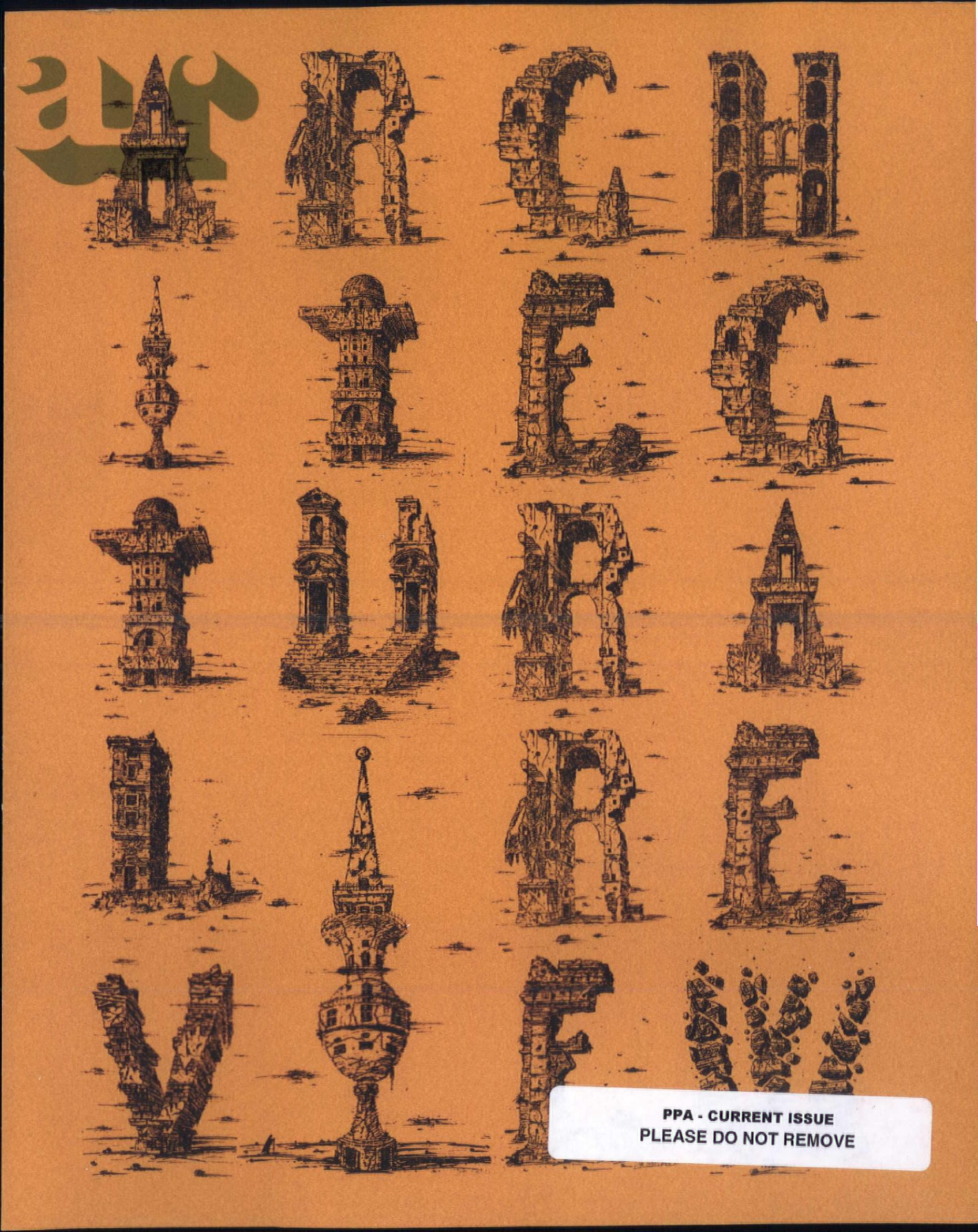


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Cover: in May 1962, the AR's cover featured an alphabet of capriccios designed by Peter Söderlund, 'which may be compared with Archimboldo's still-lives'. AR covers are currently featured in an exhibition curated by Steve Parnell at the Venice Biennale (p114)

CONTRIBUTORS

Robert Aish was responsible for the development of GenerativeComponents (used in the conceptual design of the Olympic Velodrome) and is now director of software development at Autodesk where he is working on 'DesignScript'. He gives a *Broader View* of software potential

Matthew Barac is a senior lecturer at London's South Bank University and also our *Pedagogy* correspondent. This month he co-writes an appraisal of the TU Delft with Andrew Dawes

Peter Blundell Jones is a Professor of Architecture at Sheffield University and a regular contributor to the AR. This month he revisits the school in Marl, North-Rhine Westphalia by Hans Scharoun

Lindsay Bremner is Director of Architectural Research at the University of Westminster. She is an award-winning architect and writer and published, lectured and exhibited widely on the transformation of Johannesburg after the end of apartheid. Here she writes on *The Least of all Possible Evils* by Eyal Weizman

William JR Curtis is a 20th-century architectural historian and author of the seminal texts *Modern Architecture Since 1900* and *Le Corbusier: Ideas and Form*. This month he reassesses Louis Kahn's legacy

Paul Davies teaches History and Theory at London South Bank University. He runs a blog, 'Architecture and Other Habits', available at pauldaviesarchitecture.blogspot.com. In this month's *Reputations* he explores Albert Speer, the man, his convictions and the architecture

Andrew Dawes worked for many years under Herman Hertzberger and Claus & Kaan before setting up ZODA Architects with Doris Zoller. This month, with Matthew Barac, he writes an appraisal of the TU Delft in *Pedagogy*

James Dunnett is a practising architect who cut his teeth working for Ernö Goldfinger. He is currently co-Chair with Professor Judi Loach of DOCOMOMO-UK. He assesses *The Modern Architectural Landscape* by Caroline Constant

Merlin Fulcher is a London-based artist, writer and poet. The programme director of Platfom One Gallery in Wandsworth, he graduated from Oxford University in 2008 and is currently a reporter on *The Architects' Journal*.

Niall Hobhouse is chair of the Cities Programme and governor of the London School of Economics. A leading collector of architectural drawings, he reviews the latest Schinkel exhibition in Berlin

Jessica Kelly is writing a PhD on the AR under the editorship of JM Richards. In this issue she reviews *John Berger: Art and Property Now*

Ayla Lepine is the Andrew W Mellon Research Forum Postdoctoral Fellow at the Courtauld Institute of Art. She assesses *Painting with Architecture in Mind*

Lesley Lokko qualified as an architect and almost immediately changed her mind and decided she wanted to be a novelist. She is author of *Sundowners, A Private Affair* and *An Absolute Deception*. Here she contributes to *Viewpoints*

Sutherland Lyall was AJ buildings editor in the early 1970s and author of the first study of the decade, *The State of British Architecture*, in 1980. Here he reviews a collection of essays on the same topic, *The Forgotten Decade*, edited by Elain Harwood and Alan Powers

Andrew Mead is a London-based writer interested in architecture, landscape and photography. A regular contributor to this magazine, he shares his *View from Genk*

Nicholas Olsberg was chief curator of the Canadian Centre for Architecture in Montreal. The Frank Lloyd Wright Foundation hired the archive expert to suggest ways to protect and share the vast collection of documents concerning the architect, which is moving to the Museum of Modern Art and Avery Library in New York, a relocation he discusses in *Overview*

Raymund Ryan is an architect and Curator at the Heinz Architectural Center at the Carnegie Museum of Art, Pittsburgh, PA. He is a regular contributor to architectural publications and this month he visits the Museum of Contemporary Art in Cleveland, Ohio by Farshid Moussavi Architecture

Deborah Saunt is a joint director of London-based architects DSDHA and a unit master at London Metropolitan University. Having built a number of schools and as a CABE enabler in education, we sent her to Rome to review the I Mosaici School by Herman Hertzberger

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 Kengo Kuma's Tourist Information Centre in Tokyo

Patrick Tierney received his MArch at Princeton, and prior to that he studied both Architecture and Design/Media Arts at UCLA. In these pages he reviews *Advances in Architectural Geometry*

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 Eisenman's Palladio exhibition at Yale

Michael Webb is an architectural writer and critic based in Los Angeles. This month he reports on a new arts centre and public park set on the site of a former prison in Valparaíso, Chile by HLPS

THE ARCHITECTURAL REVIEW

EDITORIAL

Editor
Catherine Slessor
catherine.slessor@emap.com
Deputy Editor
Will Hunter
will.hunter@emap.com
Art Editor
Heather Bowen
Editorial Assistant
Phineas Harper
phineas.harper@emap.com
+44 (0)20 7728 4589
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 7728 5261
bharat.joshi@emap.com
Group Advertising Manager
Amanda Pryde
+44 (0)20 7728 4557
amanda.pryde@emap.com
Business Development Manager
Nick Roberts
+44 (0)20 7728 4608
nick.roberts@emap.com
Business Development Manager
Ceri Evans
+44 (0)20 7728 3595
ceri.evans@emap.com
Commercial Director
James MacLeod
+44 (0)20 7728 4582
james.macleod@emap.com
Group Commercial Director
Alison Pitchford
+44 (0)20 7728 5528
alison.pitchford@emap.com
Senior Marketing Executive
Anthea Antoniou
+44 (0)20 7728 5552
anthea.antoniou@emap.com
Marketing Executive
Moya Mathias
+44 (0)20 7728 3532
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

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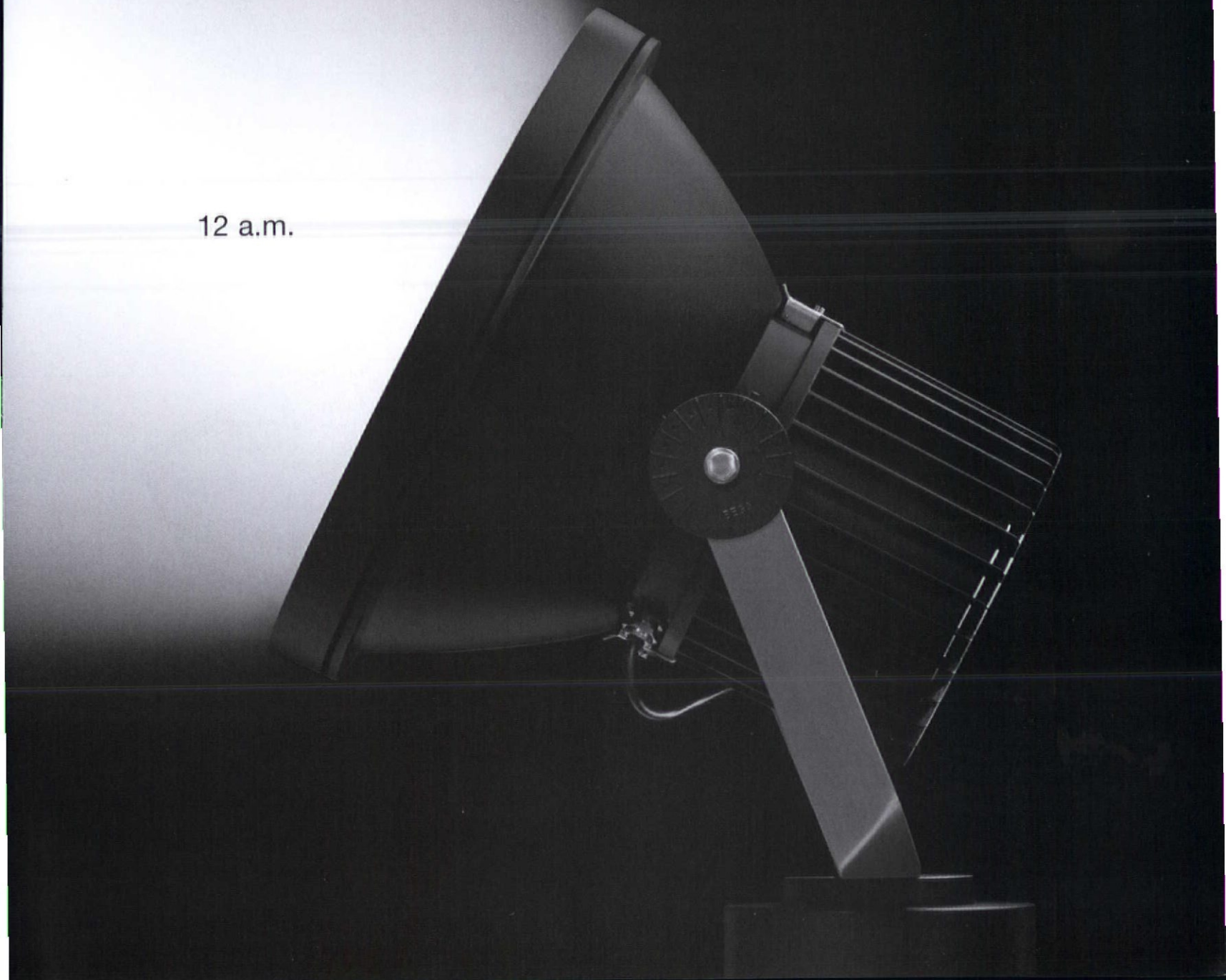
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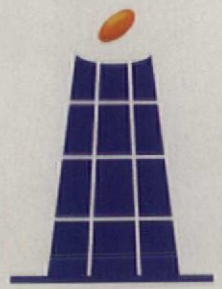
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Editorial view

Lessons from the masters on the long and changeable lives of buildings

'Architecture', declared Louis Kahn 'is the thoughtful making of spaces.' It's difficult to improve on that as a mission statement. So while the last issue was all about the endeavours and frustrations of youth, this issue is a reflection on the great masters of architecture – from Palladio and Schinkel to Wright and Hertzberger – and how their ideas and experience are still vitally relevant to our current era. Coinciding with the completion of Kahn's last project, the Four Freedoms Park in New York, is a major new exhibition on his work at the Netherlands Architecture Institute. 'After the formalistic gymnastics of recent years, Kahn's architecture stands as a sentinel of principle', says William JR Curtis (p78). 'It possesses many dimensions and cuts across geographical and cultural frontiers. It refuses to fit transient critical agendas.' Drawing on archetypes from many cultures and eras (the National Assembly in Dhaka, for instance, mines an array of sources, from the Pantheon to Buddhist stupas), Kahn synthesised a genuinely transcendent and authentic architectural language, employing Modernist abstraction to contain complex content.

In the increasingly frenetic whirl of publishing, awards junkets and the dumb rolling newsfeed of projects on the internet, it's virtually impossible to conceive of the idea that architecture has any kind of meaningful life beyond the moment of building completion. Kahn proves otherwise. Architecture is, in fact, a long, slow process and buildings must endure and make resonant connections with successive generations. These days slowness is often derided – despised, even – but at its most eloquent (as practised by this year's RIBA Gold Medal winner Peter Zumthor, for example), it speaks of an innate sense of care and craft, locked into the rich continuum of human culture and experience.

Buildings generally outlive their creators and the fact that they can change, often quite profoundly, over time, is rarely reflected in how architecture is taught, debated and presented to the public. Yet how things wear, weather and work (or don't) has important lessons both for architects and wider society and is a necessary part of any reformulation of architecture as part of the sustainable culture of the future.

This month's *Revisit* (p67) considers a primary school in Marl by Hans Scharoun. Constructed in the early 1970s, it has a formal complexity and sense of humanity that now seems shamingly at odds with what passes for school buildings in these more economically challenged times. Though it has been through some difficult moments, it is now being restored, making for a fascinating architectural and social trajectory. Yet it also shows how Scharoun's radical ideas about the potential of architecture to shape social and pedagogical interaction still endure, reworked only recently by Herman Hertzberger in his new school in Rome (p50).

As one correspondent to our letters page notes, quoting Álvaro Siza, 'to know architecture is to know the work of other architects'.

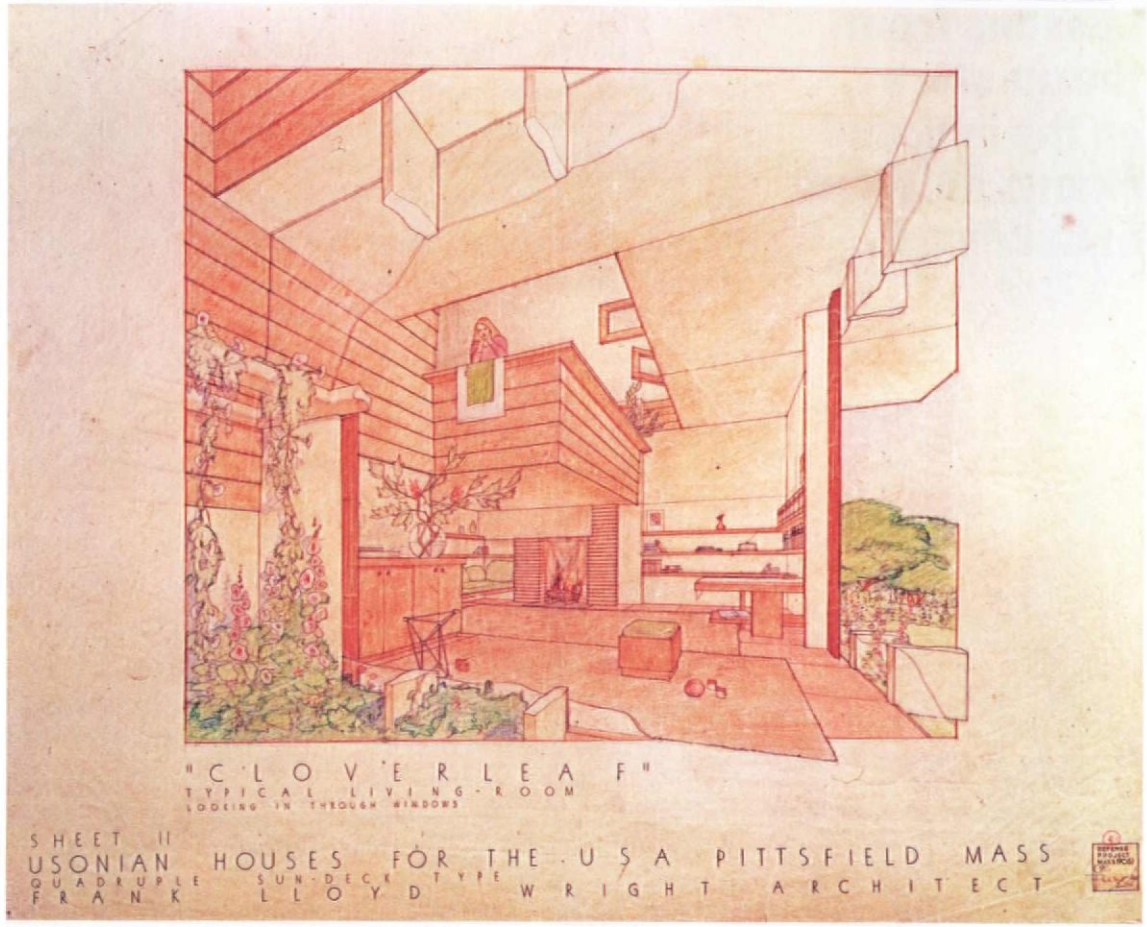
Catherine Slessor, Editor

Overview

NEW YORK, USA

The Wright move

In September, a major deal struck with MoMA and the Avery Library saw the full archive of Frank Lloyd Wright arrive in New York. To mark the moment, *Nicholas Olsberg* looks back over the American architect's revolutionary career



