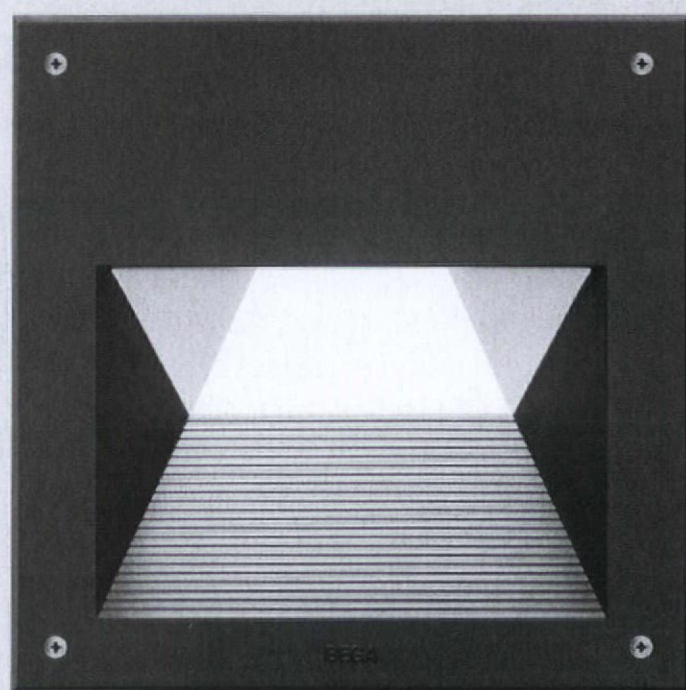
Architect: SmithGroup,
Washington, DC

LANDSCAPEINTERIORS™

Cladding, Space Sculpting, Ceilings



CAMBRIDGEARCHITECTURAL.COM



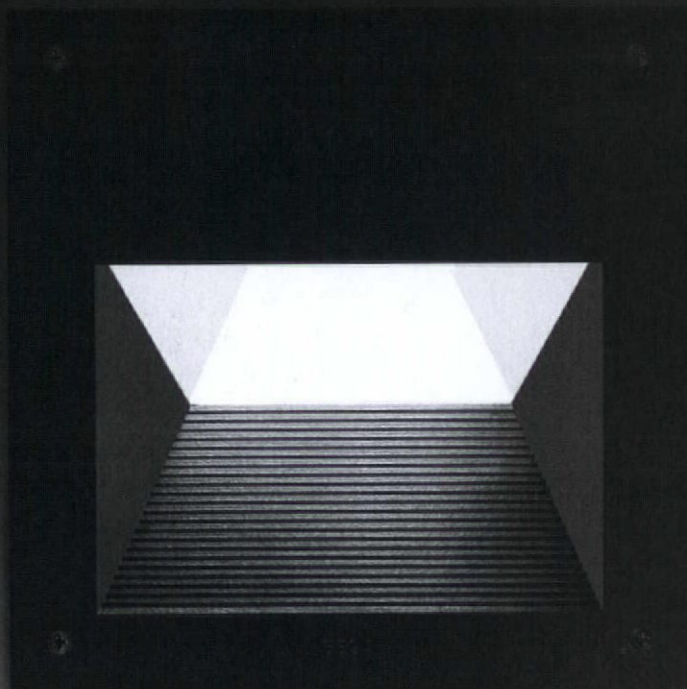
Day in.

BEGA

BEGA – Light outdoors.

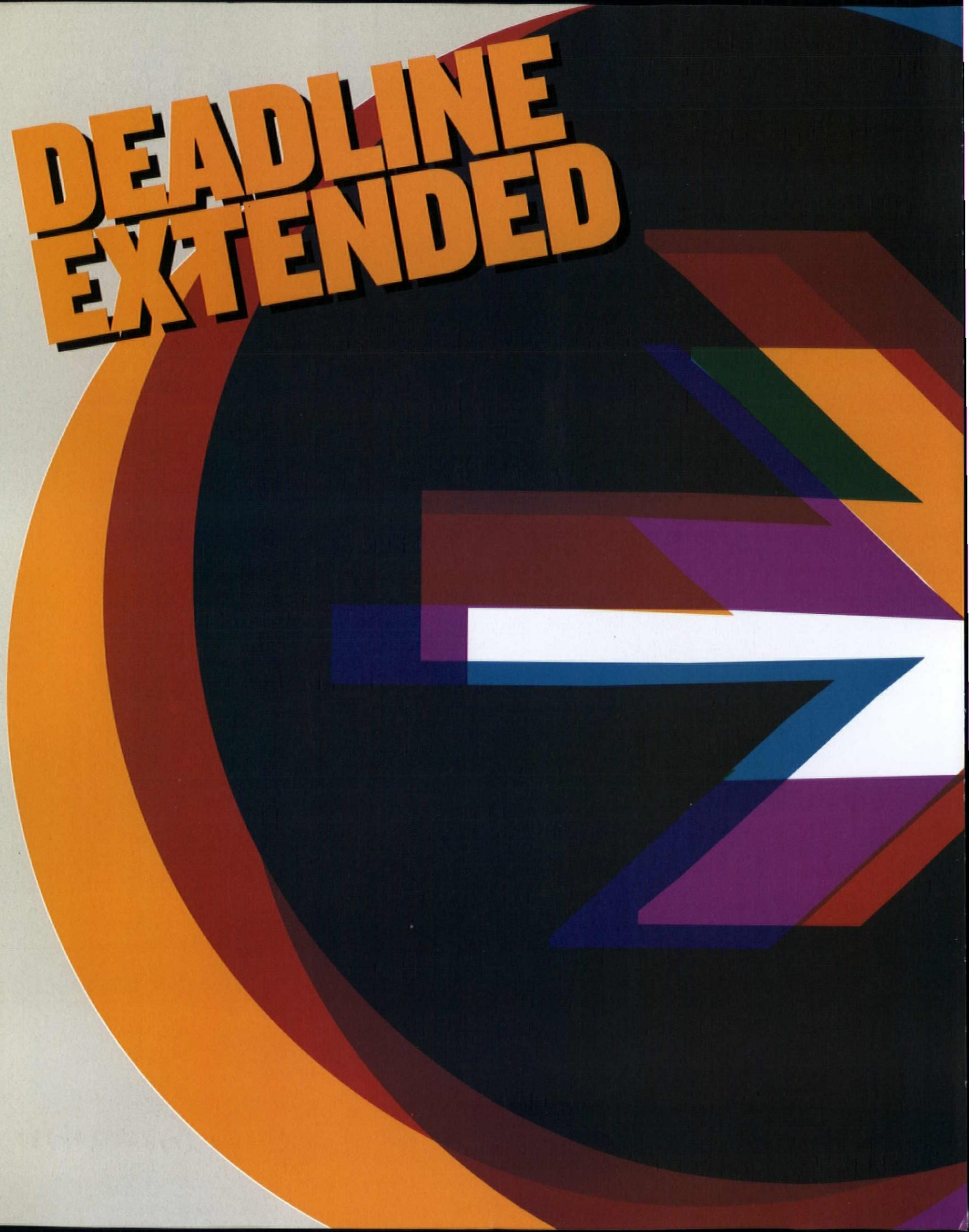
Distribution in the U.K.:
Zumtobel Lighting Ltd.
Chiltern Park
Chiltern Hill, Chalfont St Peter
Buckinghamshire SL9 9FG
Tel. +44 (0) 1753 482 650
Fax +44 (0) 1753 480 350
bega@zumtobel.com
www.bega.com

Recessed wall and ceiling
luminaires available in five sizes
with LED or for tungsten halogen
lamps and discharge lamps
Protection class IP 65
130 – 6800 Lumen



Day out.

**DEADLINE
EXTENDED**



MIPIM ARCHITECTURAL REVIEW

FUTURE PROJECT AWARDS

GAIN GLOBAL RECOGNITION

The AR Future Project Awards are the most coveted global awards programme for commercial projects not yet built or concepts still on the drawing board

- See your work exhibited at MIPIM 2013
- All projects are featured in the Awards catalogue made available to all MIPIM delegates and published online

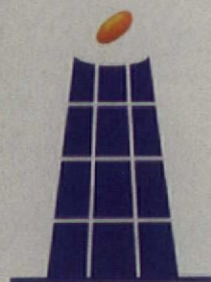
ENTER ONLINE

architectural-review.com/futureprojects
Priority code ARDPS1

For more information:
paul.hewitt@emap.com
+44 (0)203 033 2632

For sponsorship opportunities:
bharat.joshi@emap.com
+44 (0)203 033 2942

**EXTENDED ENTRY
DEADLINE 30 NOVEMBER**



ج ج ل ا س
G L A S S

bespoke

AR Products

Simple lines and an identifiable design ethos underpin Miele's entire product range, allowing for considerable flexibility of applications. The linear design and minimalist styling give Miele kitchen appliances a distinctive appeal, while symmetrical proportions and high-quality materials convey a sense of style and refinement which allow Miele appliances to blend seamlessly into any décor, ranging from the traditional to the ultra-modern.

The appliances' elegantly simple exteriors conceal market leading technologies and, despite the diversity of functions, Miele products display a unity across both design and technology. A consistent focus on experienced design has been the driving force of truly useful innovations and enables Miele to cater for a multitude of lifestyle needs across their range of award-winning kitchen appliances.

Conceived over 110 years ago, the Miele motto has always been 'Immer Besser', or 'Forever Better', and this philosophy, which permeates through every aspect of their business, is reflected in the legendary quality and longevity of operation, which give Miele appliances essential industry leading eco-credentials.

Architects considering specifying Miele can look forward to working with Miele's dedicated projects team who will provide a collaborative bespoke service. Working at the cutting edge for over 15 years, Miele provides a package of services, including an innovative online contract quoting system, product, design and installation advice, guidance on networking appliances, onsite technical assistance and marketing support.

Octagon, specialist developers of prestigious residential properties, recently benefited

from working with Miele across 22 properties on the Kingswood Warren Park development in Surrey. Originally a grand country estate, its mansion dating from 1837, Kingswood Warren Park was home to various titled squires, including Victorian MP Thomas Alcock. More recently, prior to the Octagon purchase, the house and grounds housed the BBC's research department, where entry was strictly limited to the Corporation's personnel and visiting scientific luminaries. The magnificent Victorian gothic mansion has been refurbished by Octagon and converted into eight luxurious apartments, which sit with 14 detached country residences in 19 acres of mature parkland. By choosing Miele, Octagon offers its residents the ultimate cooking experience.

For further information, visit miele.co.uk/projects or call 01235 554455



2



1. Now remodelled into eight apartments, the handsome Victorian gothic mansion forms the focus of the redevelopment of Kingswood Warren Park in Surrey

2. One of the 14 new country houses built in the extensive grounds

3. Miele kitchen appliances are specified throughout, adding extreme elegance and functionality to the experience of cooking and dining

3





NINGBO HISTORY MUSEUM, AMATEUR ARCHITECTURE STUDIO • LV MENGZHONG



DRUK WHITE LOTUS SCHOOL, ARUP ASSOCIATES • ROB BALDOCK

SUSTAINING IDENTITY SYMPOSIUM III VICTORIA & ALBERT MUSEUM

29 November 2012 – 10h00 – 17h30

'Sustaining Identity III unites visionaries and practitioners from different generations, cultures and geographies – from Africa, Europe, Asia and the Americas – to prove that the creation of uniquely localised, people-centred space is still possible.'

SUSTAINING IDENTITY

CURATED BY JUHANI PALLASMAA AND PAUL BRISLIN

Speakers include:

Wang Shu 2012 Pritzker Architecture Prize Laureate

Francis Kéré 2012 Global Holcim Award winner

Li Xiaodong Aga Khan Award winner

Anna Heringer Aga Khan Award winner

Bijoy Jain (Studio Mumbai)

Rick Joy (Rick Joy Architects)

Christopher Lee (Serie Architects)

Josep Lluís Mateo (Mateo Arquitectura)

Declan O'Carroll (Arup Associates)

Juhani Pallasmaa

Kongjian Yu (Turenscape)

Moderators: **Helen Castle**, *Architectural Design (AD)*,
Juhani Pallasmaa and **Paul Brislin**



AR Promotion



1. University of Ulster students Carrie Gillespie, William Brewster and Sarah Mitchell receiving their prize from Aline Djaider, UK real estate manager Commerz Real AG (second from right)
2. Cutaway projection of the winning scheme. The proposal includes an amphitheatre, catwalk, creche and bowling alley
3. Visualisation of the winning scheme showing retail units. Small-scale shops are intended to attract independent retailers, giving the shopping element a more diverse feel

A group of architecture students from Northern Ireland have won a major design competition for the reuse and revival of a prime 40,000 square foot retail space in Northern Ireland's largest shopping centre, Victoria Square.

The expansive basement unit, located below the Ann Street entrance of the Belfast shopping centre is currently unoccupied and owners of the centre, Commerz Real decided to invite local students to make conceptual proposals about how to best utilise the space.

Sarah Mitchell, William Brewster and Carrie Gillespie, who are all architecture students at the University of Ulster, were announced as winners of the 'Reface the Base' competition after a judging panel consisting of a groups of leading retail and architecture experts deemed their proposals to be especially diverse and imaginative.

Speaking to the AR, Carrie Gillespie, who is in her fifth year at the University of Ulster explained that the group applied a qualitative research study to a sample of Victoria Square shoppers to determine what Belfast shoppers feel is missing from the City's current retail proposition. 'The people we spoke to felt that, due to the

current economic climate, many smaller businesses have been getting lost on our high street', she says. 'People said they would be keen to see more opportunities created for local businesses and independent retailers within Belfast and felt that Victoria Square was the perfect place to support such an initiative due to its prominence within the retail landscape.'

The judges declared that the winning plan combined a mixture of uses and elements such as smaller retail units together with an amphitheatre for concerts and performances, a catwalk for fashion events, a children's play area, a creche and a bowling alley.

Commerz Real were so impressed by the students' plans that they have agreed to carry out a feasibility study on the proposal, which could potentially see the winning project eventually brought to fruition.

Commenting on the winning design, Aline Djaider, UK real estate manager, Commerz Real AG said: 'The Reface the Base competition offered an exceptional opportunity for Northern Ireland's next generation of architecture students to get their teeth into the real world of retail design. We were impressed with all the

entries but Sarah, William and Carrie's proposal stood out as a highly imaginative concept, which gave great consideration to how such a significant space could be used for commercial benefit.'

The winning students are now continuing to study for their Masters of Architecture and are all hoping to move in a design-focused route upon graduation, whether in Northern Ireland or further afield. Sarah Mitchell who is in her fifth year of study said: 'We are all lucky to have a skill set that we can take anywhere in the world and develop after we finish our studies. It was an honour to be involved in this competition and it has inspired huge confidence within ourselves.'



© DAPh

Register
online for free
entrance with
code
17350

DESIGN & PLAN BY C4 © CREATIVES 81 / 2005

architect meets innovations

ARCHITECT @WORK

UNITED KINGDOM

Earls Court II - London
30 - 31 January 2013
1st edition - 11am - 6pm

Specially tailored contact days
with a focus on innovation
for architects, interior architects,
designers and other consultants

Strict **SELECTION CRITERIA** which guarantee
a top level of innovations presented by manu-
facturers and exclusive distributors
NETWORKING in an exclusive atmosphere

SEMINARS

Clay & Architecture

EXPOSITIONS

Ceramics selected by MATERIA

Global Award for Sustainable

Architecture 2007 > 2012 by Cité

de l'architecture et du patrimoine /

Institut français d'architecture (Paris)

IMAGES by DAPh

WWW.ARCHITECT-AT-WORK.CO.UK

Organisation:

Xpo Organisations Ltd.

T 020 7125 0583

unitedkingdom@architectatwork.eu

ARCHITECT
@WORK
BELGIUM

ARCHITECT
@WORK
THE NETHERLANDS

ARCHITECT
@WORK
FRANCE

ARCHITECT
@WORK
GERMANY

ARCHITECT
@WORK
SWITZERLAND

ARCHITECT
@WORK
CHINA

BARRISOL GIRA

**LUCE
PLAN**



MODULAR
LIGHTING INSTRUMENTS

Mosa. **santamargherita** **WorldStyle**
heating solutions

AR Products



Rieder has expanded its centre of competence for customised concrete-based facade solutions. In addition to the internationally successful large-format fibreC panels, the Austrian company also produces conveniently sized, easy-to-handle glassfibre reinforced concrete slats. Rieder has also developed a special production technology for the manufacturing of three-dimensional glassfibre reinforced concrete elements.

The large-format fibreC facade panels are 13mm thick and give architects plenty of scope in the design of individual facades. The format can be customised up to a maximum size of 1.2 x 3.6 metres. Ten different colours and three different surface textures offer numerous possibilities for the creative use of colours, textures and shapes. As the material is deformable, fibreC panels can be shaped smoothly over corners and edges. FibreC facade claddings are designed as curtain-type, rear-ventilated facade system and are suitable for almost any type of building.

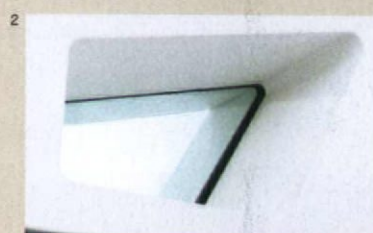
Special production technology allows the production of three-dimensional facade elements with customised dimensions and shapes. Each element is produced

as a unit to create a monolithic appearance. FibreC 3D elements can be combined with standard fibreC large-format panels to offer architects and building owners an economical solution for the entire building shell.

Öko Skin glassfibre reinforced concrete slats come in a length of 1800 mm and are available in widths of 147 mm and 302mm. The conveniently sized slats can be easily installed and can be cut to size and processed directly at the building site. Because of the robustness of concrete, the slats never have to be sanded and never need a fresh coat of paint to maintain their pristine appearance. Öko Skin is simple to install, with special screws and rivets that match the colour of the panels. Concrete slats 302mm wide can also be used as bevel siding.

With its range of innovative products, Rieder combines flexibility, aesthetics and intelligence in facade design. The company will present its entire product showcase at BAU, the trade fair for architecture, materials and systems, 14-19 January 2013, in Munich. Visit Rieder at exhibition booth A2.109.

For further information, visit www.rieder.cc



- 1. The fibreC facade at the Eurostars Book Hotel in Munich explores an innovative design idea. Specially shaped elements represent curved 'book' pages that shade window openings**
- 2. FibreC 3D panels can create three-dimensional cladding elements. This sophisticated technology allows the production of a wide range of cladding forms**
- 3. Öko Skin facade at an office building in Giessen**



Editorial view

Architecture as a critical language with which to face the world

The annual ar+d Awards for Emerging Architecture present a compelling snapshot of the next generation of architects. What are their critical preoccupations? How are they addressing the wider challenges of practice? What's their take on technology, society and the environment? When this awards programme started out in 1999, the world was a rather different place. There were awards for architects, but they were mainly for careers well spent; younger people rarely got a look in. These days, architecture might still be an old man's game, but now there more ways to bring the work of young and lesser known architects to wider attention.

As pioneers in recognising and encouraging emerging talent, the AR can take some satisfaction in seeing many of its 'graduates' go on to greater things. Sou Fujimoto, Anna Heringer, Bjarke Ingels, Thomas Heatherwick, Sean Godsell and Junya Ishigami are just some of the interesting, thoughtful people who have come up through the AR's Emerging ranks. Architecture is a long game and it's always fascinating to track individual career arcs. Where will this year's winners be in 10 years' time? And how will the world have changed around them?

Change of the more profound, epochal kind forms the subject of this month's Big Rethink (p91), which considers frameworks for analysing the awesome and still unfolding narrative of human cultural evolution. Armed with such rich insights, we might thus derive a more profound sense of how we really want to live and how to engage

with society. Regular readers might be surprised to see the traditionally monochromatic *Campaign* pages spring into colour as Peter Buchanan dissects Spiral Dynamics and how its theories relate to architecture. Colour coding identifies different evolutionary eras or 'memes', each with their own distinct characteristics that shape human behaviour and interaction. Passing through these different phases we have evolved from cave dwellers to Facebook users, and now have attained the potential to comprehend and be part of a dynamic unfolding of nature and culture. 'Consistent with this view', writes Buchanan 'sustainability is seen not in terms of constraints and sacrifices but as an inspiring vision of a much more purposeful and fulfilling life'.

Yet as a collective, conscious society, we are clearly still struggling to attain such holistic bliss. The fragility of the man-made world was brought into sharp relief by the impact of Hurricane Sandy (p18), which coincided with the passing of Lebbeus Woods at the end of October (p19). Much more than a dystopian 'paper architect', Woods speculated poetically and powerfully on architecture's uneasy relationship with terror, arms and authority. Latterly, as Nicholas Olsberg writes, he turned his attention to the 'mounting crisis of sustaining a fixed built environment in the face of a catastrophically changing planetary one'. His sobering legacy is to remind us that architecture not a set of 'plastic aesthetics', but 'a unique critical language' with which to face the world. It's one hell of a legacy.

Overview

NEW YORK, USA

Breakdown in the grid

In the wake of Hurricane Sandy, destruction clears the way for inventive reconstruction, writes *Emmanuel Petit*. Photography by *Iwan Baan*

It is from my aeroplane seat, flying home from a symposium at Princeton University, that I see the devastation that Hurricane Sandy caused along the shore of New Jersey. The symposium honoured Peter Eisenman's longstanding relationship with the university on the occasion of his 80th birthday. How topical this event turned out to be. Eisenman had published *The Architecture of the Disaster* (2009) in reference to Maurice Blanchot's deeply poetical and paradoxical *The Writing of the Disaster* (1980) – two books in which the authors argued that aesthetic form can only be fragmentary, incomplete and aphoristic in the face of the disaster's impending threat; that the poetics of aesthetic form subverts the notions of clarity, synthesis and presence. Blanchot wrote: 'The disaster ruins everything, all while leaving everything intact.'

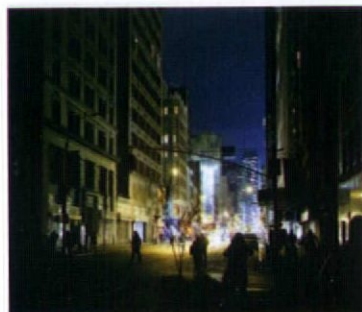
The coincidence of the hurricane and the Princeton occasion (on the topic of 'Resistance and the Discipline of Architecture') triggers a whole series of complex questions about the dialectic relationship between the 'real' and the 'intellectual'; it is as if two versions of the sublime had crossed paths: one unwanted and 'natural', and one 'cultural' (ie, manmade by the architectural intelligentsia). Fragmentary form appears to be the outcome of both: only in one case we think of it as 'allegorical' and 'textual', while in the other, it turns into mere rubble and debris. Add the political debates of recent months and the presidential election in the mix, and you have lots of food for thought on the paradoxical condition of modern man (torn between the desert of the real and the sophistications of intellectual and rhetorical finesse).

After Republican candidate Mitt Romney ridiculed President Obama for his talk about saving the planet and caring about rising sea levels instead of the 'priority' of the economy, the monster storm made the US aware, once

again after Katrina had ravaged New Orleans, of the vulnerability of its cities. Southern Manhattan was without electric power or a subway for a week, and offered a sight of the City that was eerier than after the 9/11 terrorist attacks on the World Trade Center in 2001. The effect is properly called the 'sublime', which, if we believe Edmund Burke's definition from his *Philosophical Enquiry into the Origin of our Ideas of the Sublime and Beautiful* (1757), creates emotions of terror which are 'much more powerful than those which enter on the part of pleasure'. New York City looked as sublime as never before, and only an amount of physical and emotional distance could make the sight momentarily transfixing.

The *New York Times* reported that Columbia University's seismologist Klaus H Jacob predicted that such hurricane-strength storms could become an annual occurrence by 2100. As a consequence, a (long overdue) debate has been started even in the North-East about how to deal with this problem in high-density agglomerations. Both pragmatic and visionary strategies of 'managed retreat', according to which one envisions to prepare for controlled flooding of certain urban areas, are on the table; also 'soft infrastructure', which devises natural resources like coastal marshlands, green roofs and natural drainage zones to reduce the impact of flooding; and 'hard infrastructure' as well in the form of levees and sea barriers or shields just like they partially exist in the Venice lagoon. The 'Plug', a spherical inflatable that can block subway tunnels to prevent them from flooding, is only the most intriguing of inventions making the news in the past weeks.

One realises that nature neither cares about what it destroys in its path nor does it bother what intellectual models humans develop to understand and tame the 'anthropocene'; it is now important not to let the



Manhattan, desolated and dimmed (on the right, Midtown is completely blacked out) by Sandy; but the city soon returned to life





pendulum swing to the other extreme, which is to conclude from all this that intellectual visions have to take the backseat in view of the overwhelming 'real'. This is to say that it will not be helpful to promote a new version of hyper-pragmatics (be it political, social, technological, architectural or theoretical) and blame all visionary and utopian theories that tackle the question of human inhabitation on the planet as merely oneiric and, hence, as a waste of time 'to get things done'.

Many lessons can be learned from the natural disaster. But also this: that some of the more daring and artistic solutions of the human imagination – in the extreme case stemming from science fiction – are also the best riposte to nature's own terror.

OBITUARY

Lebbeus Woods 1940-2012

Nicholas Olsberg

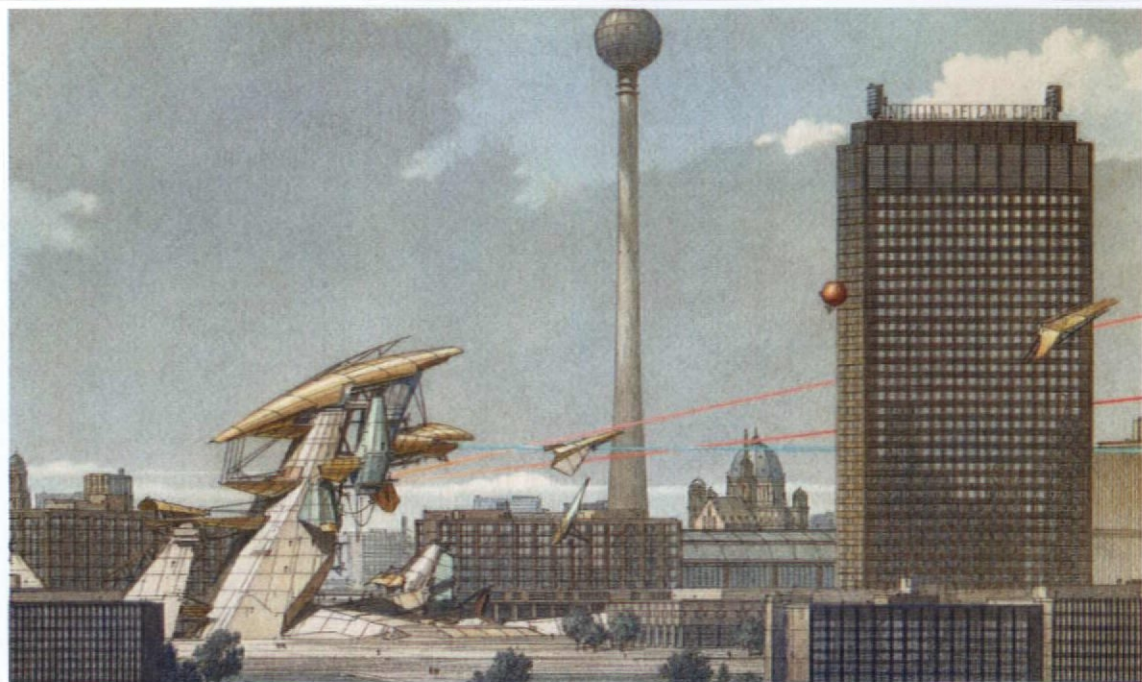
Late in life Lebbeus Woods travelled to Le Corbusier's monastery of La Tourette, and found not an icon of optimistic modernity but 'a decaying fortress on a lush green hilltop, defending itself and its cloistered inhabitants against the world'. It spoke, he said, for 'an old man who had once been young and hopeful and utopian. It was like the last chapter of a novel that begins with high hopes and aspirations and ends with a particular kind of resignation – courageous and forceful, and not merely ambitious, but heroic ... Resignation and strength.'

The idea that courage involves allowing defiance to emerge from acceptance is part of a web of apparently baffling contradictions with which Lebbeus Woods' world was constructed. The most forceful and persistent of these contradictory ideas was the notion that constructing the image of violence could defy its reality and that destruction was

an essential component of construction. It is a notion he expressed most directly in a 1993 manifesto for the post-industrial world, where he called for the architect to be 'at war with fixed and frightened forms'.

Woods cast himself as a great outsider, unattached to any system of thought, any place, or any community, and a lonely crusader against them. But perhaps we can understand him best and find his work most useful if we place him and his apparent contradictions among a postwar generation for whom destruction and regeneration, utopias and dystopias, resignation and resistance might go hand in hand, since each of these was so evidently growing out of the other.

Woods was born in Michigan in 1940. He was the son of a military engineer. The bright visions of the future that marked his childhood were atomic, mechanistic and technicoloured. But he came of age in the year the Berlin Wall was built; he lived through the 10 frightening days of the Cuban Missile Crisis the year after, and then the 25 long years of end-of-the-world anxiety that followed. It was the generation for whom Rem Koolhaas spoke in 1972 when he cast the city as a system of imprisonment; and which Woods' colleague Raimund Abraham presented when he said that architecture must incorporate 'the anticipation of terror' in order to have meaning. And it was a generation in which artists like Constant were using the built environment either as a wide field for speculative manipulation, or a specific canvas on which to insert or remove. One thinks of Tadashi Kawamata, born in reconstruction Japan, whose work (like Woods') is completely ambiguous about whether something is being demolished or constructed; or Gordon Matta-Clark, another child of the Second War, from whom Woods borrowed the concept of 'Anarchitecture', and whose cutting out of layered chambers within existing



Architectonic weapons burst from beneath Cold War-era Alexanderplatz in Lebbeus Woods' visionary *Underground Berlin* (1988)

buildings produces liberating effects very like those of Woods in his *Underground Berlin*.

Indeed, *Underground Berlin*, commissioned by the Aedes Gallery in 1988, is the most elaborate and specific of Woods' architectural tales, and it seems to come straight out of this postwar mélange of hope and unease.

Cold War Berlin was a highly self-conscious battleground of cultures in which architecture was itself the principal protagonist. The Stalinallee in the east served as a magniloquent promenade of socialist realist monumentality, while the IBA commissions in the west showed off a gleaming and increasingly disparate vision of modernity and the avant-garde. Among them stood the scrupulously pickled bombed out ruin of a church and walls everywhere pocked with the evidence of gunfire from the Nazi Götterdämmerung. Beneath lay the bunkers of the Nazi high command. Add to this the presence of the Wall and one could hardly hope for a better site to illustrate Woods' cardinal points: that much built architecture was an agent of authority and an instrument

of ideology; and that buildings – quite independent of what was sheltered or served within them – had throughout history been both weapons and victims of shattering assaults.

The project takes its cue from one of the ironies of Cold War Berlin – the fact that even at points of crisis the U-Bahn routinely moved people between East and West. Woods tells the story of an intricate underground city of sheltering chambers and walkways, its forms carefully echoing the shapes of rockets and missiles, and clad in a similarly slick, metallic and colourful armature. The whole is intricately engineered as a continuous tunnel, and strung together – like the playful machinery of Rube Goldberg or the infernal electronic conduits of military technology – with a system of coils, wires, and ladders. Breaching the frontier between East and West and suddenly emerging from the ground, this monstrous, almost-animate machine for living launches emissaries of destruction on what Woods shows as the peculiarly bleak and forbidding cityscape of the masonry city.

The project, like nearly all of Woods' work, has always troubled me, because it seems so hard to match the seriousness and radical originality of the argument with its lightweight imagery, its comic-book space-age vocabulary of forms, and the extraordinarily orthodox pictorial techniques that present them. But I wonder if here is indeed the nub of his argument and the way to resolve his contradictions: that we defy the terrors of our times if we re-cast them in the near fleshily, erotic, fancifully commonplace shapes we use to tell our tallest tales.

The many acts of homage to Woods all talk of his keeping alive the long tradition of paper architecture, linking him into a chain of speculative, fantastical and sometimes grandiose architectural propositions that run from Piranesi and Boullée to Superstudio and Archigram. But as *Underground Berlin* suggests, his work should remind us that there is not just one strain of imaginary architecture. The debt to Piranesi's *Carceri* is clear, but Woods' Berlin is otherwise surely closer to Chernikhov's imagined, intimate but very buildable

Time for a new classic.* Graph. Wilkhahn.



* The choice of premium-design conference chairs is small and has hardly changed for decades. Graph offers a refreshing make-over. Distinctive, trend-setting design combined with innovative and energising comfort. And top quality, down to the smallest detail. Graph, designed by Jehs + Laub. For more information visit www.wilkhahn.com/graph



Supplying your imagination



Call 0121 753 0777

Email sales@solusceramics.com

Visit www.solusceramics.com

Flexible stone tiles. Exciting possibilities.

Solus Ceramics one of the UK's largest commercial tile suppliers, introduces Flexstone, a unique and flexible wall tile that can be applied to flat and curved surfaces. Thin enough to bend easily, the natural laminate stone plate offers endless design possibilities. Call the sales team for more information.

industrial landscapes. Like Chernikhov, he talks not to some vague future but to a very current state of possibilities, and he was surely right to try to deny the use of his images in films representing dystopic visions of tomorrow. And like his companions at Cooper Union – John Hejduk and Abraham – he was concerned with a narrative rather than an idea; a poetic agenda rather than an analytical one; objects for reflection rather than propositions for transformation.

For the last 15 years, Woods had turned his speculative gaze away from architecture's relationship to the assaults of arms and authority toward the mounting crisis of sustaining a fixed built environment in the face of a catastrophically changing planetary one. He brought to that inquiry the same pattern of resignation and defiance, acknowledging the inevitable transformation of the earth's physical landscape in the face of manmade devastation but then looking for the redemptive fields of energy they produced. It is a sad irony that, trapped in New York as its urban systems collapsed in the wake of a mounting sea, in fragile health and with limited mobility, he became himself a victim of the disastrous possibilities his work asks us to face.

The most troubling description of Woods – it has now appeared in numerous notices of his passing – is that he was 'the last of the paper architects'. I would think quite the contrary: that his drawings, and their extraordinary currency in the world at large, should and will keep many more generations of architectural storytellers, poets, fantasists and visionaries at their boards, ensuring that architecture remains much more than a functional necessity or a system of plastic aesthetics, but a unique, critical language in which to face the dangers, delights and contradictions of the physical world – with joy, in despair, with resignation, or in defiance.

SUZHOU, CHINA

A masterplan for China

Alastair Donald

Even the process of travelling to the *Masterplanning the Future* conference proved to be enlightening. Taking place in October at XJTU University in Suzhou, China, the final leg of my journey was by bullet train from west Shanghai's new Hongqiao terminus. Now Asia's largest station, this impressive piece of infrastructure was built in just two years and sits alongside an expanded regional airport to create a new transport hub. Even more remarkable is the masterplan for Hongqiao: by 2020 a new CBD the size of Glasgow will double the current population of 600,000. Departing from the UK, where sluggishness over infrastructural advance is matched by inertia in housebuilding, the contrast between East and West is striking.

Yet while we can be impressed by the sheer scale and speed of development, what about the qualitative aspects, both actual and potential? Reflecting on the devastation caused by recent floods in his adopted home city of Beijing, *Masterplanning* speaker James Palmer noted that in government-sanctioned social

housing, the bricks in load-bearing walls are often as hollow as the builders' words. This, he says, is the 'half-finished modernity' of a country in which the craftsmanship of the premodern world has been destroyed, but without yet realising the promise of orderly technical talent.

So, if China's rush to urbanisation is predicated on technocratic planning, the demolition of historic buildings rushed through to pre-empt their preservation, and design quality that comes a poor second to meeting targets in The Plan, is it time to slow down? Would embracing the organic forms of bottom-up development now celebrated in the West be a better option? Are conservationists right to argue that heritage is not the past but essential to the future? And, is it possible – or even sensible – to seek to address common problems of a global urban condition?

These are just some of the questions that were posed (and rejected) during this ambitious conference featuring speakers from over 20 countries. Public and academic strands brought practitioners, researchers and cultural commentators together with representatives of business and public institutions.

In the session 'Demolish or Defend?', Anu Leinonen, senior

architect for OMA's CCTV HQ, spoke of the growing movement to preserve the Beijing hutongs. (Jonathan Glancey once called the CCTV building 'the most dramatic of hutong-gobblers'). Such are the paradoxes of the transition to modernity. In a fascinating presentation on China's quest to create a 'new tradition', XJTU teacher Christiane M Herr argued that modernising and maintaining tradition are not contradictory impulses. Unlike the Western promotion of heritage – emblematic of stagnation – in the emerging cities of the East, the continuation or reinvention of tradition accompanies efforts to modernise.

Amid the efforts to draw out differences between East and West, it was apparent that they share the struggle to create an active imagination of the future. In the West, birthplace of the Enlightenment and the attendant material advancement of modernisation, progress has become a dirty word, while experimentation and the social freedoms of the urban sphere are viewed suspiciously. Hence, in the eco-cities session, Arup's Chris Twinn was distressed at the prospect of Chinese people acquiring the living standards and freedoms of the Western middle classes. China, on the other hand, takes risks as it modernises via economic dynamism. Yet a technocrat-led process of growth, where state rarely meets citizen, means that the energy and aspirations of the people may be present but urban society lacks access to the discussion over the future.

Those who spoke of their alienation in 'characterless' megacities and advocated instead more rural development betrayed that the age-old uncertainties thrown up by modernity are today keenly felt. Yet it's people rather than buildings or places that have identity. The embrace of UNESCO's Intangible Cultural Heritage, with its lists of 'traditional practices' compiled



The cavernous departures hall of Hongqiao Station, now the largest rail terminus in Asia

TAUNO TÖHK

by bureaucrats, suggests a belief in both East and West that identity can be handed down. But as Pascal Hartmann from logon architects pointed out, identity is not passively 'revealed' but forged through contemporary experiences that are based on participation and exploration.

It is this that makes the city so compelling. From technocratic masterplanning to poor public space design, the problems of rapid growth shouldn't be downplayed. But whereas the village offers the deadening prospect of isolation, the city is a space of potential: of new work, connections, freedoms, for asking questions, being critical, gaining personal autonomy. Ultimately, as conference organiser Austin Williams concluded, we ended up with 'more questions than answers'. But this event opened up a number of important new lines of enquiry.

ISTANBUL, TURKEY

Turkish delights at the new Biennale

Hilary French

Architects with a perfectionist tendency or ambitions to bring order to the chaos of the urban environment may be put off by the title of the first Istanbul Design Biennial: *Imperfection*. In the context of the host city however – with real traffic jams, quirky street patterns and idiosyncratic skyline – the very idea of 'imperfection' is enticing. The theme is explored in the Biennale's two major exhibitions: one on design, *Adhocracy*, curated by Domus Editor Joseph Grima; the other on architecture and urban design, *Musibet*, which is loosely translated as 'uncomfortableness', curated by architect Emre Arolat.

The latter show, examining architecture's darker side, shows 30 projects in progress in Istanbul. The projects are presented in a series of cell-like spaces with concealed entrances



Belgian photographer Xavier Delory's *Barre d'îlot 01* (2012), part of a series of highly manipulated images of buildings on show at the Istanbul Biennale

accessed from a long and very dark corridor, designed to evoke the 'uncomfortableness' of the theme. The work is further divided into two strands: 'Transformations', which considers social housing and urban renewal projects; and 'Anti Context', which offers thoughts on Istanbul from a variety of local and global perspectives. The projects cover a very wide spectrum of outcome and approach. Recurring ideas are gentrification and the problems caused by a lack of a balance of power in decision making, illustrated by contemporary projects in Istanbul and parallel ones from other urban centres as diverse as Dubai and Brussels. The quantity and quality of information presented is very varied, and for some projects unfortunately too dense without the assistance of the catalogue. Those that come over well include a clothes 'swap shop' installation raising simple ideas about waste and exchange, and *Precise Rhythm* by fashion designer Bahar Korçan, that describes the 'invasion' by fashion designers of derelict areas of Istanbul. Complex issues of political influence on planning decisions are addressed by a project to follow up the 1984 IBA (Berlin)

Kreuzberg housing blocks, offering a Turkish perspective, with video interviews with the architects and residents.

The title of the design exhibition, *Adhocracy*, refers to the upheaval in design practice with the move away from mass production. In Grima's words: 'If the last revolution was about making perfect objects – millions of them, absolutely identical produced to exactly consistent quality standards – this one is about making just one, or a few.' So rather than the 'perfect' products of industrial production, this exhibition describes design processes; the space is a laboratory, a work in progress for the curious, rather than a gallery. Installations in the entrance hall are welcoming and encourage visitors, as consumers of product design, to feel at home in the exhibition. Beyond presenting the object on a shelf, whether in a shop or on a gallery plinth, the exhibition does a brilliant job of bringing together many of the alternative approaches to design that have emerged over the last 10 years or so.