Wright's unmistakable drawings stand between 19th-century Arts and Crafts Japanoiserie and abstract Modernist axonometry



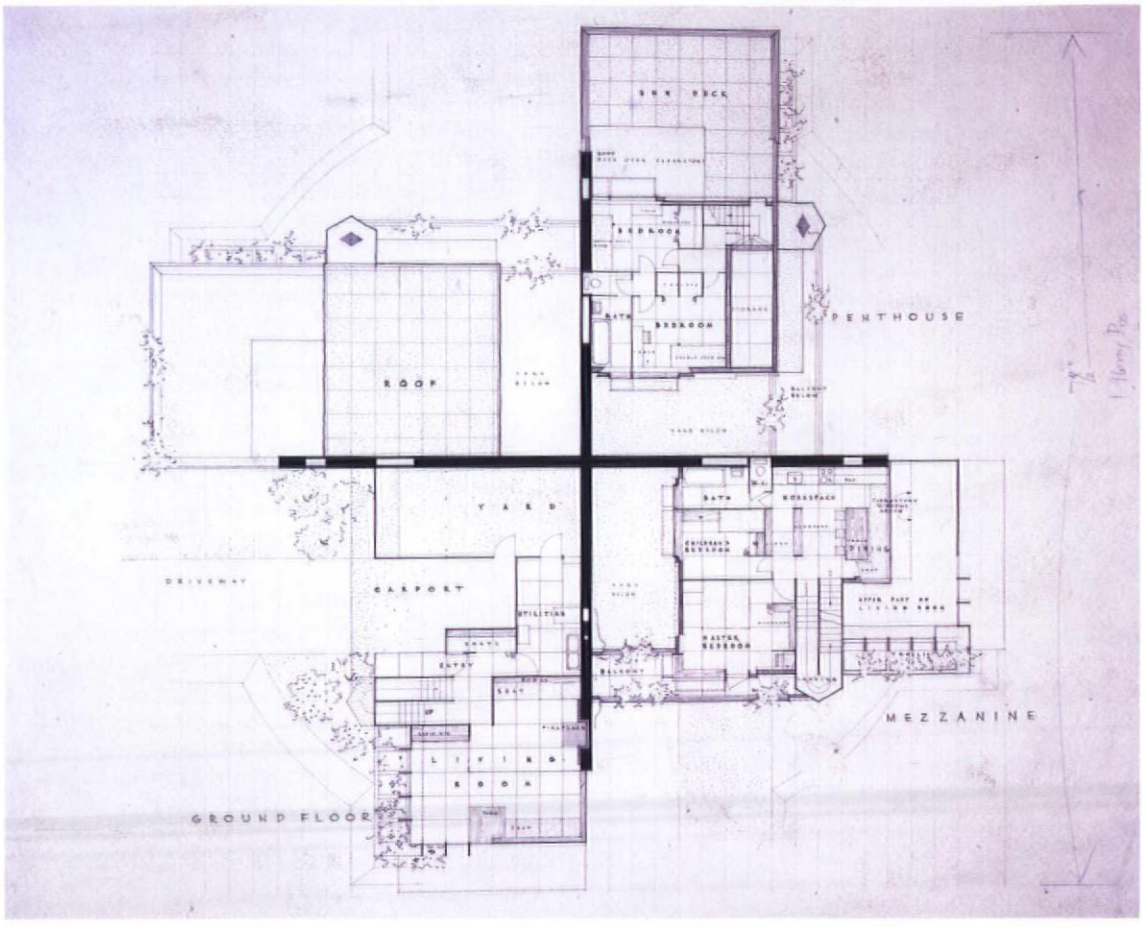
Wright examines the Cloverleaf drawings

The recent announcement that the archives of Frank Lloyd Wright will move from his home in the Arizona desert to the collections of the Museum of Modern Art and Avery Library in New York begins at once to change our perception of his work. Not only does it place an archive of incredible richness on the doorstep of a vast public and scholarly audience, but it suggests that Wright will again find himself where he belongs: at the centre of a continuing debate on how to adapt the shapes of architecture to the changing patterns of modern living.

Wright's career lasted for 70 years. He was born just after the assassination of Lincoln, and his last works were nearing completion when Kennedy died. The world he built in went from horse and buggy to space flight, telegraph office to television studio, and an economic life drawn from the land to one made by the machine. His impact was extraordinary. There are 1,000 projects, nearly 400 of them built, for almost every type of building in the landscape, rendered and conceived in one of the most extraordinary, varied and inventive arrays of sketches, drawings and models in the history of representation.

For many of these long years and in many parts of the world – notably his own country – Wright was a lonely and slightly forgotten figure. But by the 1950s, as post-Fascist Europe turned to his work as models that seemed to counter the monumentalism of the last decades, people were lining the canals of Venice in their thousands simply to doff caps as the now-familiar figure in cape and hat glided by; while in New York, where he had settled to complete the near-endless task of seeing the Guggenheim to completion, he found another kind of fame as a legendary character in the daily drama of popular culture, a regular attraction on television, an icon for Mad Ave, and a quotable source for magazine features and opinions on any subject of the time. As his fame grew, however, Wright began to relish the stance of the lonely prophet, and let himself be stranded on an intellectual mountaintop – too far from the current of ideas in architecture and the arts that had once done so much to inform him, and taking little account of the enormous changes in American society and culture with which he was for long so much in tune.

It has been hard not to take the great man at his word and to cast his work, as he cast his



A plan view of the same design, the unbuilt 'Cloverleaf' mass housing project of 1942, shows Eastern influence in its swastika layout

growing legend, in the mould of the single-minded prophet. We have looked at his changing ideas as a set of fixed principles and the dynamic shifts in his work as the slowly evolving line of an 'organic' ideal. In fact, the archives show his works changing as radically as the times they were made for, and Wright – for all but the last years – repeatedly reinventing architecture to fit the volatile state of society and its patterns of living. Much of his own discourse was built on the notion that flux is the true constant and that progress comes through a continued search for new forms.

These constant changes in the focus of Wright's reforming gaze are the most evident subject of the archives, and the great debates that they reflect – between city and suburb, vertical and horizontal, monolith and montage – are its most eloquent texts. He starts with a mission to re-shape the domestic space of the progressive bourgeois family, the ideal that marked his Prairie Years; returns from Europe in 1911 with an agenda that would rearrange the whole disordered visual fabric of the American city into a coherent sculptural pattern; then, like so many artists in the uncertain aftermath of the Great War, turns to the search for new and more dynamic geometries in which to organise our patterns of living and our relationship to the land; finally, he tempers these flights of fancy, in the sober climate in which late 1930s America tried to reconstruct itself, to a new low-lying, earthbound landscape for living, in an ambitious programme of systematic works that effectively established a new national language for the built landscape.

It is in that moment that we see him here, as he stands back to appraise his own drawings for workers' housing in Massachusetts. These were to be clustered homes with vertically layered zones, central mezzanines and openings to sunlight. With them Wright – as so often – brings us firmly but with miraculous originality into the great architectural discussion of the time, which was how to re-house American families in the postwar world. Just as surely it shows how direct was Wright's influence – widely published and commented as these experiments were – on the worldwide debate on housing and community and on the most influential example that was to follow it, the Unité d'Habitation of his great rival for the title of Modern Architect, Le Corbusier.

SINGAPORE

Wilkinson Eyre wins at WAF

Merlin Fulcher

Wilkinson Eyre's Conservatories (AR October 2012) in Singapore has won WAF's coveted World Building of the Year Award.

Displaying plants and flowers from Mediterranean and tropical regions, the two enormous structures are part of a £500 million landscaped park by Grant Associates, Wilkinson Eyre, Atelier One and Atelier Ten. Called Gardens by the Bay, the 54-hectare tropical gardens scheme – featuring 18 super-trees and two giant cooled conservatories – picked up the high-profile award at the 5th World Architecture Festival in Singapore on 5 October.

Speaking on behalf of the festival's super-jury, Paul Finch, WAF programme director, said: 'This project was a fine and deserved winner, especially as it was an immensely collaborative effort. It features a series of radical and technical examinations, comprising some truly experimental aspects and lines of enquiry that will be immensely useful to the profession.'

LONDON, UK

Nigel Coates wins top teaching award

Will Hunter

Nigel Coates first hit the headlines in 1983 when no less a figure than James Stirling tried to fail the whole of the young designer's unit at the Architectural Association. The students had depicted proposals for a memorial to Thatcher's Falklands War using art techniques picked up from the 'Transavantgarde' in New York. Stirling, and fellow examiner Ed Jones, deemed the work to be 'unassessable' and

– as Peter Cook recalled in last month's *Reputations* (AR October 2012) – the unit was only saved by the intervention of the AA's head Alvin Boyarsky.

Today Coates is again making the headlines for his teaching, but this time round as a celebration of his 35-year commitment to architectural education. At the end of October, the RIBA announced that Coates had won the Annie Spink Award, its biennial prize to recognise outstanding contributions to architectural education. Established in 2000, previous winners include, among others, Peter Cook, David Greene, Dalibor Vesely, Peter Salter, Wolf Prix and Elia Zenghelis.

Having been taught by Bernard Tschumi at the Architectural Association, Nigel went on to teach Diploma Unit 10 with his former tutor. In 1978 he took over the unit and started to evolve a new methodology, using messy and energetic paintings and drawings to capture some of the reality of what it was like to experience real London life. As a reaction to the prevailing norms of architectural practice at this point – its formalism and self-referentiality – the students made scenographic and subversive architectural speculations for a city as its story unfolded around them.

After the Stirling episode, Boyarsky proposed the idea of a book of the work, but together the unit decided on the greater immediacy of a magazine. They called it – and themselves as a group – NATO (Narrative Architecture Today). Through the issues and exhibitions over the next few years the work galvanised and the word spread. The group was important for opening people's eyes to new possibilities and new ways of working: 'NATO did for architecture in London what the original New Romantics did for the music scene,' was the recent judgement of Helen Castle, the Editor of *Architectural Design*.

Later, NATO's punky spirit matured into an architectural pedagogy that could be passed on from its creator to fuel and guide the larger explorations at the scale of a school. From 1995 to 2011, Nigel was Head of the Architecture Department at the Royal College of Art, where he led his teaching staff to develop their own critical strands and lines of enquiry within this narrative way of working. With all the projects set in London, the students looked to the city around them to situate their works – not just spatially, but socially, politically and culturally. The first GAGA winner Haiwei Xie (in last month's AR) is a product of the architectural culture that Coates established at the RCA.

Coates was nominated for the Annie Spink Award by the AR, countersigned by our columnists Peter Cook and Farshid Moussavi, and with supporting letters from Zaha Hadid, Bernard Tschumi, Amanda Levete, Deborah Saunt and many other former staff and students of the RCA. On winning the award, Coates commented: 'Over the years I've often been referred to as an *enfant terrible*, so clearly it's time to bury that idea. This is an honour from the architectural heartland, and it comes as a warm and wonderful surprise.'



Nigel Coates's 1984 drawing for a house for Derek Jarman, sited in an old Dorset quarry

PARIS, FRANCE

Geometry lessons

Patrick Tierney

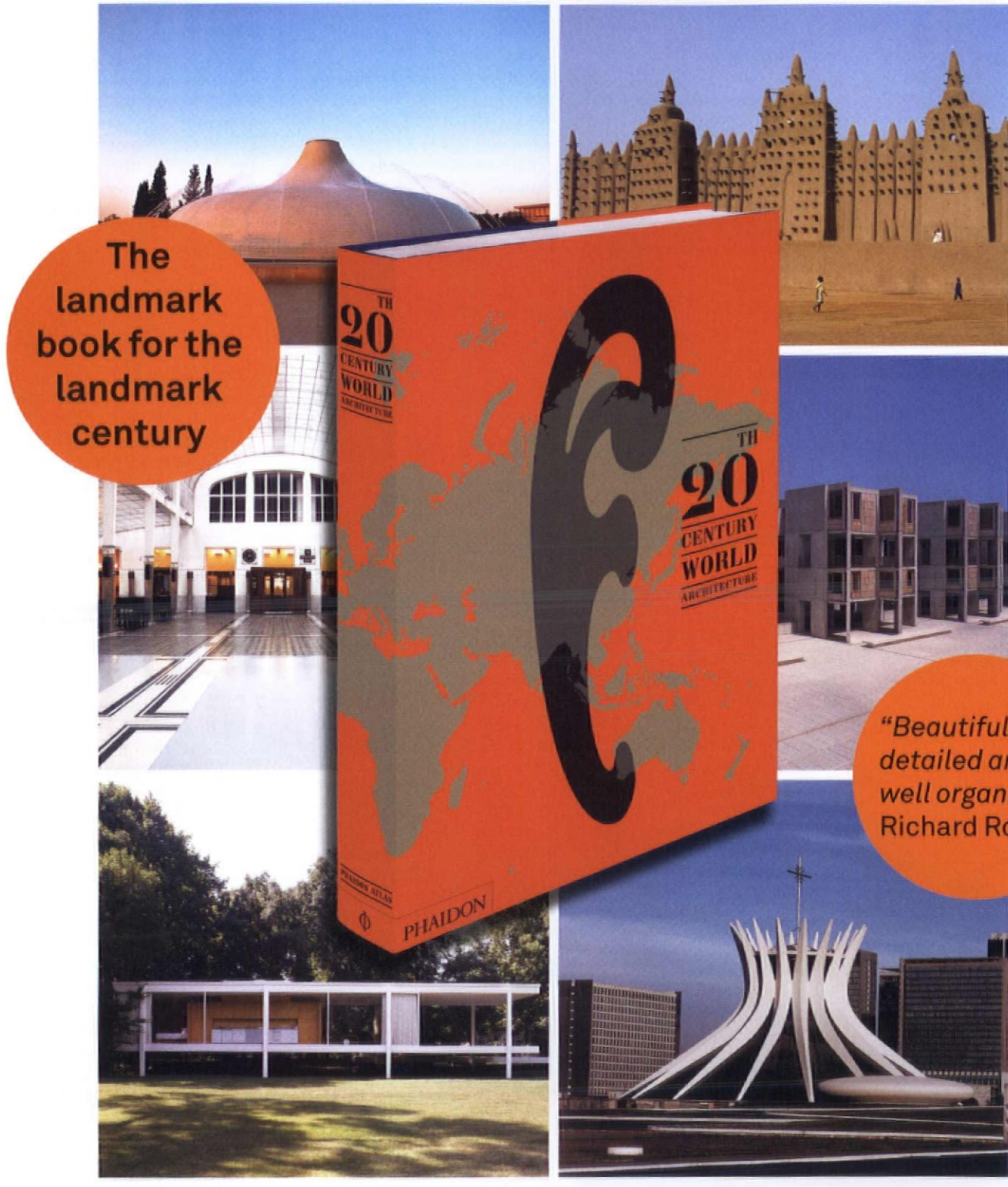
The computer has become the nearly exclusive means by which architects and designers think through problems and generate rationalised forms. It's no wonder then that the discipline has begun encouraging architects to gain a deeper understanding of this tool, rethinking its use beyond the metaphor of merely simulating pen on paper.

The biannual *Advances in Architectural Geometry* (AAG) conference examines this new set of design methodologies known by an ever-growing list of names: parametric design, computational design, generative design, and now digital design. The third iteration of AAG, held 27–30 September, saw the conference grow from 130 attendees in a lecture hall at the University of Vienna to over 400 attendees packing the auditoria of the Centre Pompidou.

While the AAG does showcase the latest algorithms and software which in several years' time will be behind the buttons pressed and commands issued by architects around the world, it also brings architectural presentations in line with science and mathematics through a rigorous peer-review process emphasising empirical proofs over formal beauty and philosophical locution.

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Of all the work presented, the most overwhelmingly positive reaction was received for a research project by Thomas Kiser and Michael Eigensatz on caustics, the seemingly random patterns of light created by reflective and refractive surfaces (for instance, the light patterns on the bottom of a swimming pool). After years of research and manufacturing they presented a means to control this previously ephemeral phenomenon, allowing the creation of black and white images from pieces of glass or metal. The use of this technique to project an image of Alan Turing onto the wall of the Centre Pompidou's darkened auditorium provoked 300 architects and engineers to burst into spontaneous applause, whistles and cheers.

One of the few projects culminating in a realised building was presented by Jeffrey Kock and Benjamin Bradley from Front Inc, who wrote custom software to solve the seemingly intractable task of simulating the interactions of the half a million interlocking rings of the Kukje Art Center facade in Seoul. Their result distributed rings along a minimal surface of the building, creating in essence Frei Otto soap films out of this filigree metal fabric.

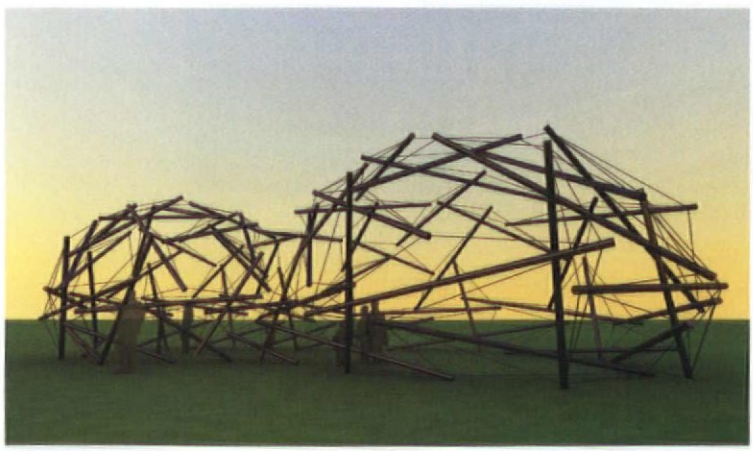
Tomohiro Tachi from the University of Tokyo presented software capable of turning 3D models into tensegrity structures, opening up the possibility for tensegrity domes, blobs, or even bunny rabbits, demonstrating how an extrapolation of well understood but simple principles, repeated millions of times in a software simulation, can completely reconceive an otherwise tired architectural cliché. One of the more fascinating outcomes of his research was the discovery of an isomorphism between folded paper models and tensegrity structures – in other words, any form constructed from folded paper such as origami can be constructed as a tensegrity structure and vice versa. While still untested, it holds fascinating implications for robotic fabrication now that AAG workshop presenter Gregory Epps of the London start-up RoboFold has developed software to take robot arms through the complex folding motions required to crease metal.