Open-source projects are plentiful, including a whole room dedicated to Arduino, the single-board micro controller, developed in Ivrea in 2005, that means anyone can do their own electronics. There is a DIY rotational moulding machine driven by a cordless electric drill (*Improvisation Machine*, Annika Frye); and entry level rapid prototyping equipment, used for everything from shapely chocolates, to souvenirs of your own body scanned and delivered in fine, stringy, colourful plastic in 30 minutes (Be your own souvenir, BlablabLAB); to a street vendor's cart version using an open-source database of digital models (*Kiosk 2.0 Unfold*) that can reproduce, remix or rescale your object and deliver it to you on the street just like an ice cream or a fake handbag. At a bigger scale and with more serious intention Open Source Ecology can build a tractor in six

days, part of their ongoing project, Global Village Construction Set – a collection of 50 open-source agricultural machines hacked from a kit of common parts.

Established by the non-governmental organisation, the Istanbul Foundation for Culture and Arts (IKSV) – who have a 40-year history in facilitating diverse artistic production as well as conserving traditional arts and culture – the Istanbul Design Biennial, unlike similar events, sets out to be interdisciplinary, and treat design as a cultural element. It is very different from the Venice Architecture Biennale, which probably has the best reputation for engaging the architectural world in thinking about architecture as product, and a long way from the highly commercial international Milan Furniture Fair, where every showroom competes to show us the latest in 'lifestyle' design.

There are no stars in Istanbul. There are no big-name designers from the world of design or architecture in either *Adhocracy* nor *Musibet*, only projects. There are no stars in the third element of the biennial either: the showrooms and workshops of the artisans and craft workers participating across the city.

In London and other post-industrial cities, current debate is focused on whether a return to more sustainable small-scale production is feasible, and how it could be made to 'fit' in the contemporary urban environment, and we argue over terminology; between craft and design, between architecture and planning, and between design-art and designer-makers. This has no place in Istanbul. Somehow the local artisanal production never left this city, the small workshops and ateliers are still here, furniture makers, fashion designers, metalworkers and more, still operating unperturbed by the exuberant growth of the city around them.

The inaugural Istanbul Biennial continues until 12 December

Jaxson
INTERNATIONAL COLLECTION

Bathtubs which combine Japanese culture with sharp sensibility

PREMIUM LUXURY-CLASS

SELECT STYLE AND GRADE FROM OUR 8 SERIES ;
VETRO, FSM&MOBILE, BARCA, SPAZIO, FORMALE, SEDERE, CASA, SPA GRANDE

Jaxson would like to congratulate Hiroshi Nakamura & NAP Architects on their success
in winning the ar+d Awards for Emerging Architecture 2012



Review

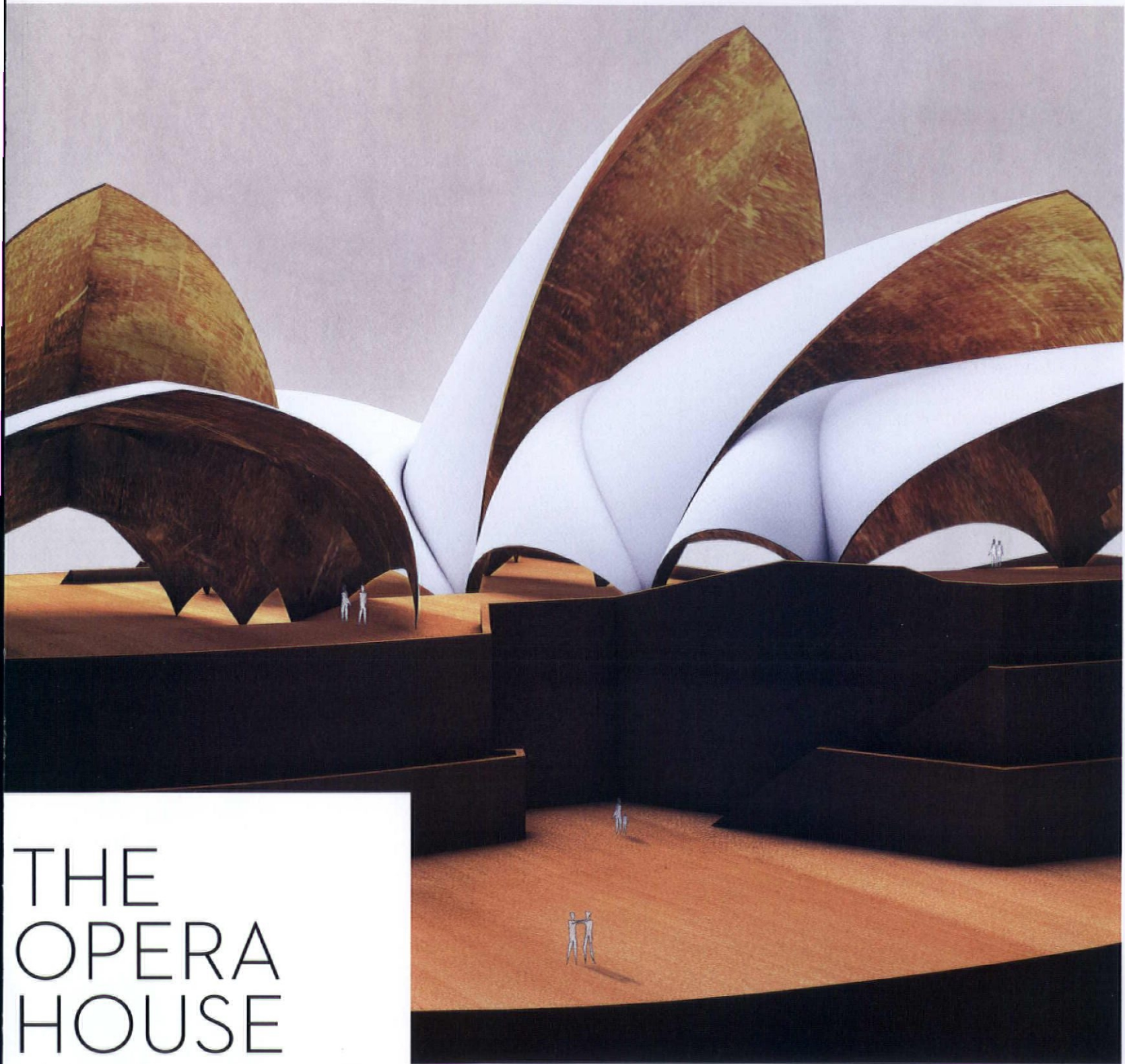
Architecture in focus

In association with the AR and the World Architecture Festival, the first Arcaid Images Architectural Photography Awards celebrates the primacy of the camera in capturing architecture



1. Ken Schluchtmann was awarded Arcaid Images World Architectural Photographer of the Year for his image of the National Tourist Route Trollstigen, Norway, by Relulf Ramstad Arkitekter
2. Fernando Guerra won the exterior category for his image of the House for Elderly People, Portugal by Aires Mateus
3. Vennesla Library, Norway by Helen + Hard, shot by Hufton + Crow
4. Hufton + Crow won the interior category with their image of the MAXXI Gallery, Rome, by Zaha Hadid Architects

EXPERIENCE THE STORY OF AN AUSTRALIAN ICON IN THIS REMARKABLE DIGITAL DOCUMENTARY



THE OPERA HOUSE PROJECT.

Explore through 3D mapping, video and audio, the emotive stories around the inception, design, construction and performances at Sydney Opera House. View rare archival content including Jorn Utzon's original sketches in this rich and inspiring digital documentary.



THEOPERAHOUSEPROJECT.COM

Emirates Glass NOW in the UK

Full advice on ESTIDAMA and LEED



www.emiratesglass.com

Tel: +971 4 7094700

View from...



Four of the projected 66 telescopes from ALMA scour the clear night skies over Chile's Atacama Desert for clues to the origins of the universe

ESO/JOSÉ FRANCISCO SALGADO

Atacama Desert, Chile

High up in Chile's mountainous Atacama Desert, *Mark Major* marvels at the mysteries of the night sky, from which most of us, in our light-polluted cities, are lamentably disconnected

In November 2008 an article in the *National Geographic* caught my eye. 'Our Vanishing Night' considered the disappearance of the stars over our cities and the far-reaching impact of artificial light on both our planet's biodiversity and human health; a reminder that the industrialisation of light poses an as-yet largely unrealised but serious environmental challenge.

This, and similar articles, provided the impetus for Noche Zero, the first international conference on darkness held earlier this year in Chile's Atacama Desert. In the driest and darkest place on earth, a group of astronomers, environmentalists, scientists, historians, photo-journalists, planners, architects and lighting designers assembled to debate the problems of light pollution and over-illumination. Here the sky is so black that on a moonless night you can experience the full glory of the Milky Way as it scintillates across the heavens.

Bounded by a towering range of snow-capped volcanoes, the salt-encrusted landscape of the Atacama is an alien terrain more closely resembling the surface of Mars (in fact it was used as a testing ground for NASA's Curiosity Rover currently exploring the red planet). Set 2450m above sea level, the small town of San Pedro de Atacama is built from local earth. Beyond its whitewashed church and cluster


of civic buildings it seems to merge with the surrounding desert, where nothing grows. Thick single-storey brick and mud walls conceal delightfully cool rooms and courtyards shaded by timber screens that scatter patterns of light and shade across every surface. San Pedro hosted Noche Zero and is also a gateway to the Atacama's community of observatories and the remote and appropriately named Valley of the Moon.

The intensely arid climate and extreme altitude create perfect conditions for astronomical observation. The lack of atmospheric interference gives consistently clear skies, night after night. Many leading astronomers are based here under the auspices of the European Southern Observatory (ESO), an intergovernmental organisation with 15 member states. Dotted among the Atacama's salt basins and lava flows are three of the world's most advanced observatories – La Silla, Paranal and ALMA. Paranal is perhaps most popularly famous for La Residencia, a modern hotel for astronomers and technicians designed by Auer + Weber (AR June 2003) which was spectacularly incinerated in the James Bond movie *Quantum of Solace*. Perched on a 2600m-high mountain top, Paranal's Very Large Telescope (VLT) comprises an array of four 8.2m diameter

telescopes operating in the visible and infrared spectrums of light.

Most impressive of all is ALMA (Atacama Large Millimeter/Submillimeter Array) currently under construction on the Chajnantor Plateau. When completed next year it will become the world's largest ground-based astronomical site. From here an array of 66 massive white antennae will probe the deepest secrets of the universe. Costing in excess of \$1bn, this joint US, European and Japanese project will produce images with a greater degree of resolution than the Hubble Space Telescope, enabling astronomers not only to peer into the fringes of the black hole at the heart of our galaxy, but also to record the very first light of the universe and begin to unlock the riddles of its creation.

The Atacama's installations represent an unparalleled human achievement, yet beyond the amassing of scientific data such exploration strengthens a poetic connection with our ancestors, who also looked to the night sky for portents about the nature of existence. The fact that an increasing number of city dwellers are blighted by light pollution and have never been able to experience the true beauty of our universe may be one of the reasons we fail to fully comprehend that we share one planet as well as the firmament within which it spins.

 www.nochezero.org

ARCHITECTURE & THE LONDON LECTURE SERIES TO EXPLORE ARCHITECTURE'S CRITICAL INTERSECTION WITH OTHER DISCIPLINES

The AR has collaborated with the Royal College of Art and the Victoria & Albert Museum to produce *Architecture&* - a series of architectural discussions in London. The first sold-out event featured Liza Fior and Peter Wynne Rees debating *Architecture & Urbanism*; and the next three exciting debates look at *Ecology*, *Beauty* and *Meaning*. Tickets are £9 full price, but a special concessionary rate of £6 is available for AR readers. To book, visit: architectural-review.com/ArchitectureAnd



Architecture & Beauty
Tuesday 19 February, 7pm, The V&A
Will Alsop and Stephen Bayley explore architecture's troubled relationship with aesthetics. Will Alsop, OBE, is a Stirling Prize-winning architect, artist, professor and Royal Academician. Stephen Bayley is one of Britain's leading cultural critics and the author of the recent bestseller *Ugly: The Aesthetics of Everything*.



Architecture & Ecology, Tuesday 4 December, 7pm, The V&A
Exploring the future of our planet with Rachel Armstrong, the author of TED Book *Living Architecture* and a promoter of 'living' building materials, and Steve Fuller, author of *Humanity 2.0*, who argues that we need to evolve a world where 'humans, animals and machines inhabit a common social ecology.'



Architecture & Meaning
Tuesday 12 March, 7pm, The V&A
An examination of how architecture communicates meaning and why this important role for architecture has been overlooked in so much recent work. William JR Curtis is a leading historian, critic, photographer and author. Richard Wentworth is a well-known British artist and former Dean of the RCA School of Sculpture.

Viewpoints



WILLIAM JR CURTIS

Let's take architectural education back to the buildings

No two people can agree on how best to educate architects. Matters are not helped by the perpetual interference of politicians who impose short-term ideological agendas on educational institutions that should be thinking in the long term. The confusion is compounded by the lack of clarity about the aims of the discipline. We are not in the position of the Ecole des Beaux-Arts, or even of the Bauhaus, both institutions which taught clear methods for analysing problems and translating ideas into forms. Architecture schools today stumble around in a jumble of opinions posing as dogmas, and dogmas posing as opinions (referred to in PC jargon as 'discourses'). A phrase of TE Lawrence comes to mind: 'A desert whose fringes are strewn with broken faiths.'

One can draw a distinction between ideas of architecture and architectural ideas. A lot of students' time is taken up with the former in ancillary subjects such as sociology, theory and history – or at least history the way that it is too often taught, as a minority subject remote from the studio. Architectural ideas, on the other hand, are the very essence of the conception of projects and should stand at the centre of any curriculum worthy of the name. They have to do with imagination, spatial thinking and the capacity to visualise and realise architectural intuitions and images. The development of such 'architectural thinking' is probably the hardest aspect of architectural education because

there are no fixed methods and much relies on the skill of the teacher in encouraging the right balance of inspiration and rigour.

Architecture schools tend to resemble schizophrenic families in which violent dogmatism is disguised behind smiles, and it is the things that are never discussed which have the most impact on conduct. What a strange experience it is to visit the same school at decade-long intervals, especially to inspect the end of year exhibitions, which are scarcely disguised promotional exercises. Years ago it was neo-Rationalist or Postmodernist clichés copying historical precedents. Then there was a period of invoking so-called 'French theory' in a totally arbitrary fashion. These days you are more likely to encounter tables strewn with computer-generated exercises defended with the obscurantism of 'Parametricism' or bogus science.

This is a caricature, of course, but it is too close to the truth. Architectural schools are only too often the victims of intellectual fashions. Then there are the cults of 'star' personalities who behave like snake-oil salesmen pushing their instant remedies. How refreshing it is to find students who break the mould, or whose talent shows through the politically correct uniform. But all this still raises several obvious questions: why the lack of rationality, social relevance and common sense? Why the lack of integration of structural and historical knowledge? Why the recourse to trendy images at the expense of substance? Why the

brain-washing and jargon? Why the mimicking of postmodern thinkers instead of the construction of theories pertinent to architecture? Why the lack of historical perspective? Why the failure to see that architecture relies on unfolding traditions, both modern and ancient?

There are no short cuts to architectural knowledge but surely one of the best ways to learn what architecture might be is to experience and analyse existing buildings of high quality, both modern and ancient. This presupposes the ability to see, and to capture the dynamic experience of buildings and their sites in drawings, sketches, models, or some other medium which concentrates perception and reflection. Rather than being a marginal option, the history of architecture should be at the centre of any architectural programme, for if it is taught properly it is one of the instruments for acquiring basic architectural knowledge and penetrating to the level of generating architectural ideas. Lectures, facts, books and analyses there have to be (although it would be nice to spare Palladio from further arid computer diagrams), but these should be accompanied by visits to works of architecture themselves in real not virtual space. The deep reading of buildings is an art in itself. The invention of new forms is inspired and enriched by the understanding and transformation of past ones but at a level far beyond the outer trappings of style.

LAST WORDS

'I found [Frank Lloyd] Wright in college, when looking for a lazy credit to get out of French. It forever changed my life'

Brad Pitt discussing his new range of furniture with *Architectural Digest*, 11 November

'Watching the new Bond film *Skyfall*, I disturbed the cinema with an involuntary whoop when the MI6 headquarters was blown up'

Rowan Moore on developments in Vauxhall, *The Observer*, 11 November

'If you want to get your leg over, London's the best place to do it'

Peter Wynne Rees, Planning Officer for the City of London, speaking at the AR/RCA Architecture & lecture at the V&A, 13 November

CreativeWEAVE
form function solution

VAN NUYS

FLYAWAY

LONG TERM PARKING Entrance

Mesh: Lago® Architect: DMJM Photography: © GKD / Tim Griffith

VAN NUYS FLYAWAY AIRPORT L.A. / USA

Metallic mesh for transportation infrastructure

A modern parking area is the entrée to representative airport architecture: some 39 panels made of Lago® stainless steel mesh combine functional protection with visual experience. The lettering, which appears to hover in the air, converts the parking garage into an impressive business card for this heavily frequented regional airport.



GKD – Gebr. Kufferath AG
Metallweberstraße 46
52353 Düren Germany
fon: +49 (0) 2421-803-0
fax: +49 (0) 2421-803-227
e-mail: creativeweave@gkd.de
www.creativeweave.com



WORLD WIDE WEAVE

Metal mesh for architecture and design

Your views

Follow the money: an insider's insight into the AA masterplan

It was interesting to see the two different takes on the future of the Architectural Association presented in the Education Issue (AR October 2012). While Jeremy Melvin gave perhaps the more 'establishment' view in the *Buildings* section, Farshid Moussavi's article in *Overview* was more thought-provoking. While I think her comparison of the AA to Harvard's GSD is a revealing one, I cannot agree with her foregrounding of architectural schools' physical environments in the formation of their pedagogical culture.

Ultimately, my point comes down to a question of architectural nature versus architectural nurture. It is ultimately economic pressures that determine a school's pedagogical ideologies, and these then produce the spatial qualities of its student work. At the AA it was Alvin Boyarsky's aggressive pursuit of international students (and their money) that crafted the legend of the school in the late '60s and '70s. Similarly, it is the expansion and bureaucratic restructuring pursued by current director Brett Steele that is producing such mixed results today.

As a current diploma student, I have a great deal of respect for Brett. He has dragged the AA into the 21st century, extended Alvin Boyarsky's legacy of internationalism, and cemented its status as a world-class institution. However, in order to achieve this, he has had to perform a certain physical transformation corresponding to his particular academic and administrative agenda. As the old adage goes, form follows function – and the function of an architecture school is always ideologically determined. The process that began half a decade ago, and which culminates in the corporate banality of Wright & Wright's AA masterplan, is the transformation of the 'school' into a 'campus', of the domestic into the institutional. I want to answer Moussavi's central

question: 'Is the AA moving away from its artistic avant-garde model?' The metamorphosis I've described is what the French philosopher Jean Baudrillard called 'museification'.

This theory states that the apparent paradox by which museum objects exist as things both living and dead can be extended to the urban and the academic. Venice has ceased to function as a real city; it has succumbed to its own image, and is thus reborn as a colossal open-air museum. By the same token, the AA has solidified its avant-garde status precisely by enclosing it in a studied vitrine of institutional rhetoric. As Moussavi rightly identifies, the lecture hall will become a giant lobby – the stage upon which so many decades of architectural performances occurred will quite literally become the school's theatrical front-of-house.

The AA's avant-garde status is already dead – or always eternal, depending on your point of view. That said, it is not totally fair to lay the blame for this process at Brett Steele's door (as so many angry and self-righteous students have sought to do in the last couple of years). Commercialisation of academia is an economic inevitability, as the slow but unstoppable reach of neoliberalist economic theory extends into all aspects of our lives. In this respect, I'm surprised the AA remained 'avant-garde' (if the term even has any meaning today) as long as it did. Certainly, to reverse Moussavi's argument, the business ideology of the school is transforming its physicality. And certainly that new physicality will have a knock-on impact on its pedagogical methodology.

However, more significantly, the new physicality will ossify the reactive spatial potential of the AA. From an avant-garde perspective, what is more important than the behaviour permitted by Wright & Wright's masterplan, is the behaviour which it prevents.

Jack Self, the Architectural Association

Lebbeus Woods remembered

I write in mourning for the loss of a great teacher, a great and ethical artist, and a friend to the Cooper Union for more than three decades. Lebbeus Woods was a close personal friend, someone with whom one could discuss architecture to the very limits of its being, and whose ethical compass and staunch resistance to the consumerist spectacle was a guidepost to us all.

Much will be said in the ensuing months to speak to his profound interrogation of an architecture of resistance, of the loyalty and creativity he inspired in his students and friends, of the extraordinary corpus of drawings and three-dimensional installations, and of the irreplaceable void that he leaves in the School of Architecture at Cooper and for us all.

At Cooper we will celebrate his work with students; re-experience his path-breaking exhibition in the Houghton Gallery following 9/11, *The Storm*, and the sequel at the Cartier Institute Paris, *The Fall*; and remember his love for us and the humility with which he taught and learned every day.

Anthony Vidler, Paris, by email

Mirror image

A *Zoolander* reference in the AR (*Blue Steel*, AR October 2012)? I guess it's a suitable title for Farshid Moussavi's reflective vessel for contemporary art. This might work better as exhibition space than other, more contorted examples of the type, but it is no ornament to Cleveland – and its obtrusiveness jars with Peter Buchanan's campaign against placeless architecture in these pages (*The Big Rethink*). Let's have fewer icons and more awareness of site, please.

Candy Spender, New York, by email

Letters to the Editor should be sent to:
The Architectural Review
Greater London House
Hampstead Road
London NW1 7EJ
Or by email to:
areditorial@emap.com
Letters may be edited

d line is in the detail...

d line
KNUD HOLSCHER DESIGN

A19

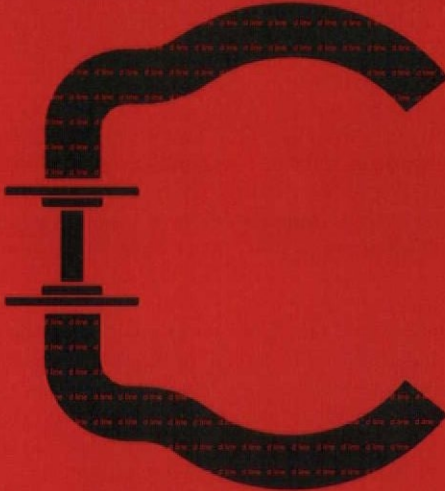


A20



PROUD SPONSOR OF

ar+d
Emerging Architecture

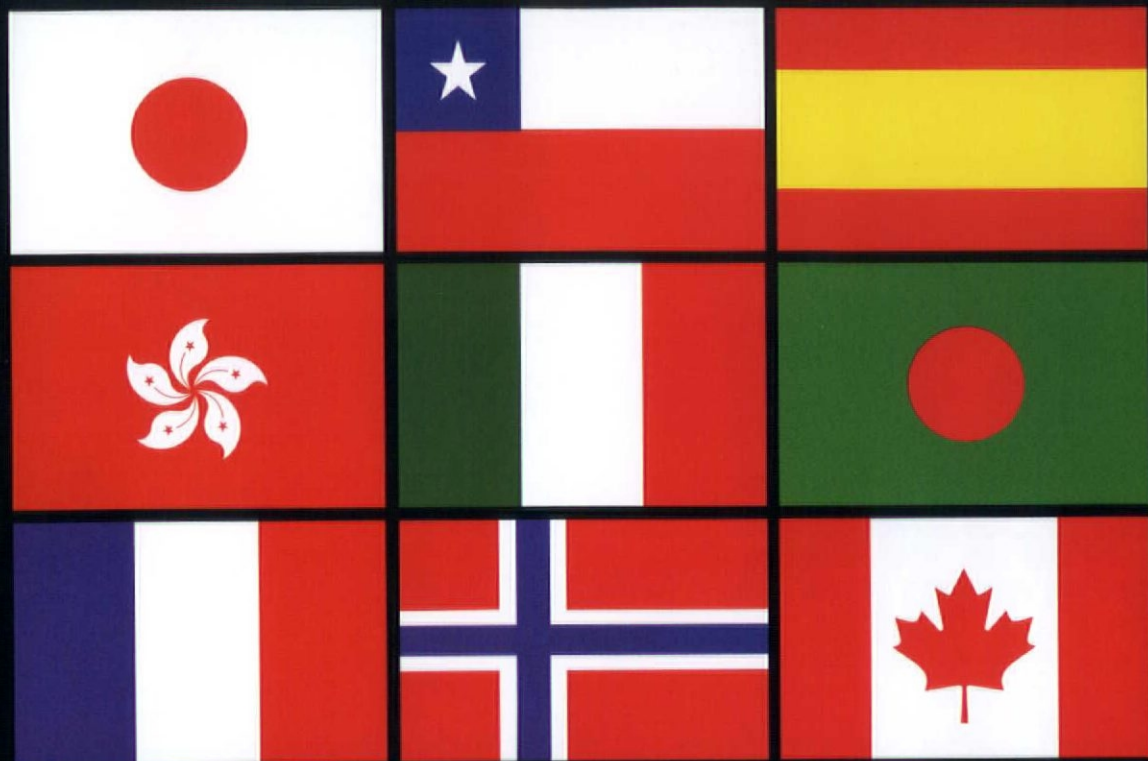


Architect
Richard Rogers

Project
London Heathrow Terminal 5

d line – main sponsor for ar+d Emerging Architecture

www.dline.com



EMERGING ARCHITECTURE

From Chile to Bangladesh, the flags of the nationalities of this year's winning group of young architects to the ar+d Awards for Emerging Architecture graphically illustrate the awards' global engagement and resonance. Channelling the enthusiasm and spontaneity of youth, the winning schemes are portents of the future of architecture

EMERGING ARCHITECTURE AND CREATIVE RESILIENCE

Engaging with an emerging generation of architects, the ar+d Awards capture a spirit of creative resilience and present a unique insight into the critical preoccupations that will shape the future of architecture

CATHERINE SLESSOR

This issue celebrates the 2012 ar+d Awards for Emerging Architecture, for work by architects under the age of 45. It's always simultaneously heartening and sobering to engage so closely with the next generation of architects. Heartening in that it gives a unique insight into the critical preoccupations that will shape the future of architecture and urbanism. Sobering in that we hope that youthful optimism and a capacity for experimentation can still flourish against the deadening backdrop of the current economic and ecological crisis. Yet judging from the quality of the work shown here (and of much that did not make the final cut), such qualities continue to underscore a crucial sense of creative resilience.

This year, over 250 submissions were received from a wide range of locales, from Argentina to Indonesia. The jury also reflected a strong international outlook, with Enrique Sobejano from Madrid-based practice Nieto Sobejano; leading critic and writer Charles Jencks; Clare Wright, partner in Wright & Wright Architects; and AR Editor Catherine Slessor. The jury's discussions owed much to different experiences and world views, but all were agreed on the importance of certain key criteria: connectedness to place, the appropriate use of materials and technology, the cultivation of environmental and social responsibility and an engagement with the notion that architecture should be propositional, shaping new ideas about the built environment and its relationship with the wider world. Only built work is eligible for submission as our view has always been that architecture is not confined to paper or computerised theorising, but is a compact with society to build responsibly and well.

The jury chose four joint winners, who will share the prize fund of £10,000, and 10 highly commended projects. Embodying very diverse contexts and perspectives, the four winners are drawn from Japan, Spain, Bangladesh and Canada. In Hiroshima, Hiroshi Nakamura crafts an exquisite urban dwelling out of glass blocks, exploring the potential of materials to transmute space and light. In Madrid, Langarita-Navarro Arquitectos creatively recolonise the shell of an ancient slaughterhouse with a vibrant new landscape for music making and performance. In the Ganges delta, Kashef Chowdhury's Friendship Centre synthesises vernacular forms and materials into an authentic, modern regional architecture. And in the Canadian heartland of Winnipeg, 5468796 Architects reboot a generic programme for social housing into something much more formally and experientially complex. Prefacing our coverage of all the projects, the AR's Associate Editor Rob Gregory talked to the winning quartet in more detail about each of their very different milieus for professional practice, giving an insight into the trajectory of their careers and the importance of programmes such as the ar+d Awards in bringing the work of an emerging generation to wider attention.

This year's four joint winners hail from across the globe, but all share a passion for the profession, writes *Rob Gregory*



5468796 ARCHITECTURE CANADA

When Winnipeg-based 5468796 were highly commended in the 2010 AR Awards for Emerging Architecture for the OMS Stage (AR December 2010) they flew their whole team to Europe for the prize giving. The Canadian posse was 12 strong, including the project developer, and together they rented a house and 'made London home' for a few days. It was their first taste of international recognition, just three-and-a-half years into their careers, and was significant not only for them but also for the community of local start-up practices that have emerged in Winnipeg in recent years. Stuck in the middle of Canada, Winnipeg is, by their own admission, a remote and conservative place, where it is difficult to convince people of the value of architecture and design. Now, however, a clutch of 10 or so new practices are challenging the status quo, and helping to revive the Modernist legacy established by the disciples of Wright, Mies and Gropius who came to the region in the '60s and '70s to help make the Department of Architecture at the University of Manitoba one of the strongest Modernist schools in Canada. As practice founder Sasa Radulovic says, however, 'over the last 20 or so years, the scene has been relatively stale', so sensing a renaissance in the offing, in everything they do – from practice teaching to public engagement – they seek to raise the profile of architecture.

Describing themselves as 'a high school exchange student from Helsinki' and a 'refugee immigrant from Sarajevo', Johanna Hurme (37) and Sasa Radulovic (40) are a couple who have now been in practice for just over five-and-a-half-years. As Hurme recalls it has been a whirlwind ride. 'We have the worst surnames in the history of architecture, so on the way back from registering the business, we decided to adopt our incorporation number as our practice name. It reflects a group of people, rather than two individuals, and since then the story of the practice has completely taken us by surprise, especially in relation to how we got into building right away. In our first year we thought we would do a house or two, and that would be us for a year or so. However, within seven months we were up to eight people working on big projects.' Moving five times in as many years, from a mezzanine in Radulovic's condominium, to their more urbane street level studio in downtown Winnipeg, their ambitions continue to focus on bringing a social component to every project – especially those commissioned by private clients.

When Radulovic was first given an AR subscription in 1997, he recalls wondering if his work would ever receive international recognition. Now, 15 years on, working with his partner Hurme and colleagues at 5468796 Architects, he can surely be proud, not only of the own work, but also of the practice's role as pioneers and catalysts for change in an emerging community of exciting regional architectural discourse.

LANGARITA-NAVARRO ARQUITECTOS SPAIN

Recalling the moment when they first met, the 33-year-old co-founders of Madrid-based practice Langarita-Navarro Arquitectos, Víctor Navarro and María Langarita, describe themselves as 'partners at first sight', setting up in life and business in close succession soon after they met. In 2007 they were both young architects. Both had either worked for or studied under the Madrid-based practice Mansilla+Tuñón Arquitectos. And, it seems, both were passionate about each other and about architecture.

Since then they have spent the past five years establishing a portfolio of work that specifically focuses on an interest in working with existing structures. Not just built structures, however, as Langarita explains, 'because in our mind we understand structures to be physical, social, organisational, or ... anything.'

With a number of small-scale projects under their belt – including a commission for a house in Langarita's home town that they landed after overhearing the client talking in a bar, and the restoration and adaptation of a water tower as part of the Matadero Madrid arts centre – the opportunity to work on the award-winning Red Bull Music Academy (p46) came completely out of the blue. This was due, firstly, to the project's relocation to Madrid – following the tsunami in that year's host nation of Japan; and secondly, as their relatively modest experience on the water tower had inadvertently pre-qualified them to bid for this much higher-profile historic building project.

The scale, it seems, did not deter them, as their core interest in systems, infrastructure, sampling and montage is essentially scale neutral. What they are more cautious of, however, is working overseas, with Navarro admitting that, 'until now, we haven't especially wanted to work abroad, as we like to be in contact with the places where we make things. For us it is not easy to make projects overseas, because we like to work closely with the clients and with the craftsmen.' But in recognition of opportunities that may now arise from the international



Top: Víctor Navarro
and María Langarita
Left: Hiroshi Nakamura
Above: Kashef Chowdhury

attention this ar+d awards programme will surely generate, Langarita is quick to qualify her partner's admission saying, 'Of course, if we got the chance we would do it', before going on to describe their shared passion for travelling. 'We work as architects in order to travel, and have spent all our money on trips', she reveals. 'Mexico is the best so far, specifically Mexico City and the Yucatán Peninsula. We went there on the recommendation of Landscape Artist Jerónimo Hagerman, who worked with us on the Red Bull Academy.'

And, when asked what this award really means to them? True to form they replied in unison, nodding their heads and completing the sentence together. 'We are mainly looking forward to the opportunity to come to London ... to meet new people and see new places, which is a great opportunity for us.'

KASHEF CHOWDHURY BANGLADESH

The great Indian architect BV Doshi once described Le Corbusier and Louis Kahn as 'the acrobat and yogi' of 20th-century South Asian architecture. So it comes as little surprise that Kashef Chowdhury – architect of the award-winning Friendship Centre near Gaibandha in Bangladesh (p52) – cites Kahn as his greatest inspiration. Like Kahn's major work for the National Assembly, Chowdhury's winning submission combines lessons from antiquity with simple unadorned forms, to create a contemporary monastery-like settlement of timeless character.

Attitudes to craft, form, placemaking and rootedness can also be traced through the work of Chowdhury's more recent heroes – Siza, Scarpa, Barragán and Zumthor – all of whom helped inspire the 42-year-old architect to set up his practice in 1995, at a point when he says he could 'no longer resist embracing the profession and the sheer joy of building'.

'Mine is a studio-based practice', he says 'where we do not have any rooms. It is a free space with long tables and laptops. But, I work "manually". That is, not on the computer. I still use my parallel motion.' Working in this way, Chowdhury moves between drawing board and veranda where he meets clients and collaborators, in pursuit

of a relaxed yet focused approach to practice.

In his studio, time is held in high regard, so much so that until recently he deliberately resisted using any form of artificial light, choosing instead to operate the business during daylight hours. This was done to enforce a natural pattern to the working day, and to encourage people not to work excessively long hours, and while changes to this routine were perhaps inevitable, Chowdhury maintains his respect of time, stating his desire to separate his studio from the influences of 'the passing world' to avoid 'rushing through the design process', and to always remember that 'time is of the essence'.

When asked about his attitude to optimism and ambition, Chowdhury soberly replies, 'I wish I could be optimistic – but don't forget I live in Bangladesh'. Nevertheless he manages to hold on to his ambition, that is 'to do work, both as an architect and as a photographer, that touches hearts and is a joy to experience; not to be limited by trend, style or -ism, and to become a master of my craft'.

In relation to the significance of this award, 'it is not as much the award itself, as it is the recognition that is important here', he says. 'In economies and societies such as the one in which I operate, years of struggle – both economic and others related to design and building – may give way to fatigue and certain despair. Recognition such as this can inject new impetus to the practice, just as it can provide that extra assurance to the clients, which is especially important when we are always trying or struggling to convince clients with a not-so-ordinary design or approach.'

HIROSHI NAKAMURA JAPAN

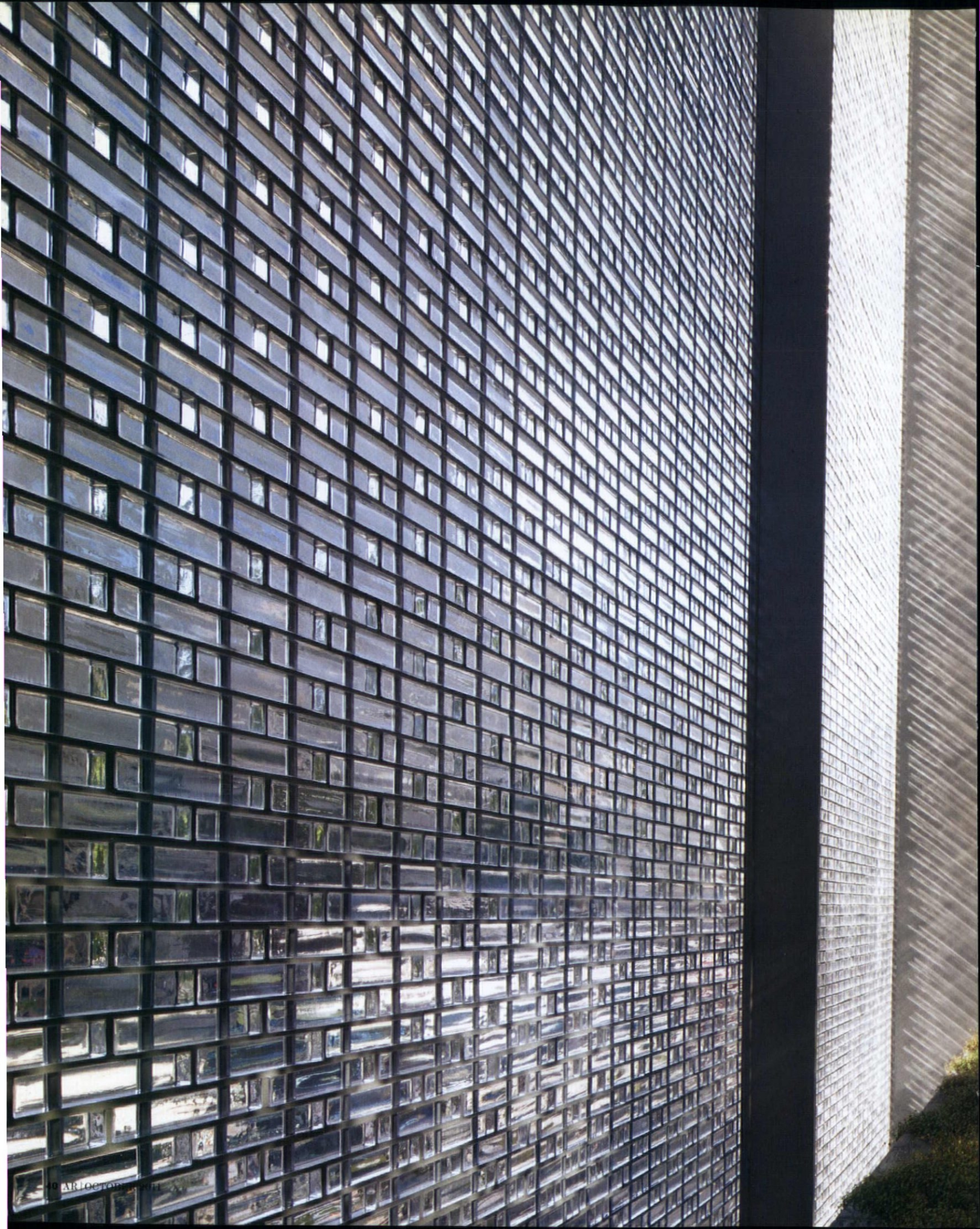
Clearly understanding the Awards' ability to put emerging Japanese architects on the international map, and the potential to follow the steep trajectory enjoyed by architects such as Shuhei Endo, Sou Fujimoto and TNA (to name just three), 38-year-old Hiroshi Nakamura is not shy in revealing the motivation behind entering this year's ar+d Awards for Emerging Architecture: 'I would like people out of Japan to see my work', he says, 'so I thought it would be a good opportunity to have the world know my

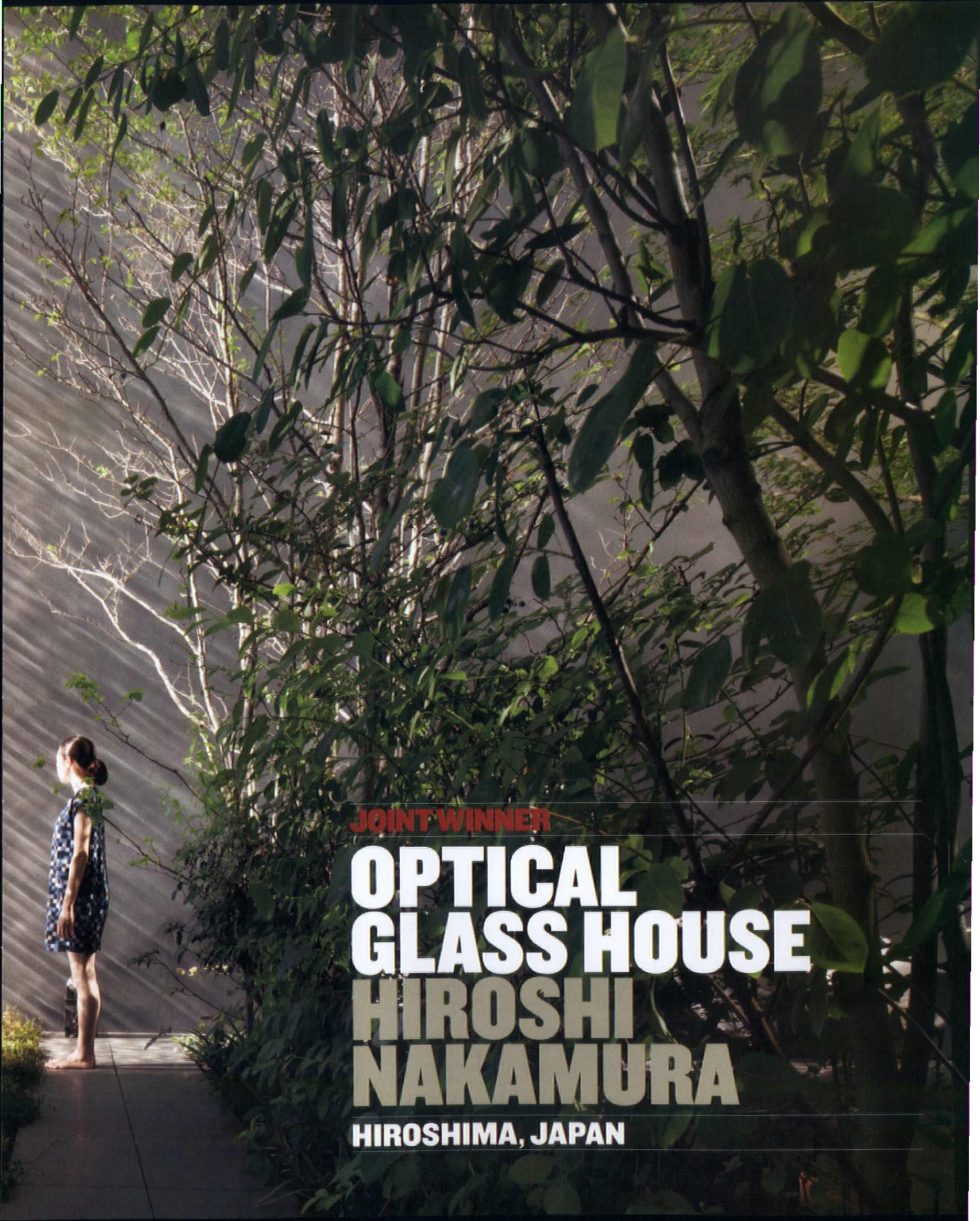
practice.' Having spent three years working for Kengo Kuma as a senior architect with lead responsibility for a number of key projects, he was confident in his ability to make a name for himself. With this and since setting up his own practice in 2003, he has racked up an impressive list of seven so-called 'Gold' and 'Grand' prizes for his design, and now employs a sizeable team of 21 people.

Consistent with the sort of work that we have become accustomed to see emerging in Japan, Nakamura's award-winning Optical Glass House (p40) is conceptually clear, spatially sophisticated, exquisitely detailed and daringly innovative; qualities that Nakamura attributes to a very specific attitude to design that he says requires optimism and pessimism to coexist. In his view a balance of these two contrary outlooks is essential, with optimism enabling him to imagine and design better places for people to live, moderated by a degree of pessimism that brings scrutiny to the process to ensure that each and every detail is rigorously tested in anticipation of myriad potential problems.

This ability to work with apparently contradictory lines of reasoning extends further into the architect's emerging philosophy, as he goes on to use a number of tense dualities to describe aspects of the house and other enduring preoccupations that permeate much of his work. These include a firm belief in opportunities presented by architecture to improve relationships between individuals who need to share space; the ability of architecture to establish more meaningful relationships between people and the built environment, and the capacity for architecture to mediate between man and nature. All of these can be traced through the design of Optical Glass House, with glass presented as a waterfall, sputter-coated metallic curtains manifesting the wind, and a water basin rooftop that projects the image of the falling rain onto the entrance floor.

In terms of future ambitions, it comes as little surprise that Nakamura has high hopes, making specific reference to a sizeable project in Bhutan, called the GNH project; a project that will incorporate the notion of Gross National Happiness, in an attempt to 'design buildings that will lead the world toward a better future for all'. Why not?





JOINT WINNER

**OPTICAL
GLASS HOUSE
HIROSHI
NAKAMURA**

HIROSHIMA, JAPAN

CRITICISM

KEN TADASHI OSHIMA

'Should we wish to lift our culture to a higher level, then we are obliged, for better or worse, to transform our architecture. We shall only succeed in doing this when we remove the element of enclosure from the rooms in which we live. We can only do this, however, with glass architecture, which allows the light of the sun, moon, and stars to enter not merely through a few windows set in the wall ...'

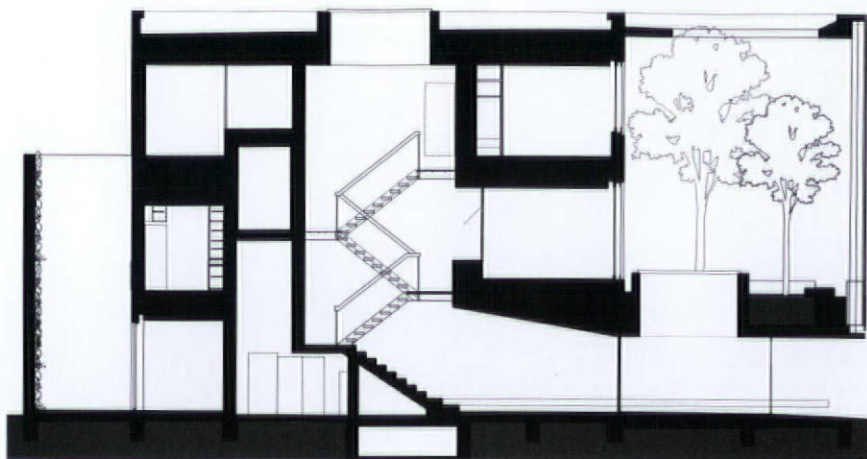
Paul Scheerhart, *Glasarchitektur*, 1914'

The aspiration to create a crystalline architecture has long inspired architects in the modern era. From Bruno Taut's *Glashaus* at the 1914 German Werkbund Exhibition, to Pierre Chareau's *Maison de Verre*, to Kengo Kuma's *Water/Glass House* (AR March 2000), glass has had the transformative power to shape space, as it is technically both a solid and liquid with extremely high viscosity. The glass house has once again been ingeniously reinvented through the use of an optical glass facade by Hiroshi Nakamura.

In the decade since working for Kengo Kuma, Nakamura has continued his mentor's pursuit of 'particle-ised' architecture through his hypersensitivity toward materials based on a 'microscopic designing methodology'.² His first independent commission was the Lanvin boutique in Tokyo's high-fashion district of Ginza in which its steel-plate facade was punctured with 3,000 acrylic cylinders that animate the interior with shimmering dots of natural light.

Among the many accolades garnered by this rising star, Nakamura was highly commended in the 2011 Emerging Architecture Awards for his Roku Art Museum (AR December 2011) with its bulbous gallery spaces shaped by the volumes of existing trees. His largest project to date is the Tokyu Plaza shopping complex in Tokyo's Omotesando district, with a dramatic tree-capped roof garden.

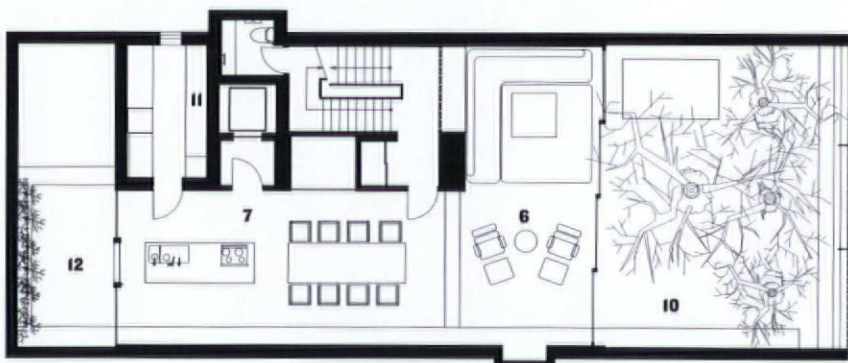
In designing a house in central district Hiroshima, Nakamura faced the challenge of creating privacy and tranquillity among a bustling thoroughfare filled with cars and trams. The reconstruction of Hiroshima after the Second World War resulted in wide avenues that facilitate speed for motorised transport at the expense of the fine-grained character of traditional streetscapes. The Optical Glass House animates the street with a dynamic 8.6 x 8.6 metre glass block facade, revealing its material capacity to be both translucent and transparent depending on light conditions. Hovering above the wood-panelled ground level garage, the glass wall can transform itself from appearing as an over-sized, urban *shoji* screen, to a transparent layer revealing the trees behind, to a cascading waterfall-like form delicately refracting light and air.



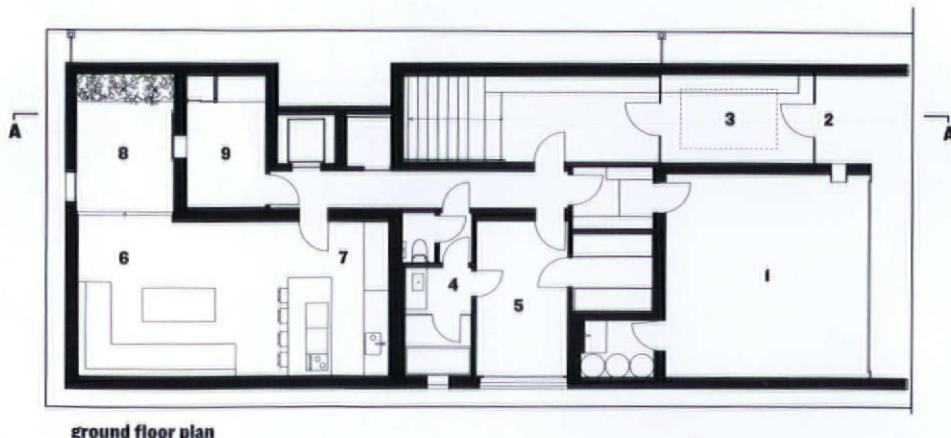
section AA



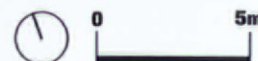
second floor plan



first floor plan



ground floor plan



1. (Previous page)
fabricated from 6,000
long, thin blocks, the huge
glass wall forms a lustrous
veil, screening out the
distractions of the city
and enclosing a verdant
courtyard garden at the
heart of the house
2. From the street, the
garden is diffused and
refracted through the
shimmering glass wall
3. The house in its city
context. Hiroshima's
bland and alienating urban
texture is based on the
needs of the car rather
than any sense of human
scale or intimacy

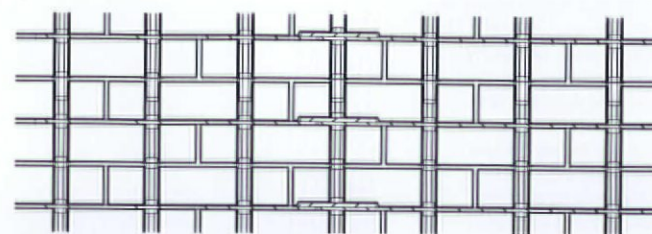
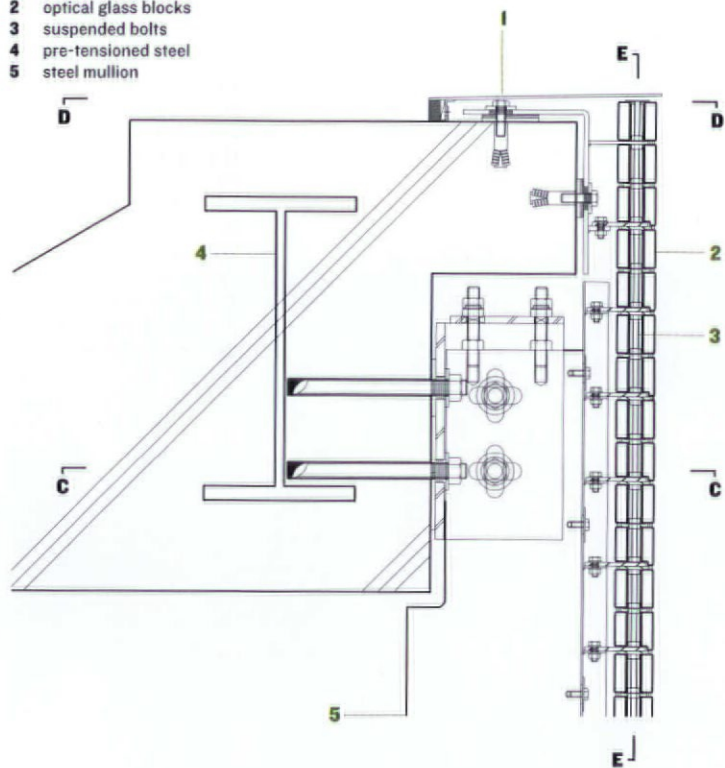
- 1 garage
- 2 porch
- 3 water garden
- 4 bathroom
- 5 bedroom
- 6 living
- 7 dining/kitchen
- 8 Japanese garden
- 9 tatami room
- 10 glass garden
- 11 store
- 12 ivy garden
- 13 laundry room
- 14 bath garden



location plan



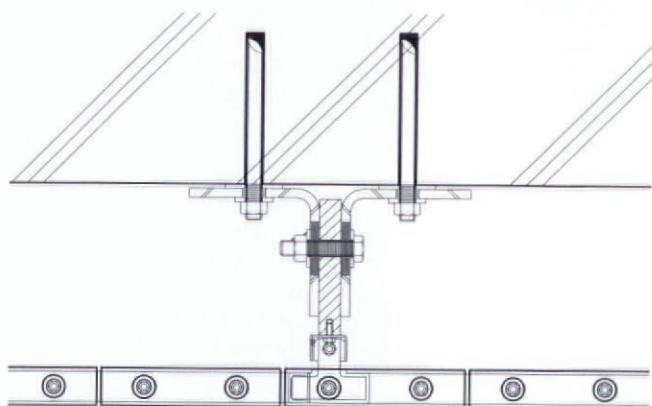
- 1 metal coping
- 2 optical glass blocks
- 3 suspended bolts
- 4 pre-tensioned steel
- 5 steel mullion



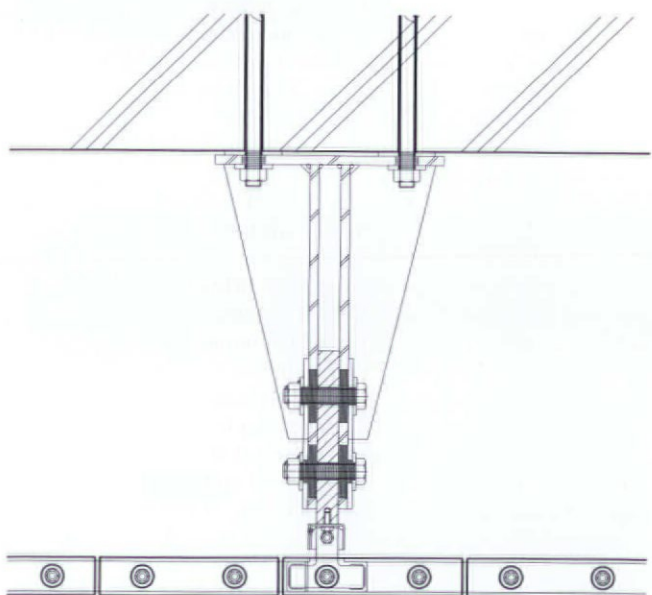
detailed section EE through glass bricks



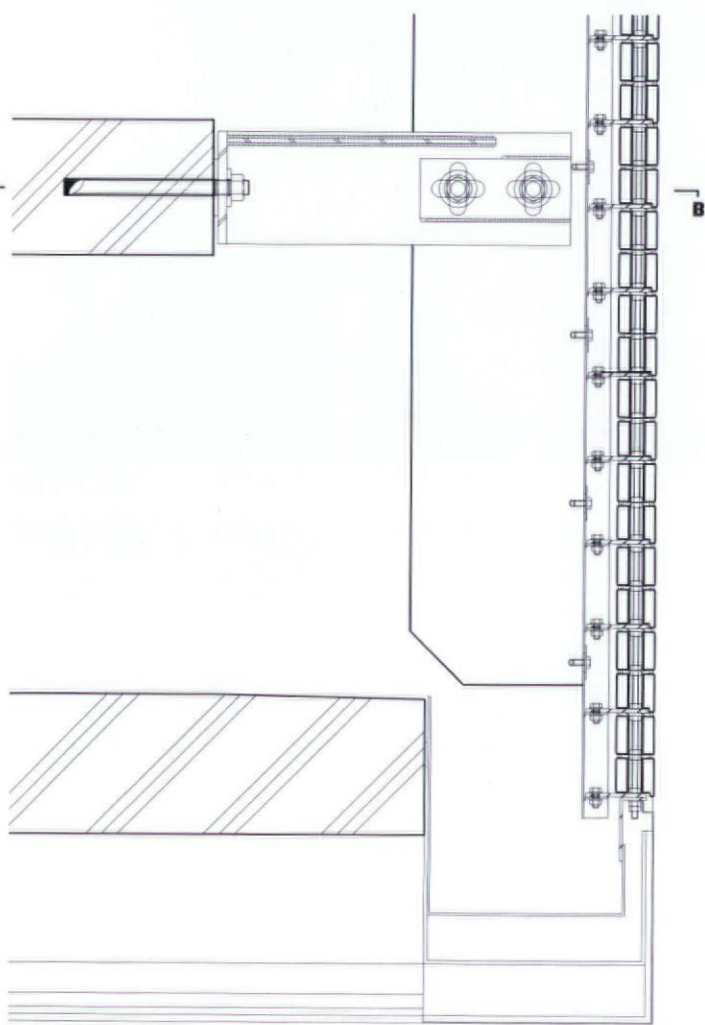
horizontal detailed section DD



horizontal detailed section CC



horizontal detailed section BB



detailed wall section

'The dwelling becomes a sensual urban oasis, in which architecture has its most profound impact through the bodily experience of the fundamentals of nature – trees, water and light'

In transitioning between exterior and interior worlds, the entry space is illuminated by light filtered from above by a water-basin skylight. Shadows from the leaves of the trees of the second level glass garden convey a sense of the living environment above. Rising up the stairs to the main living level, you encounter the first optical glass wall onto the living room. You then turn into the dining area before stepping up into the main living space that opens up into the glass garden. The tranquil enclave is tempered by maple, holly and evergreen ash trees, and the glass facade acts as a verdant kaleidoscope.

From inside the glass garden, you can begin to fathom the incredible structural gymnastics required to support the 13-ton facade made up of 6,000 glass blocks, each measuring 50mm x 235mm x 50mm. With their large mass-per-unit area, the crystalline glass blocks effectively shut out the urban noise and create a sparkling backdrop for the garden with modulated city views. Their high degree of transparency was achieved by using borosilicate, the material used to make optical glass. The difficult casting process required slow cooling to remove residual internal stress and achieve precise dimensions. Yet the glass still retains micro-scale surface irregularities that generate and project unexpected visual effects around the interior spaces.

The glass blocks are strung together by stainless-steel bolts suspended from a beam above. They are also stabilised by stainless-steel flat bars at 10mm intervals. The mass of the supporting beam below is laterally minimised by employing a pre-tensioned steel beam encased in reinforced concrete. Despite the facade's massive weight, it appears to be transparent from both the garden and street.

Seen from inside, the glass garden brings the entire house to life. Images of passing cars and trams appear as a silent film accompanied by the sounds of nature. The dwelling is transformed into a sensual urban oasis in which architecture has its most profound impact through its bodily experience of the fundamentals of nature – trees, water and light – within the dynamism of the city.

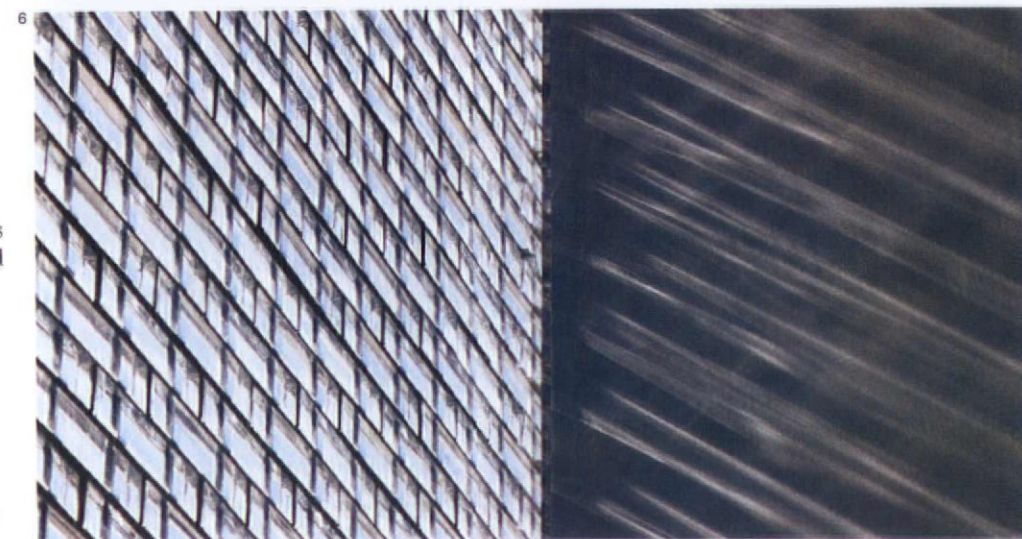
1. Paul Scheerbart, *Glasarchitektur*, Der Sturm Verlag, 1914; Rogner & Bernhard, 1971, p25.

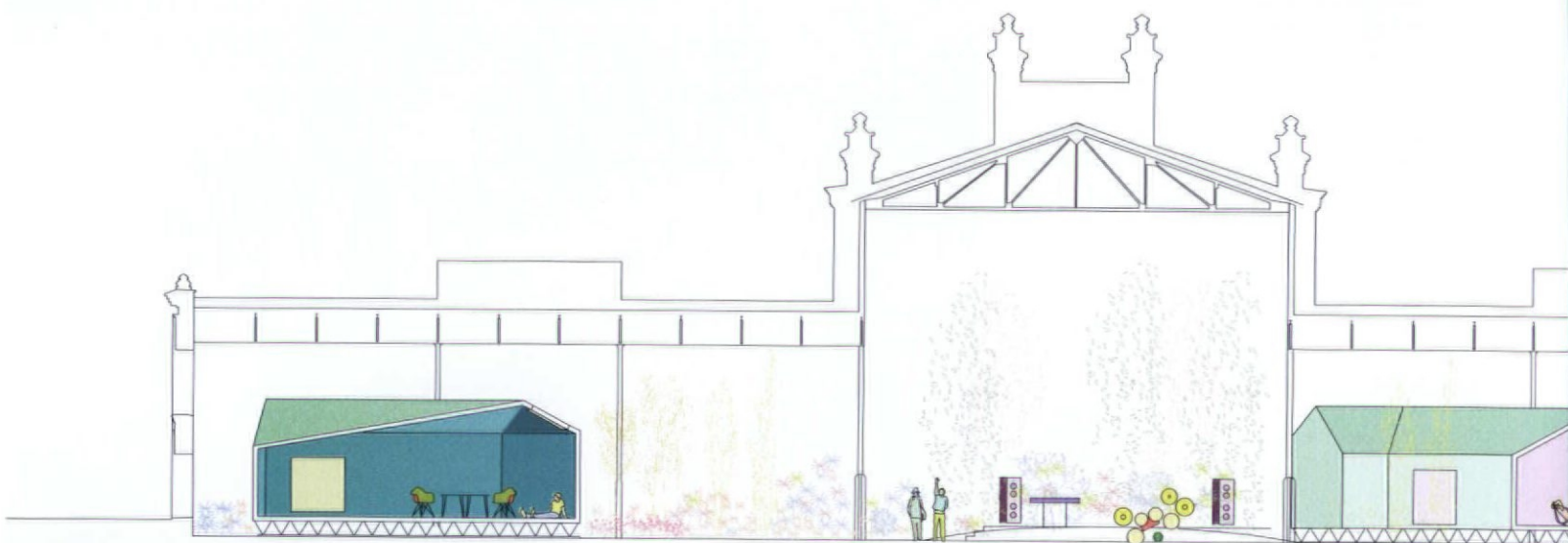
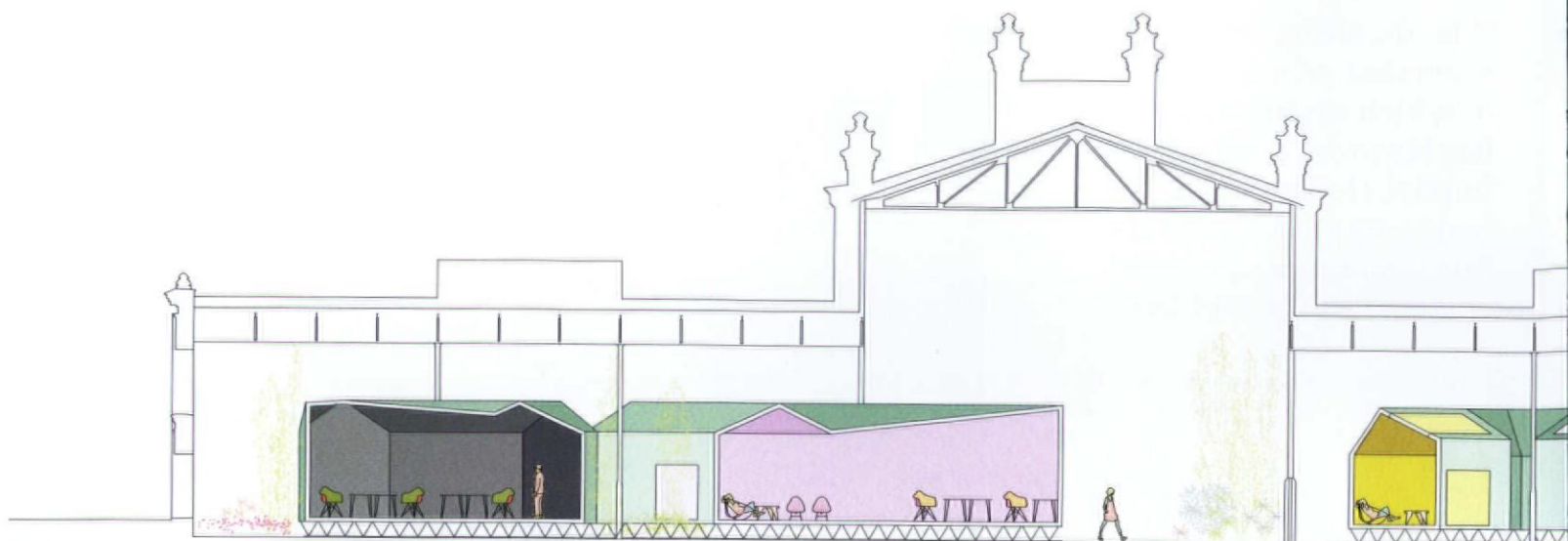
2. Hiroshi Nakamura, *Microscopic Designing Methodology* INAX Publishing, 2010.



Architect
Hiroshi Nakamura
& NAP Architects
Bath
Jaxson
Bathroom fittings
Hansgrohe
Lavatories
INAX
Kitchen taps
Dornbracht
Photographs
Courtesy of
the architects

4. The glass wall casts seductive shadows around the entire house
5. Dining and living spaces are set at first floor level overlooking the luxuriant courtyard garden
6. Detail of glass wall. The cast blocks are made from borosilicate glass more usually used in the manufacture of optical instruments. The glass retains slight irregularities that produce unexpected visual effects

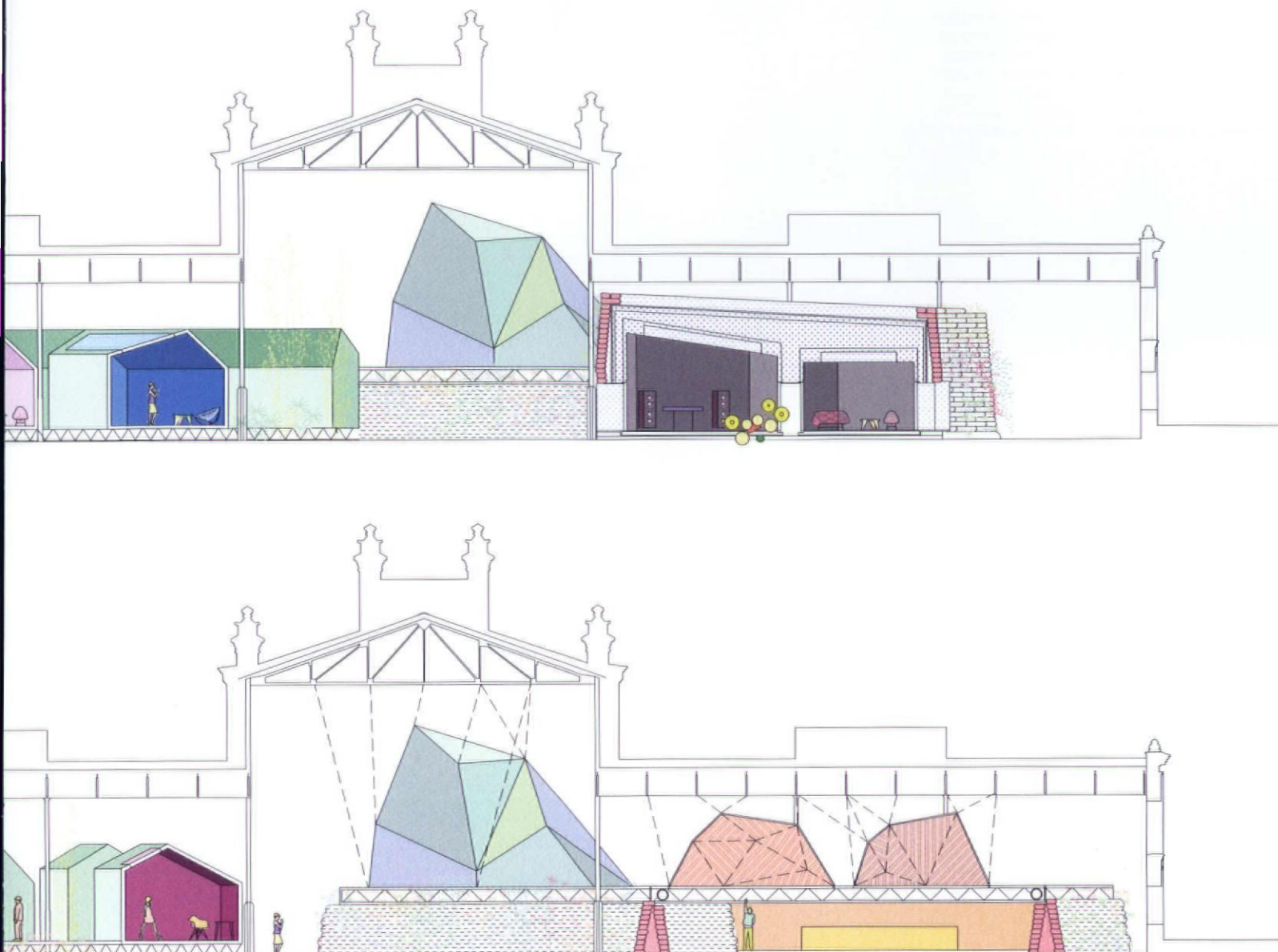




JOINT WINNER

RED BULL MUSIC ACADEMY LANGARITA NAVARRO

MADRID, SPAIN



CRITICISM

DAVID COHN

Japan's devastating earthquake in March last year forced the cancellation of the Red Bull Music Academy, scheduled to open in Tokyo that same month. The Academy is an annual music festival, with workshops and concerts, bringing together 60 young musicians, DJs and producers from around the world selected from 6,000 applicants. Red Bull, the energy drink company, rescheduled the event for Madrid in October. With the cooperation of the municipal government, they found a home in the Matadero, a new cultural centre taking shape in the city's former slaughterhouses, a complex of masonry-clad industrial sheds built by municipal architect Luis Bellido between 1907 and 1926. The site for the Academy was a derelict building with dirt floors and unglazed windows, built as a holding pen for pigs and unused for decades.

Madrid architects María Langerita and Victor Navarro, both 33, were asked to prepare the 5,000 square metre space for the Academy in under five months. The couple had won second place in a competition to transform the structure into a contemporary art centre – although the winning scheme was never realised – and they had rehabilitated the Matadero's water tower; with the short timetable, a new competition was not possible.

Three factors conditioned their design: Red Bull's exacting acoustical requirements; the short construction timetable – spanning the month of August when businesses shut down – which meant that all materials had to be basic and readily available; and the ephemeral nature of the event, which meant that their intervention had to be temporary (following the festival, the Academy remains open as a local centre for three years).

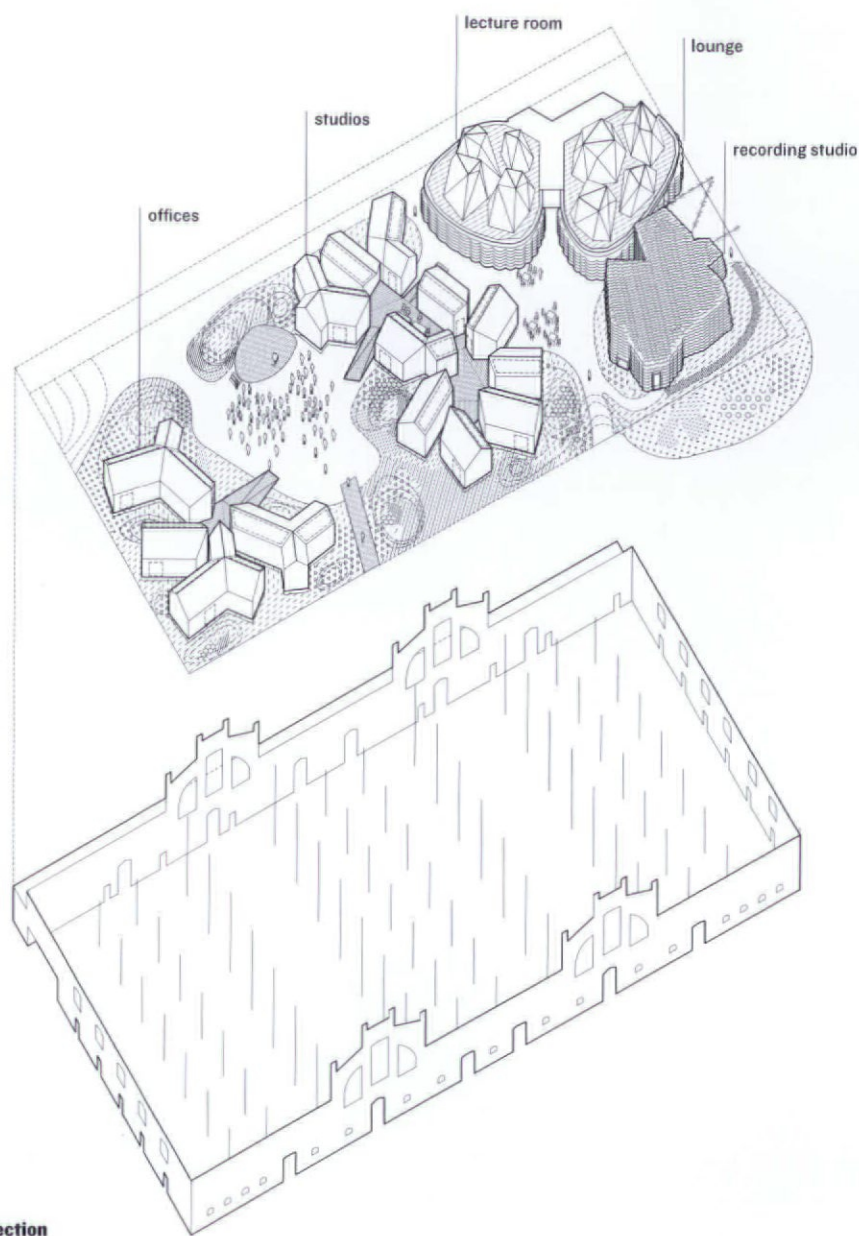
To meet these demands, the architects decided 'to make a city instead of a building',

in the words of María Langerita. They used many devices developed in previous projects to speed the design process, for a surprisingly clean and sophisticated result. Ten music workshops and Academy offices became one-room cabins, which they distributed along raised wooden walkways at the edges of the structure's two high central 'naves'. Under one nave, two larger circular pavilions house a recording studio, lecture hall and canteen. There are open spaces for concerts and social gatherings, surrounded by vegetation – potted trees and ground cover tiered in artificial berms – as well as hidden corners for private time. The architects secured the building's openings with chicken wire, and consolidated the earthen floors, converting the structure into a kind of giant shading device. The result is something like a Club Med version of a village in the bush.

The exteriors of the workshop cabins are finished in 20mm-thick plywood sheets –

1. (Previous page) long sections through the volume of the former slaughterhouses show the relationship of the existing historic carapace to the colourful new insertions

2. Single room cabins wrapped in plywood skins contain music workshops and offices. These are arranged along the edges of the structure's central 'naves'



exploded projection

'The design is not a unitary block that ages uniformly, it is made up of layers that move like mechanical belts at different speeds'

their relatively large mass helps absorb sound. The thick double-glazing of the windows is framed directly into the light-gauge balloon framing to minimise breaks in the acoustic barrier. Right angles mix with 120 degree angles to break up sound waves, while parallel walls, which promote easy sound transmission, are avoided between adjacent cabins. To absorb vibrations, the architects raised the cabins off the ground on trusses assembled from metal studs.

Skylights – glass laid over the stud framing – bring in natural light from the clerestory windows of the naves, supplemented by cheap drafting lamps. Electrical conduit is mounted over the plywood and painted red. Each cabin has a fan coil unit, which uses hot and cold water from the Matadero's central plant. Workshops are painted in a variety of intense colours inside to distinguish them in the Academy films and photos. To meet the greater sound absorption required for the

pavilion housing the lecture hall, canteen and a radio studio, the architects built its walls of sandbags, using a dark felt bag, naturally-degradable, which was developed for highway embankments. The large-span roof is suspended on cables from the trusses of the nave. Irregular faceted domes (to break up sound) are finished in the vividly-patterned fabrics traditionally used for window awnings in Madrid. Flat sections of the roof are filled with translucent polycarbonate sheets.

The recording studio required even greater mass for its walls; here the architects built thick sandbag walls with wire-fence reinforcing and climbing ivy, creating a bunker-like cave (normally recording studios are embedded in poured concrete).

The architects' acceptance of the nearly ruined state of the existing building and the temporary nature of their own intervention forms part of a considered design philosophy. Victor Navarro explains, 'We've been

educated to see architecture as a unitary object, coherent in itself. But architecture can also be understood in terms of time. We've worked a lot with existing buildings, and we've come to realise that it's not just a question of preserving a historic patrimony. We're working with the captive energies in every object. Sometimes we work with concrete and fabrics in the same building. They have different time spans. The design is not a unitary block that ages uniformly, it is made up of layers that move like mechanical belts at different speeds.'

María Langarita summarises, 'Buildings are like ships that travel in time, with certain technologies from the past, and you decide if you are going to send those technologies again into the future or not.' In the case of the Matadero, their project promises to quietly disappear, like the village of a nomadic tribe in the brush, while sending the naves onward towards a more durable reincarnation.