Yet throughout the two days' overwhelming display of computational research, obvious criticisms seemed to go unanswered: why do all the computational pavilions look so similar despite drastically different underlying algorithms? Throughout, the AAG presentations seemed to detach themselves from the process of creating architectural designs. A recurring question for many of the presenters was why they spent months or years of their lives bending over backwards to solve a problem which could have easily been solved by slightly tweaking the design, and the reply was always the same: this is what the architect wanted. They dictate, we rationalise.

Geometry in architecture is patently capable of doing more than merely solving problems: it can offer cultural critiques or artistic statements. Some 37 years ago, at the very site of the present conference, Gordon Matta-Clark created a literal intersection of architecture and geometry with his piece *Conical Intersect*. Unfortunately, the repercussions of this particular architectural geometry, or any discussion of the world beyond a well-defined set of technical problems, were notably absent.

In fairness, many of the discoveries presented would only have been possible without getting bogged down by questioning architectural repercussions or how they might fit into a historical and critical framework, though this mindset does nothing but encourage Toyo Ito to reply, after being asked about the scripts and algorithms of his buildings, that there are no scripts and there are no algorithms: there is only architecture, leaving Mutsuro Sasaki the task of explaining the sophistication behind his work and justifying Ito's presence at the AAG.

Abandoning the isolation giving rise to these projects would be a mistake, though it would be irresponsible not to acknowledge what software's pervasiveness in architecture means to both disciplines. Finding this proper balance is yet one more unsolved problem, but one that with time the AAG is surely capable of solving. So despite the inevitable growing pains, the two days of presentations pushed the boundary between possible and impossible slightly outward. And that, regardless of anything, was a great feeling to be left with.



Tomohiro Tachi's tensegrity models derived from origami suggest new design strategies

AR EVENTS

Debates announced with RCA and V&A

Will Hunter

For the second year running, the AR is collaborating with the Royal College of Art to produce architectural discussions in London. Following the success of the last series, *Future Frontiers*, these events are now moving to the Victoria & Albert Museum, our new third partner. This year's series is called *Architecture&*. There will be five events in total, and the two confirmed for winter are:

Architecture & Urbanism
Tuesday 13 November, 7pm, Hochhauser Auditorium
Debating the development of London with Peter Wynne Rees, the City Planning Officer who approved, among many other developments, Norman Foster's Gherkin; and Liza Fior from the art/architecture practice muf, an advocate of community engagement who has recently been working around the fringes of the Olympic Park.

Architecture & Ecology
Tuesday 4 December, 7pm, The Lydia & Manfred Gorvy Lecture Theatre
Exploring the future of our planet with Rachel Armstrong, the author of TED Book *Living Architecture* and a leading 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.'

Both events will be chaired by AR Deputy Editor Will Hunter. Tickets are £9 full price, but a special concessionary rate of £6 is available for AR readers.

For how to book visit architectural-review.com/ArchitectureAnd

Films of the last series *Future Frontiers* can be found at architectural-review.com/future-frontiers

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Broader view

The ghost in the machine

Robert Aish shares his insight as the software developer whose application was used to design the Olympic Velodrome

There are virtually no buildings completed today where aspects of the design or construction have not harnessed computing in some shape or form. But this broad generalisation masks a contrasting spectrum of differing software tools and levels of intellectual and creative engagement.

It should go without saying that the software developers who write computer-aided design applications have a tremendous vested interest in the process of design and in the architecture that results from that process. However, any shared vision of architecture and the process of design that links architects with these software coders can seem absent or obscure.

Architecture is an integrative endeavour, spanning multiple disciplines and modes of thinking so what should be the role of coding and computation in architectural design? Perhaps merely to help to make life easier, but let us dig deeper. One answer might be to provide automation tools, such as drafting. These implicitly accept current practice as a given and focus on providing productivity benefits. In this context, such tools should be easy to retrofit to existing design practice; should present established terminology and conventions; and should be usable with minimal knowledge of computing or specialised training. This is the era of 'office automation', of the word processor. A word processor can help in the mechanics of writing, but embeds no conceptual knowledge about the user's thought process and therefore offers no support to complement the user other than speed.

It has become clear that the 'drafting automation' approach (the design equivalent of the word processor represented by CAD packages) may offer designers some immediate advantages but essentially fails to make any engagement between the fundamentals of computation and architectural creativity. In many other professional domains the application of computers has been the motivation for far more profound changes.

Let us start with the basics: a computer program and a text book can both embed conceptual knowledge. The advantage of a program is that this conceptual knowledge is also available in an executable form. In most scientific and engineering domains the primary reason for using a computer application is to access this embedded knowledge. Therefore the use of the program in part depends on the user's recognition that he/she may have to learn the core concepts on which the program is based. Acquiring this kernel of knowledge extends his/her horizons and is a benefit in its own right quite apart from the knowledge's value in using the program. This does not mean that the program should not be intuitive to use, but more that it should engage with the intuition of the user to communicate rather than mask the underlying abstractions.

Geometry and specifically computational geometry is an underlying abstraction embedded in most design applications and forms an essential connection between computation and architectural creativity.

Why draw straight lines and planar orthogonal forms reminiscent of hand drafting, when with a computer you can draw free-form curves and surfaces? Why draw free-form curves and surfaces when with scripting tools you could specify the design logic to control the form or proportion of the geometry so as to achieve some more subtle effect of transition or variation? Why be limited just to geometry when you could use form-finding techniques to create architectural forms that emerge from the interaction of generative logic, constraints and performance criteria?

This progression is not simply about design intuition and creativity. Nor is it simply about programming logic and engineering rationality. What is interesting is that this process is a combination, indeed the integration of different ways of thinking: design and engineering, intuition and logic, exploration and confirmation.

Certainly, it is possible to draw complex geometry with traditional 'hand-eye' skills but computed or 'form-found' geometry harnesses deeper insights and creates an aesthetic that goes beyond intuition. The challenge for the software designer is how to present these deeper insights and these underlying abstractions in an intuitive form?

It is not for software writers to claim that the heroic architect-engineer-master builders of the past never thought in this more integrative way. What we are suggesting is that this ideal of integrative design could be more broadly encouraged by developing design software in a different way and by using it differently. Instead of writing separate computer applications for different design and engineering disciplines, we are seeing computational design tools emerging that combine geometry generation, interactive direct manipulation, scripted 'design logic' and multidisciplinary analysis and simulation all within a single application.

Here we are moving on from the idea of the single practitioner using a single discipline-specific application in relative isolation to a new scenario where the computational design model, informed by different analysis and simulation tools, becomes a real-time intermediary between the members of a multidisciplinary design team. Such a system could be convincingly used on a discipline by discipline basis. Of course the, often politicised, specifics of a particular project may require more formal separation of responsibilities but at least the software is providing the opportunities for such collaboration.



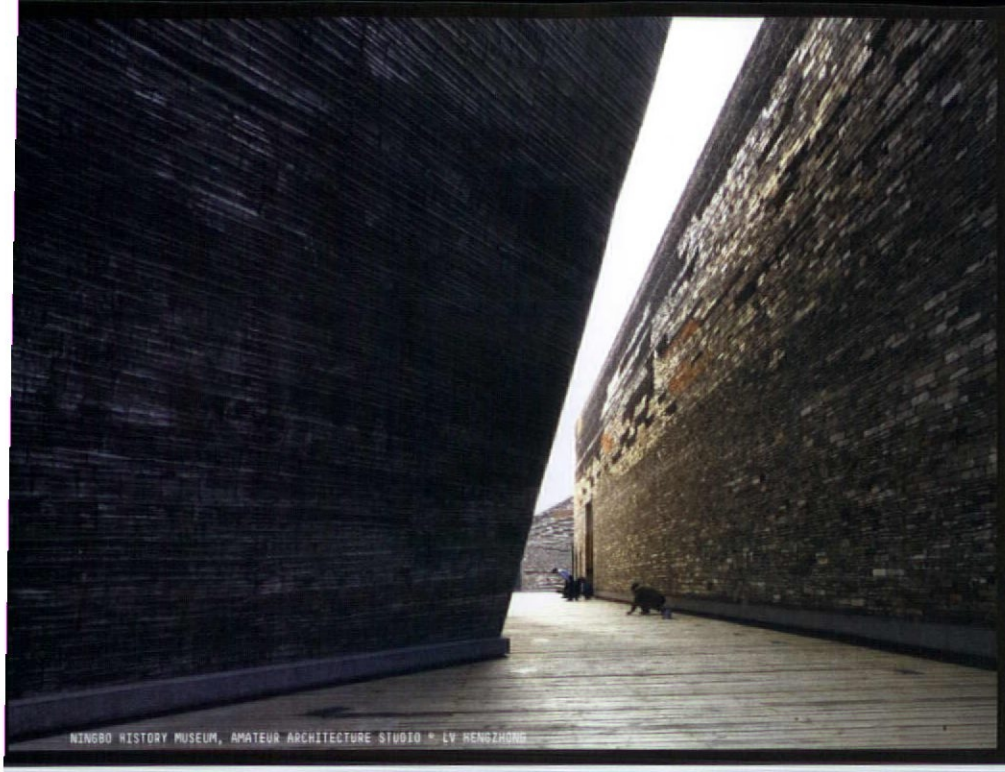
PAUL SARGENT

But we need to remind ourselves that not all curvy parametric scripted architecture is the same. There is, for example, a world of difference between the the Velodrome's and the Aquatics Centre's computed geometries (AR August 2012). We can certainly identify those buildings which are the product of computational rationality; that use form-finding techniques to create architecture that is both intrinsically aesthetic and harness the laws of physics (possibly intrinsically aesthetic for the very fact that it does harness the laws of physics). Such architecture can harness the natural shell structure, it can present a gentler profile to the elements. It has a greater volume to surface area ratio. It is naturally iconic. And when used within the community, for example as a school building, it can be inspirational, as the embodiment of the arts and sciences in harmony without the spiralling costs it is often fancifully accused of concocting.

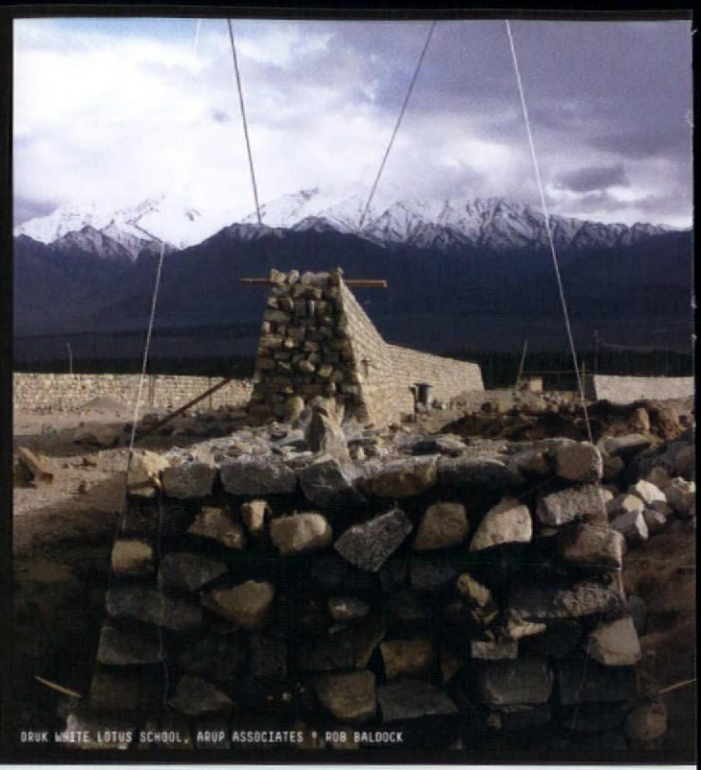
We can compare this with the less rational (or even non-rational) use of the same technology to create forms that pretend that they can circumvent the laws of physics, but actually end up having to be post-rationalised by unsung heroes in the back office.

Software can encourage and can facilitate – it cannot dictate. Code can be used deeply or superficially. Its use reflects, even amplifies the intent and the values of the users.

Software developers don't design buildings, they design software. But we have a tremendous interest in design both as a process and as a result. We have a vision of design based on creativity and knowledge, where the boundaries between disciplines dissolve and where architecture can achieve its potential as a true synthesis of multiple ways of thinking and as a physical artefact with important social and cultural dimensions.



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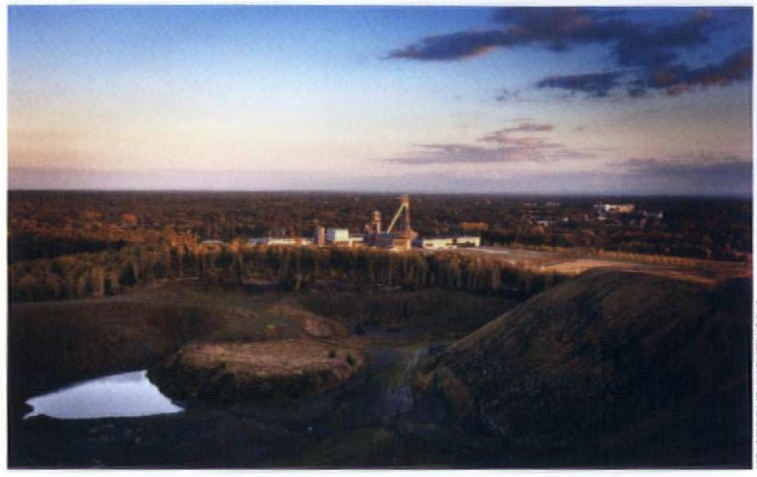
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View from...



KRISTOF VRANCKEN 2010

The now defunct André Dumont Mine powerfully evokes Genk's industrial past, while anticipating transformation into a new technology park

Genk, Belgium

The post-industrial city of Genk drew on its mining heritage to stage the biennial art exhibition *Manifesta*, reports *Andrew Mead*

Unlike its near namesake Ghent, the Belgian city of Genk boasts no splendid cathedral or Flemish Renaissance houses. It blossomed in the 20th century after the discovery of coal, which was exploited by three large mines. These have long since closed but one was the site this summer for the European art biennial *Manifesta* – a biennial which since its inception in Rotterdam in 1996 has sought locations less for their arts scene than for cultural and social issues they might raise. This year's edition was of especial interest because it brought new depth and significance to the whole event.

As Genk boomed last century, its population grew from 2,000 to 70,000, with many immigrants from the Mediterranean. The area beside the mines developed as a garden suburb, with curving streets, a hierarchy of houses, a church and a school. When the first mine closed in the mid-'60s there were protests, strikes and two fatalities, but further closures in the '80s were more adroitly managed, with ample government subsidies easing the pain. Ford Motor Company is now the major employer and the unemployment level little more than the Belgian average.

As a city seeking a post-industrial future in a prolonged recession, Genk attracted *Manifesta* director Hedwig Fijen for encapsulating a wide European problem, but its selection as host for this year's biennial was spurred by architecture. 'We were immediately electrified by the building,' she says of the André Dumont Coal Mine, whose main block housed almost all the exhibits. Completed in 1924 to designs by Gaston Vautquenne, it partly masks its highly functional interior behind decorative bands of brick and stone, with a fanciful tower at one corner. Whereas a mine such as Zeche Zollverein in Essen, completed just a few years later, completely embraced Modernism, Vautquenne clearly wanted to dignify his building with this conservative dress.

But while outside you are certainly in Belgium, inside it could be Detroit: a quintessential ex-industrial interior, with long perspectives down rows of concrete columns and views that sometimes embrace several levels of the building at a time. Besides such generic features as pitted surfaces, peeling paint and truncated cables are traces of the block's past, for instance, channels in the concrete floor where the miners' shower stalls once stood. Though the idea of showing art in such raw settings is now familiar, this was a spectacular site for *Manifesta* – the more so because there was such a symbiosis between the building and the exhibits.

In previous years *Manifesta* has only presented contemporary art. Under the overall curatorship of Mexican art historian Cuauhtémoc Medina, the innovation this time was to supplement the contemporary work with two sections devoted to the past. One studied the representation of mining in art and photography and artists' use of coal itself as a material. The other drew on the multicultural history of the area, presenting objects with much more panache than the usual local history museum. The first thing you saw was an array of Turkish prayer mats, like an abstraction of the floor of a mosque; beyond were some intriguing models used for teaching miners.

When *Manifesta* closed at the end of September it had received over 100,000 visitors and its organisers estimate that an astonishing 70 per cent were not regular art-goers. 'We are very pleased,' says Fijen. One source of its audience was the neighbouring Netherlands where evidence of former coal-mining has been largely obliterated. Genk made that mistake in the 1960s with its first mine to close, but has since found new use for the second as a cultural centre while the vacant André Dumont Mine will shortly become part of a technology park. Hopefully the ancillary buildings that are presently derelict won't be too sanitised in the process, nor the landscape made too tidy.

For a longer version of this article: www.architectural-review.com/genk



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Viewpoints



LESLEY LOKKO

How can architecture find a better way to embrace difference?

I have to say, it feels pretty good to be British right now. Summer may have come to an end but the feel-good factor of our 'golden' Games lingers on. For my money, two things stand out: quivering lips and an image of Britain that owes as much to wit as it does to history. It was fan-*tas*-tic to see a Britain comfortable in its own multi-coloured skin. Yes, the sceptics moaned about authenticity, but for someone watching it all unfold from the couch, the image beamed across the globe of a contemporary Britain, proud of its multiple identities and histories, struck me as glorious. All that emoting over heroes as 'diverse' as Mo Farah, Jess Ennis etc, everyone, athletes and spectators alike, happily blubbing away. With great wit and panache, the Games put to bed, once and for all, the notion of Britons as repressed, shackled to the past and (ooh, dare I say it?), *white*.

Now, I know neither lips nor wit have much to do with architecture, but then I got an email asking me if I'd like to come to Moscow to judge a competition to select the 'world's best graduation projects'. The invitation was swiftly followed by a sumptuous book of the previous year's projects to give us an idea of the quality and scope of the work. On closer inspection, I was amused by how easy it was to pick out the British entries. There was a humour in all of them, alongside considerable design and representational skills. It doesn't necessarily follow that they were the best projects in the world, but they were certainly the wittiest.