- 1 lecture room
- 2 lounge
- 3 recording studio
- 4 music studios
- 5 offices



ground floor plan

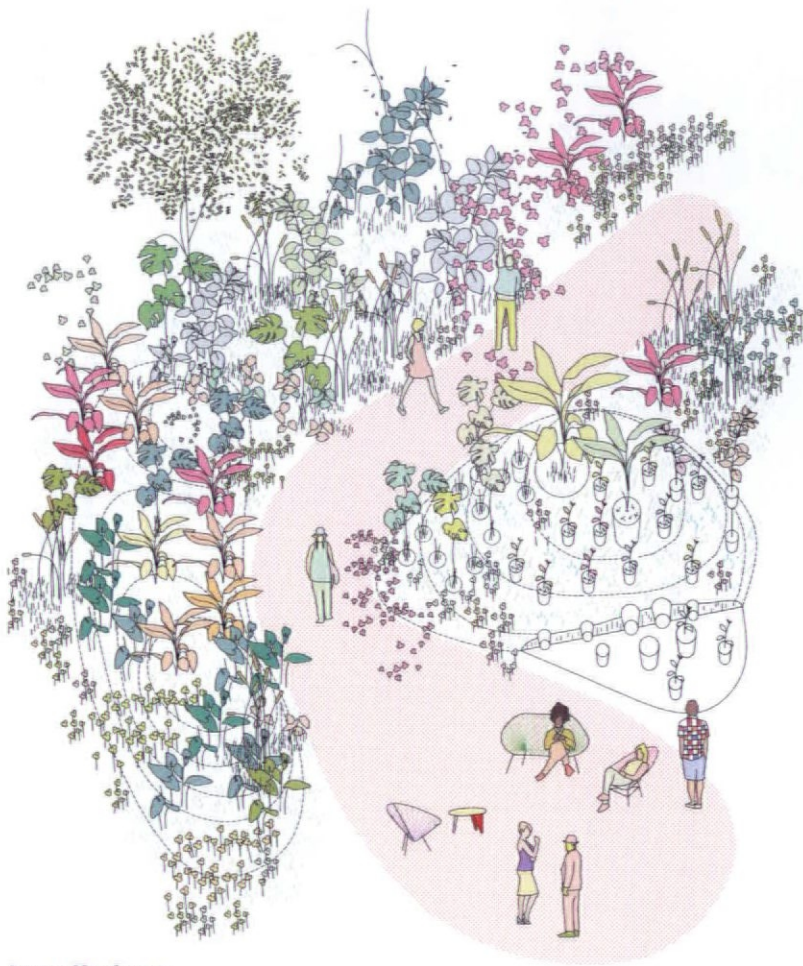


3. The cluster of cabins creates intimate enclaves. Furniture includes spindly Acapulco chairs in fluorescent hues custom-made by craftsman Margarito Oscar Cano and shipped from Mexico

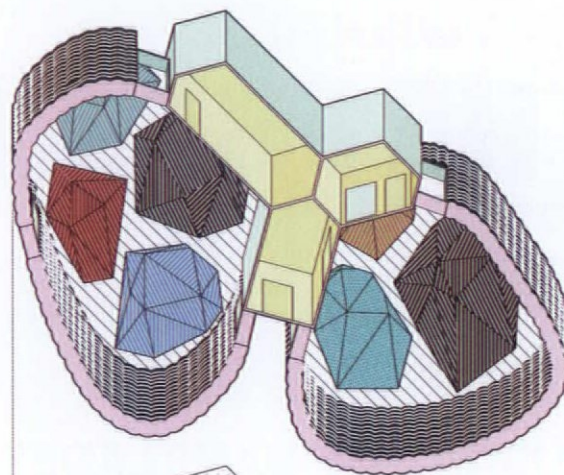
4. The architects describe the project as working with the 'captive energies' of the existing building
5. The suspended fabric roof in the lounge recalls Madrid's distinctive striped window awnings

Architect
Langarita-Navarro
Arquitectos
Sanitaryware
ROCA
Bathroom taps
IDRAL
Bubble lights
RZB
Photographs
Luiz Diaz Diaz, 2, 3, 4
Miguel de Guzmán, 5

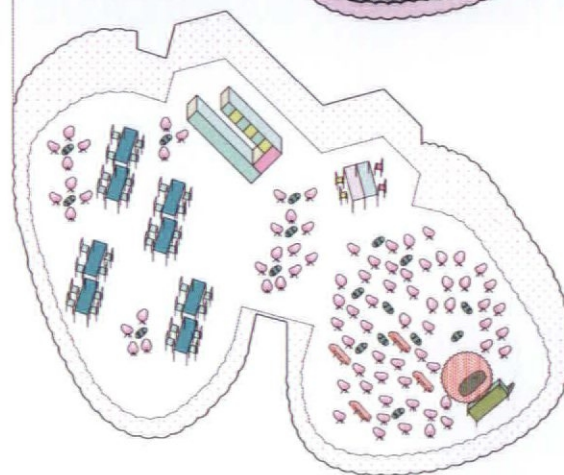




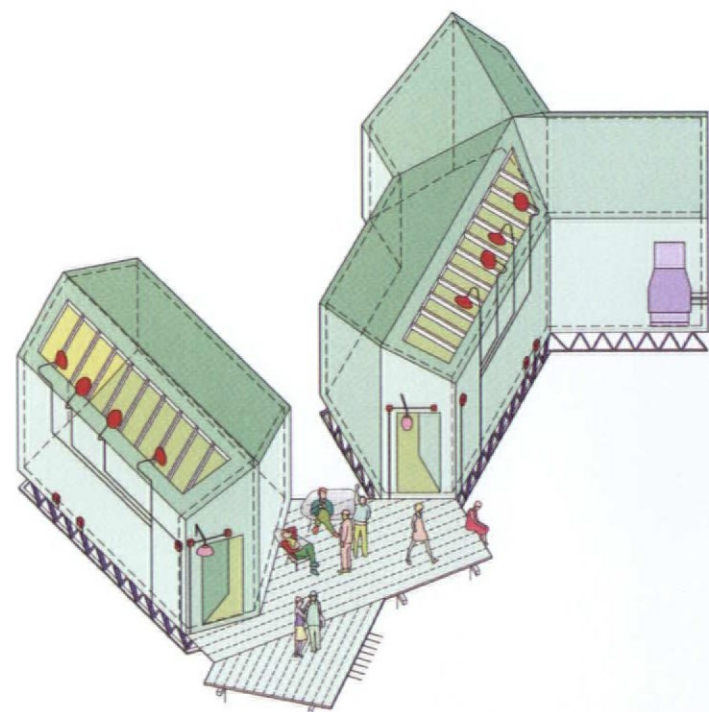
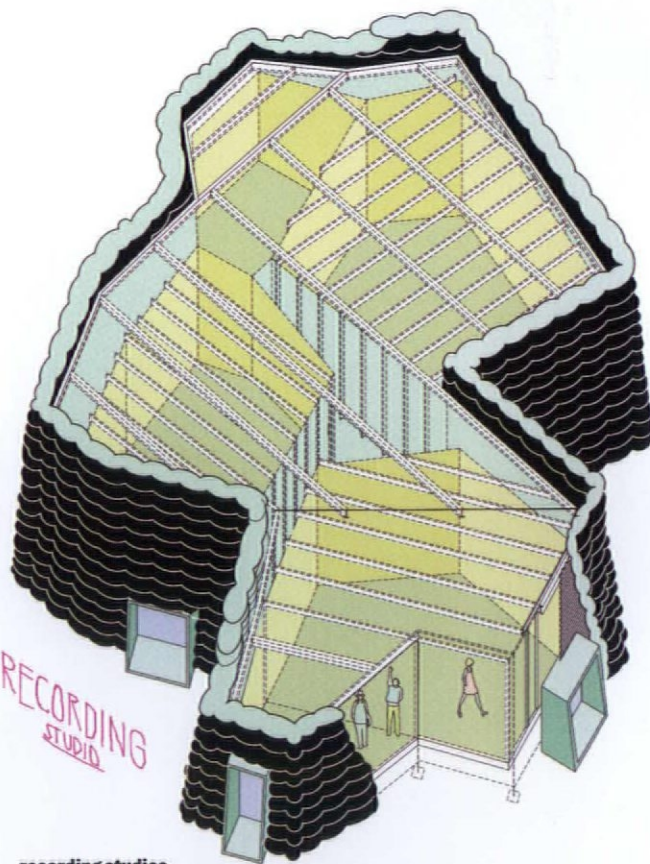
internal landscape



lounge and lecture theatre



recording studios



workshops and studios

JOINT WINNER

THE FRIENDSHIP CENTRE URBANA

GAIBANDHA, BANGLADESH







1. (Previous page) the labyrinthine warren of the Friendship Centre recalls the exposed ruins of Roman hypocausts
2. Open pavilions encourage cooling breezes that temper the hot, humid climate of the Ganges delta
3. The centre functions as a training facility for an NGO which works with local people
4. Situated in a watery landscape, run-off is collected and the excess pumped to a fish pond

CRITICISM

KAZI KHALEED ASHRAF

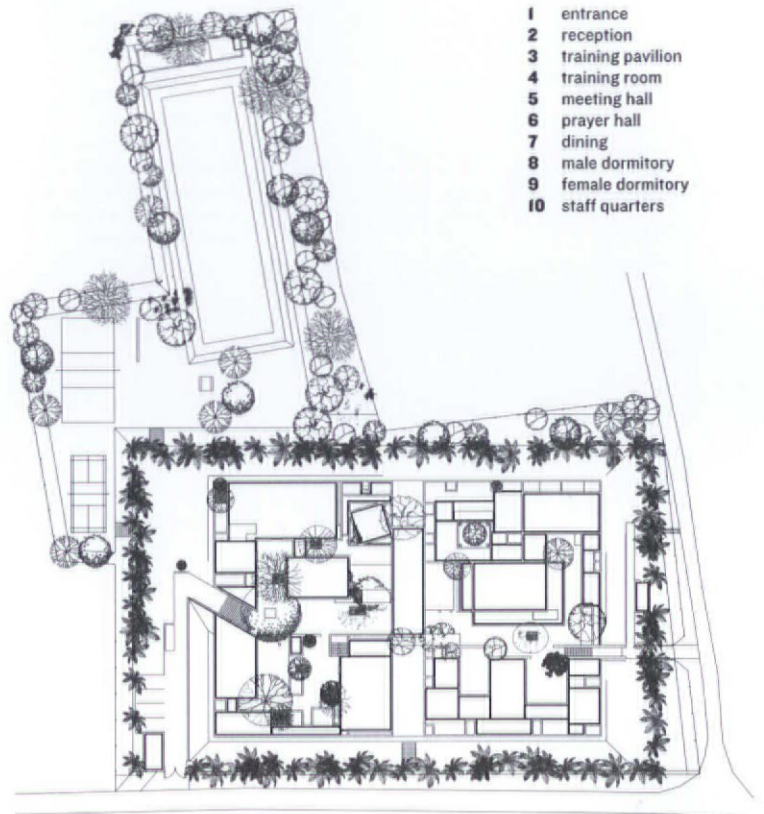
In an irascible terrain that alternates between emerald green rice paddies and swirling, churning flood waters, a new project called the Friendship Centre seems like a woven terracotta raft that has been swept out from a remote village in a distant time, and now lies stranded on the flood plains that surround the small town of Gaibandha in the north of Bangladesh. With half the local population engaged in agriculture, the town is encircled by fields and mounds with homesteads, a perennial image of rural Bangladesh. The region is also not far from many well-known Buddhist brick monasteries dating from the eighth century and earlier.

A few miles east of Gaibandha and the project site flows the mighty river Brahmaputra-Jamuna, which streams down from Tibet carrying and depositing silts and sands as it braids the Bangladesh delta with intertwined channels and that delicate land-form, the *char*, created by fresh silt deposits. People in that region have always lived with the Janus-faced river, receiving at the same time the blessings of the alluvial soil and brunt of the seasonal deluges. Despite being a precarious land-form, *chars* – with their rich soil and abundant fish – have drawn people, mostly the poorest in the country, for farming and fishing. Social conditions and economic opportunities, however, remain limited in those remote island-like *chars*.

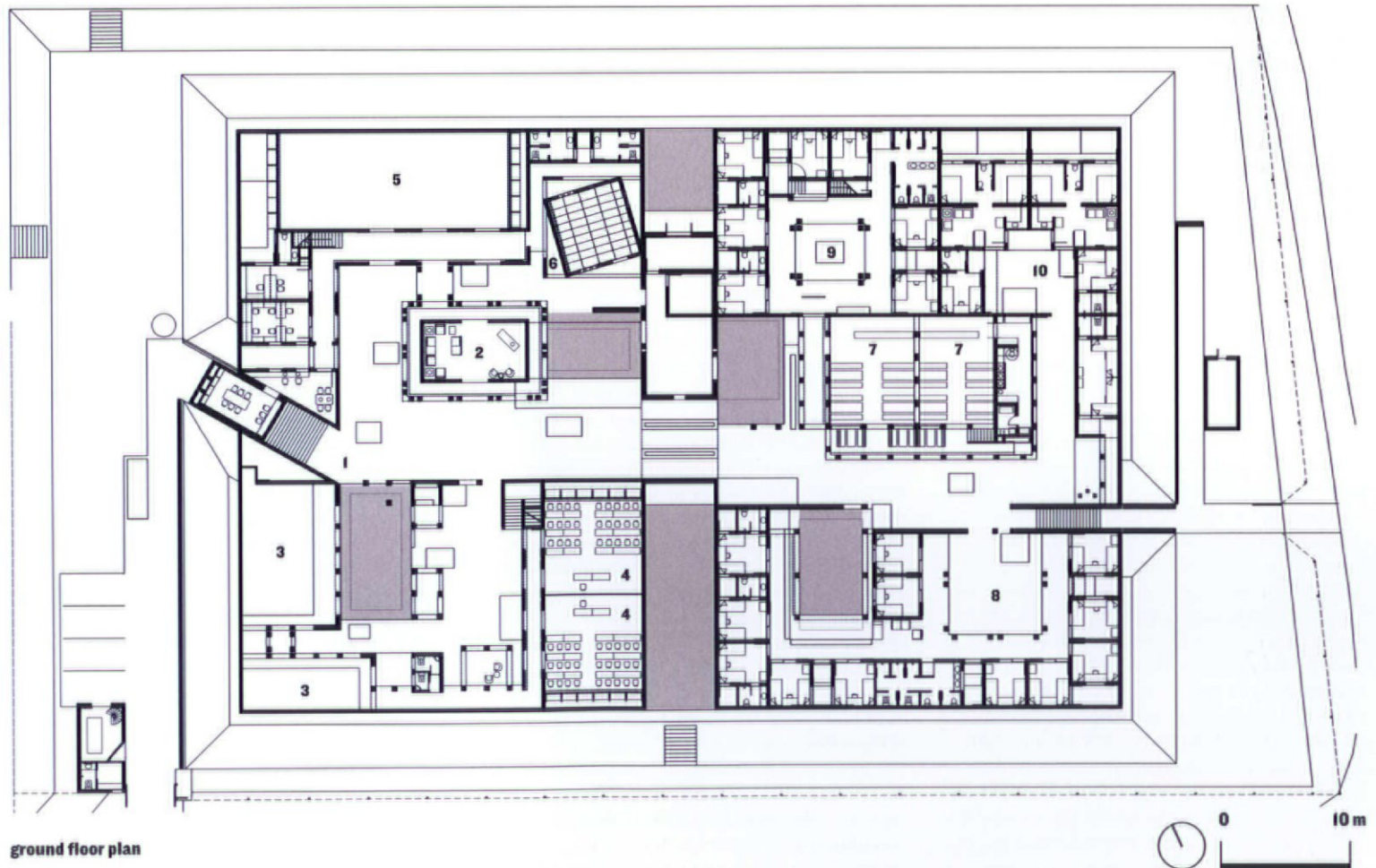
Designed by the Dhaka-based architect Kashef Mahboob Chowdhury, the Friendship Centre was created as a training centre for an NGO working with people inhabiting the nearby *chars*. The centre trains people, and also rents out the facilities for meetings, training and conferences. The site for the centre is a low-lying area outside Gaibandha, a predominantly agricultural land susceptible to flooding if the embankment for the town is breached. Prohibitive costs for landfill, as well as seismic activity and the low weight bearing capacity of the silty soil, discouraged adopting the usual response of raising the whole site above the high flood level (8 feet); limited funds for the project were directed towards the extensive programme of the centre.

With topographical modulation in mind, Kashef Chowdhury decided to create a mini embankment around the site and to construct the buildings inside that enclosure at the existing ground level in load-bearing, exposed brick. Rainwater and surface run-offs are collected in internal pools, and excess water is pumped off to an excavated pond, also used as a fishery. The complex is laid out as a mat of pavilion-like buildings, open courts, pools and walkways. Buildings house offices, a library, meeting rooms and pavilions, a prayer space, and a tearoom. A separate area contains dormitories and spaces for private functions. There is no air-conditioning in the complex; fractured and pavilion-like building volumes allow for natural ventilation and cooling, also facilitated by courtyards and pools, and

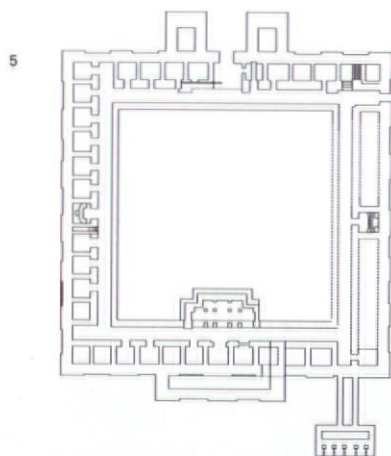




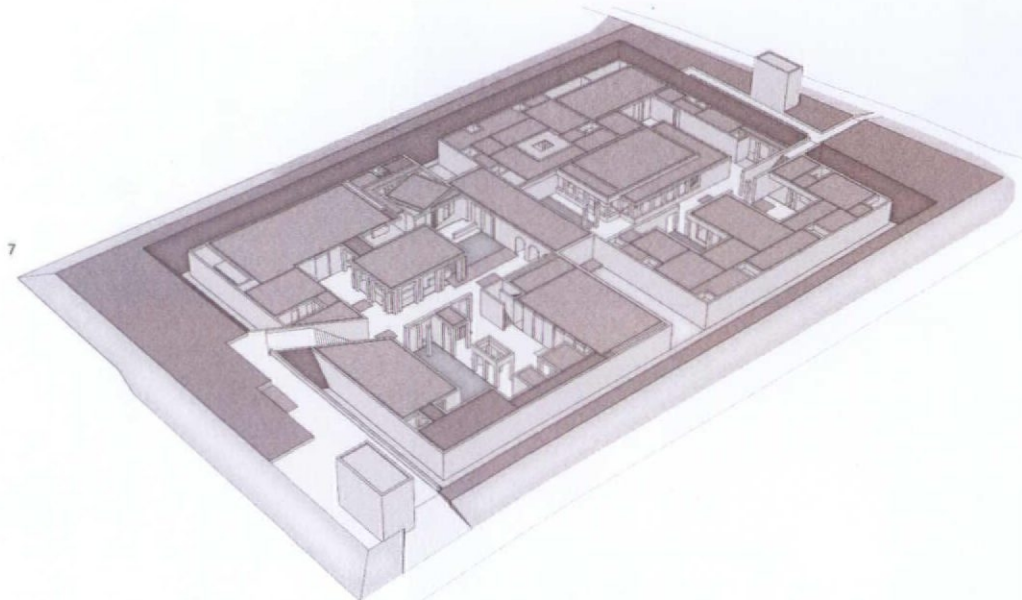
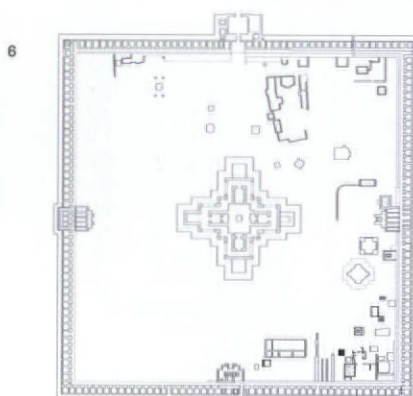
site plan



ground floor plan



5. Plan of the Buddhist Sitakot monastery in Dinaipur
6. Plan of Paharpur monastery in Naogaon
7. In its arrangement of pavilions set within a bounding enclosure, the Friendship Centre echoes these historic sites



earth-covered green roofs. The environmental sensitivity of the project also extends to the creation of an extensive network of septic tanks and soak wells, so that sewage does not mix with flood water.

The work of Kashef Chowdhury is recognisable by its unambiguous Modernist stance marked by crisp, cubic volumes and scrupulous details. The bold, monolithic Liberation War Museum in Dhaka (1997-), designed with Marina Tabassum, was mediated only by a dramatic choreography of light and shade (although the stark concrete surfaces of the complex were partly submerged in the ground). The mosque in Chandgaon, Chittagong (2007), short-listed for the 2010 Aga Khan Award, is an unabashed Modernist piece where a white volume is dramatically juxtaposed with the surrounding landscape of green paddies and dark ponds.

Compared with these previous projects, the Friendship Centre indicates a new point of departure for Chowdhury, and architectural discourse in the deltaic region. Architects in Bangladesh, operating mostly from the capital city Dhaka, are complacently producing the kind of flamboyant buildings demanded by an increasingly energetic economy. Very few have taken up the challenge of working either in the vast rural hinterland or the environmentally delicate flood plains. Anna Heringer and Eike Roswag's much publicised school (AR December 2006) also located in the Rangpur-Gaibandha region, is an inspiring example of working with a rural and community ethos.

'The Friendship Centre contributes to the newly emerging discourse of building in the flood plains'

However, the bigger challenge of working with the hydro-geography of the delta and its environmental consequences remains largely bypassed by the architectural community.

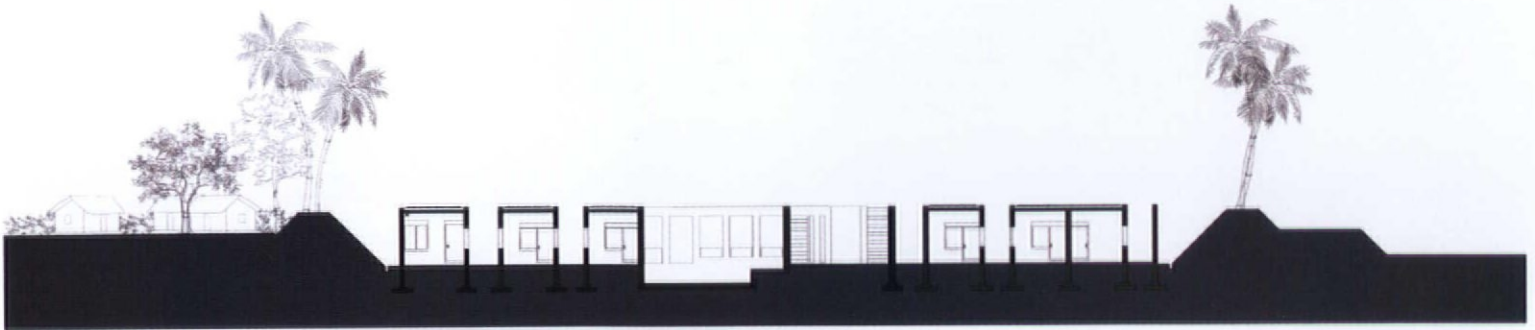
While the relationship between architecture and landscape was deliberately dualistic in the Chandgaon Mosque, it is much more chiasmic at the Friendship Centre. In fact, it is conceived not as a building, but as a reorganisation of the ground surface, involving excavation, mounding and berming. And where Chandgaon and other previous projects were conceived as sculptural, monolithic volumes, the Friendship Centre is organised as a mat of interwoven volumes and spaces. The spatial quality of the mat invokes the image of an ordered village or the campus of a Buddhist monastery, as well as the horizontal matrix of a Mughal fort-palace. With its embanked periphery and terracotta-red ambience, the matrix of the complex is not unlike that of a small, fortified city such as Fatehpur Sikri.

Expanding the idea of a topographical architecture, Chowdhury claims a particular kinship with older Buddhist monastic complexes with their quadrilateral organisation, stark and bare disposition,

exposed brickwork, and, above all, the enigma of the ruin, all of which describe the architecture of the Friendship Centre. The ruin as a generative idea harks back to a rich genealogy, from Piranesi's architectural imagination to John Soane's constructed remains, but most pertinently in this instance to Louis Kahn's obsession with the subterranean or topographical datum, represented vividly in Kahn's aestheticisation of the building foundation (as in the Indian Institute of Management in Ahmedabad, and the Assembly Complex in Dhaka). Kahn was also emphatic that the landscape of Bangladesh demands an 'architecture of the land'. Although buildings at the Friendship Centre are actually above ground, the architect's fascination with construction photos showing the earth dig and foundation work reveals a similar topographic inclination.

In the face of impending effects of climate change and persisting cycles of extreme flooding, the biggest challenge for architects in Bangladesh is to configure building propositions for an aquatic landscape. With flooding as a life-world condition in the region that is increasingly taking on a cataclysmic quality due to environmental changes, the Gaibandha Friendship Centre opens up a dialogue on the scope of architecture, asking: how to configure building formations in an aquatic landscape? How to extend the idea of architecture as a manipulation of the topographic continuum?

Architect
Kashef Mahboob
Chowdhury / Urbana
Photographs
Eric Chenal, 1, 2, 3, 10



site section

8



9



8. Typical settlement on a char, an island-like land form in the delta
9. During construction, the height of the surrounding bunds becomes evident
10. Simple brick volumes are linked by a permeable network of courtyards

10





JOINT WINNER

BLOC 10 HOUSING **5468796** **ARCHITECTURE**

WINNIPEG, CANADA



2



1. (Previous page) the diaphanous black slatted veil creates a complex pattern of light and shade
2. Recessed balconies and flush windows enliven the end facade of the block
3. Seen obliquely, the slats become opaque

3



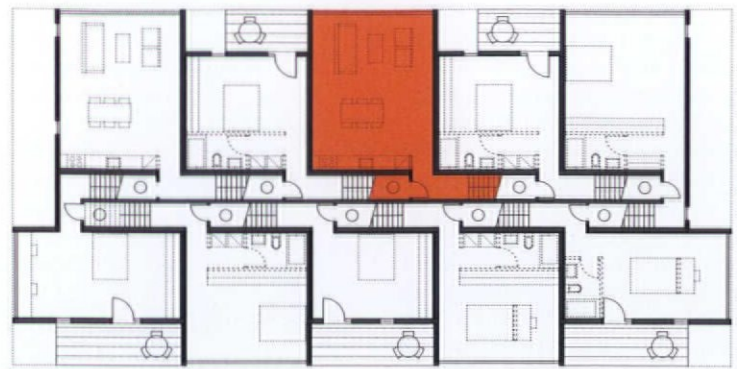
CRITICISM

TREVOR BODDY

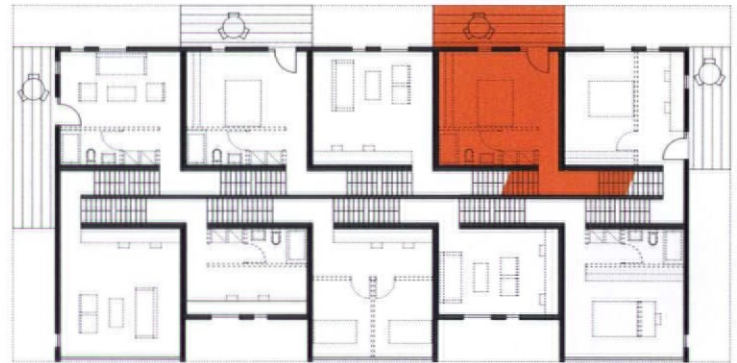
The question of affordable housing is the recurring bad dream of contemporary architecture. The difficulty of building dwellings simply and well imparts a night terror to many of us, and we are unable to deny its sepulchral truths in the days that follow. The Art Nouveau years – much like the similarly sinuous boom of the last decade – were times of splendidly urbane apartment blocks, or villas in the city or countryside brimming with lush ornamentation and restless surfaces. But at the end of the First World War, the profession turned as one (in Continental Europe, at least, where destruction was most concentrated) to the problem of affordable housing. Whether the German debate about *Existenzminimum*, Le Corbusier's speculations about the house as a 'a machine for living', to the prototypes, both good and bad, tested at Stuttgart's 1927 Weissenhofsiedlung, new housing forms to repair a blasted Europe were at the heart of the Modern project.

Half a decade into this global recession, there is scant evidence of the profession rising from its fluffy bed of Aestheticism Nouveau to again confront the creation of mass housing that people can actually afford. In Canada, *au contraire bien sûr*, there is Frank Gehry's recent presentation of a staggeringly dense cluster of three calypso-ing condo towers for Toronto's Mirvish family; a Foster team under Nigel Dancey opening Vancouver's muddled Jameson Tower (amazingly, the mega-firm's first constructed high-rise apartment building); and in the same city, BIG from Copenhagen's recent design for a luxury tower so twisted – as it rotates up through its 49 storeys – that local wags have started calling the firm's principal partner "Torque Ingels".

Then there is Winnipeg. Flat, boxy, constant, prairie-values Winnipeg, the railway hub born in the hopes it would become the next Chicago, but ending up as Dubuque with more snow. It is no accident that humble,



second floor plan



first floor plan



ground floor plan



isolated Winnipeg has created Canada's most exciting new architectural firm in a decade, one dedicated to applying design innovation to the humblest of tasks, a plains-born, good-humoured, resolutely resourceful verve for building housing modestly, but with elegance. This is all in evidence in Bloc 10, one of the more accomplished works to date from the young firm of 5468796 (named after their incorporation number). To their credit, 5468796 is dedicated to changing the number on the sometimes profound, sometimes fey line of precious wood-and-concrete pavilions and villas in natural settings that has defined Canadian architecture for a generation, notably through the designs of Toronto's Shim Suteliffe, Quebec's Pierre Thibault, and fellow Winnipeggers, John and Patricia Patkau.

A three-storey timber-frame apartment block on the most ordinary corner in an inner suburb, Bloc 10 could hardly be more different from the artful, occasionally arty creations of this older generation. Grant Avenue is a City Beautiful boulevard with mature trees set along its median, but lined with 'walk-ups' and small strip malls filled with gyms, sweet shops and a full menu of Asian restaurants: Thai, Chinese, Filipino and Vietnamese (mid-continental Winnipeg has been transformed by waves of industrious immigrants from that continent). The walk-up apartment is the degree zero of affordable apartment construction in Canada – three storeys in wood frame, dank lobby, small windows and doubly-loaded corridors that always, always smell of boiled cabbage (one third of Winnipeg's population is of Eastern European origin).

Building permission had been granted for a walk-up on this former petroleum station site, and when the small developer Green Seed picked up the property, 5468796 were bound by the site setback, height and other conditions of the approval at hand. According to 5468796 partner Colin Neufeld: 'Somehow we convinced the City [of Winnipeg] that our project was in conformance with these plans and renderings, but that remains a bit of a

mystery.' That mystery is no mystery, as the internal layout of this simple box building is complex – smelly corridors entirely eliminated by giving each unit a three-storey internal stair, yielding apartments with rooms on at least two, sometimes three different elevations. The designers jettisoned the banalities of the doubly-loaded apartment building layout, and were inspired instead by that twistingly puzzling creation of Hungarian architecture professor Ernő Rubik. Indeed, Neufeld's partner Sasa Radulovic carries a colour-coded Bloc 10 maquette in Lego blocks around in his car to explain, when on site visits, how their units turn and rotate, floor by floor.

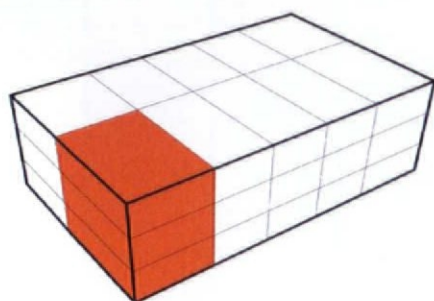
When examined in plan, things are a great deal simpler; in mid-building where the

corridor would sit in most walk-up apartments there are, instead, a string of five pairs of scissor stairs, one for each structural bay. With no building lobby, each of the 10 units is entered from their own private door on the street or rear lane, these main floor rooms used variously as kitchens, work rooms, or even bedrooms (the building has condominium ownership, and initial residents got raw space with plumbing available

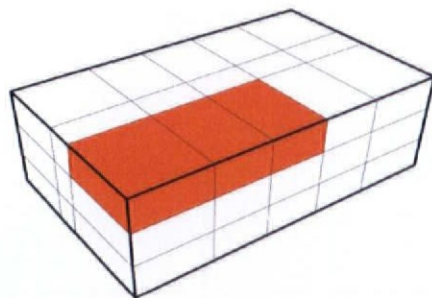
'Spatial imagination has thus invigorated the most banal of building types; sorry, you over-exposed solar collector and glass tower people'

throughout, so each could ascribe uses to the rooms as they wished). The main structure is five bays at 18 feet wide each, the standard width of a Winnipeg townhouse, meaning off-the-shelf wood joists could be used, cutting costs. The ingenious, Rubik-like innovation is that at the second-floor landing, you enter into rooms occupying the adjacent bay, and ditto for the third, or in some cases, returning back to the first bay. At either end of the building there are extra-wide rooms to fill out the available planning approval envelope. Spatial imagination has thus invigorated the most banal of building types, and sorry, you over-exposed solar collector and glass tower people, there is no greener way to build in Canada than medium density apartment buildings constructed from those most

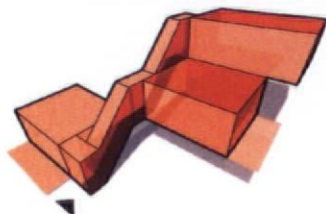
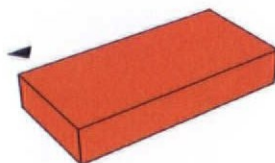
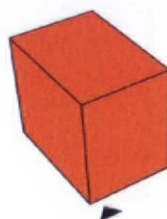
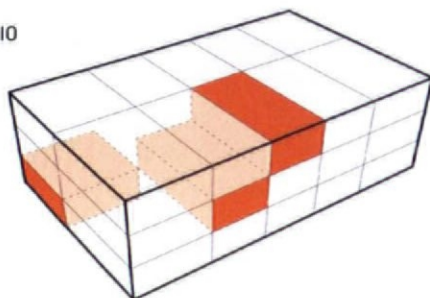
townhouse



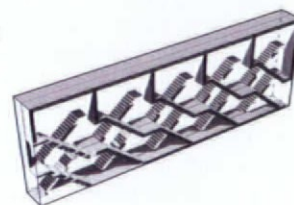
flat



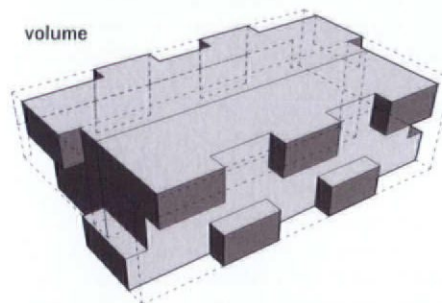
Bloc 10



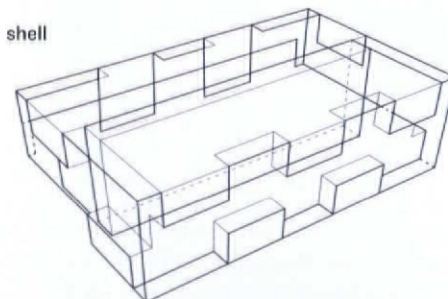
core



volume



shell



screen

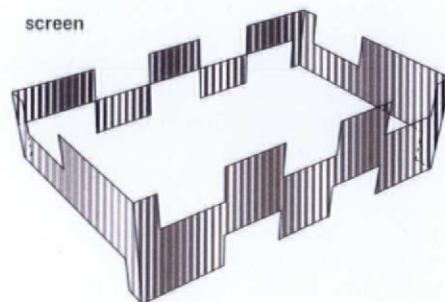


diagram showing contrast to typical provisions

volumes within the screen



4. Sectional perspective showing how flats are spread across storeys both horizontally and vertically

5. Balconies have cut-away sections to allow views from within the flat, and screened sections for extra privacy



renewable of building materials, two-by-four timber studs, plywood sheeting and wood joists. These also make for the lowest cost housing construction available.

This displacement and turning of units as they rise through three storeys imparts variegation to window shapes and patterns. The visual force and impact of an extremely modest building is amplified by setting an exo-skeleton of black-stained vertical wood studs out a half foot and more from the well-insulated walls. These add a degree of privacy in front of bathroom and bedroom windows, but are cut away to provide unimpeded light and view for the huge picture windows in living and work rooms. When viewed obliquely by the heavy traffic along Grant Avenue, the studs visually congeal to form a banded but continuous form, a tall dark stranger newly arrived on this Western Main Street. The three-storey stairs provide a sense of space and visual intrigue for a string of smallish rooms that would seem cramped if wedged into standard townhouse or corridor configurations. High-tech flare in low-tech construction is provided by having exposed heating pipes run up the soffit of these stairs, another huge cost-saver.

What is most exciting about 5468796's work is that it is part of a wider Winnipeg scene dedicated to shaping graceful buildings at ultra-low cost, a necessity in a province much poorer than its resources-rich neighbours to the west. Notable among these is a downtown art gallery and university offices complex given the Archigram-specific name of 'Plug-In'. The Plug-In Gallery was designed by Neil Minuk and David Penner, who were design professors at the University of Manitoba when 5468796 principals Neufeld, Radulovic and Johanna Hurme were all students there. Radulovic and Hurme also collaborated with U of M professor Jae-Sung Chon on 'Migrating Landscapes', Canada's pavilion at this year's Venice Biennale.

HIGHLY COMMENDED

CASSIA CO-OP TRAINING CENTRE TYIN TEGNESTUE

SUMATRA, INDONESIA

TYIN Tegnestue is a non-profit organisation made up of architects and students from Trondheim's Norwegian University of Science and Technology (NTNU). To date, the group has designed and built a series of low-cost projects in Thailand with the aim of improving conditions and transferring skills to local communities. Funding comes from over 60 Norwegian companies backed by private contributions.

This project for a training centre in Indonesia is typical. Set in the cinnamon forests of Sumatra, where 85 per cent of the world's cinnamon is produced, it provides training and education for local farmers and workers. The aim of the client, Cassia Co-op, is to counter exploitative practices by paying a fair price for cinnamon as well as providing healthcare and education for its employees.



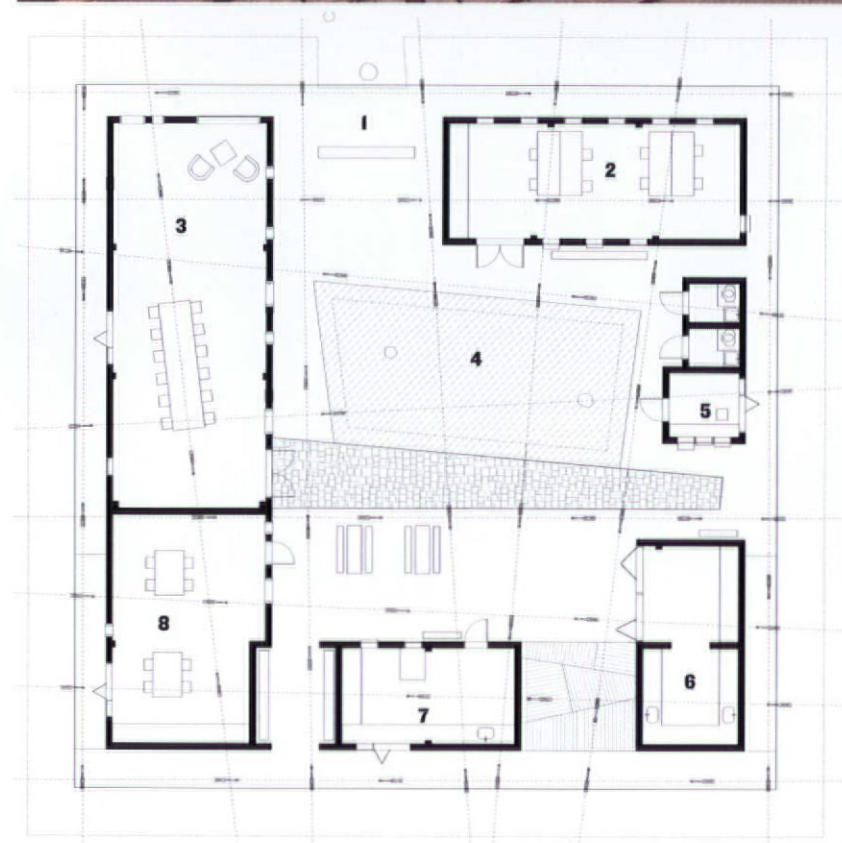
A large, lightweight roof shelters a series of courtyards and rooms, including a small laboratory, offices, classroom and kitchen. Locally produced brick and cinnamon trunks (the disregarded by-product of cinnamon cultivation) are the main materials. The giant roof is supported by generic Y-framed columns bolted to concrete footings, giving the interior an evocatively arboreal appearance, like being in a manmade glade.

Constructed in three months by an untrained workforce of 70 locals, aided by eight water buffaloes hauling trees from the forest and an on-site sawmill, the building relies on a repertoire of simple details. Yet it still exudes a sense of dignity and delight, the archetypal primitive hut reconceptualised for the tropics with a strong sense of social purpose, all of which appealed to the jury.

1. An informal network of rooms and courtyards provide spaces for education and training
2. Penetrated by trees, a large monopitch roof envelops the building
3. (Opposite) specially designed Y-shaped columns give the interior an arboreal quality, reinforced by the presence of real trees: the primitive hut in the tropics







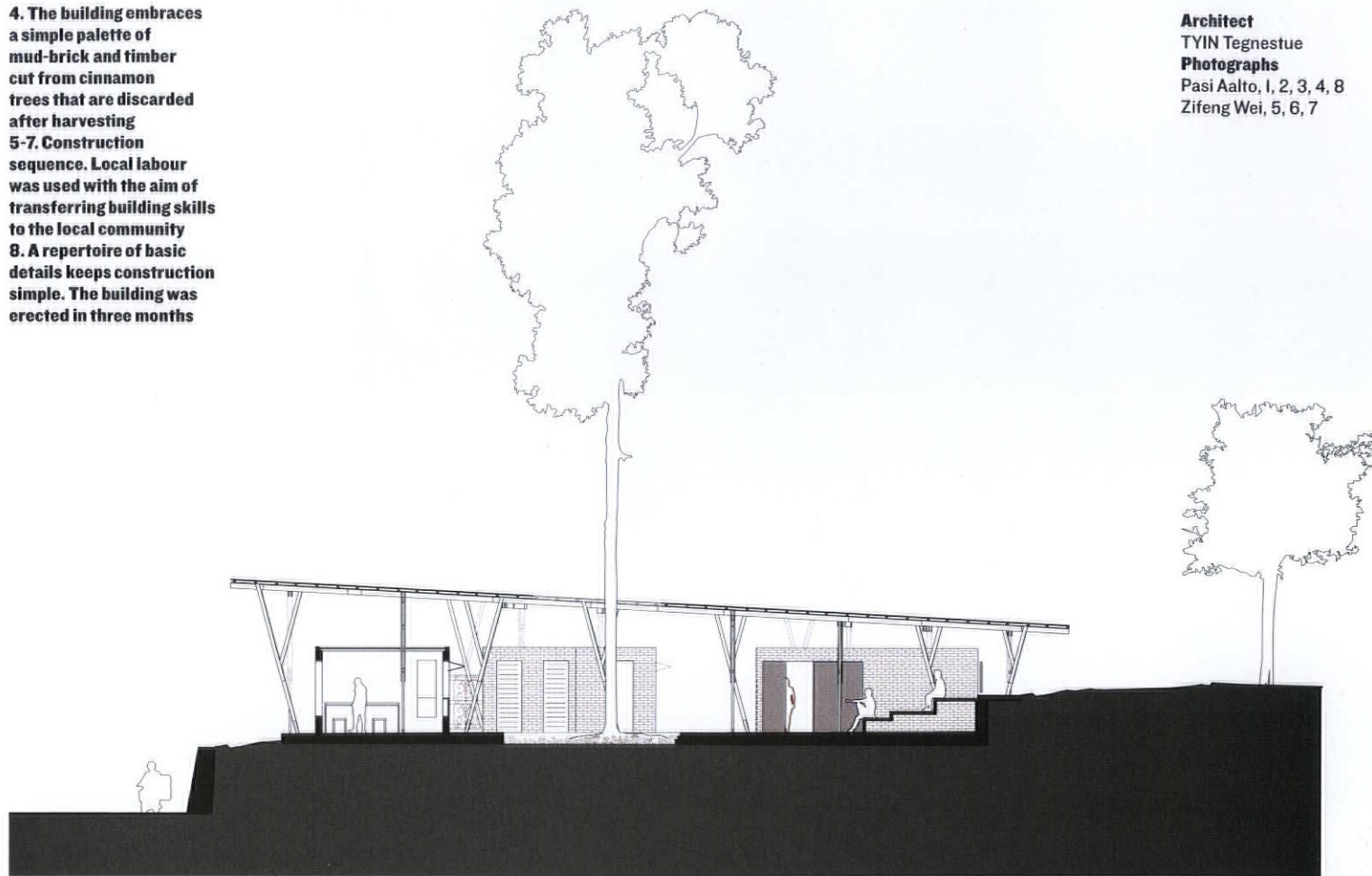
ground floor plan

- 1 viewpoint
- 2 office
- 3 showroom
- 4 courtyard
- 5 guard house
- 6 kitchen
- 7 laboratory
- 8 classroom



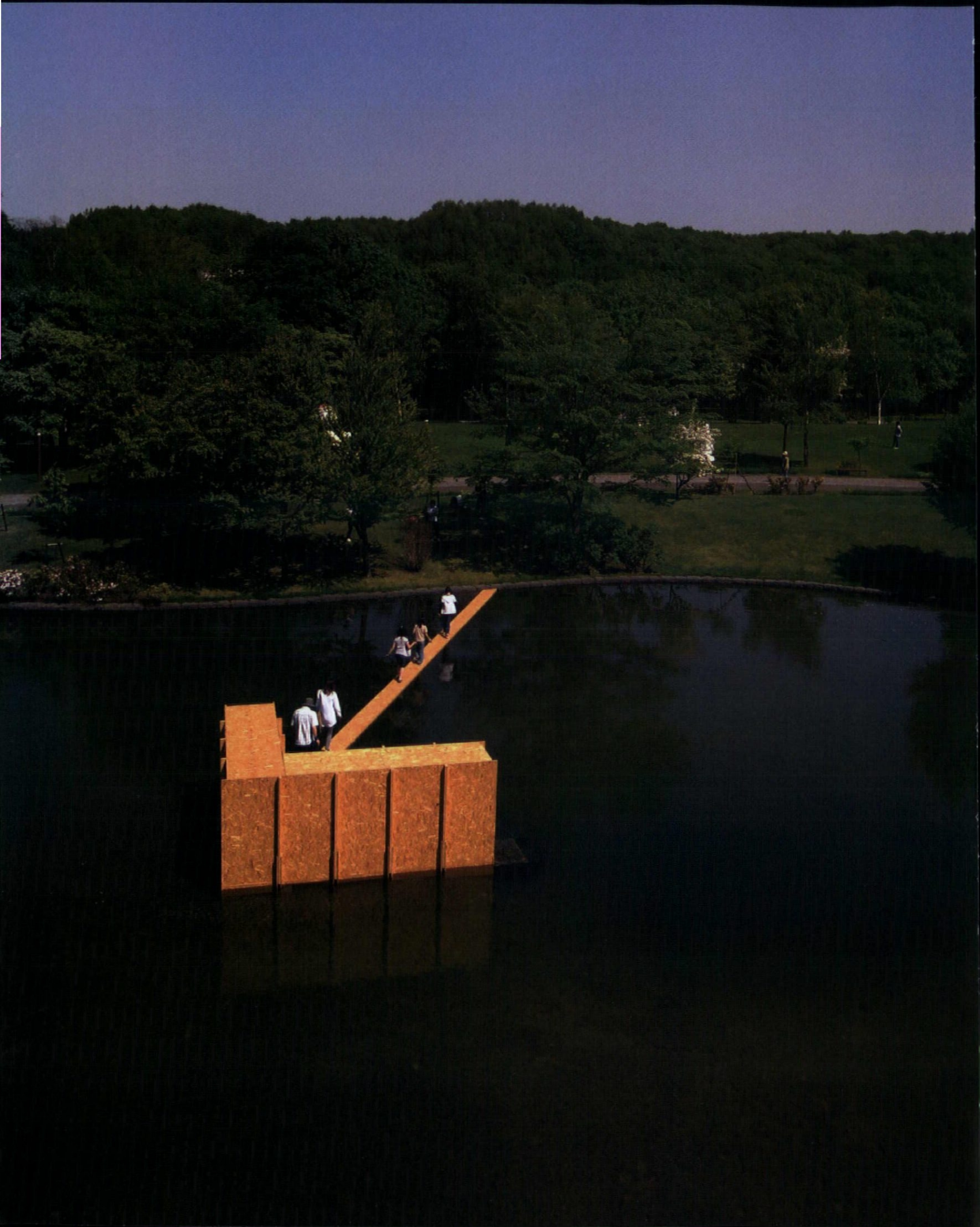
4. The building embraces a simple palette of mud-brick and timber cut from cinnamon trees that are discarded after harvesting 5-7. Construction sequence. Local labour was used with the aim of transferring building skills to the local community 8. A repertoire of basic details keeps construction simple. The building was erected in three months

Architect
TYIN Tegnestue
Photographs
Pasi Aalto, 1, 2, 3, 4, 8
Zifeng Wei, 5, 6, 7

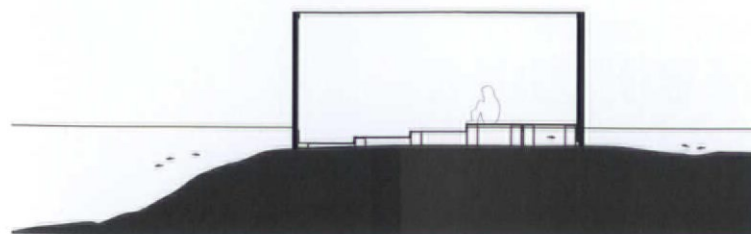


long section

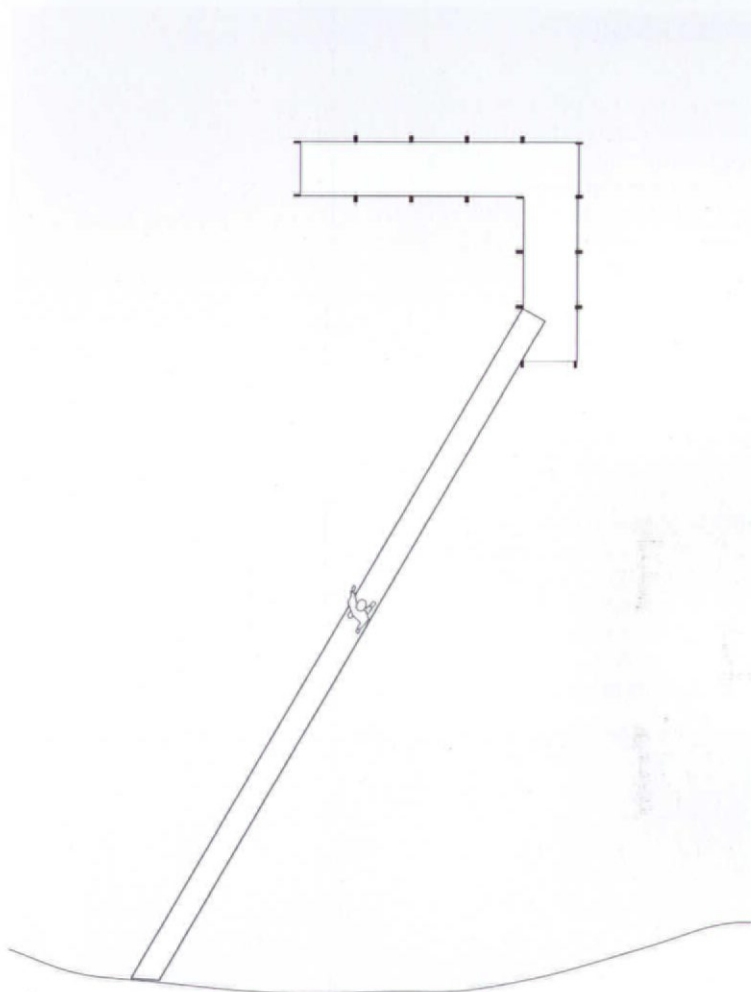




1. (Opposite) the enigmatic 'floating' box sits in the middle of the lake, accessible by a narrow walkway skimming across its surface
2, 3. Light reflected off the water permeates the Stygian interior



cross section



site plan



HIGHLY COMMENDED

INFINITE LANDSCAPE RYO YAMADA

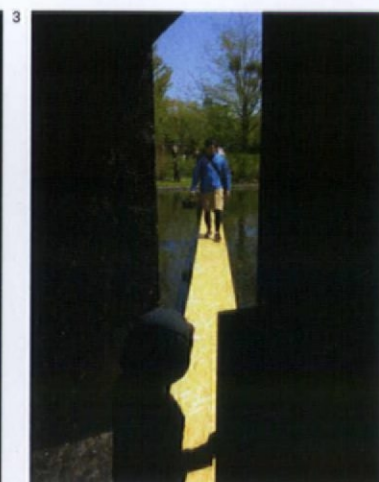
SAPPORO, JAPAN

Set in the middle of a lake in Sapporo, this enigmatic project is a hybrid of landscape and architecture, but somehow transcends both. 'If architecture is something to project and support the human body', says its architect Ryo Yamada 'then this is not architecture, as what this place supports is just the time spent there.'

A 'floating' box is reached by a narrow 14-metre long walkway that skims across the surface of the lake. Visitors are naturally inclined to take the shortest route, but this consciously lengthens their path, prompting them to think about the meaning of movement and the time spent walking.

Constructed from flakeboard, the L-shaped box has a stark, elemental quality. Its interior is painted black and its short end walls hover above the lake surface so that water partially floods the space. Light reflects off the water and subtly permeates the dark interior, the patterns of illumination changing with the weather and time of day.

The jury admired the concept that resonates with the elements and the passage of time, and its simple yet moving execution.



HIGHLY COMMENDED

M BUILDING AGENCE SM/ STEPHANE MAUPIN

PARIS, FRANCE

The site for this new social housing project in the north-west part of Paris came freighted with constraints. On one side, a secondary school, on the other, the Batignolles cemetery, over which no views were permitted.

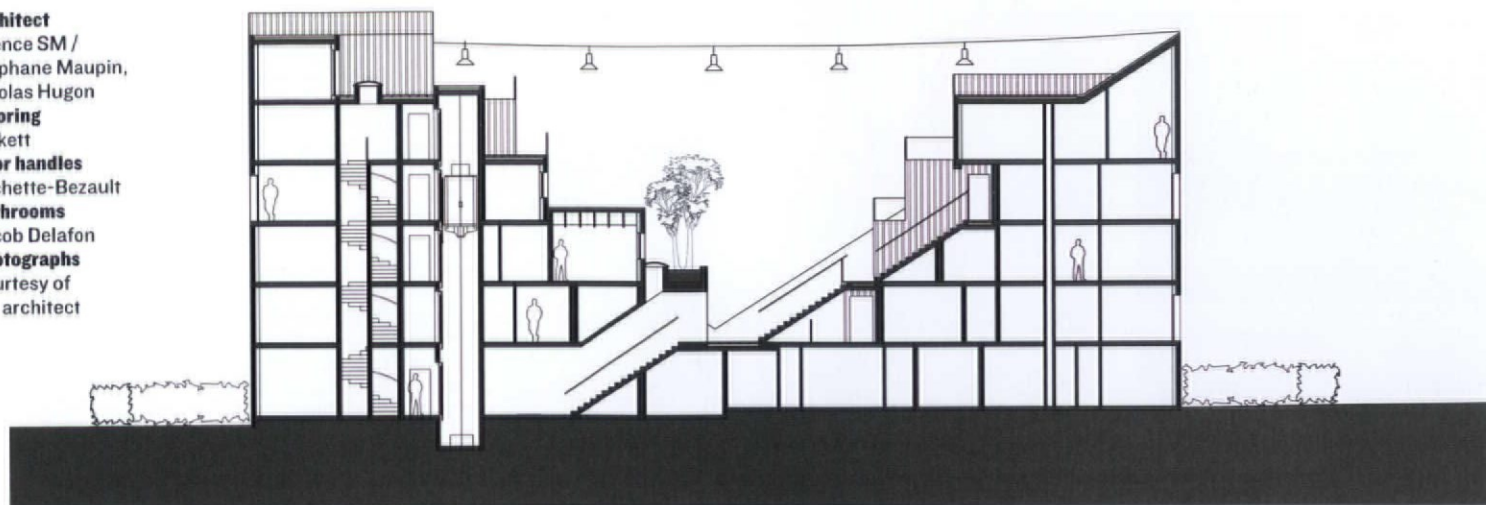
Architect Stéphane Maupin's response was to devise a long, linear block, like a liner at full sail, and to carve out the middle section to create two symmetrical cascading terraces. Clad in familiar Parisian zinc, the shimmering terraces resemble a modern ziggurat, providing extra indoor and outdoor space for residents to colonise, as well as offering surreptitious *Rear Window*-style views.

The bold, angular forms of the terraces brilliantly rescue the block from dull, introverted compactness, and capture light at all times of day. The building becomes a kind of intimate village within the city, its life expressed by the activities on the terraced landscape. The jury admired the concept and the panache of its equally assured execution.

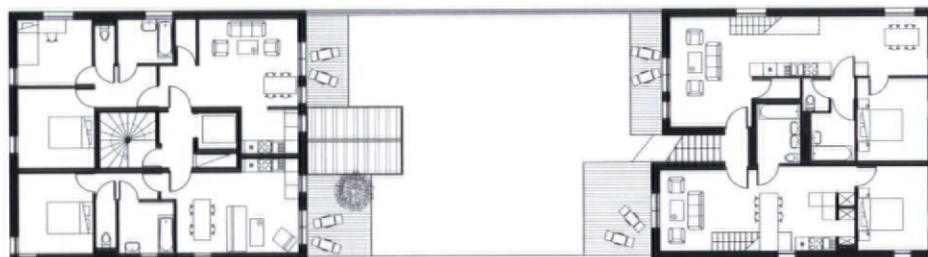
1. The block is carved out in the middle to create two stepped terraces
2. The adjacent cemetery could not be directly overlooked, so the landscape of zinc-clad terraces captures light and views, provides extra space for residents and saves the block from dull introversion



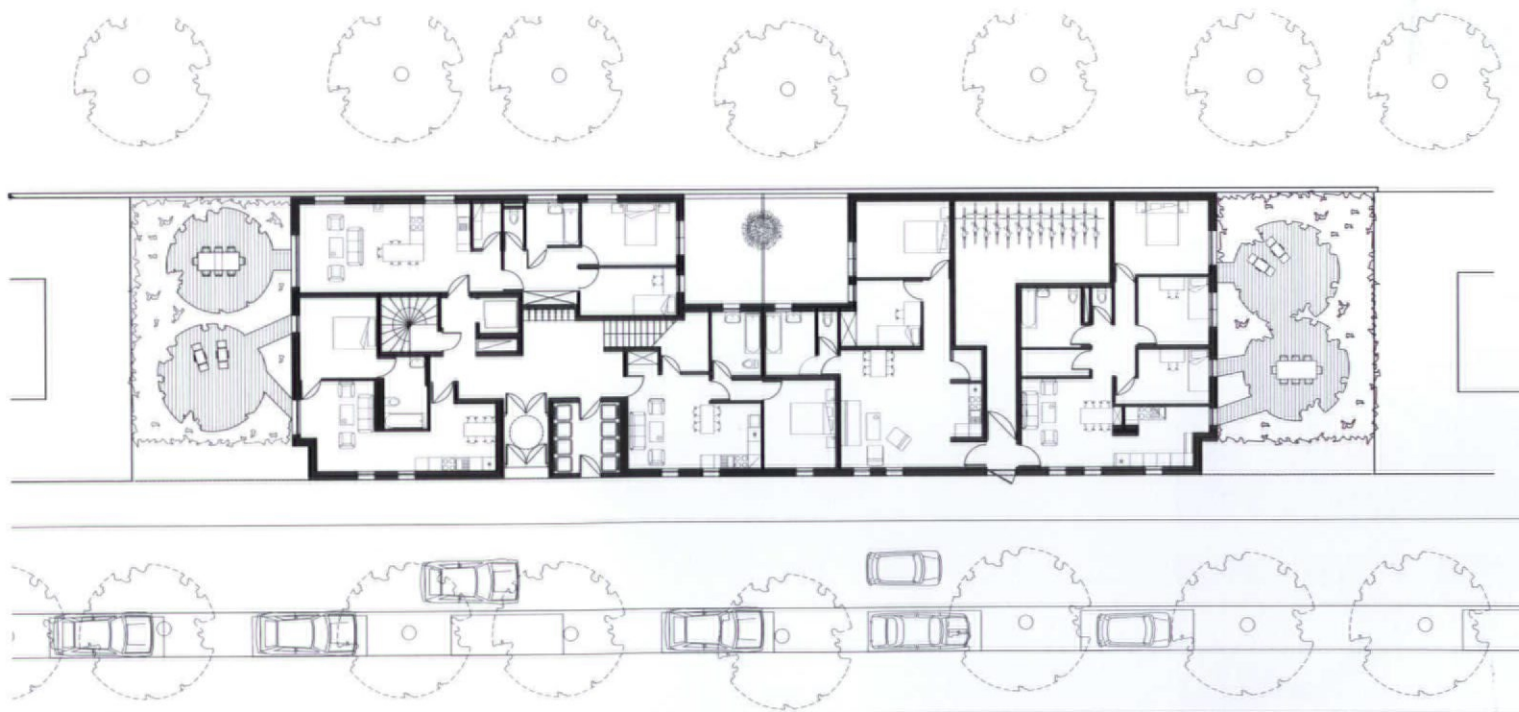
Architect
Agence SM /
Stéphane Maupin,
Nicolas Hugon
Flooring
Tarkett
Door handles
Vachette-Bezault
Bathrooms
Jacob Delafon
Photographs
Courtesy of
the architect



long section

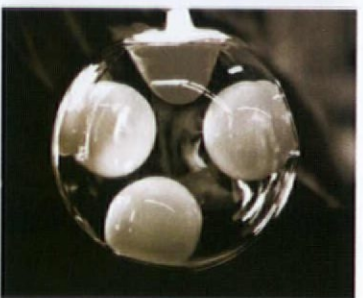
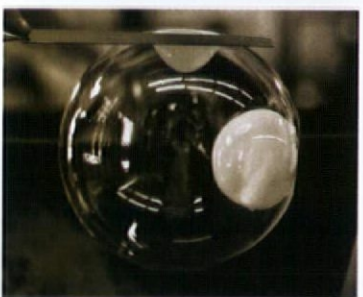


typical upper level



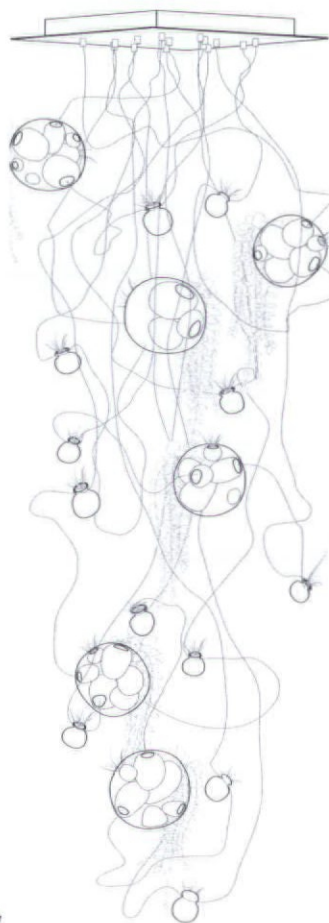
ground floor plan





1. The glass blowing process. A conventional globe is blown then cooled and the airflow reversed to create a series of bubble-like cavities. These can be used as planters or housing for lighting elements
2. Tendrils of copper wire link the glass globes
3. (Opposite) detail of the glowing globes planted with cacti and succulents. The project uses craft skills to explore new formal possibilities

Architect
 Omer Arbel Office
Photographs
 Gwnael Lewis, I



concept drawing

HIGHLY COMMENDED

LIVING PLANT CHANDELIER OMER ARBEL

Described by its designer as a 'surrealistically motivated re-exploration of a technique of making', this use of glass blowing to create a kind of mutant chandelier and planter fascinated the jury. Synthesising glass, light and greenery, it imaginatively experiments with craft skills in the search for new formal and material possibilities.

A conventional glass globe is hand blown and cooled so that it maintains its form but does not crack. Airflow direction is then reversed to form a vacuum in the globe. The resulting process of implosion causes superheated hot white glass to bubble inwards. This is repeated until the original globe becomes too cool to manipulate, creating a cluster of translucent, distorted, bubble-like cavities. The cavities are deep enough to function as repositories for small succulents and cacti. Others are used as housings for lighting elements. A network of stiff copper tubing links the delicate glass spheres and conducts electricity. The assemblage has a delightfully anarchic quality that fuses manmade and organic to compelling effect.





HIGHLY COMMENDED

KAMOI MUSEUM TNA ARCHITECTS

KURASHIKI, JAPAN

Among the many submissions proposing the adaptive reuse of existing buildings, this project, which transforms a former factory into a company museum, caught the jury's eye. The two-storey structure forms part of a factory complex in Kurashiki. For 90 years the factory made masking tape and the building was used for mixing the paste used in the manufacturing process. The building has been stripped back to its concrete frame and a new roof added, supported by slim steel columns running through existing floor voids.

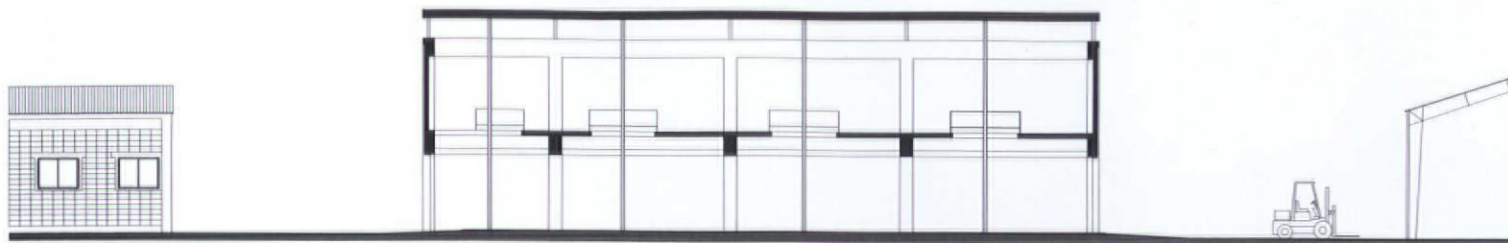
The new architectural language is beautifully laconic, with crisp new cladding and minimally-detailed display cases playing off the grungy concrete frame. Various used as a museum documenting the history of the company, a dining room and conference space, an unremarkable industrial structure has been intelligently revitalised and reanimated.

2

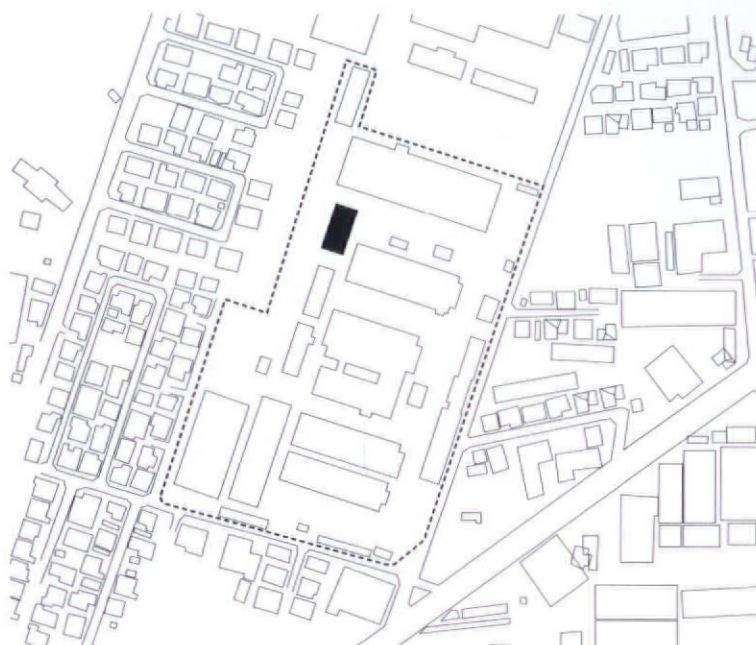


3

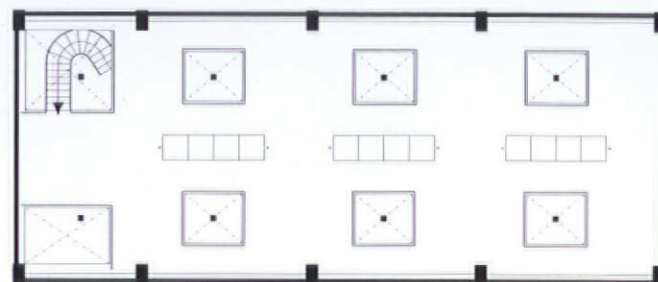




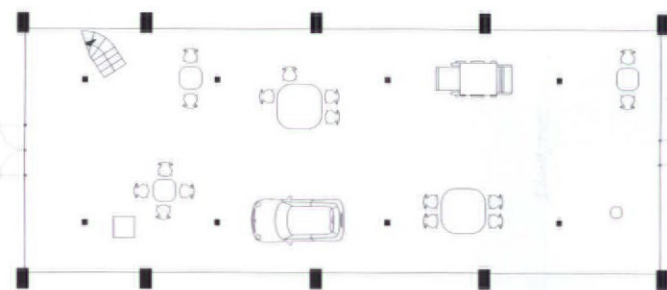
long section



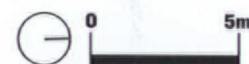
location plan



first floor plan

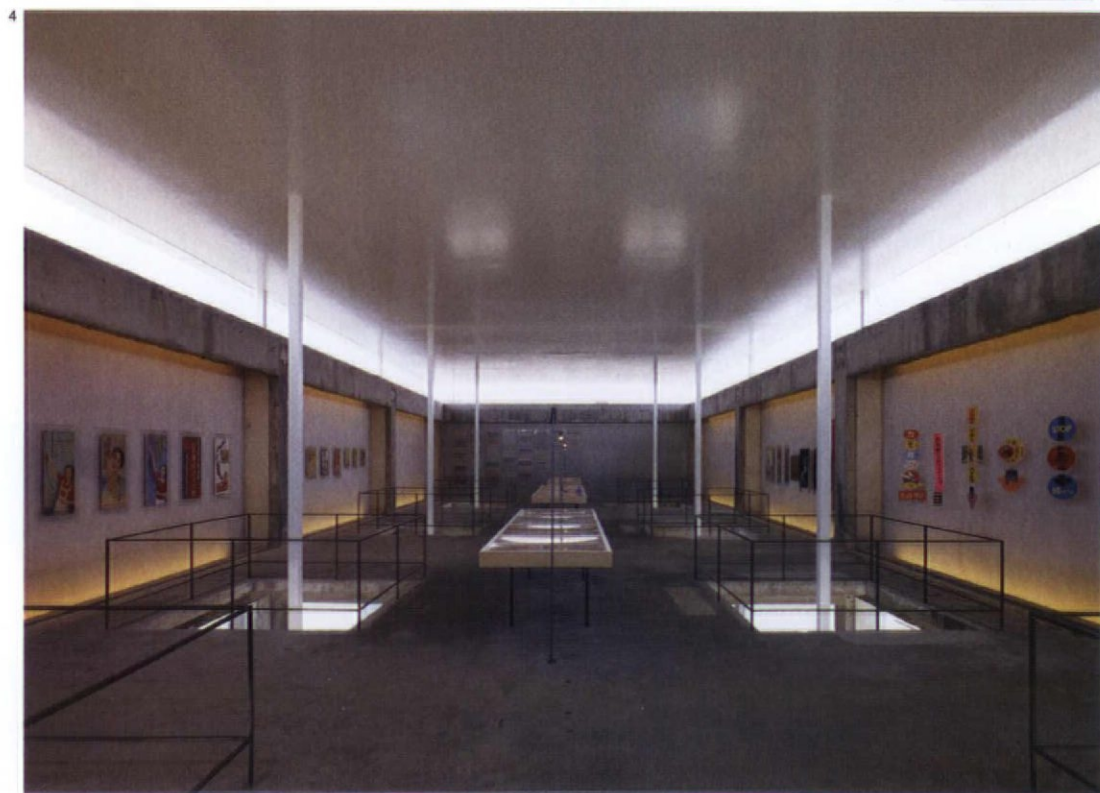


ground floor plan



Architect
TNA Architects
Makoto Takei +
Chie Nabeshima
Photographs
Daici Anō

1. Crisp new elements in steel and glass play off the grungy concrete frame
2. The original building
3. The remodelled structure is topped by a new lightweight roof
4. The upper floor was originally perforated by a series of square apertures. These are retained in the remodelling and are now enclosed by exquisitely minimal balustrades. Slim steel columns supporting the new roof run through the voids





1. (Opposite) the tableau of dripping fabric prisms creates a cooling refuge
 2. The Water Cathedral is also a laboratory to test structural and material principles that could be employed on a larger scale

Architect
 GUN Architects
 Photographs
 Cristobal Palma

HIGHLY COMMENDED

WATER CATHEDRAL

GUN ARCHITECTS

SANTIAGO, CHILE

Part-cavern, part-cathedral, this temporary installation in the Chilean capital of Santiago (AR March 2012) formed a cooling refuge from the city's intense summer heat. Suspended from triangular frames, a field of fabric prisms, like abstract stalactites, encloses a long, cavernous space. Set at variable heights and densities the stalactites create a sensual, mysterious landscape animated by water percolating through the fabric from a hydraulic network attached to the framed structure. The water evaporates and cools the surroundings. Concrete stalagmites populate the ground plane, forming water collection and seating elements.

Modest quantities of water are used, equivalent to 'the average daily use of a few families', says Jorge Godoy of GUN Architects. The jury was impressed by how the project's evident thoughtfulness and technical skill translated into such a seductively atmospheric outcome.



supporting structure

fabric stalactites





HIGHLY COMMENDED

RECYCLED BRICK SCHOOL

**JOHN LIN
AND JOSHUA
BOLCHOVER**

TONGJIANG, JIANXI, CHINA

With the aims of encouraging urbanisation and reducing maintenance, the Chinese government is currently consolidating small primary schools in remote areas into larger facilities. In this case an existing school was being demolished to make way for a new one, expanding the school roll from 220 to 450 pupils. The challenge for architects John Lin (winner of this year's AR House Award, AR July 2012) and Joshua Bolchover, was to devise a new building that would stimulate learning and social interaction within the limited formal, material and budgetary parameters of a generic Chinese school.

The site lies in a rural village populated by farmers growing tobacco and lotus seed. Annual incomes are around \$260. Materials from the demolished school were saved and redeployed in the new building. The roof is constructed from recycled brick rubble, which adds thermal mass and provides a substrate for a naturally green roof, trapping wind-blown plants and mosses. The roof steps down to meet a brick wall on the street side of the site, which is patterned by perforations to promote natural ventilation. Wall and roof form a thickened, protective edge to the street, in contrast to the courtyard side, where the facade is more open, articulated by concrete fins and vertical strips of glazing. The natural topography of the site is maintained to create a series of external steps that extend into the courtyard.

The jury admired the robust adaptability of the architecture and its thoughtful emphasis on recycling coupled with simple, effective strategies for passive environmental design.

1. Wrapping around a central courtyard, the school uses recycled materials salvaged from a demolished predecessor
2. Perforated walls encourage natural ventilation
3. A green roof traps wind-blown plants and mosses

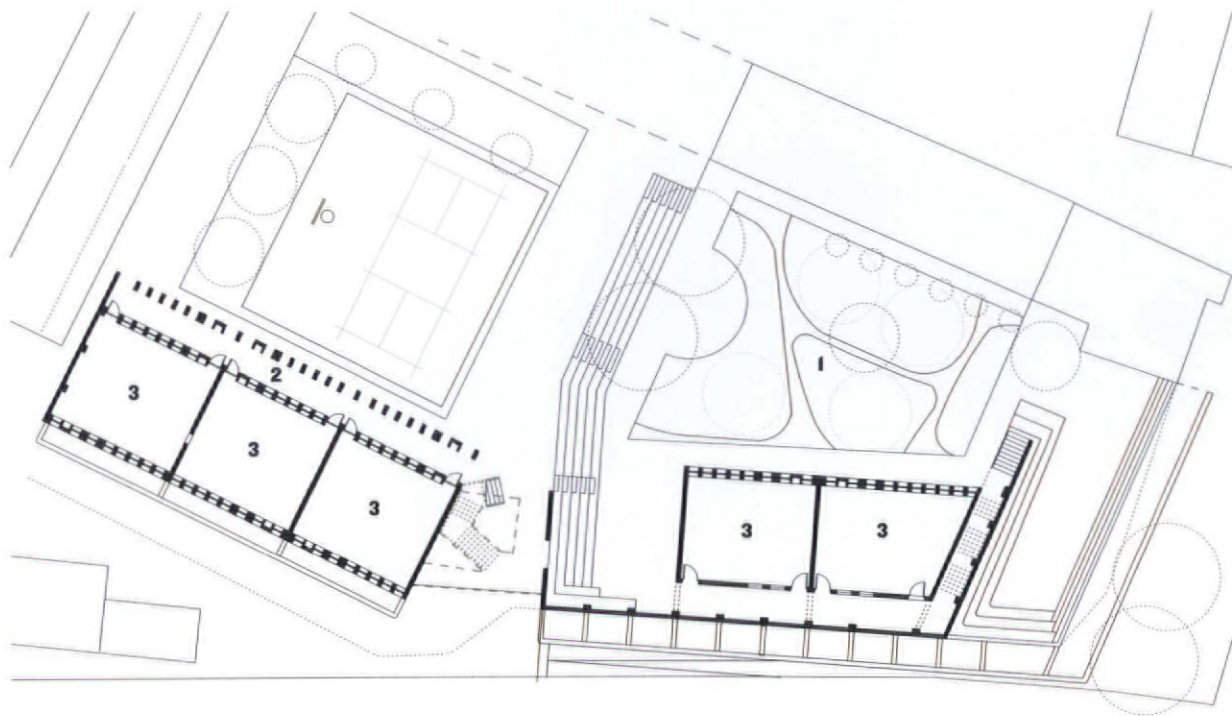
2



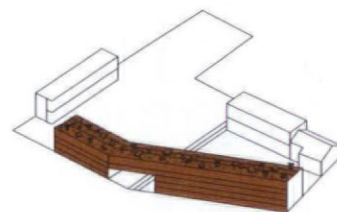
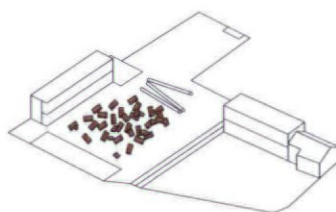
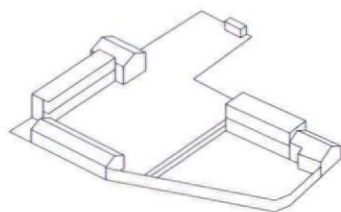
3



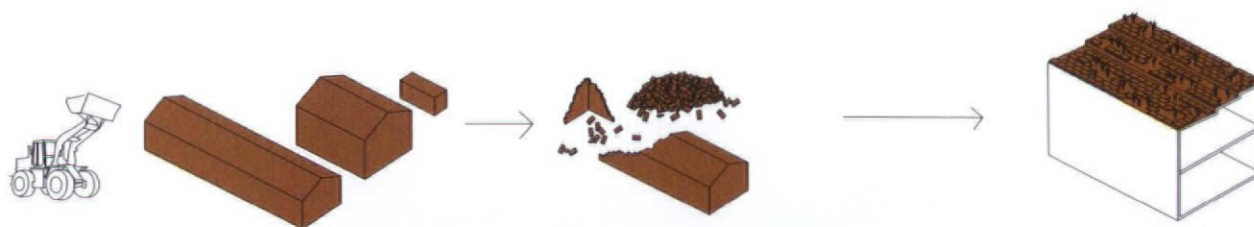
- 1 courtyard
- 2 colonnade
- 3 classrooms



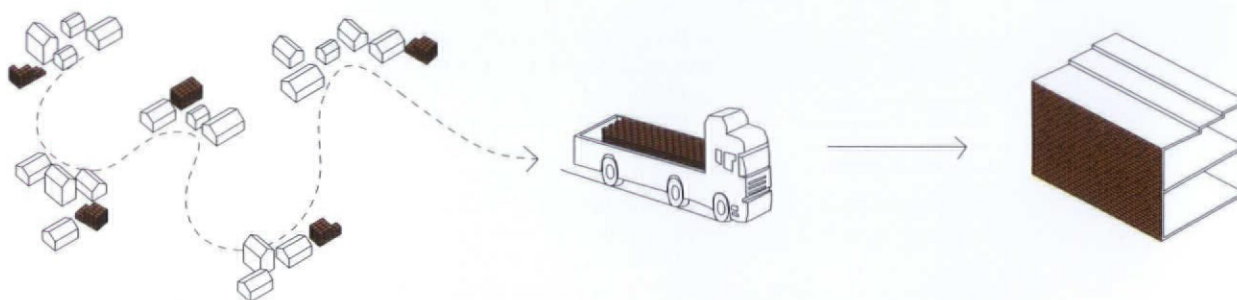
ground floor plan



building process



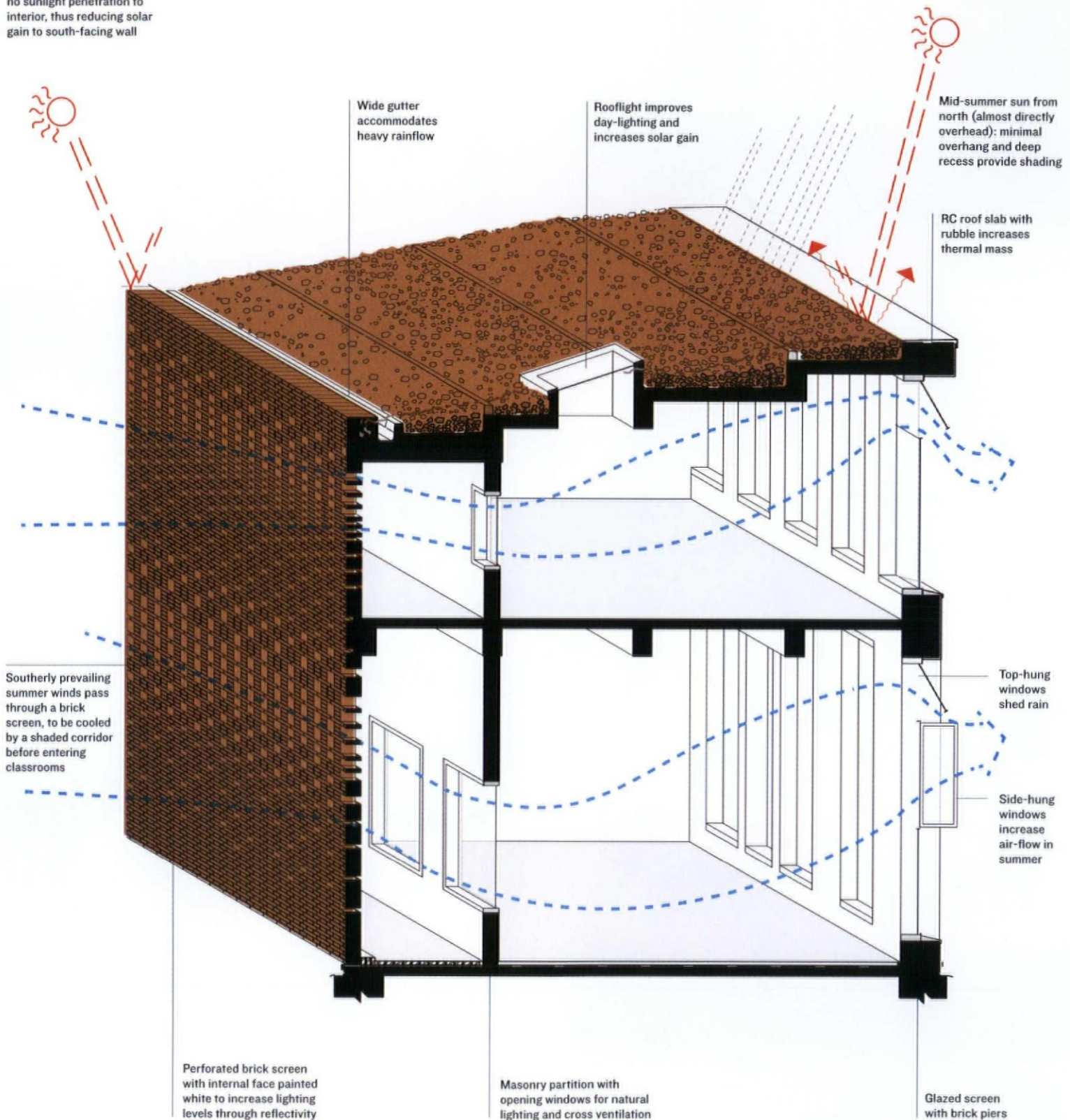
principles of recycling



collection and recycling

High summer sun:
no sunlight penetration to
interior, thus reducing solar
gain to south-facing wall

Rainwater run-off slowed
and partially stored by
rubble/plant growth on roof



Architect

John Lin and Joshua
Bolchover / Rural
Urban Framework,
The University of
Hong Kong

Photographs

Courtesy of Rural
Urban Framework



**4. Colour animates
the basic palette of
concrete and brick**

**5. Spaces are cooled by
natural ventilation as light
and air filter through the
perforated brick wall**

**6. Typical classroom.
Taking the very basic
template for a generic
Chinese school, the aim is
to devise an economical
and sustainable building
that encourages learning
and social interaction**



HIGHLY COMMENDED

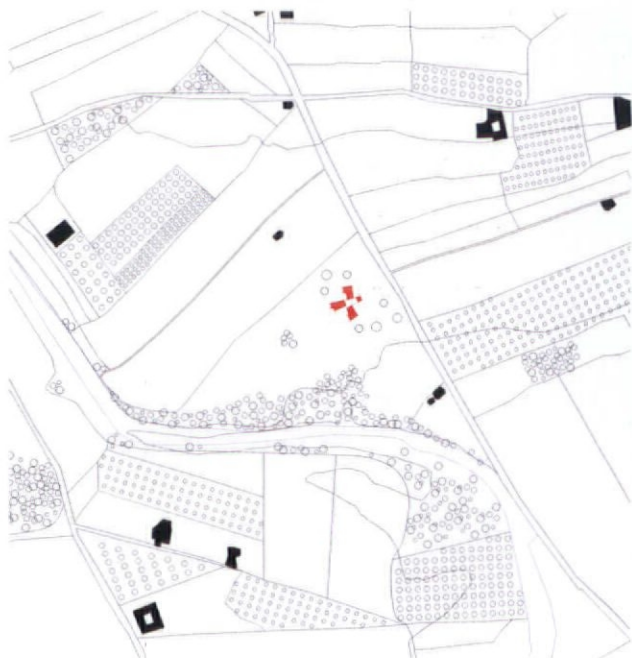
HOUSE FOR THREE SISTERS BLANCAFORT REUS ARQUITECTURA

MURCIA, SPAIN

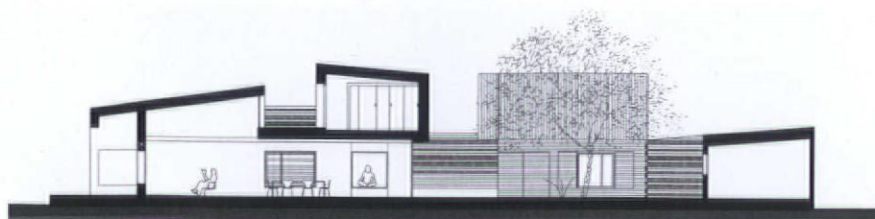
Three sisters, Irene, Minuca and María Ángeles, commissioned a house for themselves and their families on a rural site in Murcia, in south-west Spain. The outcome is not a single dwelling but a fluidly planned compound in which a trio of separate structures are arranged around a shared courtyard, garden, olive grove and orchard. Within this generous network of indoor and outdoor spaces, the three families and their friends can enjoy each other's company, but there are also more private enclaves. The three master bedrooms, for instance, are at first-floor level, each with an enclosed terrace.