A few days later, I read an article in *Time* magazine about the work of British-based Adjaye Associates and came across the following line. 'The young Adjaye encountered many types of buildings, from slum dwellings to mosques, from regimented colonial cities and embassies to more organic African metropolises in Saudi Arabia, Lebanon and Uganda. It gave him an appreciation for different forms and human-to-edifice interactions. "I don't make references [to my childhood] in a conscious way," he says, "But I think the places I saw as a young child profoundly affect my sense of atmosphere, light, geography and people."' As a statement, it's not particularly witty – quite the opposite, actually, more reflective – but as a way of thinking about those very same differences in culture, experience, history and geography that Danny Boyle moulded to such spectacular effect in the opening ceremony, it displays a lightness of touch in its approach that architecture, still uncomfortable with multicultural anything, might find useful.

Going back to the Games, alongside all the emotion and creative vibrancy of modern Britain on show, it was curious how quickly the commentary on our *architectural* achievements fell more or less neatly into two categories: buildings seemed to be either historically significant or technically efficient. The one exception was Zaha Hadid's Aquatics Centre, which garnered much praise for its 'breathtaking' form. It struck me after reading the article on Adjaye Associates that the same 'differences' in culture, climate, light, form and interaction that have shaped one modern Briton's response to the profession were, in all likelihood, the same 'differences' that shaped another's. This isn't a plug or a comment on either architect or their work. It's a comment on something else. For so long, the difficult, knotty question of identity has skirted around architecture, or vice versa, and our responses have generally been problematic. Low numbers of 'others' (whomever we define by that) within the profession is a 'problem', though few are able to articulate what the problem *really* means.

Diversity, seen as a political rather than cultural concern, is best 'solved' by simply swelling the ranks. More 'others' will automatically mean a shift, but in what? Can 'difference' in the ways in which we experience, understand, shape and create space lead to a richer, more vibrant built environment? It's a tall order. The *Time* article stakes out an admirably clear position on the subject – it ain't about skin colour or 'race' or ethnicity. It's about climate, light, temperature, form, meaning, ritual, space. Experiences that were once geographically and culturally distinct have been brought together by our recent shared histories, allowing us not only the opportunity to compare, but also to combine. The Games offer a glimpse into the manner in which it all might take place. A very *British* manner. Full of light, humour, emotion ... not a stiff upper lip in sight.

LAST WORDS

'I did play with this idea that I should become a psychiatrist. I have a very acute observation. It took Patrik Schumacher 20 years to realise I am right'

Zaha Hadid speaking at the RIBA for the *BBC World Service*, 18 October

'When students draw only on computers it is analogous to hearing the words of a novel read aloud, when reading them on paper allows us to daydream a little'

Michael Graves
***The New York Times*, 1 September**

'When ant expert Auguste Forel stumbled upon an energetic new species he dubbed it *Crematogaster distans r Pevsnerae* in honour of the industrious Nikolaus Pevsner'

***Country Life*, 29 August**

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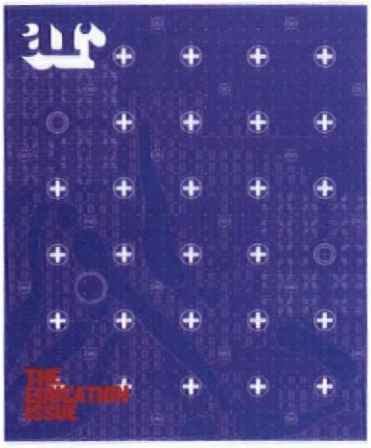


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Your views



The Education Issue stirs debate in the profession

Kevin Rhowbotham addressed a number of important issues in his piece on British schools (AR October), most notably how modern British architectural education has come full circle in the way it now seems to propagate the sort of 'mysterious uselessness' that Viollet-le-Duc and Llewelyn Davies attributed to the Beaux-Arts system.

In identifying empirical knowledge as the potential saviour of architectural education (and by implication the profession itself) Rhowbotham is, I believe, correct, but I would say that he has not correctly identified the type of empirical knowledge particularly pertinent to architecture. Rhowbotham seems to suggest that sociology ought to be the sine qua non of architecture. I would like to make the radical proposition that first and foremost architects should be concerned with the skilful realisation of buildings. Although architects should have a firm grasp of the social implications of their work, it is wrong to suggest that the understanding of social implications, and the playing of a leading role in applying that understanding, constitutes 'the work' of the architect.

It is perhaps within the social sphere more than any other that architects need to behave as enlightened collaborators, rather than experts. The pertinent empirical knowledge of the architect can only be that which constitutes their expertise. I believe that this comprises two primary strands. I quote Alvaro Siza in identifying the first: 'to know architecture is to know the work of other architects'. How was the great architecture of the (immediate and distant) past achieved? How were the mistakes of the (immediate and distant) past committed?

Secondly, contrary to popular belief within the profession (and particularly in schools of architecture), architects don't 'build' buildings, but rather play the leading role in controlling how they are built. To do that, architects must know the language of building; planning and building control approval; American black walnut, sapele; countersunk self-tapping screws; concrete mixes and treatment regimens and so on. These aspects must form the basis of architects' knowledge if they are to have any credibility at all.

It's true, of course, that students can only really get a firm handle on this once they actually start their working lives, but it is surely also true that for students to be completely incapable of displaying any sort of familiarity with this kind of empirical knowledge during their first job interview, is unacceptable. Society deserves better.

It is a severe lack in these two areas of knowledge that has led to the marginalisation of architects and the decrease of their influence rather than any lack of social awareness or philosophical content.

Recently, as developments in procurement have required architects to know less and less of it, there have been moves to almost abandon pursuit of this type of empirical knowledge in favour of the development of the media-savvy 'cool & coiffured' consultant, practically divorced from the largely 'blue-collar' building language, culture and practice, which must be wrestled with by those architects who want to give real life to their design work.

Buzz-terms such as 'Spatial Agency' and 'Alternative Practice' have been coined. All those connected to the profession either by way of academia or practice, must realise that taking the profession in this direction, further away from architecture's 'physical' aspects, certainly means the abandonment of building production to just the kind of institutional, bureaucratic and capitalist interests that so many contributors last month railed against.

A building industry from which architects are ever increasingly sidelined has a direct bearing on the plight of architecture student Debo Ajose-Adeogun, recently featured in the *London Evening Standard* and very impressively mentioned in your editorial. At least no one can accuse the AR of being irrelevant at the moment.

Michael Badu, Michael Badu Architecture

Rhowbotham's well-written article goes to prove that architectural education in the UK is in need of some serious reform.

State sponsored tertiary education has now all but disappeared. As a working-class lad working my way through the meritocratic system, I was able to complete my education with no debt. I was also lucky enough to graduate in a period of economic stability, so was able to find a job and start learning how to be an architect relatively easily.

You spend five years at university learning two per cent of the role of an architect in practice. We are now in an era where students (from September 2012 onwards) will be paying up to £9,000 per annum for their education over the six year full-time RIBA/ARB accredited sandwich course.

Today's students need to be holding universities and the professional bodies accountable for these fees. With £54,000 worth of debt at the end of the sixth year, they need to be equipped with skills that employers are looking for in order that they can be productive in practice. The skill for the universities is finding the right balance between the teaching of architecture as an art and the technical, socio-economic and pragmatic issues.

The relevant institutions (SCHOSA, RIBA, ARB etc) need to be having a major re-think. The three year degree, year out, two year diploma/masters system has been in existence for years and is now out of sync with modern times. The RIBA can change its Outline Plan of Work to suit the latest developments in the industry – but why is no one reviewing the education system?

Ian Catherall, comment on AR website

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It's Pei back time

What a silly article on IM Pei (*Reputations*, AR September). Here in New York he made his mark with two very extraordinary housing projects: Kips Bay and NYU. The first work to put him on the map was the arts complex at the Choate in Connecticut. How misinformed and biased can your critic Trevor Boddy be?

Carlos Brillembourg, comment on AR website

While agreeing with much of Trevor Boddy's piece on IM Pei (*Reputations*, AR September), I think it unfair to place him as 'near the front of the long line of most over-praised architects of the 20th century'. After all, what has the USA given us in recent decades but a long line of the grotesquely overrated – Richard Meier, Frank Gehry, Peter Eisenman, Michael Graves, Steven Holl, Daniel Libeskind and so on. In such company, Pei is fairly far back in the queue. Besides, there is something about the mixture of forcefulness and refined control in his work that captures a sense of US imperial power when it was at its peak.

Boddy praises the entrance to the Louvre, but another and maybe finer Pei building of note is the Commerce Court tower in Toronto with its suspended, stainless-steel curtain wall creating a transparent ground floor. Sadly, the square it frames was vandalised some time ago by the inappropriate insertions of Eberhard Zeidler's office.

Georges Geometriou, Athens, Greece

Modernist mediocrities

The Big Rethink articles (*Campaign*, ongoing from AR January) set a big challenge: to reconcile Modernism with urbanism. The author identifies the core of the problem with Modernism: its anti-urban character. The only examples of coherent urbanism available for discussion here are those that are pre-modern, a period when the building was regarded as a building block of urban form. Memorable pre-modern urban environments are those that are in some way coherent. In most cases they are comprised of buildings that are, individually, quite unremarkable. It is just that these buildings have been designed with the decency to understand that the urban form is more important than individual expression. In so doing they communicate the intent to be part of that community and build on its strength, not to stand outside it or oppose it.

Good urban form is therefore a metaphor for human cooperation. Not every person in a society is a genius, but we can work together to create great things. Modernism encourages architects to believe that each of their building projects can be a statement of individuality, even genius. However most architectural output is by definition mediocre. Modernist mediocrity tends to be boorish, the loud man at the party. Traditionalist mediocrity can at least build memorable urban environments.

I suggest an acid test for the Modernist legacy: would an urban environment comprised of Herman Hertzberger buildings be preferable to say a traditional London urban environment, Notting Hill for example? On one hand, a Master of Modernism working with well-meaning diligence in trying to make this Modernism receptive to human habitation. On the other hand, a collection of mediocre pre-modern buildings built with consensus about composition and the place of architecture in creating urban form. For all Hertzberger's diligence, there is in the cited early examples the Modernist adherence to the 'honest expression of materials' (which in so many of his early buildings is a rather oppressive expression of masonry), and a certain meanness of scale and detail which is typical of even the best Modernist mass housing. This means that these buildings lack the dignity of even the ordinary traditional buildings of the Notting Hill streetscapes. Imagine replacing those Notting Hill houses with Hertzberger's prescription. Setting aside the visual degradation, would such an environment be as resilient to the layers of use, amendment and adaptation that is apparent there today? You don't actually need to go as far as Notting Hill to see this contrast; just a few doors away from the Haarlemmer Houttuinen housing, Haarlemmerdijk is a vibrant traditional Amsterdam streetscape that, in terms of urban contribution, makes Hertzberger's housing look very ordinary indeed, but not in a good way. Sure, Hertzberger's interior arrangements may in some senses be more liveable than the shop houses of Haarlemmerdijk. But do these things need to be mutually exclusive?

Peter Buchanan's praise of the living modern masters is admittedly heavily qualified. But I think you can be bolder, and deliver on the promise of your first essay to let go of the Modernist legacy. The core of this issue is urban form. The city is the ultimate AQAL diagram, the buildings its constituent elements. If the design philosophy behind those elements is toxic to the urban on a larger scale, it should be subject to a Big Rethink, even if it means putting a lot of the design professions' sacred cows out to pasture.

Reassessing selected Modernist buildings and trawling through the oeuvre for the exceptions that prove the rule won't address the problem. A revitalisation of the pro-urban design traditions that were terminated by Modernism will yield results. For some, this may mean adherence to earlier design traditions. However there surely remains enough creativity in the design professions to revitalise urbanism. Or perhaps creativity is the wrong word, encouraging the idea of individual expression that got us into this mess in the first place. Perhaps we should seek ways for architects to more fully engage with community concerns and objectives, to build a receptive urban environment without so many 'design statements' but with more generosity of spirit.

Architecture isn't that complicated. You can build a perfectly decent house, office, hospital or whatever to a thoughtful, even innovative programme in a very simple envelope. The problem is one of urban arrangement, and thinking about how the arrangement can reflect, support and give some joy to relationships, from the personal to the civic. It is this attention to urban aggregation that will deliver 'aliveness', and a sense of consensus within environments built of elements that of themselves may be visually quite routine.

Unfortunately, architectural culture is founded on the exceptional, the one-off statement that provides striking photographs and publishes well. There are few forums for urban form building, where a dialogue might exist about how good ordinary architecture can be created to enhance and enrich urban form. This might provide the prism for really analysing objectively the value of contemporary architecture. I often admire a striking architectural work, invariably in some way contrasting with its context, but within a few minutes, after the initial wow factor has worn off, I visualise the building replaced with a form that respects and enters into a constructive dialogue with the urban environment, and can't help but feel a deep disappointment. This is the irreconcilable dilemma of Modernism, and ultimately the dilemma at the heart of Buchanan's series of articles.

Michael Jeffreson, comment on AR website

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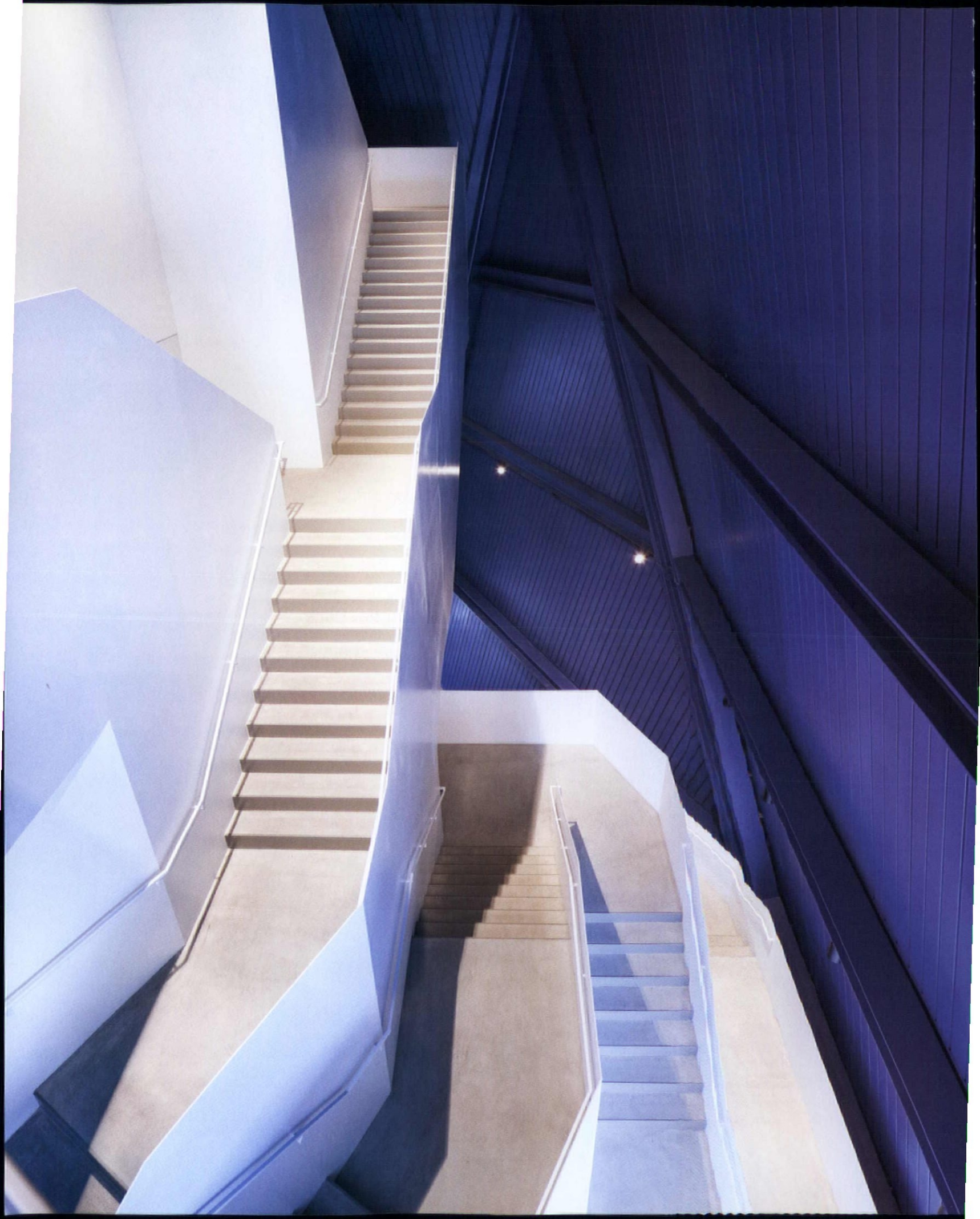
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Museum of Contemporary Art, Cleveland, Ohio, USA, Farshid Moussavi Architecture

2



BLUE STEEL

Seductively reflecting the city and the seasons, the crystalline pavilion of Cleveland's new contemporary art museum is a radical exploration of geometry and materiality

CRITICISM

RAYMUND RYAN

The Bilbao Effect has come and gone, at least for the moment. The Bilbao Effect, that is, as demonstrated by architects less gifted than Frank Gehry attempting statement buildings, with wishful cultural programmes, on marginal or peripheral sites. Yet that doesn't mean that the post-industrial city has given up on culture and on investigative design. If the signature meta-project is associated with recent excess, emerging cultural phenomena are frequently accommodated by architecture that takes a reciprocal attitude to existing fabric and is comparatively open in terms of solution. Modest size and modest budgets may yet allow for new forms of experimentation.