Clad in strips of pine, which will eventually weather to a silvery grey, the architecture is characterised by a rustic informality that responds to both the context and the slightly unorthodox programme. The jury was struck by the idea of three families living together and how the architects had succeeded in articulating individual territories within a more flexible armature of spaces designed to encourage an uplifting sense of interaction.

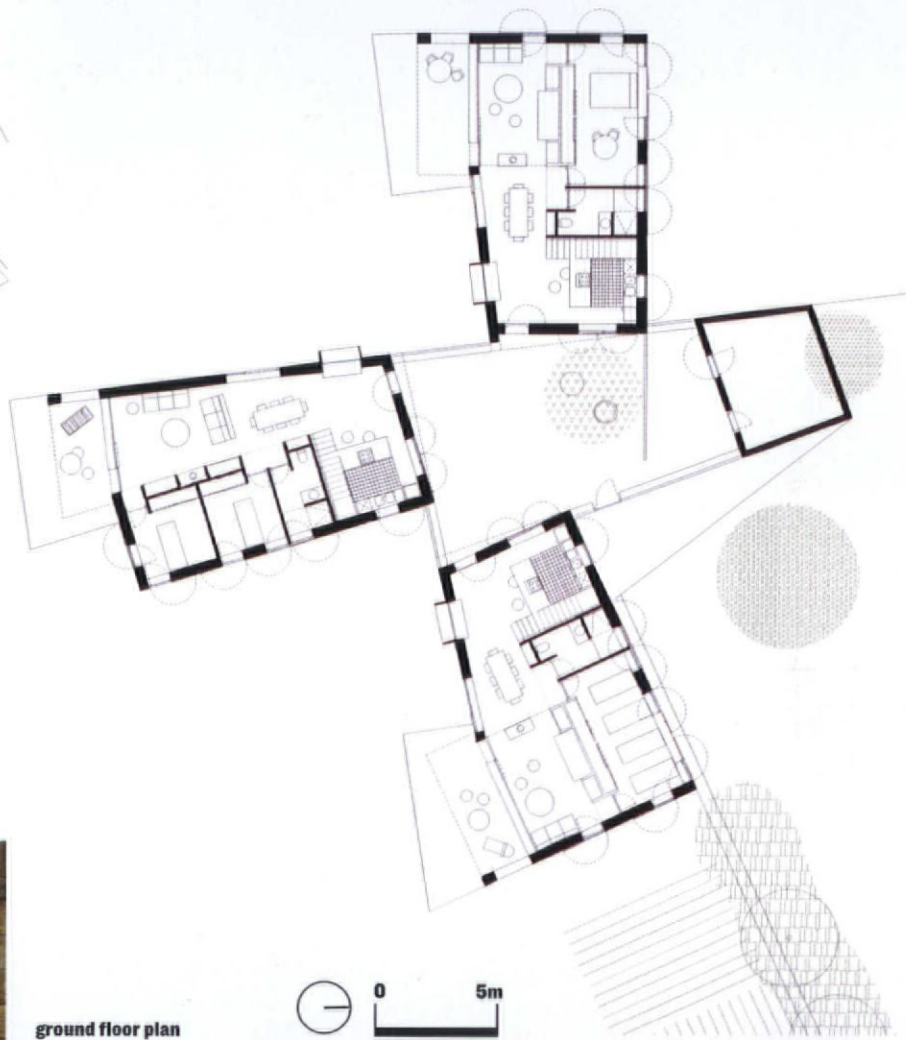
1. The house sits in a rural landscape of olive groves and orchards. The rustic language of rough pine cladding and informal geometry responds to the bucolic context
2. Individual dwellings for the three families cluster loosely around a communal courtyard
3. Typical living space showing the fluid interaction between inside and outside



site plan



cross section



ground floor plan

Architect
Blancafort-Reus
Arquitectura
Tiles
Mosaic del Sur
Photographs
David Frutos, MuB foto

2



3



HIGHLY COMMENDED

EXTENSION OF GUBBIO CEMETERY

ANDREA DRAGONI

GUBBIO, ITALY



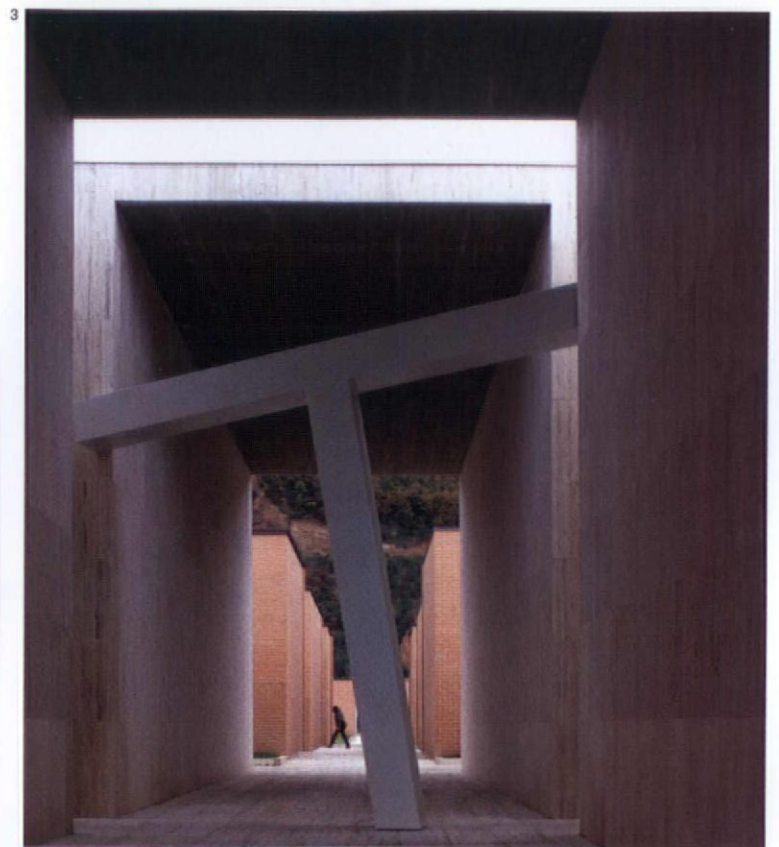
The jury thought that this expansion of a historic Italian necropolis was a particularly evocative example of modern cemetery architecture. Andrea Dragoni's scheme for Gubbio elevates the landscape and structures of internment into a resonant place of encounter between the living and the dead.

On the edge of the town at the foot of the Apennines, the new tract of the cemetery is structured around linear blocks interspersed with courtyards, its scale and density replicating the urban texture of the ancient town. The familiar forms and materials of the living city are sensitively reworked to create a new kind of landscape. Drawing on the language of streets and squares, Dragoni abstracts this into a tranquil city of the dead.

Clearly inspired by the work of James Turrell, four large courtyards frame and capture the sky, forming 'squares of silence' in which visitors can pause, reflect, meet and talk. The framed sky connects the heavens with the earth and evokes notions of transcendence. Each courtyard has a site-specific installation by Italian artists Sauro Cardinali and Nicola Renzi. The works distinguish and define the character of each space and respond to the changing effects of light and shade from dawn to dusk.

Cemeteries are a challenging typology and modern ones tend not to fare well, pitched somewhere between the municipally banal and hectically kitsch. The jury agreed that in its synthesis of stone and sky, this project had a subtlety and strength that dignified the dead and gave succour to the living.

1. The scale and density of the new cemetery tract replicates and abstracts a kind of urban texture
 2. The site lies at the foot of the Apennine mountains
 3. A series of tautly hewn linear blocks protectively encloses visitors to this modern necropolis
 4. The project is characterised by a beautiful formal rigour

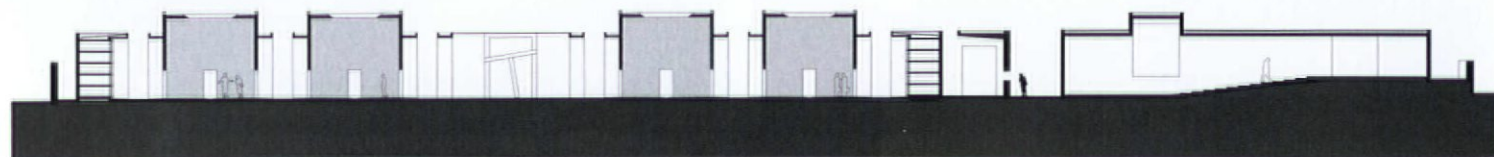


5. Materials are handled with exquisite precision
6. One of the 'squares of silence', tranquil courtyards open to the sky in which visitors can contemplate and reflect. Each of the four courtyards contains a site-specific art work

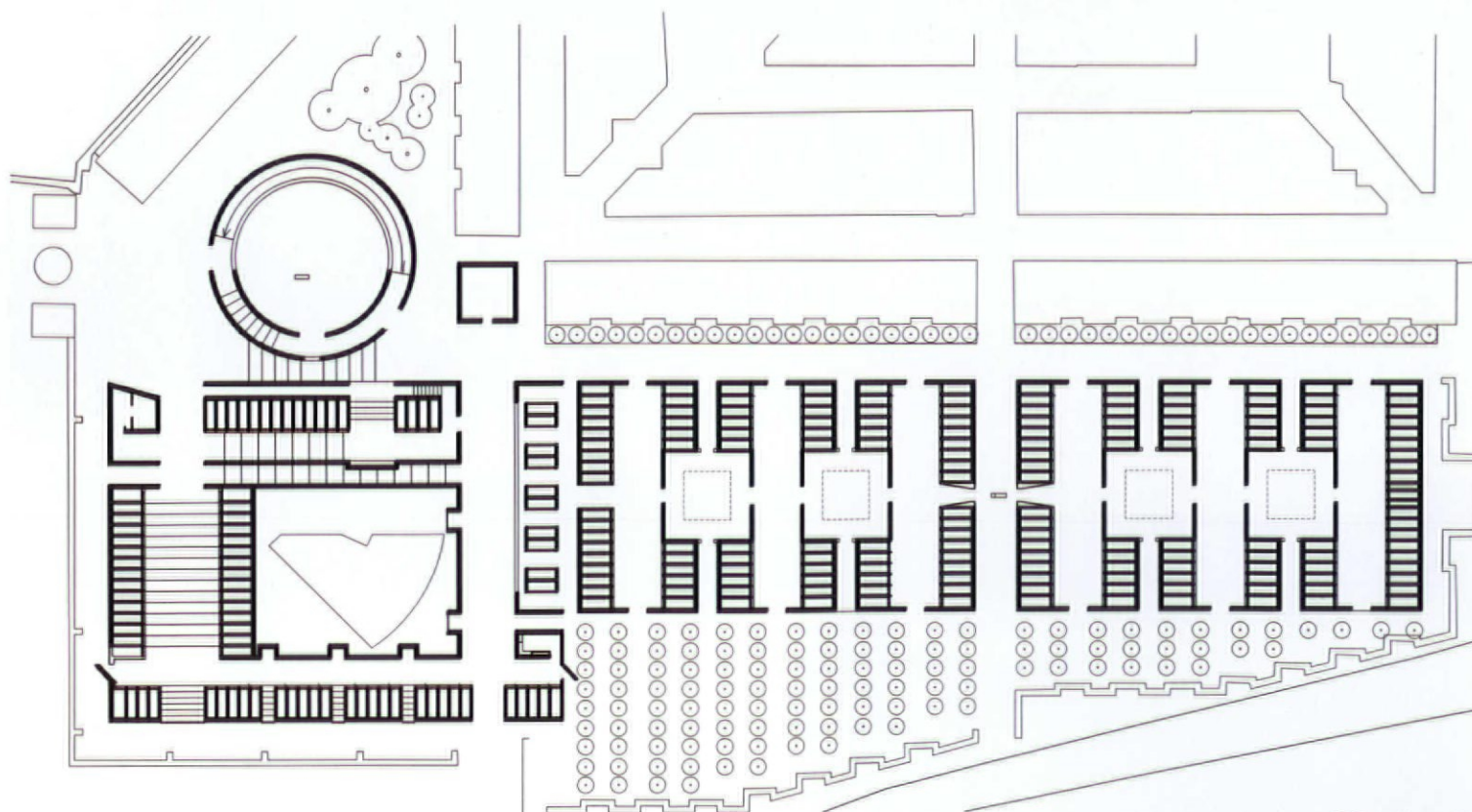
Architect
Andrea Dragoni
Photographs
ORCH_chemollo



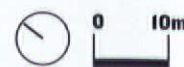
north-west elevation



section A A



site plan of new part





1. Guests entering the tea house stoop through the *nijiri-guchi*, a low, narrow secondary portal. This humbles them in preparation for the rituals within
 2. The size of the tea house is dictated by the proportions of two tatami mats
 3. Assembly sequence

Architect
 Kazuhiro Yajima
Tea ceremony direction
 Soshin Kimura
Photographs
 Satoshi Shigeta
 (Nacása & Partners)

HIGHLY COMMENDED

UMBRELLA TEA HOUSE

KAZUHIRO YAJIMA

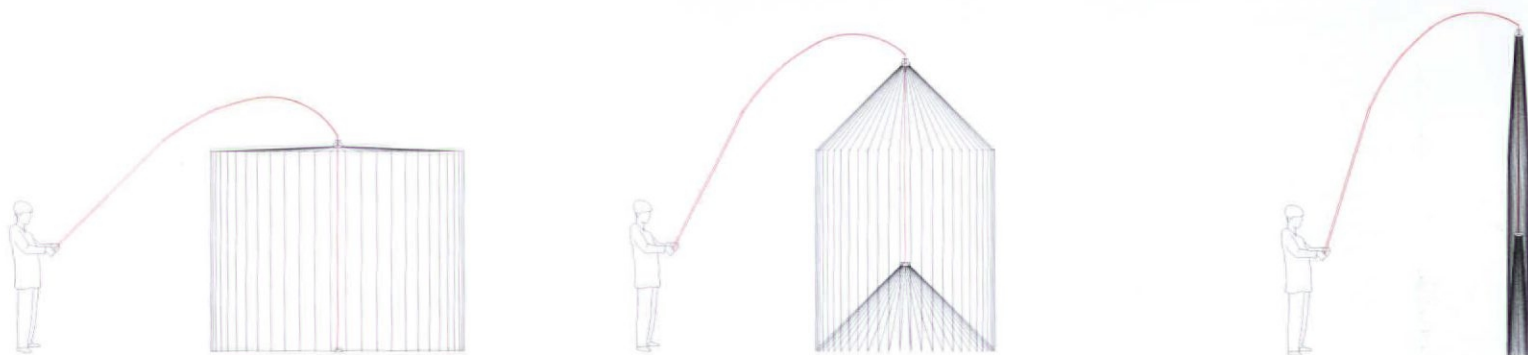
JAPAN

Fabricated from a single piece of bamboo, this prototypical structure is designed to house the ancient and highly proscribed rituals of the Japanese tea ceremony. Intended to be easily assembled and dismantled, it has its origins in the elegance, simplicity and portability of the traditional oriental parasol.

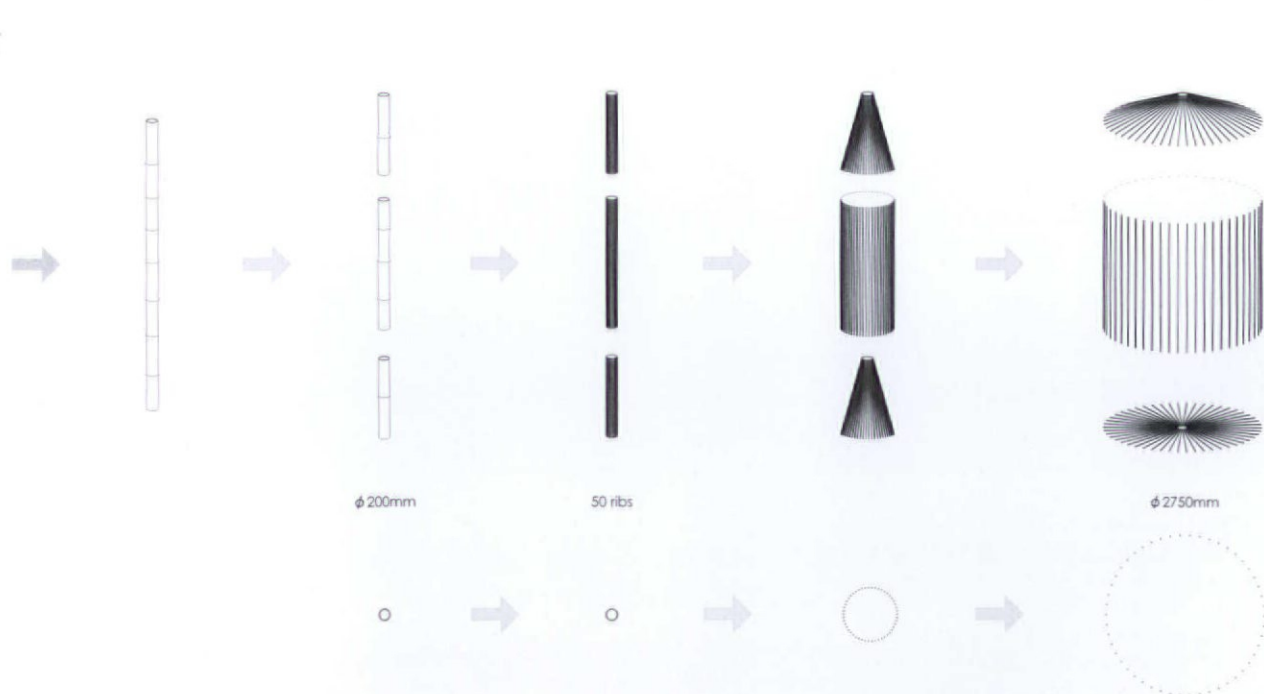
The cylindrical tea house is 2750mm in diameter, its proportions dictated by the need to accommodate two tatami mats. A single bamboo tube 200mm in diameter was split into 50 ribs that make up the structure. Floor and roof resemble bicycle wheels or umbrellas, with slim bamboo spokes radiating out from a central hub. Wrapped in a lightweight translucent skin of rice paper, the bamboo frame is self supporting and can expand and collapse in on itself, becoming, in effect, one piece of bamboo again.

The jury applauded the project's ingenuity and economy and how it reinterpreted traditional techniques and archetypes in a convincing contemporary manner.





dismantling sequence



structural diagram

your challenge...

launching of the 5th
Roca international
design contest 2013

jumpthegap

www.jumpthegap.net

President



Kazuyo Sejima
Architect
Tokyo (Japan)

Jury



Josep Congost
Roca Design Manager
Barcelona (Spain)



Andrés Jaque
Architect
Madrid (Spain)



Benjamin Kempton
Wallpaper* Magazine
Interiors Director
London (United Kingdom)



Harri Koskinen
Designer
Helsinki (Finland)

Deadline for submissions
31st January 2013
www.jumpthegap.net

SEPT'12

JAN'13

APR'13

MAY'13

JUN'13

Registration period
begins 13th
September 2012

Registration period
closes 31st
January 2013

Submission
period closes
18th April 2013

Pre-selection
committee early
May 2013

Jury selection
early June
2013

Roca

THE LEADING GLOBAL
BATHROOM BRAND
www.roca.com

with the support of

ECD
European Centre of Design



1. The abstract grid, drained of all meaning, perfectly symbolises modernity and the Orange StriveDrive meme of Spiral Dynamics. This evolutionary level is committed to progress through technology and and rational thinking

THE BIG RETHINK

SPIRAL DYNAMICS AND CULTURE

As a key theory underscoring the still unfolding narrative of human evolution, Spiral Dynamics examines the complex interaction of culture and society, so that by considering how we have lived and, crucially, how we might live, we can become more fully engaged both with each other and the world

PETER BUCHANAN

The last several decades have seen the emergence, across a number of fields, of modes of developmental thinking whereby species and eco-systems, people and cultures, and even consciousness are seen to evolve through identifiable developmental stages. This evolution through differentiated stages marks developmental thinking as different to modernity's simpler, more purely linear, notion of progress. It also sorely offends postmodern taboos against rankings and hierarchy, which has probably slowed the spread and impact of developmental models to date, including its influence on architectural and urban thinking. Yet the evidence from empirical research supporting these proliferating developmental schema continues to mount, and for many their adoption is a key characteristic of 21st-century, trans-modern modes of thought, including Integral theory.

More generally, the last half century or so has seen the increasing adoption of – or at least advocacy for, rather than actual application of – ecological modes of analysis, sometimes referred to as joined-up thinking. These seek to understand phenomena in terms of their wider web of relationships, including the many dimensions of their multiple contexts – a contribution of the best of postmodern thinking. More recently, this ecological perspective is being increasingly complemented by an evolutionary one. This extends far beyond its Darwinian origins in biology to include cosmology and geology through to the human realms of history and technology,

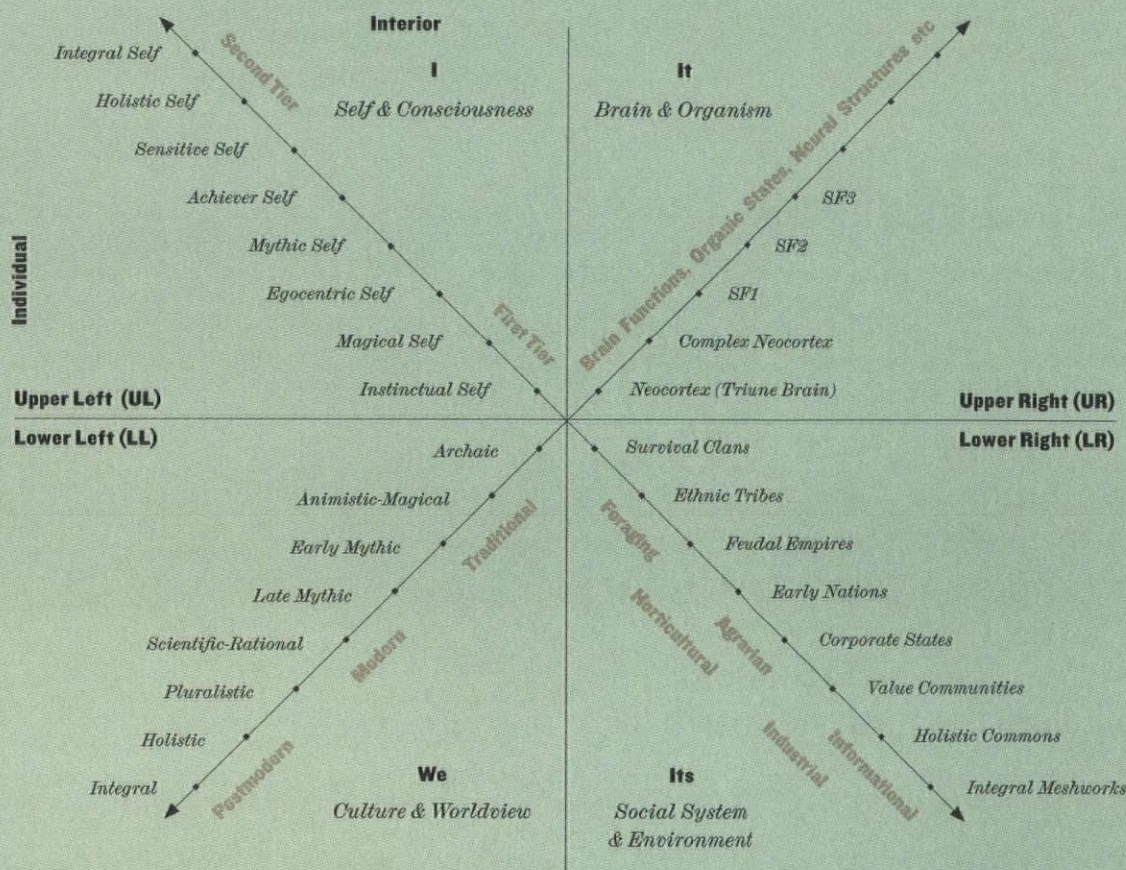
culture and psychology as well as modes of thought and meaning.¹ In crude terms, our use of the quadrants of the AQAL diagram in earlier essays in this series, is a form of joined-up or ecological thinking, while evolutionary thinking introduces us to the levels.

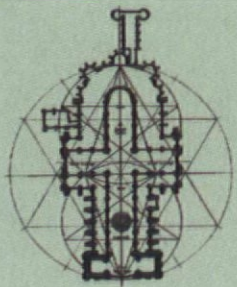
Revisiting the AQAL matrix

Before continuing our discussion, it is as well to recap the bare bones of the AQAL (All Quadrant, All Level) diagram, particularly for new readers who have only recently started to follow these Campaign essays. The AQAL diagram provides a matrix in which all fields of knowledge can be plotted to show clearly the relationship of these fields one to another so that they can be drawn upon not only independently but also usefully integrated. Moreover, any organism, or collective of organisms, and all manmade systems manifest simultaneously in all four quadrants. These are defined by a pair of cross axes: the upper part of the vertical axis marking the realm of the individual, and its lower part that of the collective; left of this vertical axis, the horizontal axis marks the interior or subjective realm, and right of this vertical is the exterior or objective realm.

The Right Hand quadrants, the realm of the sciences and nature, are referred to as monological, because knowable by detached observation alone; the Left Hand quadrants are dialogical, because knowable only by interrogating the experiencing, meaning-making subject/s.

2. The All Quadrant All Level (AQAL) diagram devised by Ken Wilber and central to Integral theory
3. Analysis of some aspects of how the plan of Chartres Cathedral is composed in accord with sacred geometry





The Upper Left (UL) quadrant is thus the subjective realm of the I or self, of personal experience, psychology and intentionality. The Lower Left (LL) quadrant is thus the inter-subjective realm of We or culture, of worldview and meaning. The Upper Right (UR) quadrant is thus that of the objective realm of It, of biology, form and behaviour (action visible to the detached observer) and the Lower Right (LR) is the inter-objective realm of Its, of all systems: ecological and economic, sociological and technological, and so on.

Bisecting each quadrant are diagonals with the levels marked at regular intervals, rising progressively with distance from the crossing of the axes. These levels are organised holarchically, each level a holon that is whole in itself yet part of the holon on the next level up. So in the UR quadrant, an atom is whole that is part of a molecule, that is a whole and part of an organism, and so on. Also crucial is that a level of development in any quadrant is matched by a corresponding level of development in each of the other quadrants. Thus, for instance, increasing neurological complexity (UR quadrant) is matched by increasing psychological sophistication (UL quadrant), cultural development (LL quadrant) and social organisation (LR quadrant).

Using the quadrants as we have done in the earlier essays may have brought more completeness to our deliberations than characterises reductive modern thought. It also serves as a useful easy check to see what areas of knowledge and action have been overlooked during such deliberations, particularly as modern thinking tended to ignore the Left-Hand quadrants, most especially the Lower Left. But to focus merely on the quadrants is to perpetuate modern 'flatland' thinking that robs discussion of both the depths and the dynamism, and thus an even greater degree of completeness, that comes from drawing on the notion of levels, to which this essay is a very sketchy introduction. (Besides Quadrants and Levels, the AQAL diagram also charts what are termed Lines; but, important as these are, they will remain outside the scope of these introductory essays.)

It is the levels that chart evolutionary and developmental progression, thus placing phenomena in an expanded context. Ken Wilber's apposite analogy is that to ascend the levels is like climbing a ladder, each rung up offering a different and broader perspective and greater depth of understanding, which includes all that gained on the lower rungs. More than that, though, the levels place phenomena in a much larger temporal context than do the

quadrants because they reveal the evolutionary and historic past from which something has emerged and suggest the future towards which it is likely progressing. Implied here is not only dynamism, but also direction, a controversial notion much resisted by doctrinaire materialist Modernists for whom anything that hints at teleology is taboo. And yet any dispassionate look at evolution does suggest direction – towards higher levels of complexity and order, of consciousness and interconnectedness. Besides, as we shall see, using the levels deepens and broadens our understanding of architecture, not least by providing a yet greater degree of completeness than afforded by using the quadrants alone.

Architecture's pragmatic and esoteric roots

Contemporary developmental schema particularly relevant to architecture have grown and evolved from several roots. But, before mentioning some of these, it is pertinent to remember that the training of architects (or rather their pre-modern equivalents) in many historic cultures, including Christian Europe through the medieval period and well into the modern era, was concerned not only with mastery of such pragmatic matters as construction; it also had an esoteric or occult component that was developmental in nature. Thus the medieval training of master masons, which inspired what became freemasonry, was concerned with the progressive psycho-spiritual development of the architect-initiate through levels known as degrees. The architect-initiate could then make use of sacred geometry – with its rules of proportion, number and form – and various forms of sacred or occult iconography to not only give depth to his architecture but also help people relate to the buildings at a deeper level, even if only subliminally, and so serve as a spur to their psycho-spiritual development. Similar notions guided the training of architects in other religious traditions, such as the Sufis.

Indeed, as explained in an earlier essay in this series, the very wellsprings of architecture lie as much in the creation of a physical setting that facilitated the development of people as in sheltering them. One such wellspring was in the choreography of ritual, in deploying a set of actions in different spatial locations so as to intensify the experience of them and take people into altered states and/or undeveloped parts of the psyche. Another, very similar source is the segregation of differing activities into separate spaces or rooms – shaped, lit and so on to enhance those activities – not only for functional convenience but so that activities could be experienced more intensely as part of the ongoing elaboration of culture, and of ourselves as complex cultured creatures. So not only styles but also the spatial deployment of activities differ with each cultural epoch charted by the levels in the Lower Left quadrant.

A key assumption behind these *Campaign* essays is that we are in a period of epochal transition and that the successful negotiation of this transition will entail profound cultural transformation such as constitutes a step-change elevation to the next cultural level. Moreover, to achieve this will require drawing on the various new modes of thought that have emerged in recent decades and

'The last half of the century has seen the increasing adoption – or at least advocacy for rather than actual application of – ecological modes of analysis, sometimes referred to as joined up thinking'

'By applying the conscious mind alone to architecture we lost the once effortlessly unconscious art of making highly satisfying architecture and cities'

that architects have too long ignored. In relation to our discussion here, a key precedent to many contemporary forms of developmental thinking are the writings of philosopher Jean Gebser (1905-73), particularly his book *The Ever-Present Origin* (published in German in various versions from 1949 to '53 and only appearing in English in 1985), which is prominent in the bibliography of books by many of today's leading-edge thinkers.

Gebser charted the development of the sequence of what he termed 'structures of human consciousness'. These started with the Archaic structure when early humans or proto-humans still experienced themselves as completely part of, and in no way separate from, the world around. This was followed by the Magic structure and the beginnings of symbolic thinking, although the symbol did not yet represent something but instead was thought to actually be that something. Then came the Mythic structure in which stories and myths gave structure to a consciousness that was progressively separating itself from the world around. This separation became complete with the progressive emergence, from the times of the beginning of civilisation as we know it onwards, of the Mental structure, characterised by its use of logic and the emergence of philosophy. The Mental structure later entered what Gebser called its deficient form, the Rational structure, with the beginnings of modernity with its reductionist materialism – and the many benefits and downsides charted in earlier essays. He saw us now entering the Integral structure that both transcends the previous structures and, unlike them, adopts several points of view, including those of the previous structures of consciousness. It was Gebser's use of the term Integral, as well as that of Indian philosopher-sage Sri Aurobindo, that led to its adoption by Ken Wilber for Integral theory.

Another crucial antecedent to Integral theory's developmental schema, and from where too some of its terminology is taken, are the studies of the cognitive development of children by psychologist Jean Piaget (1896-1980). Since then there has been a proliferation of developmental schema, particularly those by psychologists, several of whom have influenced Integral theory or are now associated with it. Among others, these include the theories of Jane Loevinger (1918-2008) on ego development and those of Lawrence Kohlberg (1927-87, a follower of Piaget) on stages of moral development. Contemporary developmental psychologists closely associated with and influencing the continuing development of Integral theory include Robert Kegan and Susanne Cook-Greuter. Ken Wilber has charted all these

developmental schema together and shown that – although their terminology differs, as do the number of levels differentiated – they are strongly correlated.

Levels are discussed in relation to architecture in Part Two of the book *Integral Sustainable Design*² by Mark DeKay, a very important work with much invaluable content that should already have become one of the key architectural handbooks of our time. But it is not a particularly easy or pleasurable read. And despite its already considerable length (450 pages) some of it is still too sketchily developed with many potentially promising themes listed in tables without adequate further explanation. We must thus look forward to an expanded and more developed edition, which will be bound to be a must-read and must-own volume for all architects and students. Here we touch upon only a few of the ideas in relation to levels, elaborating some of them in rather different ways to the book, which readers are strongly encouraged to consult also.

Characterising cultural epochs

DeKay discusses levels in relation to four epochs: Traditional (pre-modern), Modern, Postmodern and Integral. (The first three of these are categories used by some market researchers, although postmodernists are given another name, such as Cultural Creatives.)³ He then gives examples for each quadrant of the shifts in understanding of a particular term in relation to each of these levels. But first he tabulates the changes at each level in what we would currently term the practice of architecture. Thus in the Traditional era, design and building were executed within 'Guild Traditions', the Modern era is that of 'Independent Professionalism', Postmodernity is characterised by 'Pluralistic Practices' and the Integral era will be that of 'Responsive Networks'.

Although we can guess what is meant by these terms, they are not adequately explained and elaborated upon. Thus Guild Traditions built very much in response to the immediate local conditions of the site using local materials and reworking traditional typologies. This would inevitably result in a sense of embeddedness, harmony and organic unity commensurate with the Great Chain of Being that constituted the Premodern worldview. But in the Modern era architecture became an independent profession, pursuing a rational approach to solve problems *de novo* without relying on traditional typologies and abandoning as redundant recognisable rhetorical motifs derived from the past, along with all ornament. This, together with the correlated worldview that subscribed to the notion of an objective reality, is what caused the world to fragment into unrelated objects to which we cannot relate either. By applying the conscious mind alone to architecture we lost the once effortlessly unconscious art of making highly satisfying architecture and cities. Pluralistic Practices suggests that the monoculture of simple consensual certainties underscoring the modern professional's approach to architecture is replaced by the multiple narratives, theories and approaches of postmodernity. Responsive Networks suggests a re-grounding of architecture in the dynamic and living networks that make up our world.

4. Table from *Integral Sustainable Design* by Mark DeKay gives examples from each quadrant of architectural concerns pertinent to levels, in this case cultural epochs

The book then discusses an aspect of each quadrant in relation to each of the four levels. So in the UL quadrant DeKay tabulates the different ways that, as he sees it, the experience of architecture is mediated at each level. Although I have much sympathy for what he has formulated, I do not entirely agree with it and so omit further discussion. For the LL quadrant he discusses the various ways Nature is understood at each cultural level (and so is a cultural artefact, hence the capitalised N). In the Traditional era he describes Nature as 'managed', not a particularly satisfactory term, although the point he makes about Nature (or at least the land) as being husbanded as a sacred trust to preserve and enhance its bounty for future generations is an important one. This is particularly so as it contrasts profoundly with the Modern view of 'Nature Used', as a resource to be exploited (and severely damaged through monoculture, chemical fertilisers and so on) with little thought for future generations. The Postmodern era is characterised as 'Nature Saved', which expresses the view of Nature as a victim of modernity's extractive ethos and of the preservation ethic that is emerging as a reaction to this. The Integral attitude is described as 'Nature United' and draws attention to what at first seems one of the most mindboggling – and even, to many, such as deep ecologists, offensive – notions in Integral theory: this is

that Nature is embedded in culture in a holarchic relationship. Thus for the Traditionalist, culture is embedded in Nature, while for the Modernist, Nature and culture are differentiated. For the Postmodernist, Nature and culture are either dissociated and separate (the radical deconstructivist view) or culture is again embedded in Nature (the web of life systems view). But for the Integralist, Nature is embedded in culture, which, although entirely dependent on Nature, belongs to a higher and more inclusive level. The Noosphere transcends and includes the Biosphere – mindboggling but irrefutable.

For the UR quadrant the different attitudes to technology are discussed in relation to each level, from the 'Embedded Practices' of Traditional, through 'Building Science' of Modernity and Cyclic Analogues of Postmodernity to 'Responsive Structures' of Integral. And in the LR quadrant the systems discussed range from the Tacit Systems of the Traditionalist through Logical and Complex systems of the Modernist and Postmodernist, respectively, to the Living Systems of the Integralist. These discussions are too rich and important to be summarised and like much else in the book take the discussion of sustainable design to an unprecedented level of inclusiveness and rigour. Anybody interested in the subject, and that should be all architects and students, is urged to read the book.

	Interior Perspectives		Exterior Perspectives	
Complexity level	Experiences (UL) self, intentions and consciousness	Cultures (LL) worldview and meaning	Behaviours (UR) parts and performance	Systems (LR) social and environmental
Level 4 INTEGRAL Transformative Networking	Self-Meditation • Evolutionary and ecological aesthetics • Care for whole systems, including people and Nature • Experience ecological awareness	Nature United • Holarchy: Nature embedded in culture • Shared pattern languages • Sustainable development	Responsive structures • Multi-level technology options • Cradle to cradle materials cycles • Biomimicry	Living Systems • Living buildings/Ecomimicry • Regenerative design • Holarchic contexts: bioregion and ecosystems
Level 3 POSTMODERN Pluralistic Practices	Contextual Meditation • Process aesthetics • Care for sharing resources and interconnecting with Nature • Experience natural change	Nature Saved • Protecting nature from culture (ie, habitat protection) • Green design ethics • Green eclecticism and Neo-regionalism	Cyclic Analogues • Healthy buildings • Ecological impacts of buildings and cities • Renewable energy design and production	Complex Systems • Solar/Ecotech buildings • Green historic precedents • Landscape as context
Level 2 MODERN Independent Professionalism	Intellectual Meditation • Visual and conceptual aesthetics • Care for future resource supplies and experiences • Experience natural change	Nature Used • Nature as a resource for/in service to culture • Objective views (ie, picture window) • Buildings as green machines	Building Science • Resource efficiency (energy, materials, water, etc) • Climatic design • Green rating systems (LEED, Green Globes)	Logical Systems • Organic architecture • Green fabrication/industrialisation • Site as context
Level 1 TRADITIONAL Guild Traditions	Sensory Mediation • Felt force aesthetics • Care for stewarding Creation • Experience natural phenomena and contrast	Nature Managed • Culture and nature are oppositional and/or merged • Self-sufficiency/off-the-grid/back-to-the-land • Culture and Nature collapsed (the Garden, Neo-romantic)	Embedded Practices • Guild based techniques • Visible force logics • Trial and error design improvements	Tacit Systems • Classical and vernacular • History as context • Pre-industrial form responses/types

5. Colour-coded spiral of Spiral Dynamics as developed by Don Beck and Chris Cowan from the work of Clare Graves. Note how the memes oscillate between self and community centred and how the lower six memes form the First Tier of Subsistence memes. Achieving sustainability requires that more people reach the Second Tier 'Being' memes. Source: Spiral Dynamics model in 'The Never-Ending Upward Quest', an interview with Don Beck in *What is Enlightenment* magazine, no 22, Fall/Winter 2002

Also powerfully pertinent to architects and urban designers working on large-scale urban projects and housing developments, the subject of the last two essays in this series and towards which this one is a stepping stone, are the insights provided by Spiral Dynamics. This is a theory of cultural development through levels (LL quadrant) with inevitable correlates in the psychological development of individuals (UL quadrant). Among other reasons Spiral Dynamics is so useful is that it recognises that, although the current era falls within the waning tail end of the modern epoch and the transitional one of postmodernity, the population of most modern countries is spread across a considerably wider and richer range of co-existing levels of cultural development. It thus provides, in a way that is invaluable to designers and policy makers, a much deepened understanding of the world views and values of the members of all the subgroups of society, so that these can be recognised and properly catered for, while also facilitating mobility through such cultural levels.

Origins of Spiral Dynamics

Spiral Dynamics grew out of the work of Clare Graves (1914-86), a professor of psychology who proposed a Level Theory of Personality in 1966. This was further developed by his protégé Don Beck, working with Chris Cowan, into what has become known as Spiral Dynamics in the book of that name,⁴ which again readers are encouraged to study as it is so much richer than the following too-brief synopsis of some themes. As the name implies, Spiral Dynamics – a theory that meshes exactly with Integral theory and the AQAL diagram⁵ – charts the development of cultures through a rising, widening spiral of increasing complexity, not least because each culture envelops those preceding it as healthy resources to be called upon if situations demand it. The cultural levels – or valueMEMES, now more usually simply called memes – are colour-coded (which takes many some time to get used to, but after a while feels quite natural) and oscillate between those that prioritise the individual and those that emphasise the collective. A key assumption of Spiral Dynamics is that it is not possible for a culture or individual to skip a level of development and that all memes must be passed through, even if only relatively fleetingly. Also, just as in biology ontogeny (the growth of an individual) recapitulates phylogeny (the evolution of its species), so with Spiral Dynamics as the human child grows up and matures into adulthood it recapitulates the development through the memes. Along with the notion of memes, which immeasurably enriches our understanding of cultural dynamics, this recapitulation by each developing individual is hugely useful to inform the design of housing and urban areas, but has so far been little researched and theorised.

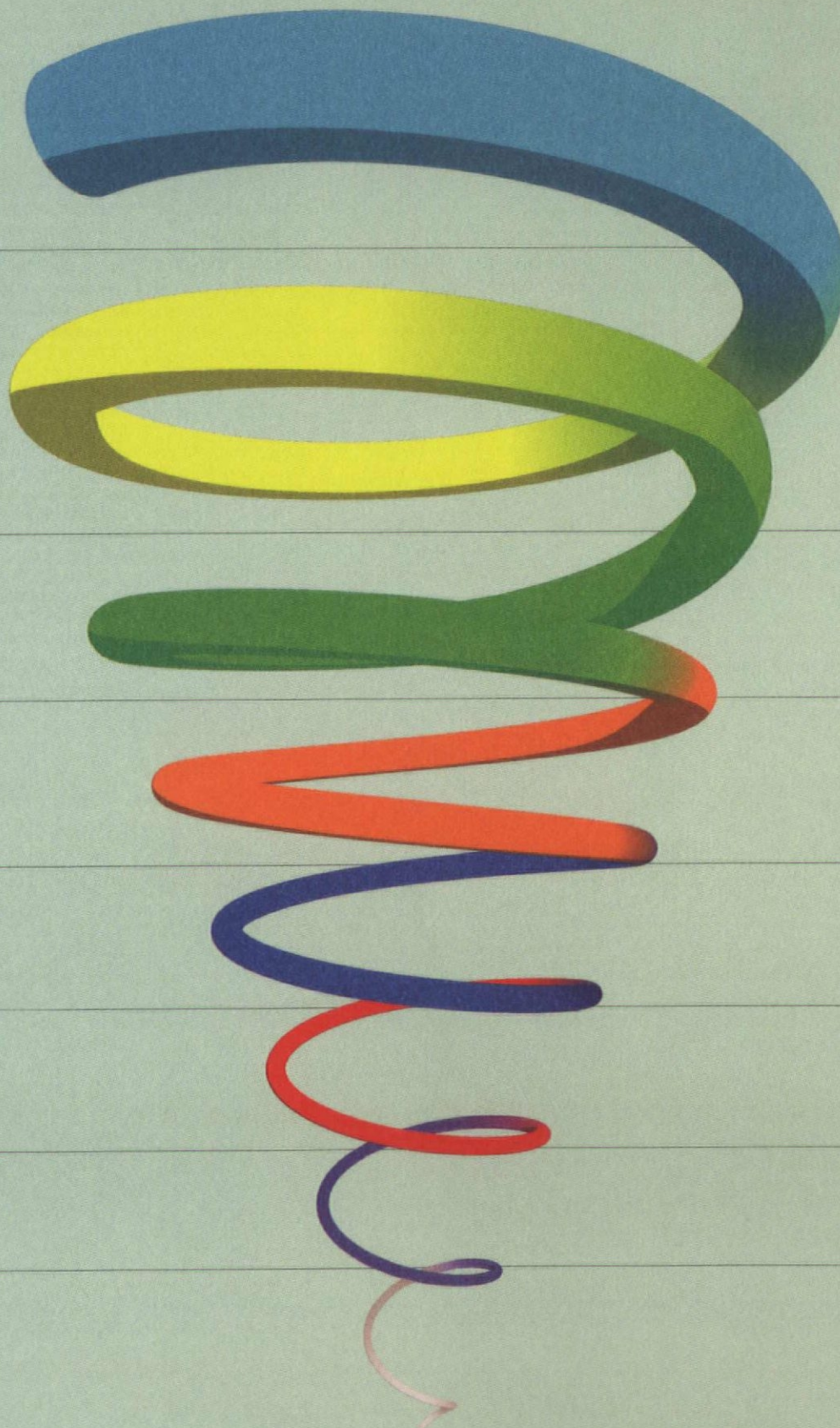
The first of the memes is Beige, also referred to as SurvivalSense, and corresponds with Gebser's Archaic structure, in which there is little sense of self as small bands cooperating to ensure basic survival and action is guided largely by instinct. At times of extreme shortages and threat, humans might still retreat to this level, correlated with that of the helpless new-born infant.

'Spiral Dynamics charts the development of cultures through a rising, widening spiral of increasing complexity, because each culture envelops those preceding it'

Although such bands might seek safety and shelter in caves and under overhangs, this is a pre-architectural level. The next meme is Purple, that of the tribe and KinSpirits, and Gebser's Magic structure, in which thinking is animistic and magical, attributing powers to sacred and symbolic objects and starting to observe the cycles of seasons, customs and rites of passage. The communitarian, clannish Purple meme is seen by some as living in harmony with nature, while others say the tribe lives in fear of nature whose spirits have to be constantly propitiated. In architectural terms settlements typically show little, if any, differentiation in the size and status of dwellings, which may be communal.

With the Egocentric Red meme, that of the PowerGods, and Gebser's Mythic structure, we return to an emphasis on the individual, on strength and self-expression. Here we move from magic to machismo, to the adulation of heroes and the elevation of war lords, and eventually to the divine rights of kings and feudalism. The architectural manifestation might start with an enlarged or central chief's hut and eventually lead on to the dominant castle or palace in a walled town or city. In child development, the Red meme is reflected in the spirit of physical adventure, when the child explores his or her own physical capacities and the world around. This is particularly poorly catered for in the modern city, where excessively cautious Health and Safety regulations make it difficult for children to explore and stretch their physical capacities in tree climbing, rough and tumble and so on, and where it is considered unsafe for children to roam and explore the city, let alone just walk to school. The Red meme thus manifests later and pathologically in gang culture.

The next meme to arise is Blue, of TruthForce or the Purposeful way, that values stability and the order arising from strong codes of conduct in which individuality is subsumed to the pursuit of larger causes or truths. In particular, this meme is associated with monotheistic Religions of the Book – Judaism, Christianity and Islam, as well as Confucianism – with righteous living and sacrifice of the self to the Way and deferred rewards. Architecturally this meme is distinguished by the dominant religious buildings that eclipse, or at least equal, the grandeur of secular buildings such as palaces. Although liberal intellectuals, dogmatic scientists and postmodernists tend to look down upon and disregard the Blue meme, it still has an important socialising role to play for the developing child, and it is little wonder that the route out of Red meme gang culture is so often through evangelical Christianity or other authoritarian Blue meme institutions.



Turquoise: Holistic Meme

Experience the wholeness of existence through mind and spirit

Everything connects to everything else in ecological alignments. Energy and information permeate the Earth's total environment. Self is both distinct and a blended part of a larger, compassionate whole. Holistic, intuitive thinking and cooperative actions are to be expected.

Yellow: Integrative Meme

Live fully and responsibly as what you are and learn to become

The magnificence of existence is valued over material possessions. Flexibility, spontaneity and functionality have the highest priority. Understands that chaos and change are natural. Differences can be integrated into interdependent natural flows. Life is a kaleidoscope of natural hierarchies, systems and forms.

Green: Communitarian Egalitarian

Seek peace within the inner self and explore, with others, the caring dimensions of community

Spreads the Earth's resources and opportunities equally among all.

Orange: Achievist Strategic

Act in your own self-interest by playing the game to win

Societies prosper through strategy, technology and competitiveness.

Blue: Purposeful Authoritarian

Life has meaning, direction and purpose with predetermined outcomes

Impulsivity is controlled through guilt. Everyone has their proper place

Red: Impulsive Egocentric

Be what you are and do what you want, regardless

Enjoys to the fullest right now without guilt or remorse

Purple: Magical Animistic

Keep the spirits happy and the tribe's nest warm

Shows allegiance to the chief and clan

Beige: Instinctive Survivalistic

Do what you must just to stay alive

Food, water, warmth, sex and safety.

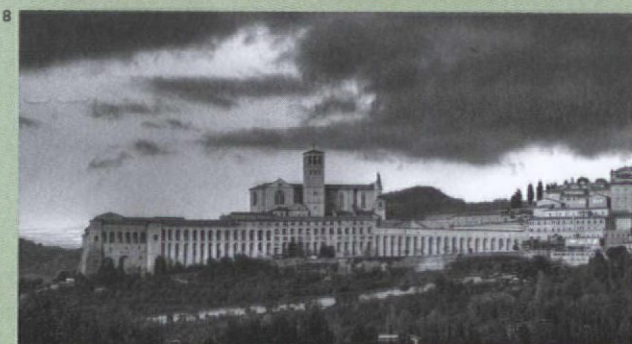
Modernity arrives with the Strategic Orange meme of StriveDrive that emphasises self-reliant, success-oriented and competitive individuals, committed to the notion of progress, and to science, technology and rational thinking as means of achieving the good life of material abundance. The increasingly meaningless abstract grid, which underlies all the plans of JNL Durand (1760-1834) and then dominates the gridded plans and facades of corporate Modernism, is the apt architectural manifestation, just as the associated city becomes a mere chess board of economic opportunity. Postmodernity follows with the Relativistic Green meme of the HumanBond that rejects dogma and divisiveness in favour of empathy and sensitivity, and the pursuit of consensus and harmony. This is also the meme of political correctness and the inability to prioritise and act effectively, of impotence in the face of mounting global problems, as well as of endless meetings seeking the opinions and input of all. The pluralism of Postmodern architecture is exactly apt to this meme. The 'caring and sharing' psychological character associated with the Green is one that respects everyone's opinion, and every theory or concept, as equally valuable – until one's own is questioned and the tendency is to regress to a narcissistic Red: 'who are you to question me?'

'Subsistence' versus 'Being' memes

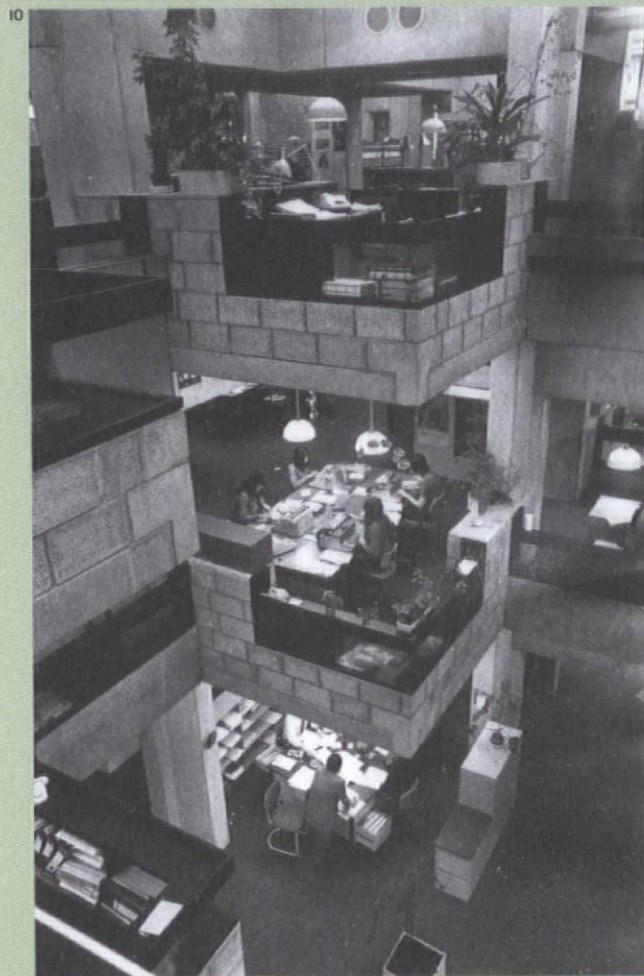
These first six memes constitute what is called the First Tier of 'Subsistence' memes. Each was a healthy response to the life conditions of the time in which the meme emerged and all of the memes continue to exist today, both in cultures and subcultures, or as a resource in the psyches of individuals. For instance, there are times when it is entirely healthy for someone from a higher meme to regress to Red assertiveness. Although the Red meme is also found there in gang culture and some extremes of nationalism and religious fundamentalism, Blue, Orange and Green remain the dominant memes in North America and Europe, with Blue more pronounced in the United States than in most of Europe, and Green more pronounced in Northern Europe. A major problem today when coordinated action is so urgently needed is that each of these memes only really understands its own worldview, which is considered the only legitimate one. Other memes, even if tolerated, are seen as essentially wrong. Hence Blue meme fundamentalists, very much a minority group within the meme, regress to Red because they are threatened by Orange selfish individualism and appalled at the moral laxity of hyper-relativist Green.

Compounding the resultant problems of communication and achieving consensus, each meme is underpinned not just by sometimes contrasting values, but this is reflected in distinctly differing, if sometimes seeming subtly so, use of language. Furthermore, all these First Tier memes are either egocentric or ethnocentric, and not as yet world-centric, so progress towards such things as global peace, equity and stability, as well as sustainability, is extremely difficult while most people are stuck in First Tier memes.

Fortunately a Second Tier of world-centric 'Being' memes is emerging, if both dangerously late and under-represented. Although they constitute only a very tiny



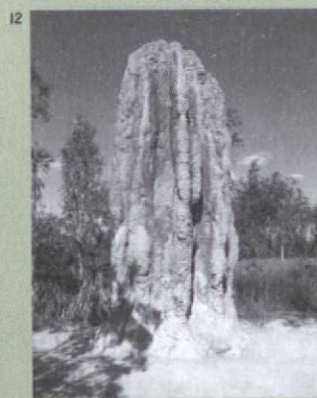
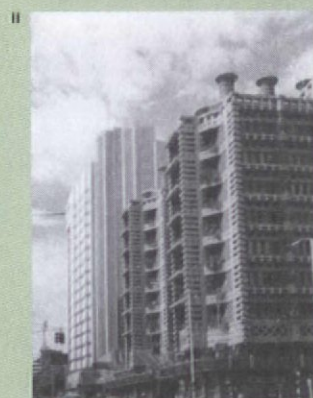
The memes summarised
6. Purple: KinSpirit meme of magical thinking epitomised by handprints sprayed on a cave wall
7. Red: PowerGods meme of might is conveyed by a dominant castle from the feudal Middle Ages
8. Blue: TruthForce meme typified by the Sacro Convento monastery and church of St Francis that dominates Assisi, Italy
9. Orange: StriveDrive meme of modern rationality
10. Green: HumanBond meme characterised by Herman Hertzberger's Centraal Beheer
11. Yellow: FlexFlow meme underscores the Eastgate Centre, Harare, Zimbabwe which biomimetically emulates the ventilation 'strategy' ...
12. ... of a termite's nest
13. Turquoise: GlobalView meme of the Global Village shown by the interlinkages of Facebook friends



'With Second Tier memes, the clockwork universe has been replaced by the evolving, living creative universe that evokes reverence and the urge to be a responsible participant and agent of its unfolding'

proportion of the world's population, the first two have already been identified and tentatively described. Initiating the Second Tier is the Yellow, FlexFlow or Systemic meme that is grounded in understanding and accepting the inevitability of nature's flows, cycles and regenerative capacities, and which wants to open up to 'experience the fullness of living on an Earth of such diversity in multiple dimensions'. This is followed by the Turquoise, GlobalView or Holistic meme, where there is not only an understanding of the dynamic, evolutionary unfolding of nature and culture but you become part of this larger, conscious, spiritual whole where everything is interconnected as a single dynamic organism with its own collective mind. With these memes Newton's clockwork, meaningless and purposeless universe has been replaced by the evolving, living and creative universe that evokes reverence, and the urge to be a responsible participant and agent of its unfolding. Consistent with this view, sustainability is seen not in terms of constraints and sacrifices but as an inspiring vision of a much more purposeful and fulfilling life. Significantly, psychometric testing shows that Second Tier memes are without the persistent anxieties and fears that characterise the First Tier ones. Now there is speculation that the next, Coral meme is beginning to emerge, but it is still too soon to say much about it.

Further key characteristics of Second Tier memes are not only that they are world-centric, with both the necessary 'big picture' overview and temperament to solve urgent global problems such as progressing towards sustainability, but that those at these levels are what are known as SpiralWizards. What is meant by this term is that, in contrast to First Tier memes, such people are not trapped in the worldview of their own meme but, rather, can both appreciate the worldviews of other memes and also communicate in language appropriate to its narrower worldview based on other fundamental values. Thus when communicating with the Red meme, with its preference for instant gratification, 'what's in it for you' will be stressed in strong simple language. But with the Blue meme, and its tendency to delayed gratification, duty and honour would be emphasised along with tradition, propriety and righteousness. With the materialist Orange meme, discussion would be about competitive advantage, better profits and productivity, quoting experts and scientific evidence. And with the Green meme, gentle language would be used with imagery from nature, and



‘The rich insights of Spiral Dynamics help designers understand how to better serve any of the memes, so making for more satisfied and more stable societies’

belonging, sharing and harmony would be stressed. These characteristics and communication skills allow the Second Tier memes to deal much more effectively with the complex and urgent problems that overwhelm the intellectual and character resources of First Tier memes.

Devising ways to speed the development of people up to the Second Tier memes should obviously be a priority of everyone engaged in creative pursuits, such as creating video games or television series, as well as of personal coaches and therapists. Even more obviously, it should also be a primary priority of education, particularly that of tertiary education, and in particular that of those who are to be environmental designers of various sorts. But the dominance in academe of the Green meme with its postmodern hyper-relativist ethos continues to be a major block to such progress, for reasons discussed in the essay

on education (AR October 2012). It could also be, that just as each meme is a healthy response to the life conditions in which it arose (but may become problematic when those life conditions change) as well as a healthy resource to be called up by higher memes, advance to the Second Tier memes will be helped by rebuilding some foundations in the First Tier. Although Integral thinkers are rightly wary of regression to lower levels that are mistaken for higher levels, what they call the ‘Pre-/Trans Fallacy’, Second Tier reverence for an evolving nature will probably be aided by the knowingly cultivated resurrection of a Purple meme (Magical sensibility) and Red meme (Mythic one). In the same way, advancing out of Green meme relativism might be helped by the recovery of a bit of Blue meme discipline.

Thus the power and usefulness of Spiral Dynamics lie in much more than helping progress to higher memes to help achieve sustainability and so on. Its rich insights help designers understand how to better serve any of the memes, so making for more satisfied and more stable societies. I remember once in Africa being shown housing designed by Orange meme technocrats for people who retained strong Purple meme tribal roots. Despite its conveniences and comfort, it did not suit its inhabitants, for whom there were no suitably formed and located outdoor communal living areas, nor places for the ritual slaughter of animals and so on. An argument then polarised over whether the housing should be designed to be ‘aspirational’, encouraging inhabitants to adopt modern urban living patterns, or be closely tailored to tribal ways.

14. Table from *Spiral Dynamics: Mastering Values, Leadership and Change* by Don Edward Beck and Christopher Cowan assigning political and economic mechanisms to each of the eight memes in Spiral Dynamics
15. A second table uses a single phrase and evocative quote to give visceral meaning to the memes

Meme	Concept of governance	Political form	Economy
Beige	No concept of governance	Band	Little exchange. Eat when hungry. Few possessions
Purple	What ‘our people’ decide to do. Announced by the chief and guided by elders and spirits	Tribes: clans, councils and lineage connections	Mutual reciprocity and barter. Chief distributes based on need through kinship
Red	Whatever the Big Boss says it is. ‘Power to the people’ means to Boss and chosen few	Empire: dictatorial perhaps ‘corrupt’ autocratic strong-arm tactics	Feudal distribution system where the rich elites get richer, the poor get poorer
Blue	Justice and fairness for the right, good people who follow rules and traditions	Authoritarian: one-party rule government control	Basic standard of living will be raised through hard work, discipline and savings
Orange	Give-and-take pluralistic politics within a check-and-balance game of economics	Enterprise: multi-party states, bills of rights	Free market-driven process where the ‘invisible hand’ of economy sets pay, price, perks
Green	Everybody shares equally in making consensus decisions to care for ‘we the people’	Communitarian: social democracy, equal rights/results	Communally-based distribution meets human needs before any benefit from excess or profit
Yellow	Process of integrating the majority of interests in expediting flows up the Spiral	Integrated structures: stratified systems in Spiral intelligence	Simultaneous value-added moves throughout Spiral for higher quality of being to next steps
Turquoise	Macro management of all life forms toward common good in response to macro problems	Holistic: whole-earth networks and interconnections	Earth’s resources and learning distributed by need, not want, so all can survive with enough

The latter, it was argued, would be 'patronising' and also inhibit residents from changing their lifestyles in their own time, as well as soon becoming obsolete because unsuited to future generations. But the insight of Spiral Dynamics is that to design for either of these poles exclusively would be unsatisfactory, not least because it is very unlikely the inhabitant will make the leap directly from Purple to Orange meme. Instead the housing should have been designed to suit the Purple and Orange memes, and all those in between, so as to allow the residents to develop as they chose and at their own pace.⁶ Spiral Dynamics is also proving invaluable in unlocking highly conflicted situations, where perhaps several different memes consider they have the right to use a piece of land, say, but each meme has a very different view of what use it should be put to. In such cases, a skilled Spiral Wizard can intervene so that the memes start to understand and respect each other and eventually a solution can be found that works for everybody.

As should be obvious, Spiral Dynamics offers profound insights to guide urban design and large-scale architectural projects in complex, multicultural (multi-meme) societies. Yet the experience of some of those using it is that it has to be used with caution, and can provoke difficult misunderstandings. Asserting that Spiral Dynamics sees all memes as healthy and life sustaining, and apt to the conditions in which they arose and which may still persist, can be to no avail. Once people realise they have been categorised in a system of levels in which

they are not at the top, they might feel demeaned, become uncooperative or argue vehemently to prove they are of a higher level meme. There are also contexts in which extremely bizarre conversations can be overheard that make no sense at all, until you realise people are trying to prove they do not belong to a particular meme, usually Green. And there are those who object to their religion being classified as Blue meme, rather than an exalted higher meme, and are particularly threatened by the notion that to move into a new epoch in which achieving sustainability becomes feasible involves redefining for our times, drawing on all the knowledge now available, what it is to be fully human. The answer to this is complex, not least because to be fully human involves including all memes within the psyche, but also because although many of the major religions arose with the Blue meme they all include strains of mystics, thinkers and writers within them at all subsequent, higher memes. A perfect example was the Passionist priest, cultural historian and eco-theologian Thomas Berry (1914-2009), who definitely belonged to a Second Tier meme, most probably Turquoise, as did the Jesuit priest, palaeontologist and philosopher who inspired him, Pierre Teilhard de Chardin (1881-1955). And it was Thomas Berry who argued most passionately and cogently that achieving sustainability involves redefining what it is to be fully human.⁷ The two final essays in this series will give a small insight into some of the implications of this for the design of cities and urban areas.

Beige	The Bush	'Just making it through the day and night'
Purple	Enchanted Forest	'... ghosties and ghoulies and long-legged beasts and things that go bump in the night ...'
Red	Jungle	'Make my day!'
Blue	Cathedral	'Theirs not to reason why, theirs but to do and die. Into the valley of death rode the Six Hundred'
Orange	Marketplace	'Better things for better living through technology'
Green	Commune	'Everything (and everyone) is beautiful, in (his or her or its) own way'
Yellow	Natural Habitat	'So much to learn and explore, so little time'
Turquoise	Global Village	'Fine-tuning the music of the spheres'

1. Recent publications include *Evolutionaries: Unlocking the Spiritual and Cultural Potential of Science's Greatest Idea* by Carter Phipps, Harper Perennial, 2012, and *Evolution's Purpose: an Integral Interpretation of the Scientific Story of our Origins*, by Steve McIntosh, Select Books, 2012.
2. *Integral Sustainable Design: Transformative Perspectives* by Mark DeKay, Earthscan, 2011.

3. *The Cultural Creatives: How 50 Million People are Changing the World* by Paul H Ray and Sherry Ruth Anderson, Harmony Books, 2000. Here the population of the USA is classified as Traditionalist or Conservative, Modernist or Progressive, and Cultural Creatives whom the authors say are creating an Integral or Transmodern culture. But as they use the term, it is closer to Postmodernity than what Wilber means by

Integral, a term many are now using with slightly different meanings.
4. *Spiral Dynamics: Mastering Values, Leadership and Change* by Don Edward Beck and Christopher C Cowan, Blackwell, 1996.
5. See *A Theory of Everything: an Integral Vision for Business, Politics, Science and Spirituality* by Ken Wilber, Shambhala, 2000.
6. Somewhat similar thinking informed the

advice given by some members of the Spiral Dynamics community to the USA prior to the invasion of Iraq, but it was disastrously ignored. The argument offered was that prior to Saddam Hussein, Iraq had been largely Blue meme with an emerging Orange meme. But under Hussein, although it remained strongly Blue it also regressed to the Red meme of warlords and Purple tribalism. In such

circumstances it would be impossible to impose Orange-Green democracy without passing through a healthy Blue, and largely theocratic stage. Instead of alienating the mullahs, the Americans should have worked with them to keep the country stable and allow a smoother transition towards modernity and democracy.
7. *The Great Work: Our Way into the Future* by Thomas Berry, Harmony Books, 2000.

REVIEWS

Less is Moore

NIGEL COATES

Why We Build, Rowan Moore, Picador, £20

I read Rowan Moore's new book while staying at the Casa Fornasetti in Milan, a house where famously every surface speaks. Staring faces, suns, butterflies, colonnades, and air balloons conspire to make a monochromatic sensurround of *images trouvées*. With its black and white cover drawing, Moore's book lay on my bed as if camouflaged by the print on the duvet cover, the Rubik maze of Piero Fornasetti's *Jerusalem* design. On closer examination, the jacket features a layered landscape of generic tower blocks that could be London, or Tokyo or São Paulo; Oscar Niemeyer's Edifício Copan in the foreground affirms the latter. The illustration must be a teaser for the thesis in the book, a point of entry to the title: *Why We Build*.

And why, indeed, do we build? Is it for perfunctory reasons – because people need roofs over their heads – or to fulfil a desire to make special buildings, ones that stand out from the norm? Against the backdrop of the usual urban jungle, thankfully some buildings do assert themselves as landmarks. But as Walter Benjamin said, architecture is rarely experienced as anything more than background.

Moore's idea of building hovers somewhere between favela (without architect) and icon (with architect). He loves architecture but not always architects. Although wanting to get under the skin of the subject, in reality he talks more about the ethics of architecture than the raw urge to build. But the book eloquently unravels architecture as politics – interweaving who designs it, who pays for it, who makes it and what role it plays in city life. We learn

there are no hard and fast rules for making a good building – to do so, Moore says, you need to walk a tightrope between all the factors that make up the city.

Rather than critique individual buildings, he uses examples dialectically, sometimes to expose their contradictions. Very much the journalist, he is painting the bigger picture of architecture to his regular readers, and with occasional risk of delivering coals to Newcastle. I fear he looks too readily for new

Below: the jacket of Rowan Moore's new book carries the bold claim 'you will never look at a building in the same way again'



theoretical containers into which to locate the classics. Somewhat predictably you'll find Place des Vosges, the Piazza in Covent Garden, the John Soane Museum, the Pompidou, even the Pyramids, under the spotlight.

But there are moments of genuine insight: in the chapter on eroticism in architecture he juxtaposes the clichéd '80s overt kitsch-ery of Japanese love hotels with the secretive blankness adopted by gay bars of the same period all around the world. An illustration of one such bar in LA shows a very ordinary building that has been converted to its current use by painting over the entire exterior regardless of the details, windows and all. 'Often the role of architecture is to suggest one thing, such as propriety, in order that the opposite – passion, danger, transgression – can happen.'

Apparently architecture sometimes needs to be subdued to fulfil its subversive function as told by his elaborate exposé of Adolf Loos's libidinous undercurrent in his striving to eradicate ornament. 'The relationship of sexuality and space shows another truth about architecture, that it is usually made by one, quite specialised group of people, on behalf of another, more general one. Their desires make it, and our desires inhabit it.'

In the greater quest for a balance between modernity and humanity, Moore moves deftly on to matters of power and freedom. Those of us who work in the field of architecture often find it hard to reconcile our hopes for a project with those of a client. Moore knows that compromise is the name of the game and architects are frequently willing to sell themselves at any price. There follows a roll call of big names that have offered themselves up to the worst kind of opportunism, and flirted with power however corrupt or totalitarian. Baron Haussmann drove his boulevards through Paris on behalf of the Emperor Napoleon III.

Moore reports that, turned down in an attempt to work for the Viennese architect Otto Wagner, Hitler went on to design the Third Reich. Le Corbusier courted the collaborationist Vichy regime. Many contemporary architects are trapped in a cycle of power and money, and subjected to his twist on the old adage, 'Form follows Finance', achieve undeniably mixed results. When Moore was director of the Architecture Foundation, the Zaha Hadid design for its permanent home was eventually killed off by the overbearing commercial logic of the developer. Then the ongoing saga of the World Trade Center in New York reveals a trail of grandiose aspirations that could never successfully combat the economic interests of the site's landowners. The hopes of architect, developer and public alike are rarely fulfilled simultaneously. Architecture, he argues, is not just the product of economics or the dreams of the architect, but the result of a collusion of forces that directly contradict any real sense of quality.

From another angle on 'form', all architects come under the cosh. 'The importance of the look and shape of buildings is usually exaggerated. Architects expect magic to come from form, but form alone does not mean much if separated from light, scale, making, context and time.' Most architects, I think, would sign up to pretty much the same spread. He continues – and let's not forget he trained as an architect – 'Form is an implement among several. It isn't wholly unlike the forms of language, of sentences, words, and verse, in that it is significant, but not on its own. It requires interaction with, for example, sense, sensuality, and use. With life, that is, and architecture obsessed with form tends to deny life.' In a sense I agree – architecture should be (but often isn't) like writing, in its mix of clarity and evocation, and the need to mesh



Above: for Moore, Lina Bo Bardi – whose glass-mounted exhibition system for the Museu de Arte de São Paulo is shown above – represents a more humane antidote to many architects

these imperceptibly into one coherent voice.

Antidotes to these sins – examples of freedom that are not purely based on form – are captured in the loosely defined, non-designed Place Jamaa el Fna in Marrakesh, and locally-led initiatives like the High Line park in New York or the Cineroleum pop-up cinema in Clerkenwell, London. In this vein he highlights the Brazilian architect Lina Bo Bardi as though she has only recently been discovered. On her Museu de Arte de São Paulo (MASP) he eulogises: 'If architecture is the mineral interval between multiple thoughts and actions, MASP is an outstanding example. It is a frame for life.' Perhaps he identifies with her fusion of Modernist gesture and humane understatement.

Surprisingly there is no comparison here to the London collective Muf, whose work in public spaces in London is often so sensitive as to be almost invisible; rather his quintessential example turns out to be another one of Bo Bardi's projects, the multiple arts and sports community complex, SESC Pompéia, to which he justifiably dedicates virtually an entire chapter. Success lies in its programme having been derived from listening to the ideas of ordinary people; its deep sense of humanity is present in every stone.

It may be no coincidence that several of his positive examples are transformations of existing structures. Appropriation of the defunct is a well-worn architectural trope (and an enduring strategy of my own). The Cineroleum (ex-filling station), SESC (ex-factory) and the High Line (ex-railway line) all derive considerable meaning from reconfiguring stereotypes. The strategy gives narrative depth to a new permutation, and emphasises the fact that the urban landscape constantly evolves.

Summarising, he asserts 'Architecture does not act alone,

but in combination with whatever is around it.' This epiphany could have been an editorial in *Wallpaper* magazine ('the stuff that surrounds you'). The fact that he reaches these conclusions as a result of years of critiquing architecture as a journalist I find surprising (I recall similar realisations in my first term at the AA). Which poses the question as to who this book is really for; students and professionals are likely to read it as a stream of anecdotal musings, whereas to the interested layperson it may sound as though it's written in archi-speak.

A glaring omission is the more avant-garde line of enquiry into 'why we build'. There is no mention of the likes of Archigram and Archizoom, two among a parade of radical groups who held the subject up to artistic, anthropological and semiotic examination as well as to its politics. They had much to say on the subject precisely because they kept building at arm's length despite considering themselves architects. This thread of architectural discourse may not be relevant to this writer because it crops up rarely in the review pages of 'quality' newspapers, which largely stick to the latest buildings. Throughout history, architects have attempted to overturn all that went before them, and express their ideas in endless treatises and manifestoes, from Vitruvius to Koolhaas, purporting to speak the truth.

Perhaps the artist whose drawing wraps around this book detects an almost suicidal tendency in all attempts to vocalise the urge to build; if you zoom in closely, tiny ant-sized people are walking on a promenade high on the roof of Edificio Copan. Some are safely strolling behind a balustrade, but others are perilously standing on the ledge that sweeps around the top of the building nearly 40 storeys up. A step too far and they will plummet towards the banality of the lesser buildings below them. Or end up as decoration on a Fornasetti teacup.

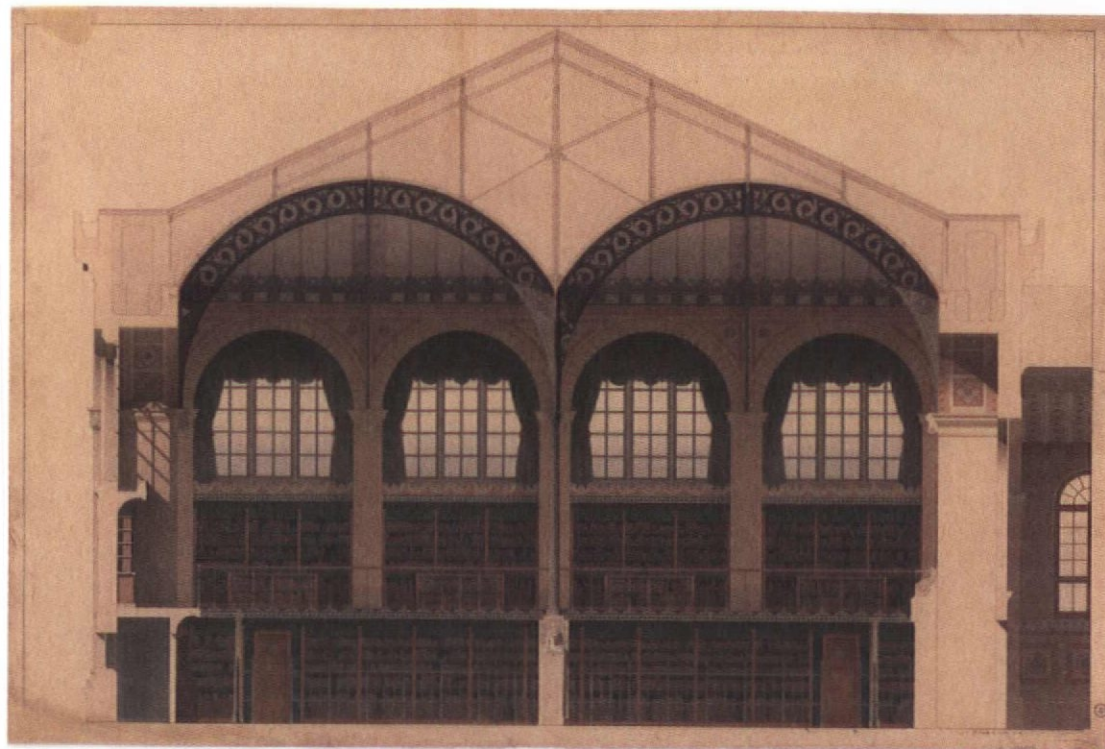
Redressing the balance

ANTHONY VIDLER

Labrouste (1801-1875), Architecture. La Structure mise en Lumière, Cité de l'Architecture et du Patrimoine, Paris, to 7 January 2013; and MoMA, NY, from 10 March to 24 June 2013

Henri Labrouste (1801-75) was perhaps one of the 19th century's most important yet, until recently, neglected architects. With very few exceptions, his small but exceptional body of work has been – remarkably – taken for granted. Brief mentions of his use of iron construction in the celebrated polemical essays of Sigfried Giedion, his drawings included in the 1975 Museum of Modern Art Beaux-Arts show, a short exhibition catalogue published by Pierre Saddy in 1976, and two long essays published by the American architectural historian Neil Levine in 1977 and 1980, remain almost the sole contributions to his memory. This, for an architect who during his life was celebrated by even so relentless a critic of contemporary architecture as Viollet-le-Duc, and whose work inspired architects in the United States from McKim, Mead & White to Frank Lloyd Wright. The present exhibition at the Cité de l'Architecture et du Patrimoine, curated by Barry Bergdoll (of MoMA, New York), Corinne Bélier (Musée des Monuments Français, Paris) and Marc Le Coeur (Bibliothèque Nationale, Paris) has finally redressed the balance. Housed in the stone-vaulted underbelly of the Cité, and accompanied by a magnificent and informative catalogue, this exhibition brings together a huge selection of Labrouste's drawings, from his first student exercises at the Villa Medici to his last projects.