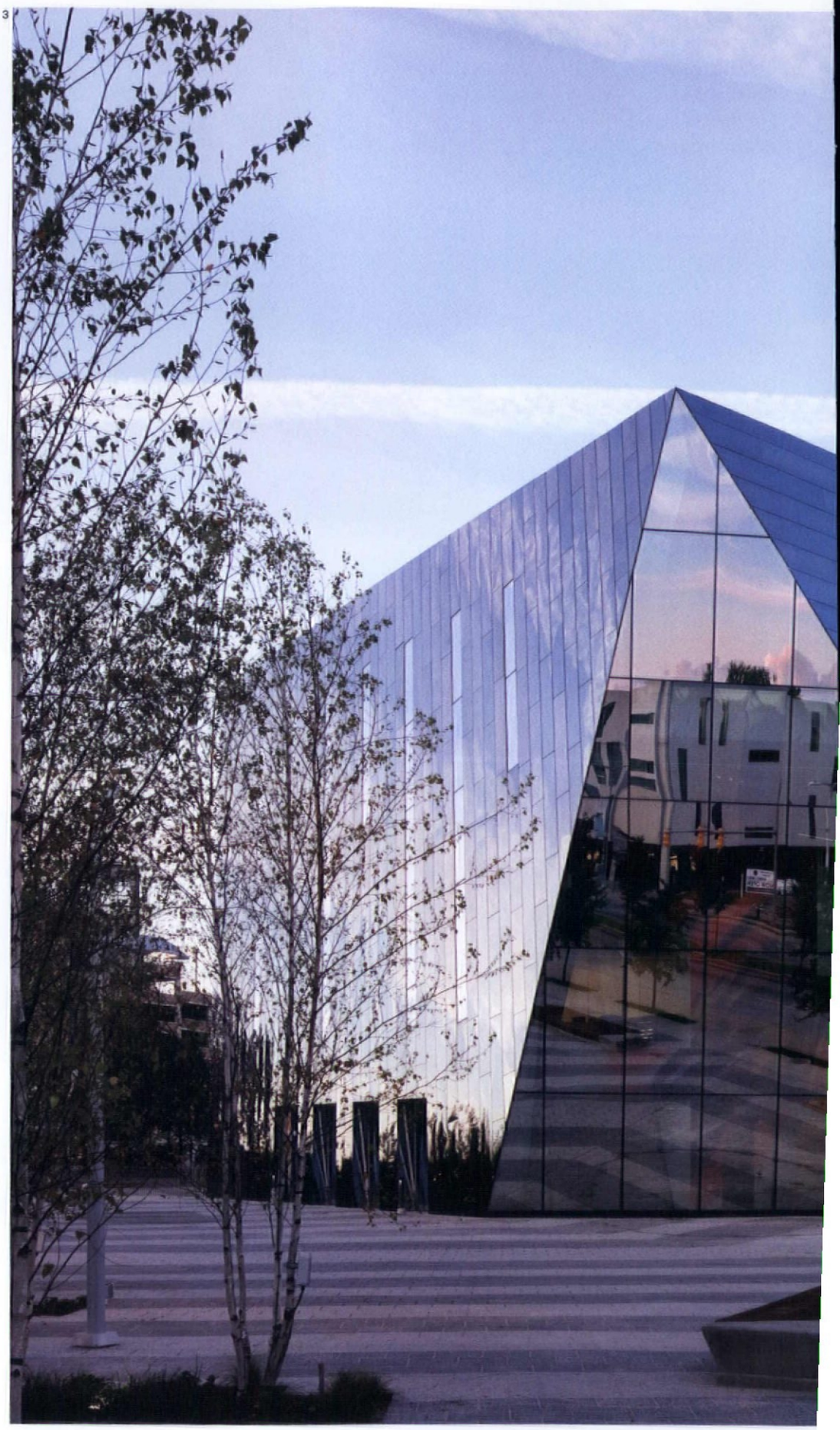
Cleveland is one of several Rust Belt cities witnessing signs of rebirth or stabilisation. The new pavilion designed by Farshid Moussavi Architecture to house Cleveland's Museum of Contemporary Art (MOCA) is certainly a sign, a propelling urban element that is dramatic yet subtle. Set on an axial boulevard – the appropriately named Euclid Avenue – a few blocks from Gehry's School of Management for Case Western Reserve University, MOCA's immediate neighbours include a massive healthcare facility and a mixed-use development designed by Stanley Saitowitz as urbane extrusions to either side of Euclid. To make its presence felt, and to help consolidate the neighbourhood, MOCA exploits its site, budget and programme with economy and skill.

To date, Moussavi is best known for the Yokohama Ferry Terminal (AR January 2003) realised in partnership with Alejandro Zaera-Polo between 1994 and 2002 as Foreign Office Architects. Her architectural projects and her teaching at Harvard are concerned with mathematical exploration, with new forms of landscape, and – as evinced by Moussavi's presentation at this year's Venice Biennale – with tectonic ornament and affect. Her building for MOCA Cleveland results from a geometric construct. A hexagon at ground level, it splays and mutates into a square four storeys above. Draped in elongated panels of black stainless steel, MOCA emerges in its context of much larger buildings as a beguiling pavilion, both meteorite and tent, a kind of tailored Dark Star with an internal logic that nevertheless results from local conditions.

The immediate site is at the intersection of Euclid and a side street that cuts through the urban grid on a diagonal. MOCA's form

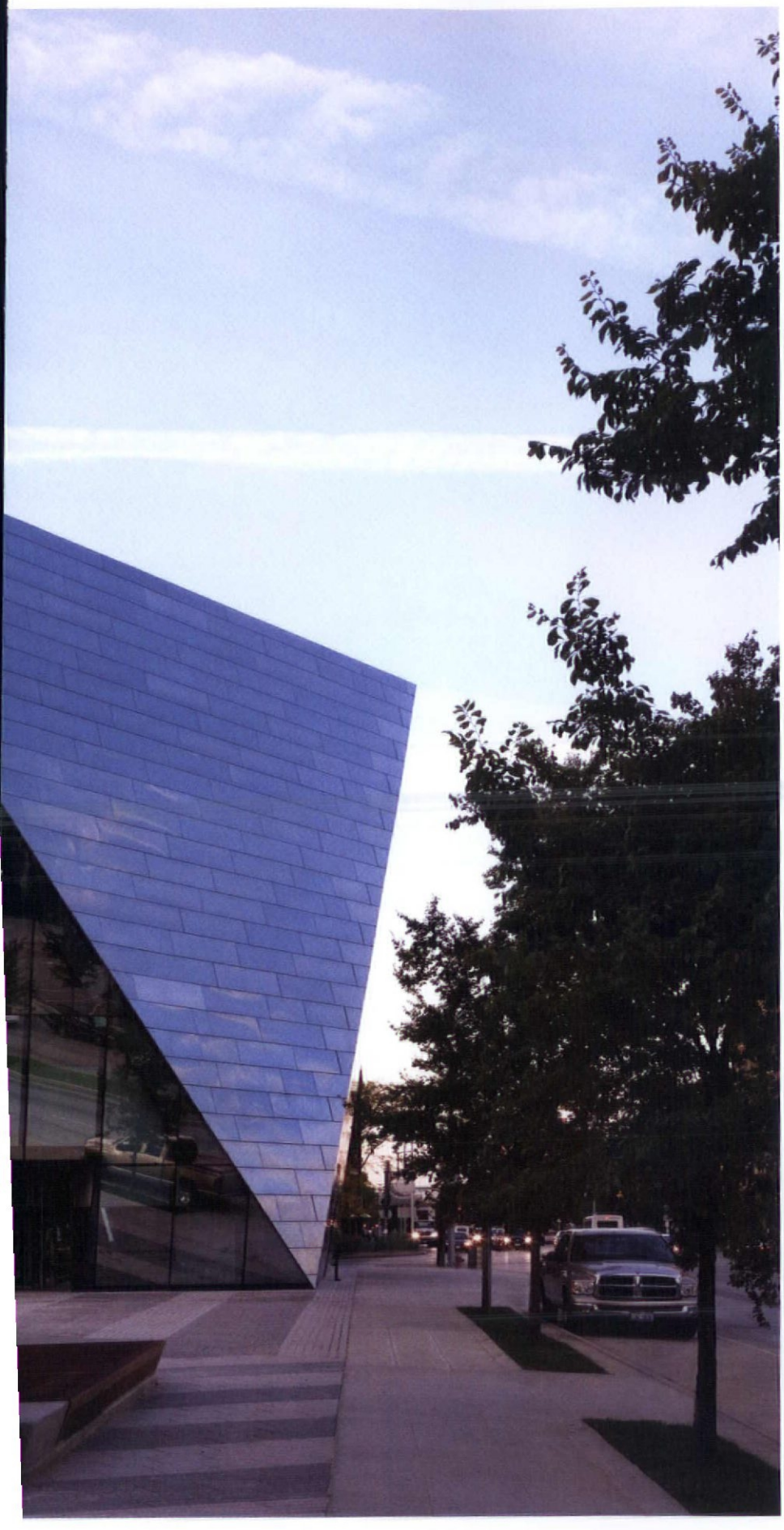
'A beguiling pavilion, both meteorite and tent, a kind of tailored Dark Star with an internal logic that results from local conditions'

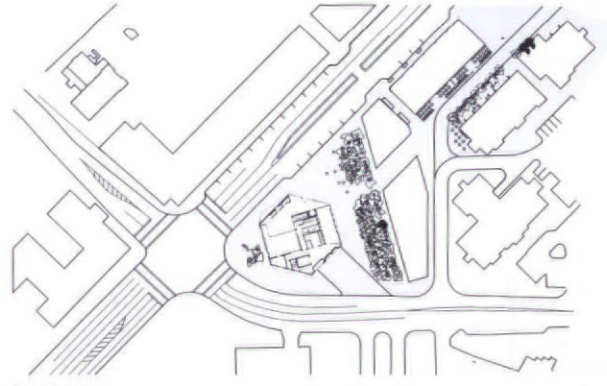
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Museum of Contemporary Art, Cleveland, Ohio, USA, Farshid Moussavi Architecture

1. Stairway to heaven: the ceilings in Cleveland's Museum of Contemporary Art are painted a richly mystical Yves Klein blue 2. The exterior, 'wrapped like candy in a pure blue neon glow' (as Debbie Harry once sang), shimmers with light 3-5. The exterior has been designed to continually change its appearance by reflecting the shifting context of the city and the altering light conditions of the day and seasons





site plan

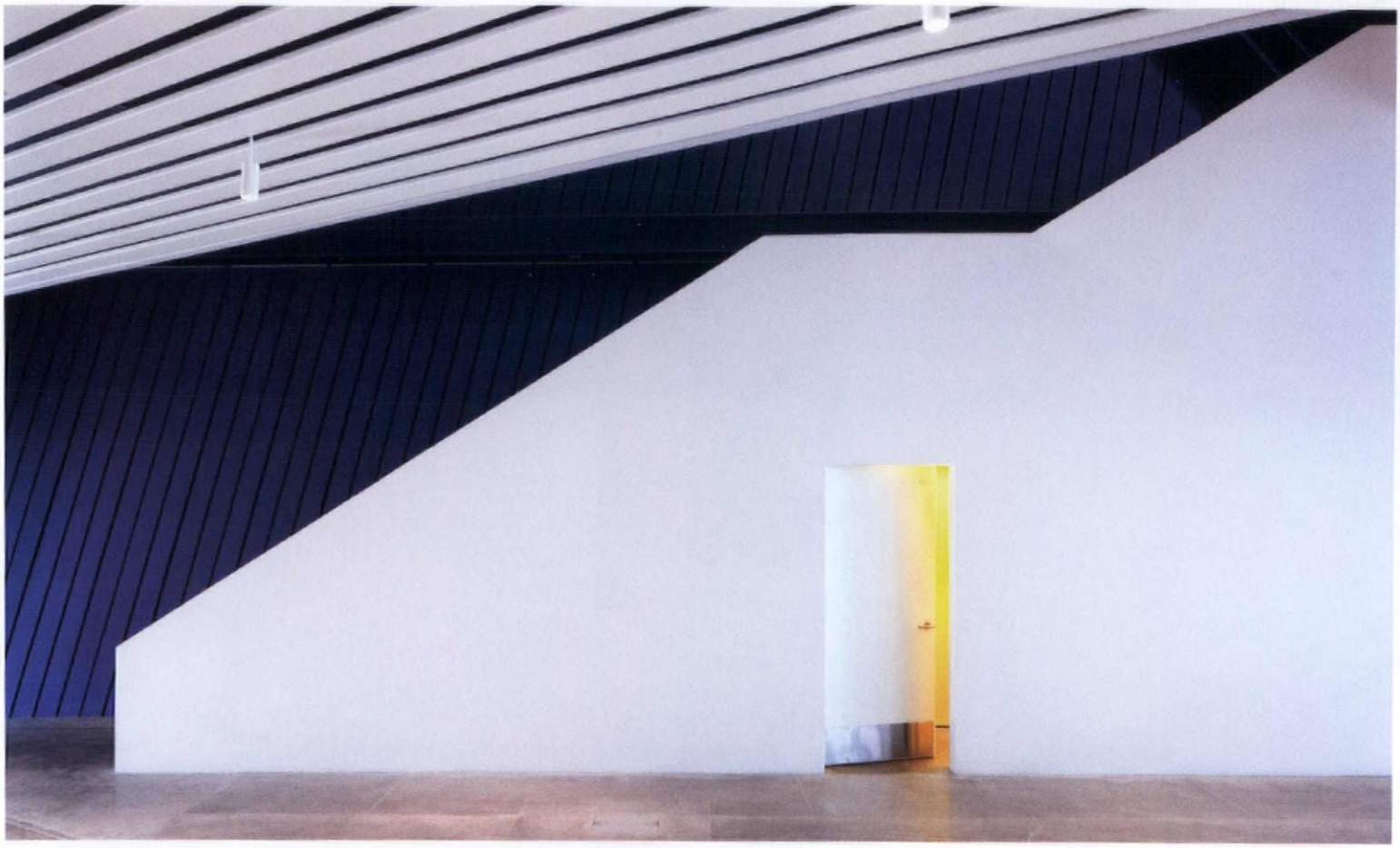
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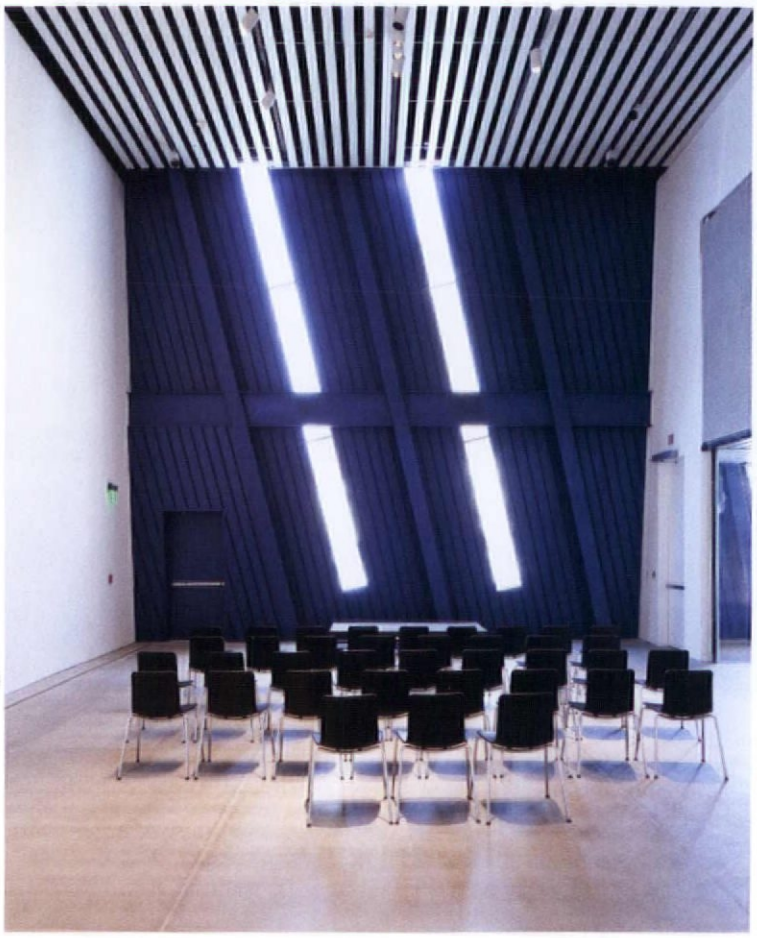
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7



Museum of Contemporary Art, Cleveland, Ohio, USA, Farshid Moussavi Architecture

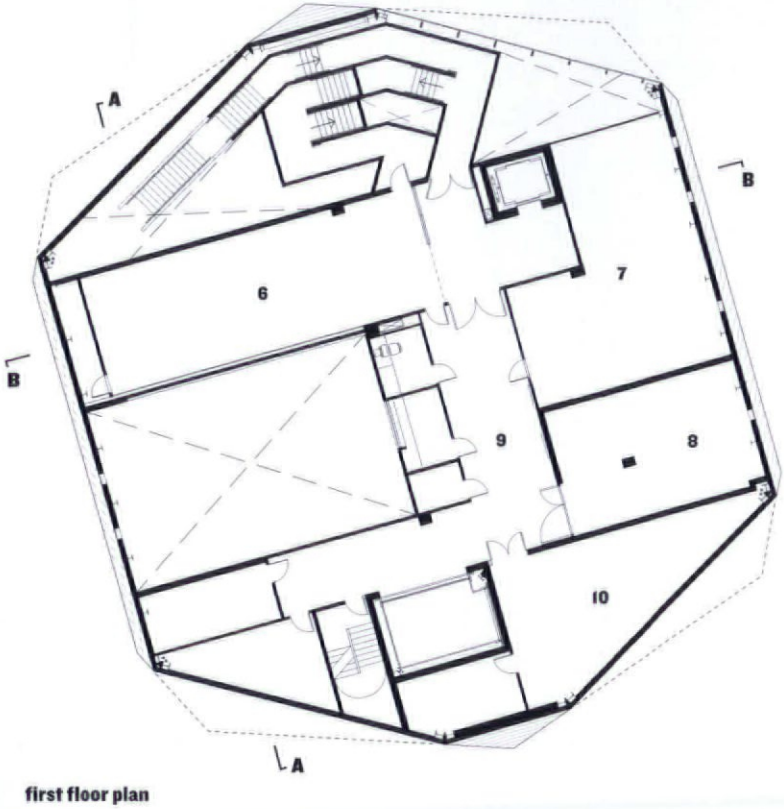
6. Appropriately intangible, a yellow glow invites visitors into a space dedicated to sound art installations
7. The building's interior is clothed in blue and white stripes, like a Breton shirt

emerges from a negotiation between these axes. In that sense, Moussavi's building is analytical and rational. MOCA, however, is also unorthodox and enigmatic. A century ago, such sites were allocated to libraries and banks. By the 1960s, gas stations and other drive-through facilities had typically usurped the old neighbourhood plan. MOCA seems less interested in the drive-by legibility advocated by Robert Venturi (indeed it avoids representation entirely) than some of the symbolic presence associated with previous architectural eras. Moussavi achieves this by fusing contemporary formalism and lean engineering.