Here he is once and for all revealed, not as a sombre 'Neo-Grec', nor as an avant-garde pioneer of modern architecture, but as simply the best French architect of the 19th century. His drawings sent from Rome between 1824 and 1830 demonstrated an independence and a talent for relating structure and ornament, and his interest in utopian-social movements – he designed a colony for the Fourierists, and was a friend of César Daly, the founder of the first major professional review of architecture. Avant-garde he certainly was, as



Above: beneath the iron vaults of Labrouste's library, Walter Benjamin explored the arcades of Paris, enthusing over 'iron as revolutionary building material' while mourning the retention of historic forms

Barry Bergdoll points out in his elegant introduction – but in the sense that Henri de Saint-Simon, who coined the word meant it – and a functionalist, ready to use modern materials, but with a strong sense of the important symbolic role played by public architecture. For public architecture was his first and last avocation; preoccupied throughout his career with the two great libraries of Paris – the Bibliothèque Sainte-Geneviève and the Bibliothèque Nationale – he nevertheless found time and energy for a host of other public works: a competition for an insane asylum (at Lausanne, 1836-37); a competition for a prison near Turin (1839-40); a college (1840-41); a competition for slaughterhouses near Provins (1841); a project for the public theatre of Bucharest (1843-45); a built scheme for an agricultural colony at Saint-Firmin (1845-48); and a seminary at Rennes (1853-72). There was even a period when Labrouste took administrative jobs, first in the offices of the Paris-Lyons-Marseilles railroad from 1862, and then as state inspector general for public works, from 1865 – a roster that would have delighted Michel Foucault in his study of institutional discourse.

But it was the libraries that took all his attention between 1838 and 1873, developing two of the finest public spaces in the city, pushing iron construction to its expressive

limits while maintaining the decorum required of 'architecture' with thin outer shells of stone cladding and intricate details. Both spaces, vaulted in iron, play on architectural prototypes: the Bibliothèque Sainte-Geneviève with its long double-vaulted aisle and central reading desk recalls the barrel-vaulted and amphitheatrical project by Etienne-Louis Boullée of 1785, while the Bibliothèque Nationale's half-domes seem almost to hark back to Hagia-Sophia.

But Labrouste, respectful of architectural conventions, was also a believer in progress; unwilling to submit to the apparently inevitable decline of architecture in the face of the printed book. He knew well Victor Hugo's celebrated pronouncement in Notre-Dame de Paris, 'This will kill that – the book will kill the building', but he nevertheless restrained his own rhetoric in making the surfaces of his buildings 'speak' or rather 'write' like books, inscribing a mock catalogue in the panels of Sainte-Geneviève, and framing the glazed vaults of the Nationale as if they sheltered a delightful garden. While he wrote little, his theory of architecture was from the start embedded in the mock funerary tablet he designed as the frontispiece of Daly's *Revue générale de l'architecture*: beneath a table of contents that embraced science,

art and history, a bas-relief tableau depicts the architect, his arm around the shoulders of a philosopher reading a book, while on either side, the builders work at their construction trades. The separation of the architect from building is complete, as is his dependence on knowledge. The book has not killed the building, but rather transformed the nature of architectural practice for good.

It was appropriate that here, in a space designed by an architect known as 'melancholic', the melancholic Walter Benjamin researched and wrote his fragmentary work on the arcades, as if 'in the open air, under a blue sky without clouds that forms a vault above the foliage'. The hundreds of contemporary scholars who have forged their careers in the same space, can in this exhibition take stock of Labrouste's full oeuvre, and of the library that, in the name of 'modernity', they have now lost.

An outsider's outsider

JONATHAN GLANCEY

Museum Without Walls, Jonathan Meades, Unbound, £18.99

Here's a literary eyecatcher: a brick of a book composed of 54 articles, essays, lectures and 'squibs' published in newspapers and magazines, together with six TV scripts dating from 1993 and paid for by a list of 482 subscribers. Why would so many people be willing to spend up-front on a book they haven't read, except perhaps in snatches over the years? What is *Museum Without Walls* about?

According to the author, the subjects here are 'the cross-party tradition of governmental submission to the construction industry; architectural epiphanies – Marsh Court, Arc-et-Senans, l'Unité d'Habitation's roof; what to do with Anglican churches; Hadid and Legorreta; the folly of pedestrianisation; the hierarchy of building types; Birmingham's beauty; Bremen and the Hanseatic League; the futile vanity of "landmark" buildings; why buildings are better unfinished; the congruence of the 1860s and 1960s; Letchworth's dreary legacy; the chasm between Hitler's architecture and Stalin's; the regeneration gravy train;

the picturesque as an English disease; shopping malls; the Isle of Sheppey; the Isle of Rust; the Dome and domes; post-war churches; Pevsner and Nairn.'

More succinctly, this Pandora's box of a book is about place. Jonathan Meades is a lively, inventive and pugnacious writer who follows in an English literary tradition that, sweeping up Ian Nairn, John Betjeman and Charles Dickens along the way, takes us back to William Cobbett's *Rural Rides*, an excoriating description of a newly industrialised England published in 1830 when it was commonplace for books to be paid for by subscription. 'All Middlesex is ugly', thundered Cobbett as he rode by the latest architect-designed Neo-Classical villas built for the newly rich on the fringes of London.

Meades reminds me more than a little of Cobbett. A distinctively dressed gentleman pugilist, a prodigious source of strident – if well informed – opinions, a memorable turn of phrase, a certain fearlessness and a public persona, seen to diverting advantage in his crafted television documentaries, best described as 'posh bover'. These particular words are from a review of Meades' book of horribly compelling short stories, *Filthy English*, published in 1993.

Now, a word of caution. While Meades is a gifted writer on place – 'the roof of l'Unité [d'habitation, where the writer lives] is a transcendent work: it is as though Odysseus is beside you. In a few gestures it summons the entirety of the Mediterranean's mythic history' – he has never sought to curry favour with, much less woo, living architects. In fact, he holds the architectural profession in scorn. This is partly because, as an outsider's outsider himself, Meades believes the best architects have always been artists, writers, playwrights, soldiers, set designers and watch engravers, before they turned to concrete and stone (he revels in the work of Michelangelo, Inigo Jones, Vanbrugh, Lutyens and Le Corbusier), but especially because, in his opinion – based on extensive travels in Britain and abroad – the majority of architects born of Modernism have no intrinsic understanding of place, and, as demonstrated by some 90 per cent of modern buildings, care little for it.

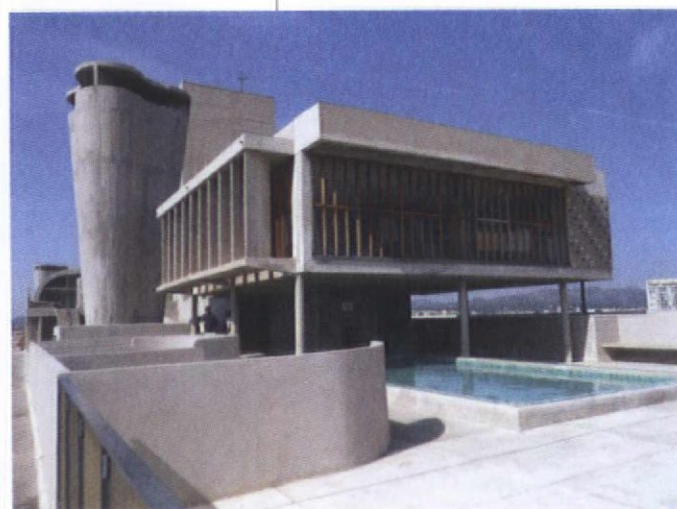
'Appointing architects to conceive

places rather than just sticking to buildings', writes Meades, 'is like appointing foxes to advise on chicken security, like getting Hamas to babysit a kibbutz.' Modern architects dream up utopias and design individual buildings in splendid isolation, each a masterpiece in their creator's mind, yet without the slightest nod to the notion of place. Meades quotes Harry Goodhart-Rendel (1887-1959), the English architect, writer and musician who did so much to encourage an intelligent engagement with High, or 'ugly', Victorian architecture when this was generally despised by iconoclastic young Moderns. 'The modern architectural drawing is interesting, the photograph is magnificent; the building is an unfortunate but necessary stage between the two.'

To make matters worse for those who prize a sense of place above a clutter of disconnected 'masterpieces', today's 'dismal' profession is supported slavishly by the architectural press which, in Meades' belief, is 'little more than a deferential PR machine operated by sycophants whose tongue can injure duodenum'. He is, perhaps surprisingly, soft on Zaha Hadid; he sees her, I think, as one of the company of brilliant outsiders he so admires, architects who have changed the way we see and experience buildings.

When the noise and fury abate, the author is a sensitive writer and especially on the very towns and places he feels have been overlooked by modern development and so in danger of being 'regenerated' by cohorts of professional architects in search of commissions and media coverage. 'The only town in the

Below: the sculptural ensemble atop the Unité d'Habitation is, for Jonathan Meades, the quintessence of Mediterranean space



Cotswolds that attracts me', he writes, 'is Stroud where the tyranny of oolitic limestone is ruptured by brick and slate.'

It is easy to see why Clive James, the lucid Australian critic and broadcaster, has labelled Meades 'an educated upstart who not only doesn't know his place, but knows far more than his allotted share about all the other places'. Even then, and although his preference is for lively and even ugly buildings over professional genteelism – better Vanbrugh, Butterfield or the Brutalists than neo-modernism or even Christopher Wren ('Classicism is always with us. Like the poor? No, although poverty of the imagination is frequently its paramount characteristic') – Meades' eye roves licentiously over buildings and places he loves and loathes. 'Everything is interesting. There is no such thing as a boring place', he proclaims, echoing the sentiments of John Betjeman, a one-time Assistant Editor of the *AR* and, decades later, Poet Laureate, who was often judged 'superficial' by professional architects; and yet Betjeman remains one of the most illuminating and haunting writers on place: 'Nowhere in England is dull', he wrote, 'not even on a wet day.'

No page in *Museum without Walls* is dull, none damp or soggy, even if many architects will feel their blood pressure rising should they choose to open these pages, these highly-charged rants underpinned by a dazzling display of wordplay that, however expressed, are ultimately concerned with an abiding sensibility for easily ruptured places.

Building a better world

GWEN WEBBER

9+1 Ways of Being Political: 50 Years of Political Stances in Architecture and Urban Design, MoMA, New York, until 25 March 2013

Founded in 1932, MoMA's department of architecture was the first in the world. In its early years, under Philip Johnson, it distinguished itself by a paradoxical combination of conservatism and incomprehensible radicalism: the department was committed to presenting Modernism – or the International Style as they dubbed it – to a bemused popular audience, but the notoriously right-wing

Johnson stripped these buildings of any explanatory social or political context. Subsequent decades were not a huge improvement, and in 1965, Ada Louise Huxtable accused the museum of having 'espoused the role of historian rather than of groundbreaker'.

But with the current exhibition, *9+1 Ways of Being Political: 50 Years of Political Stances in Architecture and Urban Design*, curator Pedro Gadanho begins to pull MoMA out of this entrenchment. It is not groundbreaking, but rather than be constrained by the archive, MoMA's historical vantage point gives new meaning and context to architecture's political activism.

With more than 100 pieces organised thematically as 10 examples of political architecture, *9+1* bursts open with the image of an exploding tower block by graphic designer Gunter Rambow from 1961. Its resonance with the work of Gordon Matta-Clark, Archizoom and Laurids Ortner, among others, speaks to the social equality that Modernism

Below: Jason Crum, *Project for a Painted Wall, NYC* (1969). Under the direction of Barry Bergdoll, MoMA's architectural department has taken a critical turn – a reaction in part to its own history of affirmatory (and downright reactionary) politics under Philip Johnson



failed to deliver and that consequently had to be re-imagined through alternative approaches to living, such as Archigram's Plug-in City, 1965. From here, the stage is set for the radical theories and spatial reorganisation of Lebbeus Woods, Morphosis and Bernard Tschumi. Reading the poetic, riotous text accompanying Koolhaas, the Zenghelises and Vriesendorp's *Exodus, or The Voluntary Prisoners of Architecture* (1972), it is hard not to feel that there existed a clearer political bent to these architects' musings, compared with today.

Contemporary political building, however, has been defined by civic architecture and buildings dictated by economics. It is precisely this condition that Gadanho is trying to move away from in *9+1*. Instead of Private Finance Initiatives and successful design-builds, the show highlights the ideas, dialogues, projects and plans by architects, artists and graphic designers that illustrate how architecture can express political viewpoints and attitudes, much like literature.

Yet, as the echo of one giant footstep precedes the next, and one arrives at Ai Wei Wei's criticism of his native China, this nostalgic pang for architectural criticism to look so wild and free subsides to uncover a social commentary that befits our time. The use of technology and the merging of disciplines to create a new cultural practice are made visible, as in *Picture a City*, 2009, a video by Squint Opera to promote Bradford City Centre masterplan by Will Alsop. It becomes increasingly clear that architects today are indeed engaged in political dissent and debate.

The fact that the works are picked from MoMA's own collection speaks to the idea of the museum as a medium for criticism, a notion explored in a recent conference hosted by D-Crit in New York and attended by Gadanho, titled *Is Curating The New Criticism?* As the meaning of curation expands to include websites and protests, our idea of spatial organisation has also shifted. 'During the Occupy Wall Street demonstrations, there was a concern from architects about their role,' says Gadanho, 'and I saw there was no platform for them.' *9+1* seeks to present a critical outlook on current political, public and architectural swells through the lens of history.

In the final gallery, a cell-like room forms a cul-de-sac with two films, including Reynold Reynolds and Patrick Jolley's *Burn* (2002) projected on the far wall. The startlingly unfazed actors sitting and walking among flames licking at their feet and across the ceiling is an abrupt finish. The shock effect is intentional and represents the exhibition title's '+1'; leaving an open end to the problem of how architecture can be political, and how museums, even institutions, can help answer that question.

Ideas in aggregate

JON GOODBUN

Concrete and Culture: A Material History, Adrian Forty, Reaktion Books, £27

Concrete has been going through an interesting renaissance in recent decades, driven by the convergence of quite different forces and tendencies within architecture, engineering and materials science. Manufacturing and design innovations – including CAD-CAM produced formwork, fabric formwork, new cements and aggregates, photograph etching, sustainability demands and engineering software to name a few – have coincided with cultural developments including the return among designers to questions of materiality. Together these have opened up new possibilities for the development of forms in concrete.

On its own though, this is not enough to understand the revival of interest. Adrian Forty – whose research into this material over the last decade has finally been published as *Concrete and Culture* – is one of a number of significant historians and theorists who have turned to think about concrete in recent years (others include Jean-Louis Cohen, Sanford Kwinter and Antoine Picon). These thinkers have in different ways all seemed animated by a suspicion that, somehow, if they were only able to fully grasp this paradoxical material, then they will come to understand something profound about modernity itself.

Forty takes a dialectical approach to the subject, observing the unresolved contradictions in the discourse and networks through which concrete is imagined and produced. He notes the frequently

dual character of concrete, through which he structures and narrates his understanding of the material: natural/artificial, stone/mud, advanced/primitive, European/North American, industrial/craft, modern/vernacular, object/process, skilled/unskilled, material/medium, surface/mass, formed/formless. These tensions often feed into each other, and are shown to animate the history of concrete specifically, but also seem to reflect in intriguing ways upon the development of global capitalism and industrial society more broadly.

This account of concrete spans centuries and continents, professions and, indeed, media. He considers concrete through film, photography and broader cultural imaginaries, although he does ultimately remain focused on recognisably architectural artefacts. His account is, however, full of insights, perhaps the most important of which is that concrete is 'more accurately described as a process than a material'.

One theme that Forty returns to on several occasions concerns the discourse of 'newness' that has characterised the conceptual language through which concrete has been imagined. Concrete has, as he wryly observes, been 'new' for the best part of one-and-a-half centuries now. It seems that 'the new' – such an important concept within the mythology of Modernism more broadly – found one of its most significant reifications (or as Forty prefers 'raiments' or 'dressings') in modern concrete. There are many reasons for this, but primary seems to be the mode of production within which many of the dominant modes of modern concrete grew as a material process: industrial capitalism. For Western construction entrepreneurs since the 19th century, developments around this material have created ways to expand their practice beyond the constraints of the built environment professions, by patenting their particular material mixes and construction processes. Naturally, the success of defending these patents has relied upon proving the newness of the technique or process in question. That these patents were privately owned, and that the culture that existed around these products was repeatedly articulated through a very modern 'new' or 'future', means that concrete has repeatedly seemed like it has only recently been developed. Forty has described this condition as



Above: the pioneering (and illegal) reinforced-concrete structure of Saint-Jean-de-Montmartre, Paris (Anatole de Baudot, 1894-1904), was highly controversial

'a field littered with truncated techniques', defining 'a material without a history'.

Concrete frequently seems to manifest contradictory tendencies. In the West, the flowing matter of concrete, which solidifies as fixed labour, is both an analogical process to, and an embodiment of, capital itself. Yet modern concrete's *other*, as Forty intriguingly reveals, is in fact the vast number of other-modern traditions of concrete, often more informal, that can be found in the developing world, where concrete has become one of the primary 'new technologies of poverty'. There, he finds fascinating hybrid processes of non-modern social forms based on working with mud as a building material persisting even while transformed through the adoption of modern concrete processes. In, for example, the South American *mutiroes* or self-build cooperatives, 'making concrete is integrated into domestic life' as women collectively manufacture their own precast concrete construction elements. Here also then, concrete accurately acts as an index of the process of capital in these regions, as 'like a photograph, a concrete structure is indexical – it carries within it direct evidence of the moment of its making'. These accounts of non-professional and non-Western practices are incredibly revealing when set against more familiar ways of working with concrete, and more space could have been given to the discussion of them.

Still, Forty's readings of buildings – which range from churches to bunkers, east European housing to lost-in-time memorials – are always insightful, and sometimes brilliant. Notably perhaps, for anyone who has gazed at the Milan skyline and wondered what peculiar mix of forces and desires resulted in the reality of BBPR's Torre Velasca, his consideration of the complex and quite singularly historicising tendencies within postwar Italian architecture is fascinating.

Ultimately, Forty opens up a new critical landscape for reflecting upon concrete specifically, but also upon materials in general, and in this endeavour he speaks to historians, theorists and designers alike, noting that 'with concrete ... there still remains the opportunity for the architect to be his or her own alchemist, and to create an entirely new substance'.

PEDAGOGY

KNUST, Kumasi, Ghana

MATTHEW BARAC

A lush garden city in the Ghanaian rainforest, boasting a glorious past as capital of the Ashanti Confederacy, Kumasi is home to the Kwame Nkrumah University of Science and Technology (KNUST) and its 25,000 students. The institution is named after Ghana's heroic moderniser, who led the former British colony to independence in 1957. One year later the first students were enrolled in the School of Architecture, Town Planning and Building. Since then, unsympathetic refurbishment and accretions have compromised the coherence of the Modernist campus and time has taken the shine off many of its buildings which – like Ghana's infrastructure – are showing signs of wear and tear.

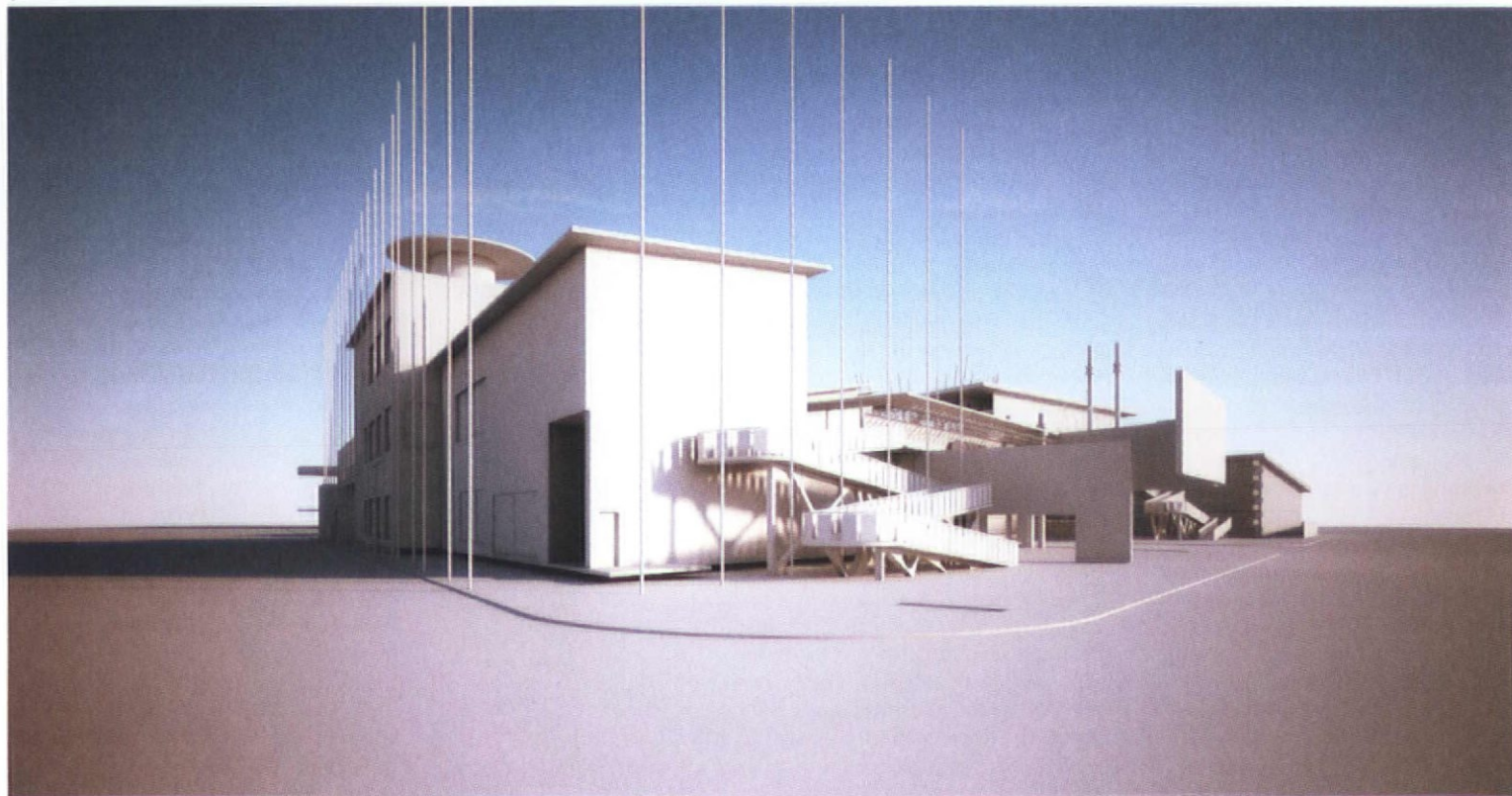
Yet Ghana today, increasingly prominent on the world stage due to its burgeoning oil economy, provides a more complex context for architectural practice. Against this background George Intsiful, who heads the department, advocates pragmatism: 'In an environment where, for example, power supply cannot be guaranteed for 24 hours a day, it is important for the future architect to be equipped to operate successfully in the face of all such difficulties.' Being part of international debate is important to Intsiful, who plays a key role in the recently constituted ArchiAfrika Education Network, a partnership linking architecture schools across the continent. This network provides a counterpoint to validation, on a five-year cycle, by the long-established Commonwealth Association of Architects. Accreditation consolidates

1 & 2. KNUST student Kuukuwa Manful has designed a mixed-use building for the city of Kumasi that combines commercial and civic elements as well as a ceremonial place for a traditional leader. The proposal draws on vernacular references, such as an IMAX cinema shaped like a gourd

the school's standing and gives graduates access to a worldwide arena for professional training. According to Intsiful, KNUST alumni are on the staff of reputable practices 'in the UK, Europe, North America, and several other African countries'.

One of Intsiful's former students, Emmanuel Nibo, now works as an architectural assistant while studying part-time for his RIBA Part 2 in London. Nibo suggests that KNUST's emphasis on problem-solving anchored his understanding of architectural practice, an emphasis which he contrasts with the UK's comparatively abstract and frenetic marketplace of educational ideas. 'We did a lot of fieldwork, engaging with locals to inform our design solutions.'

In year two of the four-year undergraduate degree, students are billeted out to rural communities where they conduct a settlement



survey and come up with proposals for public facilities based on an evaluation of local needs. For Intsiful, evaluating needs must go beyond simply economic and social analysis if it is to be meaningful. It must be embedded in an architectural conceptualisation of the design response – an agenda in which the KNUST pedagogy prioritises three components: culture, climate and construction. Students are encouraged to consider cultural responses that draw on social consultation; climatic responses that work with rather than against the tropical environment; constructional responses that make use of locally available skills and materials.

Notwithstanding this acknowledgement of local conditions, the globalisation of ideas is evident in the choice of themes for the self-guided final year 'thesis'

3. Marian Petison's design for a cancer treatment and research centre takes a holistic approach to wellbeing, with a focus on tranquil landscaping
4. A biodiversity research centre with domes shaped like tree canopies, designed by Emmanuel Ofori-Sarpong

project. KNUST students select topics from the shopping list of trends and tendencies typical of any school, anywhere. What is notable is the effort to ground these concepts in Ghanaian realities.

One student, Kuukuwa Manful, aimed to intensify the Kumasi district of Bantama with an urban proposal combining commercial and public buildings including an IMAX cinema, a hotel, a retail promenade and a ceremonial palace for a traditional leader – the Chief of Bantama. She sought to extract essential characteristics of Ashanti identity from indigenous vernacular architecture, using the resulting vocabulary of forms and materials as the basis for an emphatically hybrid idiom. Outdoor 'cinepods' are made of basket-weave bamboo; the IMAX is shaped like a giant gourd.

Other projects address similarly perennial themes. Emmanuel

Ofori-Sarpong proposed a research facility in the arid north of Ghana devoted to the study of biodiversity and the natural world. The scheme is a study in 'biomimicry': a neologism celebrating the forms and patterns in plants and organic processes. Interconnecting domes and vaults, made of layered clay tiles, rely on thermal mass to stabilise internal temperatures. A third project, located in Kumasi, investigates whether architecture can support wellbeing and promote healing. Emphasising 'care' rather than 'cure', Marian Petison's cancer treatment and research centre critiques the way that terminal disease is conventionally treated as a medical problem alone. Instead of the clinical environments associated with illness, courtyard gardens and water bodies offer serene outdoor spaces, places to recover, to relax, or to spend precious time with relatives.



REPUTATIONS

Josep Maria Jujol

ROWAN MOORE

Gaudí, we all know Gaudí: creative phenomenon; force of nature; incontinent slot machine for the Barcelona tourism business, set forever on jackpot; inadvertent maker of a multi-location theme park of himself. Less well known is Josep Maria Jujol, Gaudí's employee and protégé. Yet, according to the not inconsiderable postwar architect Josep Antoni Coderch, 'I believe he created works of much greater significance than those of Gaudí.' If you have visited a Gaudí work and felt a lightness of spirit, perhaps a flicker of a smile, it's likely you're looking at something Jujol made under the old man's supervision. The serpentine benches in the Park Güell are his, with their decoration of broken ceramic, and possibly the seaweed metalwork on the Casa Milà. Some panel painting in the cathedral of Palma de Mallorca is by Jujol, so loose and splashy that the paint seems never to have dried.

Jujol's debt to Gaudí is clear: the convulsive forms, the abandoned curves, the eclectic use of ancient and contemporary techniques and materials, the creation of an alternative nature in parallel to the one we previously knew, all suffused with a combination of Catholic piety and Catalan nationalism which would be indigestible to atheist liberals like the present author, if it wasn't for the force and brilliance with which the works are carried off. But, where Gaudí is thunderous, heavy and overwhelming, Jujol is more aerial. He is Rococo to the other's Baroque. Gaudí's buildings are rocks, his are foam.

This becomes clear in the works in his own name, after leaving Gaudí's studio. In his Casa Negre the long sinuous gable takes a line for a walk, as Paul Klee would say in the context of painting, but in the less pliable medium of architecture. Clouds of

white spread over the ochre facade like one emulsion tipped into another. Delicate sgraffito in grey-green is then laid on top of the white, showing fronds, garlands and inscriptions in honour of the Virgin Mary. Then, for some reason, a glassy box resembling half an 18th-century carriage is attached to the front, and propped on insect-like legs. Above it is a deep loggia. The facade is a work of layers – sometimes flat, like a canvas on which Jujol doodles, or a stageset, but with moments of depth and mass. The stains of age, of damp and weathering, add further layers to those of the architect. Round the back, the idea is taken further – here multiple patches of brick and stone resemble a biological culture, spreading bacteria, mottled cheese, or an artist's palette encrusted with past mixings.

Jujol achieved a rare directness between the actions of his own hand and the finished buildings. They capture the quality of a drawing or painting more than the works of almost any other architect – they have a drawing's spontaneity, and their design tends to move readily between two dimensions and three, between decorated surface and shaped form. Sometimes he himself painted directly onto the walls, with fluent, semi-transparent strokes. Sometimes he stood over craftsmen as they twisted metal to his orders, occasionally beyond breaking point.

He saw beauty in almost everything. He would pick up objects in the street, and make things out of cardboard, tins, broken glass and stones. He converted discarded agricultural tools into hinges. There is symbolism, or iconography, or imagery in his works. Some is religious – madonnas and angels. In his theatre in Tarragona, for the Catholic Workers' Patronage society, swirling decorations in the soffits of the balconies represent an ocean on which the ship-like other levels float. In a hardware shop in Barcelona, the interior decoration was something to do with 'twinkling algae and crackling

'If you have visited a Gaudí work and felt a lightness of spirit, perhaps a flicker of a smile, it's likely you're looking at something Jujol made under the old man's supervision'

**Josep Maria Jujol i Gibert
1879-1949**

Education

**Escuela Superior de
Arquitectura de Barcelona
(1896)**

Educator

**Lecturer at the Escuela
Superior de Arquitectura de
Barcelona from 1910**

Key buildings

**Casa Batlló (1904-06), Casa
Milà (1906-10), Park Güell
(1900-14) with Gaudí;
Metropol Theatre in
Tarragona (1908),
Casa Torre de la Creu
(1913-16), Can Negre
(1915-30), Vistabella Sagrat
Cor Church (1918-23)**

fireworks'. An odd combination, the significance of which is obscure.

Generally, you feel that you are in the presence of a world-view, of some assembly of symbols and relationships, that may not be totally coherent or lucid, but which is nonetheless attractive. The Jujol universe is perhaps best appreciated as a bestiary, in which vegetable and mineral are fused into animal-like elements. Sometimes these are explicit, as in elephant-shaped iron hooks, or light fixtures in the form of beaky, Bosch-like creatures, or a pair of semi-detached houses that look like a mouse in plan (why? Who knows?). More generally there is a sense of animation, of seething life, in almost everything he made.

It is in fact misleading to speak of 'finished buildings' in Jujol's work. Many were unfinished for reasons beyond his control, and to his dismay, such as his shrine at Montferri, which was interrupted by the Spanish Civil War. Budgets ran out, or patrons disappeared. But there was also desired incompleteness, or at least slow unfolding over time. His Casa Bofarull outside Tarragona was a matter of 15 years of modifications and tinkering for the indulgent sisters who owned it.

His way of work welcomed chance, accident and things external to it, like the random shapes of the field stones he incorporated in his structures, or the mottlings on the Casa Negre. His Vistabella church, a gothic stone mountain on the outside, had its interior scorched by fire during the Civil War. I doubt if Jujol would have liked the way in which this event left a smoky layer over some of his wall painting, but it adds to the mystery of the place. It is hard to imagine a building by, say, Mies van der Rohe, accepting fire damage so well.

Much of Jujol's architecture is about layers of time, present in his brush strokes, in the geological history of stones, in weathering and ageing. The design and making of his buildings was less a fixed event, more



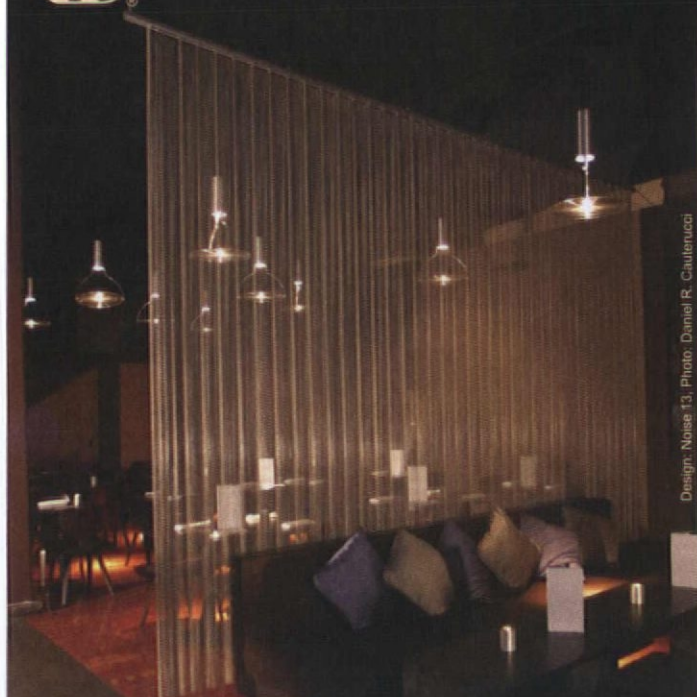
CHRIS BIANCHI

a phase in their continuing story (and, often, his projects were renovations and additions rather than new buildings). More particularly, they are fluid or liquid. They give a sense of barely holding together, of having just emerged from some ferment or chaos into which they might again dissolve, that their order, structure and identity is a temporary alliance that could unravel. They seem to be assemblies of actions and stuff, which provisionally create an event if a memorable one — in space and time. This feeling of suspension or fragility is rare in the usually over-emphatic practice of architecture. Gaudí didn't have it, for sure.

Why then, is Jujol not more widely celebrated? Partly because, in his own lifetime, he was both modest and obstinate, uninterested in adapting to the demands of others. Gaudí said that 'he does his work precisely where he shouldn't'. He refused to play politics, and his commissions became increasingly obscure and marginal. The Civil War didn't help. One commission which might have made him more famous, and for which he was the best-qualified architect in the world, would have been the continuation of Sagrada Família after Gaudí's death, but the job went to someone more biddable. He also showed no interest in joining in the stylistic and theoretical currents of his time. His approach was essentially of the era of Art Nouveau or Arts and Crafts, of the end of the 19th century. It was already old fashioned when he carried out his first independent commissions, around 1908. But he kept on in more or less the same vein until he died in 1949. He had very little architectural progeny (though perhaps the Oklahoma organicist Bruce Goff had something of Jujol about him) until Catalan architects of the 1980s and '90s started picking up some of his motifs. He can look like an evolutionary dead end, a mutation that went nowhere. History books are usually unkind to people who step outside the march of history.



CASCADE COIL DRAPERY



Design: Noze 13, Photo: Daniel R. Cauterucci

Circolo
San Francisco

Manufacturers of woven wire fabrics for partitions, window treatments, GuardianCoil blast mitigation screening, and other ornamental metal applications.

www.cascadecoil.com | T+1.971.224.2188

Experience the CAVSP Difference



You have a vision, now make it work. From concept to completion, partner with a Certified AudioVisual Solutions Provider (CAVSP) to create innovative, inspiring environments that successfully combine form and function. The InfoComm Certified Technology Specialist (CTS®) credential is a sign of quality and competency in the audiovisual industry. Internationally recognized and accredited by the American National Standards Institute (ANSI) to the ISO/IEC 17024 standard, it serves as a global benchmark for audiovisual professionals.

Companies that have demonstrated their commitment to professional excellence by supporting employees who achieve and maintain individual InfoComm International certification credentials are known as Commercial AudioVisual Solution Providers or CAVSPs. The company-level CAVSP is based on the percentage of personnel who have achieved these certifications.

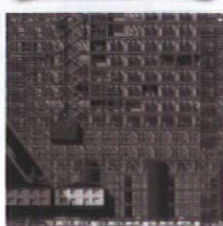
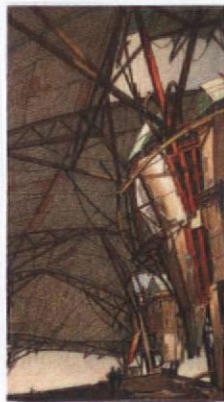
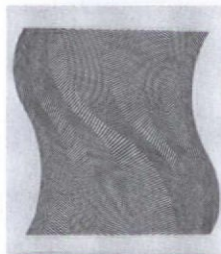
To learn more about the CAVSP designation and to find a professional near you, visit:

infocomm.org/hireacavsp



infoComm
INTERNATIONAL

Advancing Audiovisual Communications Globally



SUBMIT YOUR WORK TO THE AR DRAWINGS BLOG

architectural-review.com/folio

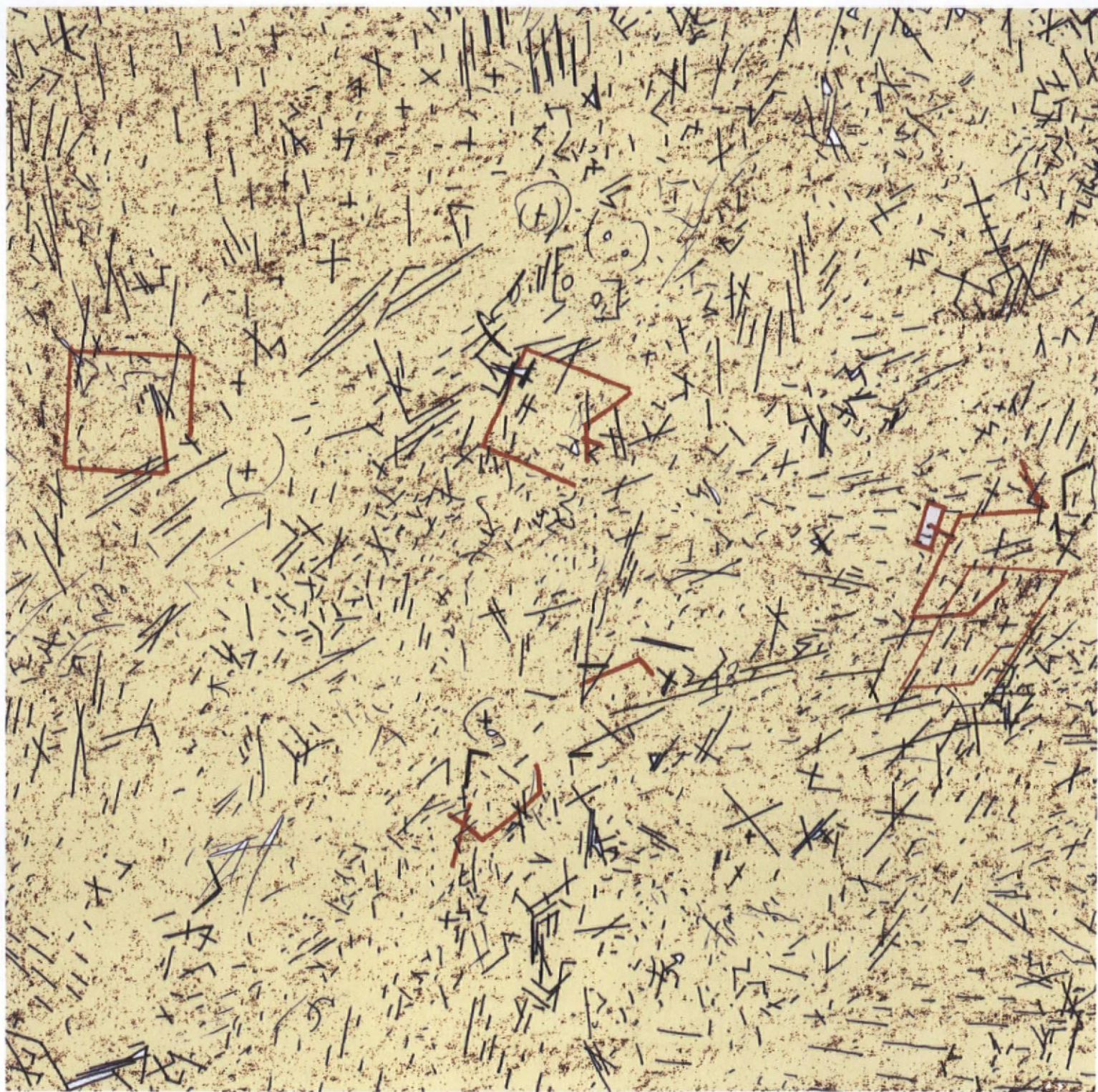
SUBSCRIBE TO THE AR AND SAVE 25%

£75 UK £75 USA £102 ROW



**CRITICAL THINKING
FOR CRITICAL TIMES**

subscription.co.uk/ar/rel2



Detail of **UTOPa-1** (2008) from the **UTOPX** series by Lebbeus Woods, who died on 30 October. Also in this issue, Nicholas Olsberg (p18) and Anthony Vidler (p33) reflect on his legacy