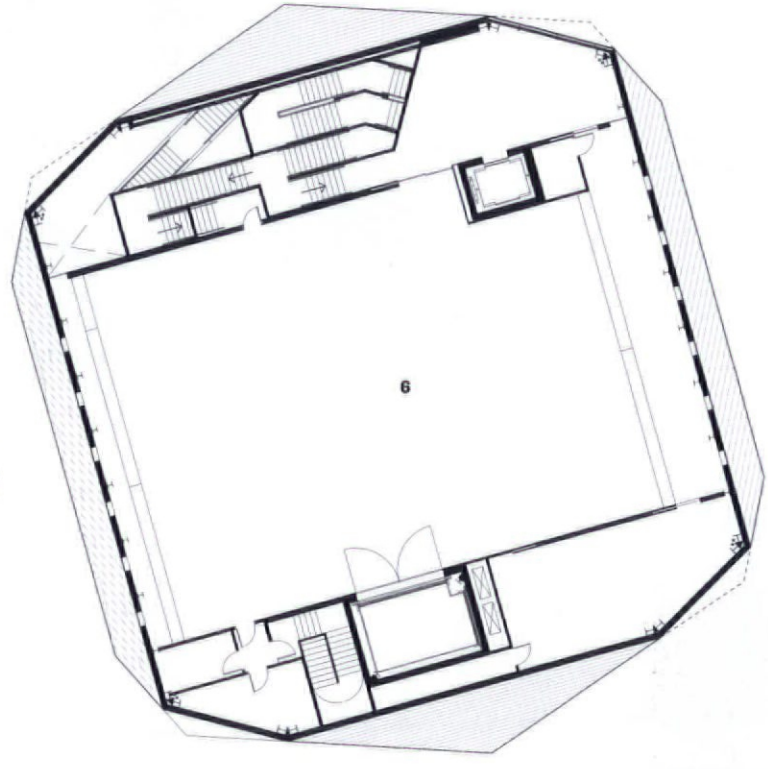
The rotation from hexagon to square results in a crystalline, prism-like form with eight facades: two rhomboids and six triangles. Four of the triangles rise from the pavement to a sharp apex against the sky; the other two triangles are equilaterals descending from the parapet to a point at street level. Seven facades are skinned in precisely aligned, stainless-steel panels set in parallel runs that change direction from one facade to the next. The eighth, facing north

'This combination of geometry and materiality results in a building with a vivid personality'

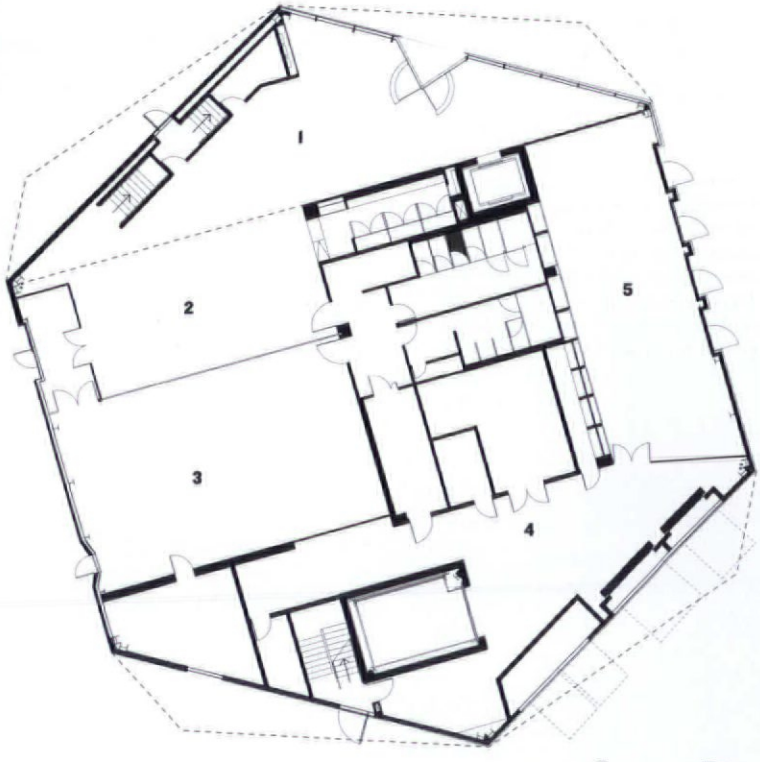
1 entrance lobby/atrium
2 café
3 multipurpose room
4 shipping/receiving
5 store
6 gallery
7 clean workshop
8 wood workshop
9 back of house
10 services
11 offices
12 education workshop



first floor plan

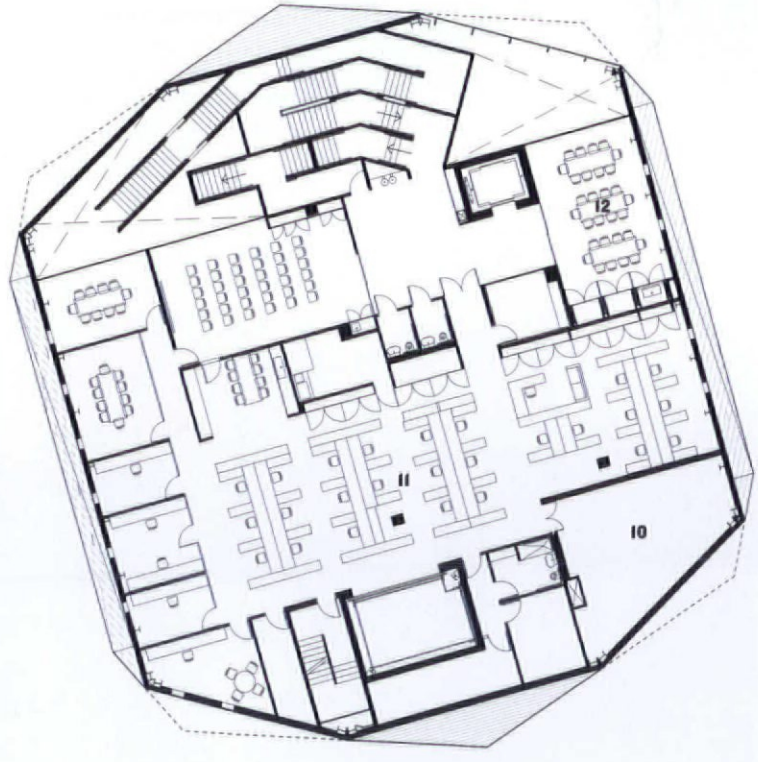


third floor plan



ground floor plan





second floor plan

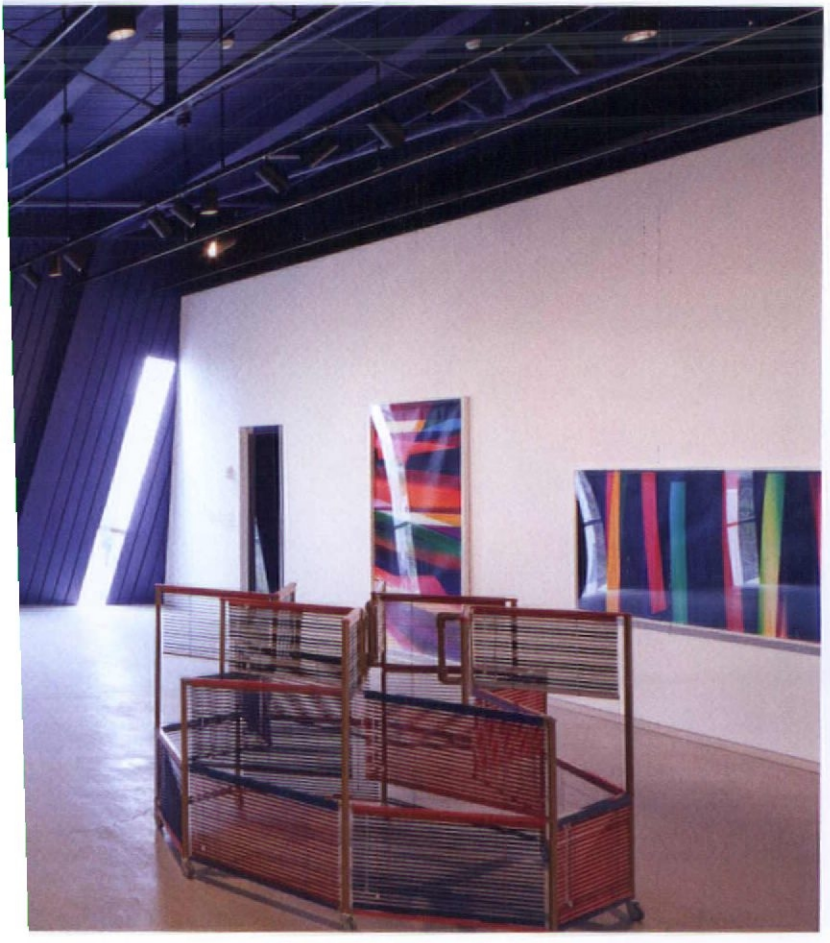
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9







8. Unlike many museum builders, Moussavi does not allow geometrical exuberance to detract from the functional display of art
9. The deep blue ceilings and walls break open the white cube, providing a contrasting backdrop to the works displayed within

Museum of Contemporary Art, Cleveland, Ohio, USA, Farshid Moussavi Architecture

and containing the principal entrance, is entirely of glass. Some of these facades tilt with the panel grid at an angle to the vertical axis. The black metal surfaces are not uniformly flat so that light and reflections fall irregularly to further animate the skin. Modular glazing components are inserted into the grid to function as skinny diagonal windows, flush and almost invisible in the building carapace.

This combination of geometry and materiality results in a building with a vivid personality. It stands there at the intersection on Euclid constantly changing due to the ambient effects of both natural and electric light. Indeed the stainless steel seems to magnify different colours at different times of day. The structure evokes contemporaneity both in the sense of new design thinking and engaging with fleeting moments of time. The surrounding plaza, stretching north-east towards one of Saitowitz's buildings, is planted and paved in geometric patterns by New York-based landscape architects, Field Operations. There is a service entry from the south, from the side street; otherwise the ground surface extends contiguously about the museum.

'Museum' is in fact somewhat misleading. MOCA exhibits cutting-edge art but does not collect, therefore the architect did not have to deal with the vexing issues of storage faced by collecting institutions. There is no basement. One of Moussavi's generating ideas is to mix back-of-house facilities (loading dock, workshop, offices) with publicly accessible galleries, classrooms and foyer spaces on each of the building's four levels. Visitors enter from Euclid through the sole glass facade into a narrow chasm of space between these stacked interior volumes and the origami-like outer wall. A complex open staircase with white plate balustrade leads upward, turning back on itself in order to reach the relevant upper rooms and offer unexpected prospects through the entire institution.

MOCA's industrial aesthetic results from considerations of economy, the demands of changing installations and Moussavi's design philosophy. At street level, the polished concrete floor flows, in one direction, into a lounge and then a double-height space that can be used for exhibitions or performance and, in the other, into a store whose modular cabinetry can be pushed into a flush inner wall. MOCA charges for admission; however, non-paying visitors can access far into the building, climb the enticing sculptural staircase, and catch glimpses of exhibitions and interior workings of the museum. On the morning of MOCA's inauguration, Moussavi denied her design had voyeuristic intent, stating that her aim is for engagement between institution and public.

MOCA's interior walls, and occasional suspended ceilings, are white. The architect has, however, scrambled established notions

10



of the 'white cube' gallery by unexpectedly painting the overarching roof and enveloping outer walls a uniform dark blue. The structure, angled like the exterior, is exposed and painted to match the interstitial panels. On inauguration day, Moussavi noted that inside the white cube art floats, whereas with the dark ceiling at MOCA art appears grounded. Certainly these galleries are seldom neutral; the visitor experiences a sequence of spaces and volumes to provoke artist, curator and visitor alike. Beneath the open staircase, for instance, an enclosed exit stairway is painted a brilliant yellow and intended for sound installations such as that currently on show by Korean artist Haegue Yang.

There is one further, and entirely unexpected, detail. The sloping slots of glass function as windows to admit light when desired and to offer glimpses to the exterior, to the life of the street and to Gehry's billowing metal structure across Euclid Avenue. The glass is forward of the structure so that floor slabs are mere shadows on the exterior, aiding an enigmatic or scaleless impression of the building. The reveals are lined in mirror. The mirror reflects curious snippets of street and sky, and dematerialises the thickness of the exterior envelope so that MOCA reads even more as a kind of industrial tent. Through Moussavi's resolution of form and detail, Cleveland now has a vanguard facility offering spatial and optical surprise.

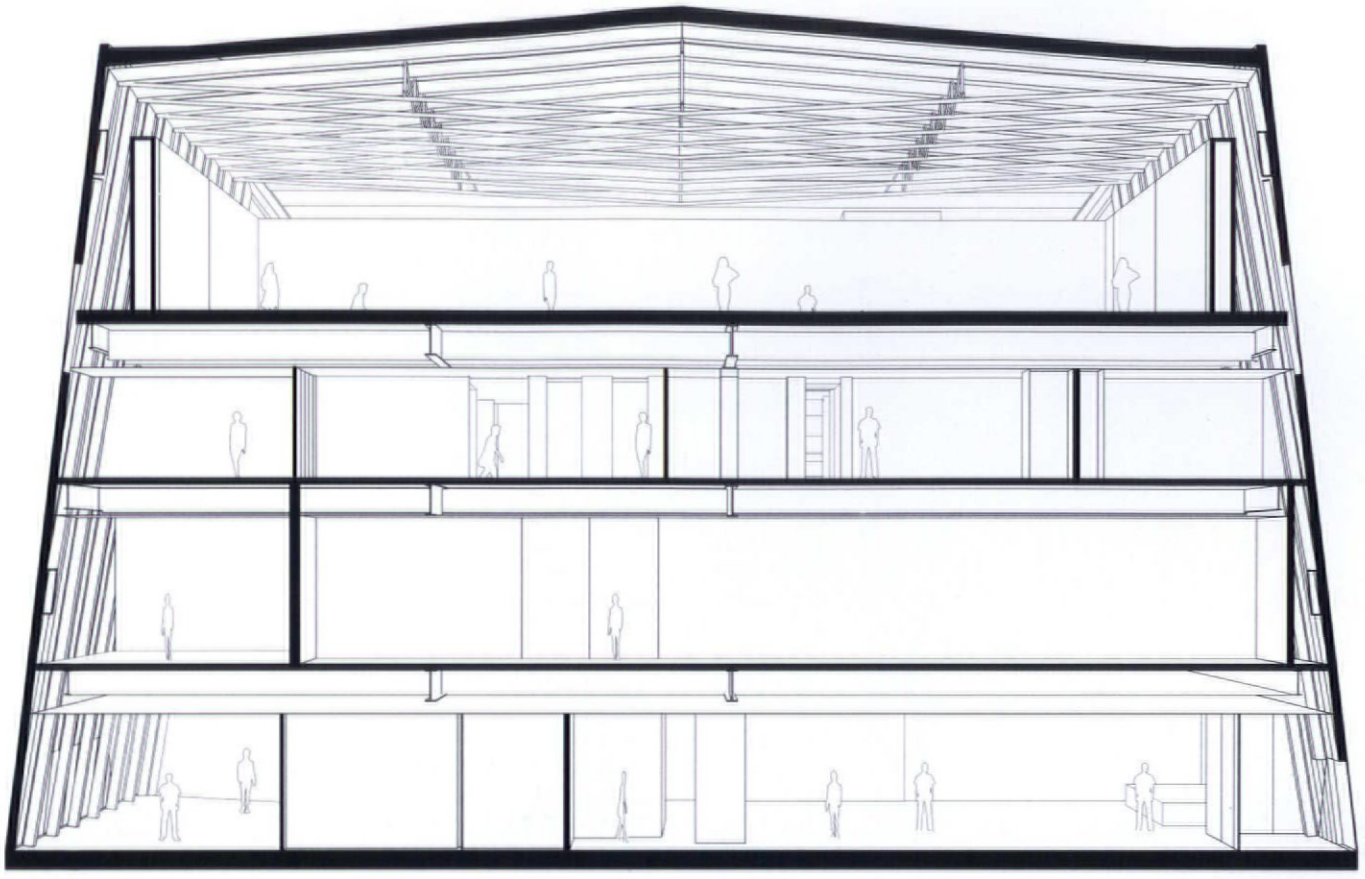
Museum of Contemporary Art, Cleveland, Ohio, USA, Farshid Moussavi Architecture

10. Visitors climbing the grand stair see flashes of the exhibition spaces, drawing them upwards through the museum
11. From above, the cascading stairs reveal a complex tiered geometry

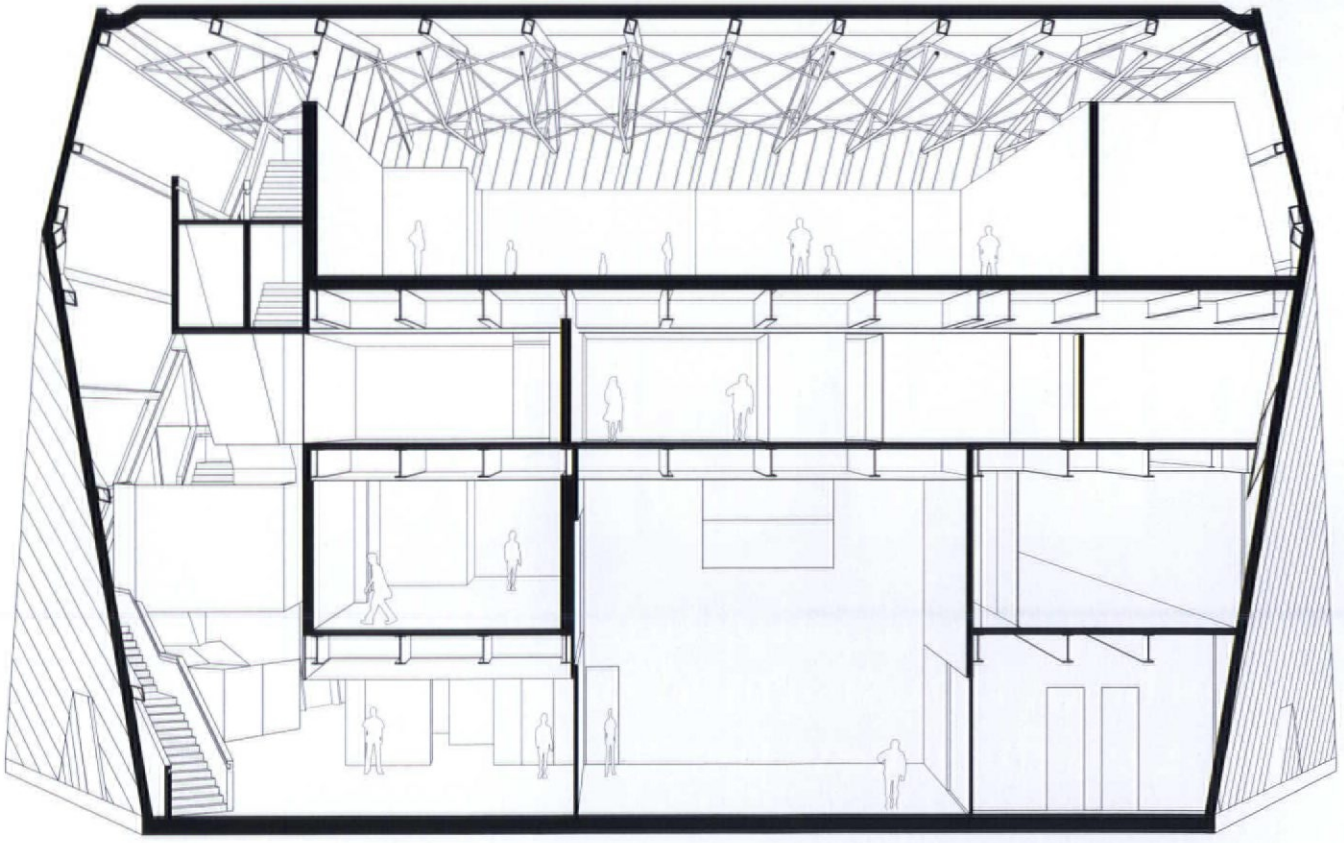
Architect
Farshid Moussavi Architecture
Photographs
Dean Kaufman, 1-9
Duane Prokop, Getty Images, 10
Farshid Moussavi Architecture, 11

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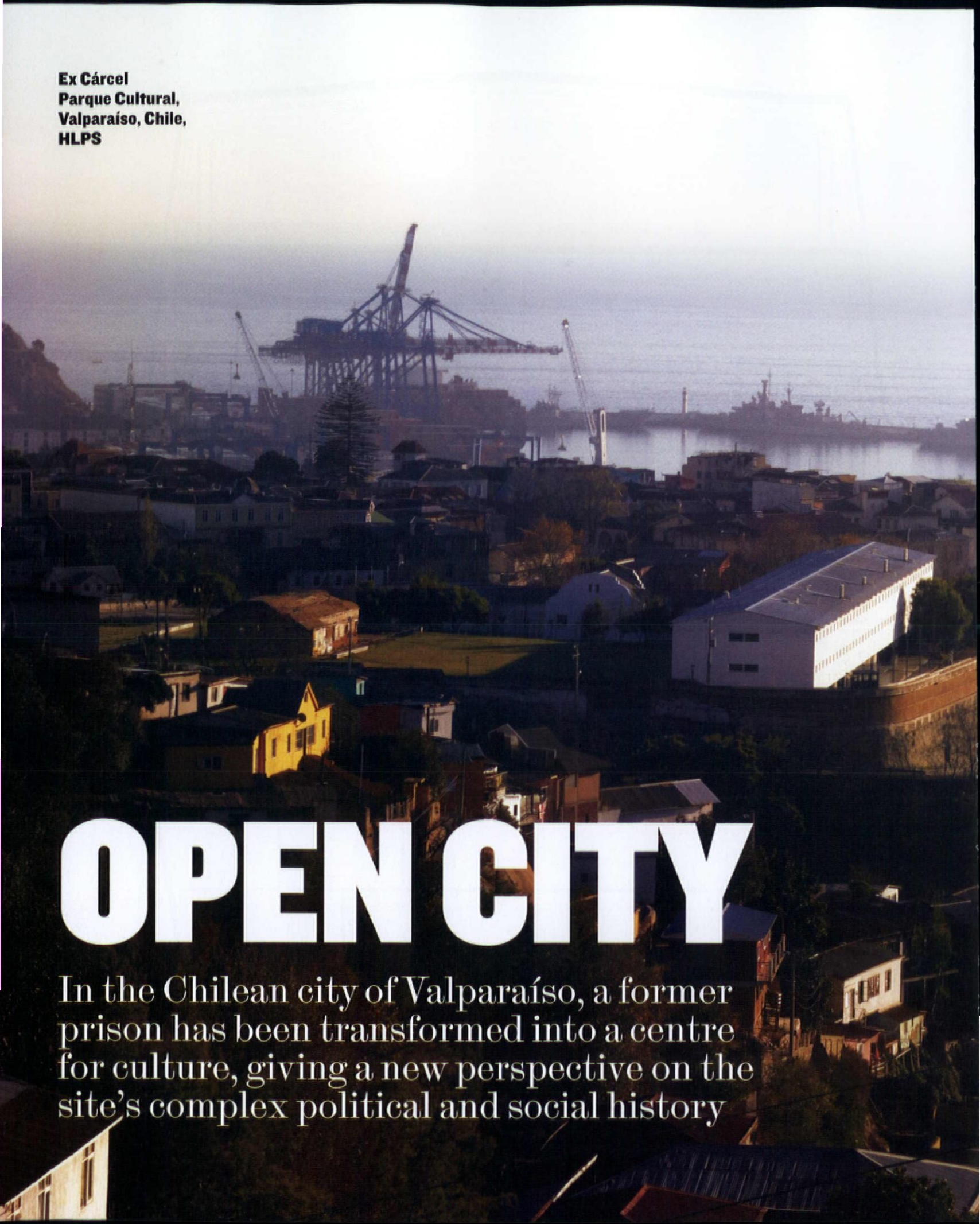




perspective section BB



perspective section AA



Ex Cárcel Parque Cultural, Valparaíso, Chile, HLPS

OPEN CITY

In the Chilean city of Valparaíso, a former prison has been transformed into a centre for culture, giving a new perspective on the site's complex political and social history



1. (Previous page) the streets of Valparaíso cascade down to the edge of the Pacific, with the crisp white volume of the converted cell block in the middle distance. The site forms an elevated outcrop surveying the jumble of streets and the port
2. Formerly used to hold political prisoners, the cell block stood empty for 15 years prior to its rehabilitation as part of the Ex Cárcel Parque Cultural project
3. The existing cell block (left) and new arts building (right) define a new public park

REPORT

MICHAEL WEBB

A labyrinth of narrow streets courses down a steep escarpment to a narrow strip of coastline and the port of Valparaíso. Beginning with the Spanish settlement and especially in the 19th century, it flourished as an essential stop for ships routed around the Horn. In the 1910s, it was devastated by an earthquake and bypassed by the Panama Canal. Today it's a colourful relic, its trading activity much diminished, its mansions and vintage funiculars quietly decaying. A gargantuan parliament building marks Pinochet's clumsy effort to reinvigorate downtown. A far better symbol of the city's continued vitality is the new Ex Cárcel Parque Cultural, located halfway up the slope, which combines open space for recreation and public events with a performance venue and studios for creative activities.

The Spanish levelled the five-acre site to build a fort, and this was later converted into a jail where political prisoners were confined and tortured during the years of dictatorship. It had stood empty for 15 years when the city's department of public works sought proposals for its reuse, stipulating that the exterior of the cell block be preserved, along with a barrel-vaulted brick armoury that is a protected colonial monument. Four former classmates at the Valparaíso campus of the Pontifical Catholic University joined forces to enter the competition and they beat 120 established firms. It may have helped that Alejandro Aravena and Smiljan Radic – two of Chile's top architects, who teach at the Santiago campus of PUC – were on the jury. Both embrace innovation and socially responsible projects – hallmarks of the Valparaíso school. Most likely the quartet won because, in contrast to other entrants, they maximised the amount of open space, by clearing encumbrances and limiting new construction to one corner of the site.

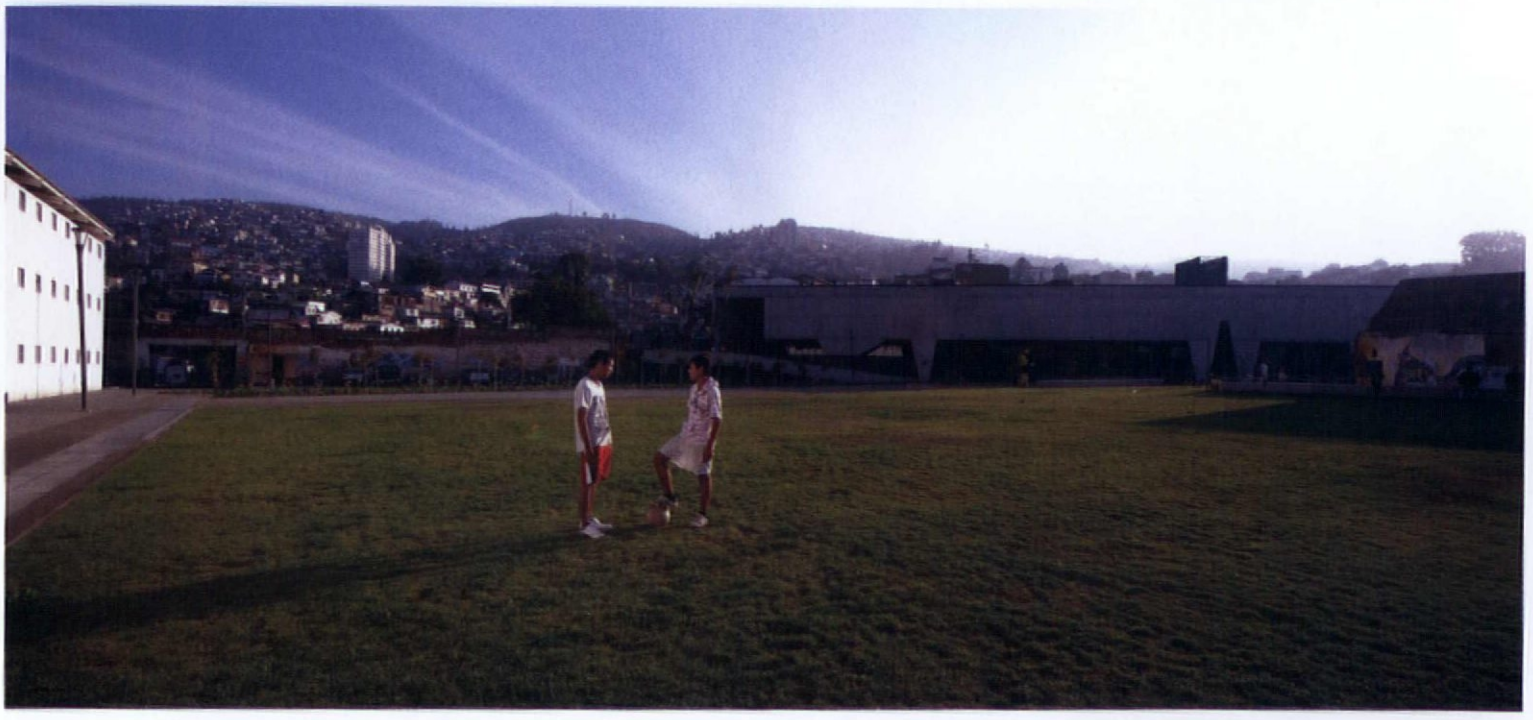
To realise their design – in two years at a cost of £10 million – Jonathan Holmes, Martin Labbé, Carolina Portugueis and Osvaldo Spichiger formed HLPS Arquitectos, and brought in Paulina Courard to supervise the landscaping. The challenge was to turn a place of dread into a friendly oasis – 'a flowerpot in the Valparaíso hills' as the architects call it – opening a once impenetrable site to the city. They've achieved this through varied landscaping and by concentrating the performance and service spaces in a single concrete block that doubles as a point of entry, with a ramp leading over the roof and out to the street further up the slope. The windowless block was conceived as a floating beam with minimal points of support and cantilevered ends. It shades a portico and its roof terrace is a belvedere from which to survey the park and the sweep of the city cascading into the Pacific. Within is a large black-box theatre, a mediatheque, restaurant and library together with an upstairs dance studio; functional spaces that are intensively used.

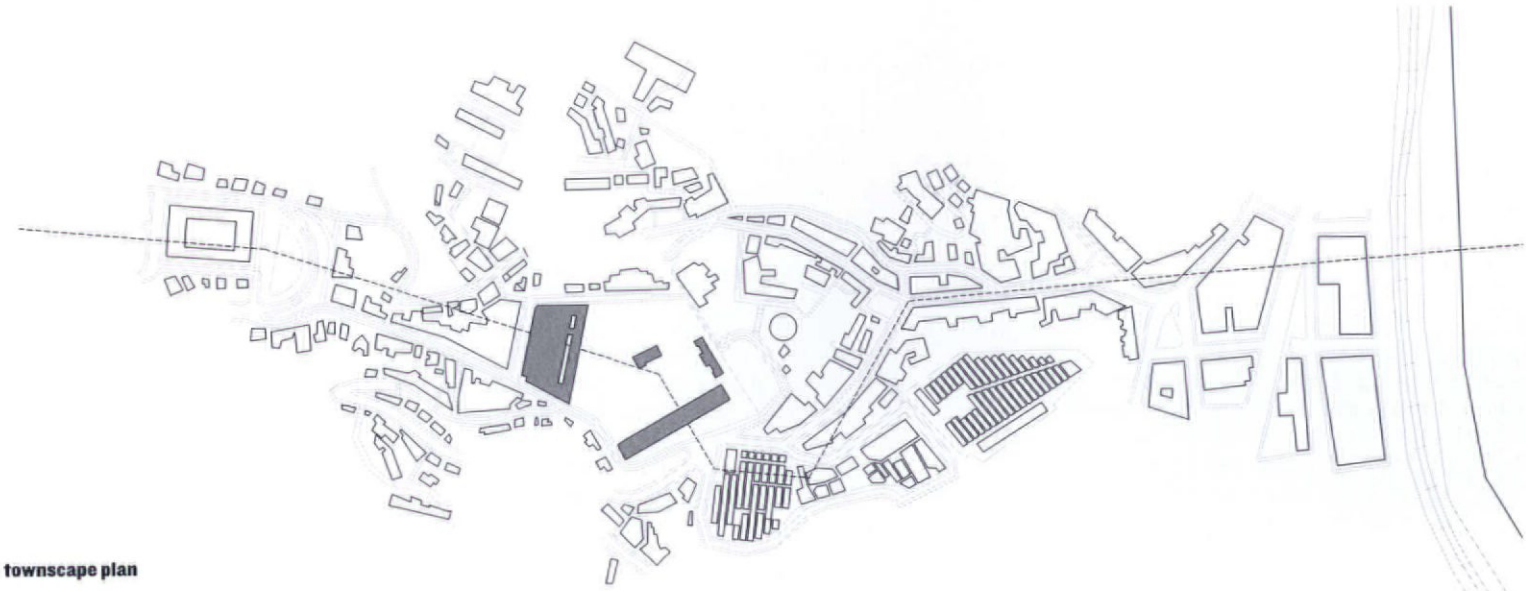
'The challenge was to turn a place of dread into a friendly oasis – a flowerpot in the Valparaíso hills as HLPS call it – opening a once impenetrable site to the city'

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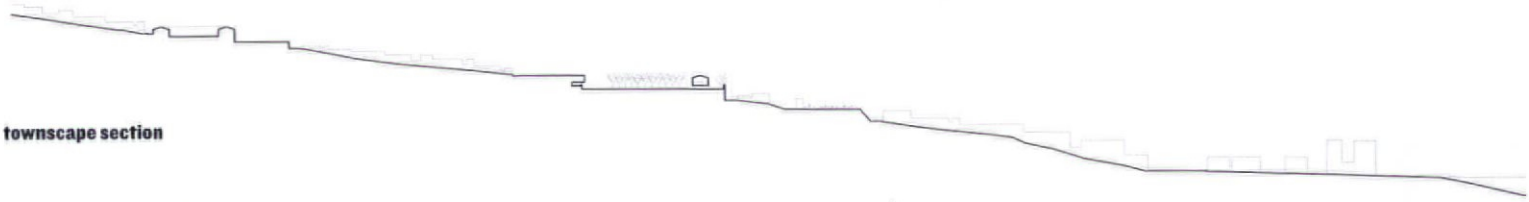


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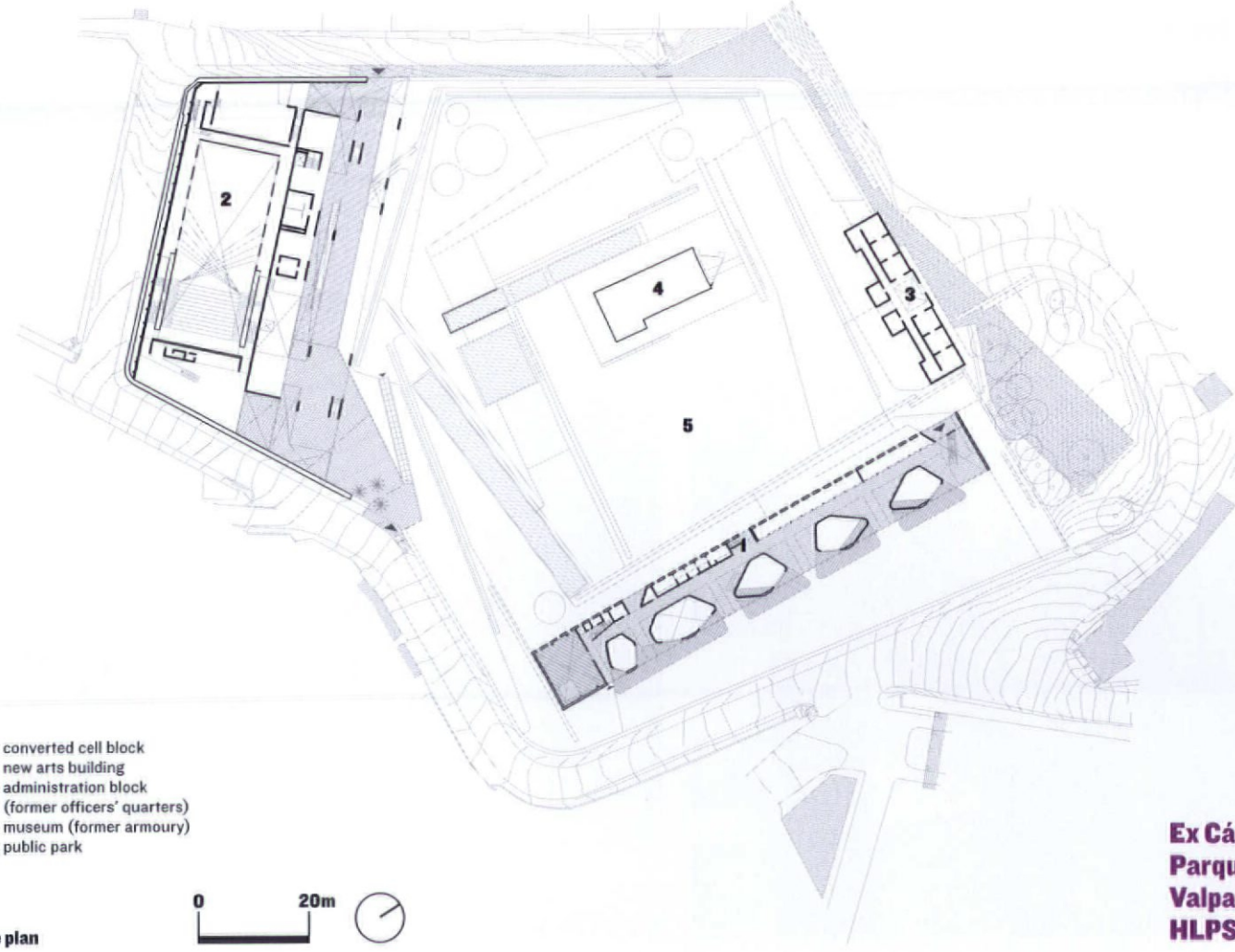




townscape plan



townscape section



1 converted cell block
2 new arts building
3 administration block (former officers' quarters)
4 museum (former armoury)
5 public park

0 20m

site plan

Ex Cárcel Parque Cultural, Valparaíso, Chile, HLPS

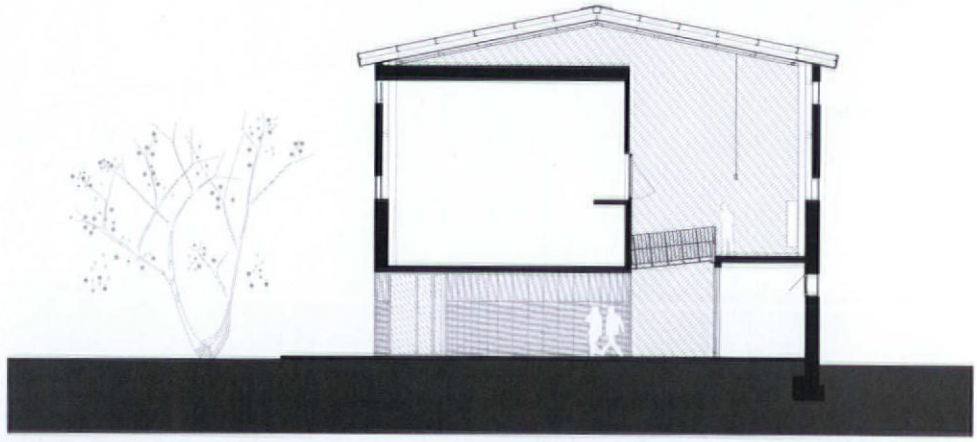
The facade of this new structure complements the linear cell block that defines another edge of the park. As many as 1,600 prisoners were crammed into 200 tiny cells flanking a central walkway on three levels. This warren had to be gutted but not entirely erased. Inspired by Gordon Matta-Clark, the architects cut everything away until they were left with a roofless shell and a patchwork of colour, pin-ups and inscriptions on the inner walls, which provide a moving palimpsest of prisoners' lives. They inserted a steel frame to support a new skylit roof, and seven organically-shaped concrete studios for dancers, artists and musicians. Their curved forms complement the orthogonal frame, enhance interior acoustics, and provide additional seismic reinforcement for the outer shell. Two of the five ground-level studios have sunken floors to add height, and they are flanked by an open-sided concourse to the rear and a glass-fronted museum of local history on the park side. Two upper-level studios and community meeting rooms are accessed from a mezzanine gallery.

A small colonial-style villa, formerly officers' quarters and set at an angle to the jail, has been converted for use by administrative staff, and the armoury at the centre of the park has

'The architects cut everything away until they were left with a patchwork of colour, pin-ups and inscriptions on the inner walls, providing a moving palimpsest of prisoners' lives'

4. The original fabric of the patched and peeling cell block is still visible
5. One of the new studios at ground floor level
6. (Opposite) upper level studios and meeting rooms are accessed from a mezzanine gallery which reinforces the strong linear character of the original structure

Ex Cárcel Parque Cultural, Valparaíso, Chile, HLPS



cross section through cell block

4



5









8



7. (Previous page) the layers of the building's history can be still read in its latest incarnation
8. The new arts building is conceived as a giant, minimally-supported beam with cantilevered ends. It encloses a shaded portico and its roof forms a generous public terrace
9. The undercroft is a cool, shaded enclave
10. One of the tall, light-filled exhibition spaces
11. Internal patios are enlivened by strong colour

been reinforced with arched steel beams and a new concrete portal to serve as a second museum. A grid of jacaranda trees to one side of the armoury defines an area for passive recreation, and clusters of magnolia, ceibo and palms enrich the park. The largest area is turfed for soccer and popular gatherings.

As beginners, working fast on a tight budget, HLPS had limited options, but it's remarkable to see how well they've succeeded in balancing the claims of past and present, passive and active, creative and recreational. The four buildings anchor the space, and the balancing act of the concrete block complements the white facade of the jail with its repetitive punched openings. The artists' studios offer privacy but open onto a public walkway, and the layered spaces of the concourse and steel mezzanine gallery are barred with natural light to convey a sense of mystery, even menace. These are tough buildings for a community that has more than its share of poverty and crime, but can aspire to a brighter future. And they open up vistas of a city that can rarely be seen as a whole.

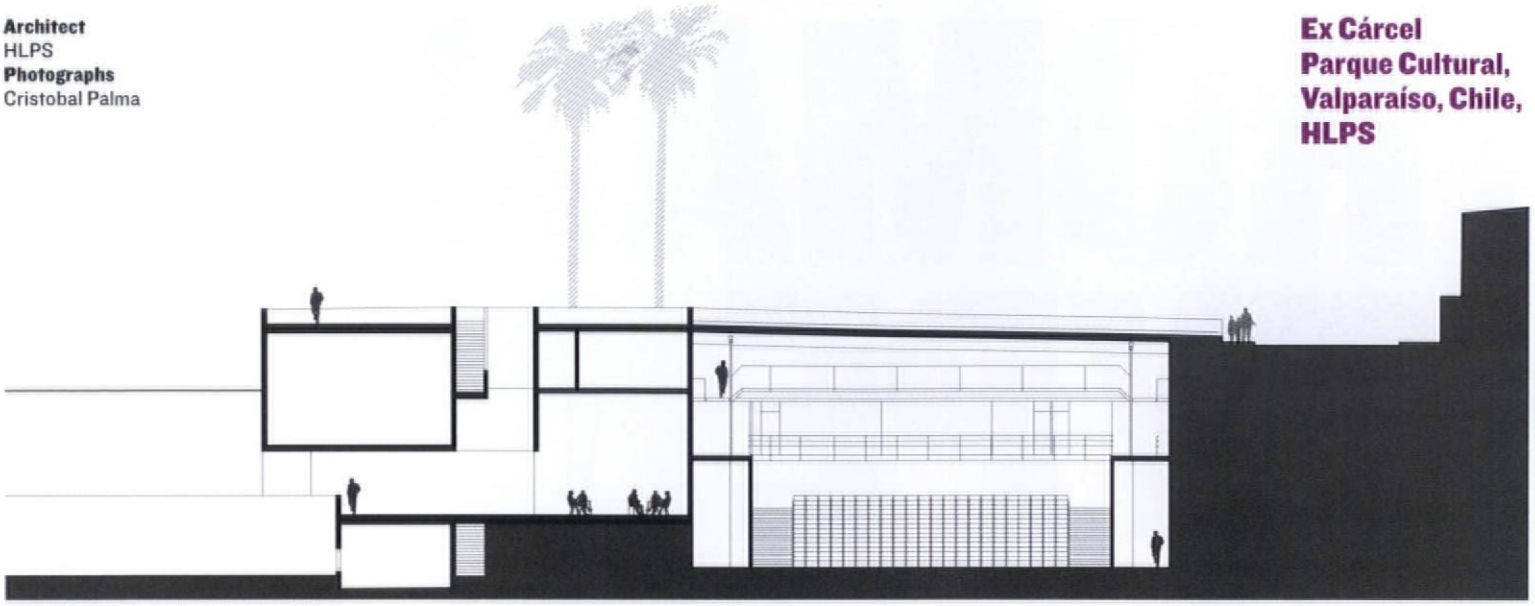
'It succeeds in balancing the claims of past and present, passive and active, creative and recreative'

It's clear why the Spanish located their fort at this ideal vantage point for surveillance. From here you can appreciate the density and diversity of Valparaíso, from the Beaux-Arts and Art Deco monuments at the base, to the fanciful use of colour and fretted metal facades of the houses and tenements higher up.

'As a fledgling firm, we share the belief of established firms that it's better to be good than novel,' says Carolina Portugueis. 'We are very conservative.' It's a surprising admission from one so young but it puts her practice in the mainstream of Chilean architecture, which has long valued strength and sobriety over irrational exuberance. And it's an apt stance in a country at the edge of a continent, constantly shaken by devastating earthquakes, and grappling with a host of social problems.

Architect
HLPS
Photographs
Cristobal Palma

Ex Cárcel Parque Cultural, Valparaíso, Chile, HLPS



cross section through new arts building

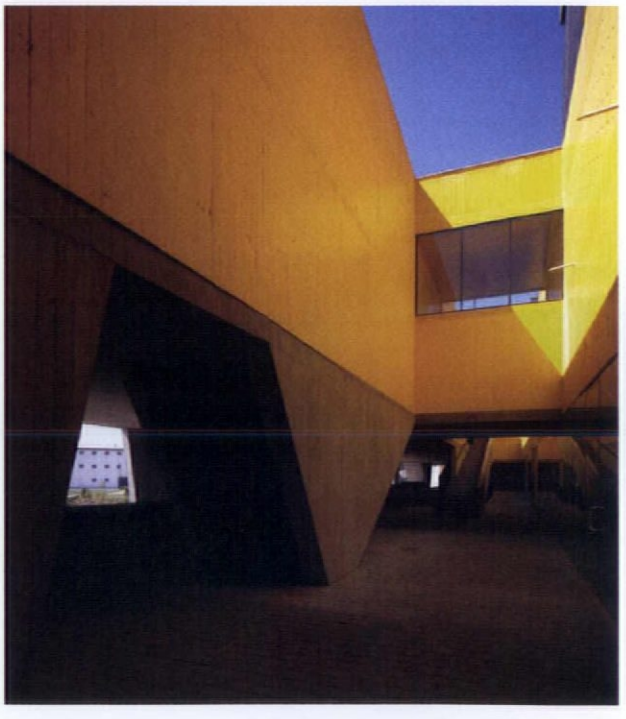
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10



11



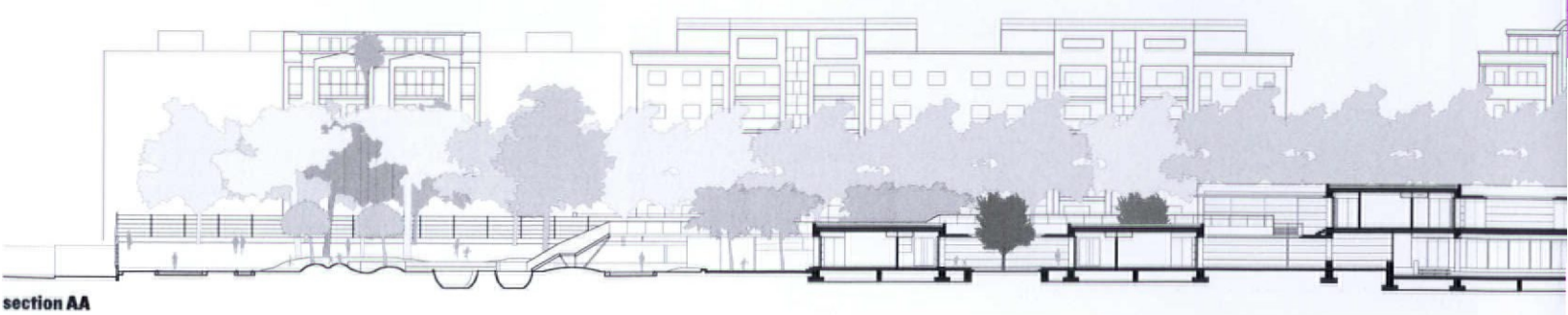
ROMAN TYPE



section CC



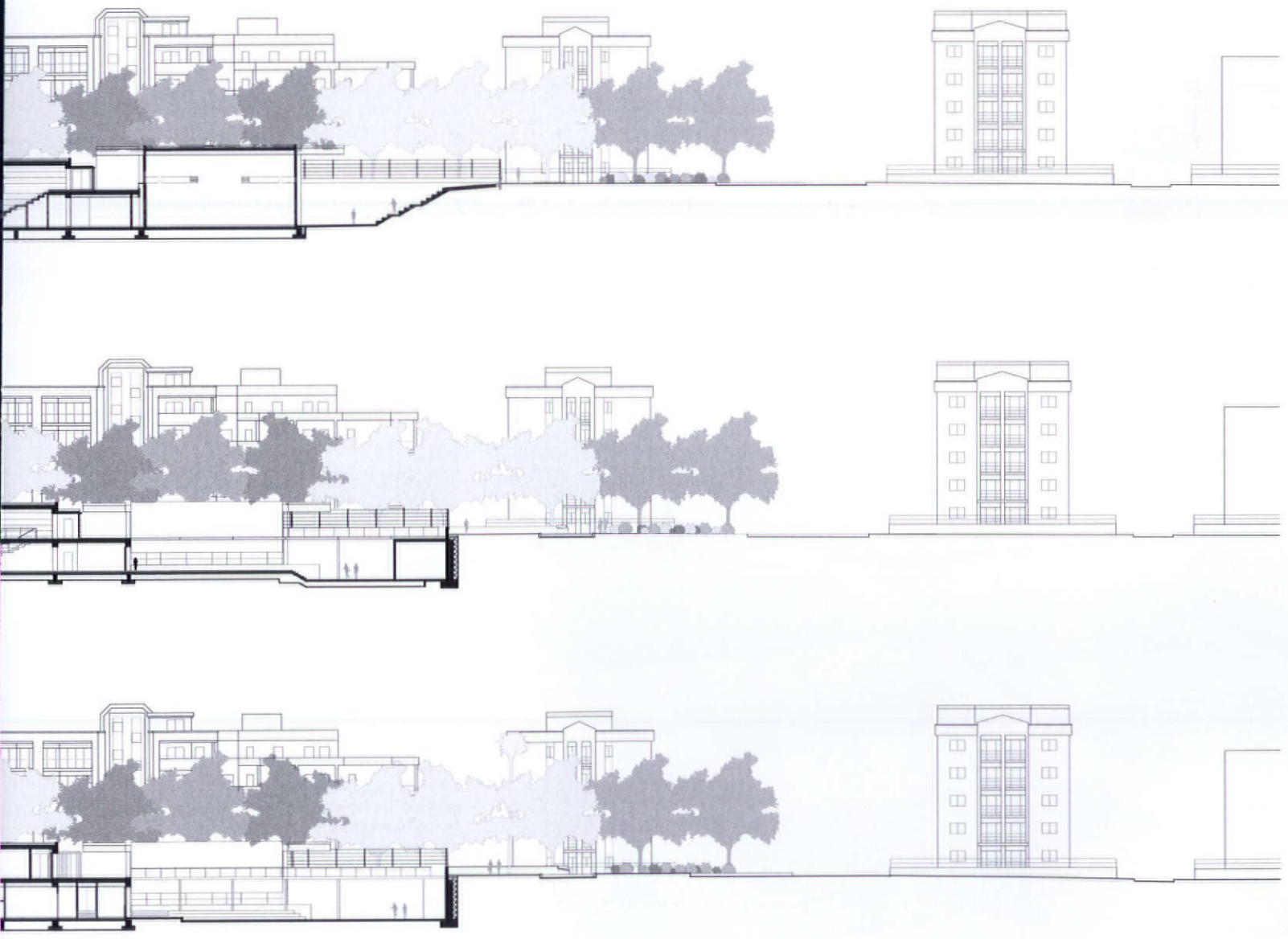
section BB



section AA

I Mosaici School, Rome, Italy, Herman Hertzberger and Marco Scarpinato

Semi-submerged in a Roman suburb, Herman Hertzberger's latest school promises a new pedagogy in a culture of scholastic conservatism: open to change, to self-direction, and to spontaneous encounters in a fluid space



CRITICISM

DEBORAH SAUNT

Driving south of Rome, leaving behind the intensity of the monumentalised city, tenement-lined boulevards give way to freeway sprawl, the hills of Frascati appear in the distance and a new residential district marks the edge of urban development.

Here, a radical new school by Herman Hertzberger and Marco Scarpinato awaits – although my taxi driver is finding it hard to locate. We circle past a children's playground, and a lay-by where a van acts as a convenience store. It is a nascent urban space, the kind of place where any civic gesture is welcome. I tell the driver this must be it, but he says no, it can't be. Where is the school?

Winner of an international competition, Hertzberger later tells me how extraordinary it was for the Italian authorities to allow foreigners to share in the making of a new type of school. Collaborating with Marco Scarpinato, the design evolved as a series of single- and two-storey interlocking blocks coming off a central spine, each with a courtyard to act as a future garden and learning space. This assemblage will be surrounded by a stepped landscape, so that the school in turn will be overlooked by terraced seating where children might come together and learn (a signature Hertzberger move), and to that end the school has been placed in an excavated hollow set down from street level. Two identical entrances on either side of the block cater for the different age groups, and in the future, when the grounds are completed, a connection will hopefully make the sports facilities publically available.

With 10 primary and six secondary classrooms at present, it is designed to expand over time as the local population increases, and provides accommodation based on the concept of flexible connections between classroom and classroom, classroom and circulation space, and classroom and outside – with exterior teaching a critical component. Hertzberger's proposal to open up and liberate the plan and to blur boundaries may appear less innovative than other recent schools, but in Italy it is radical.

Inevitably the project was challenged by the change in Italy's economic circumstances. The unfinished landscape is testament to this frustration: the rhetoric in the competition was to make the school feel accessible without needing to resort to grand solutions, and indeed the model for the school shows a continuous flowing landscape where the public realm merges with the playground as an urban meeting place – like the remarkable Im Birch School by Peter Märkli in Zurich. Unfortunately this generosity of public spirit seems difficult to export outside Switzerland, and here the school is surrounded by a long fence. This does little to differentiate the flat-roofed school beyond, which sits so low in the ground that the facade barely registers in between the five-storey housing blocks.

In order to enter, visitors must go down a huge flight of nearly 20 steps that are undeniably monumental – all the time wishing perhaps that one might just be permitted to go straight ahead, where children can be seen playing outside the first-floor classrooms.

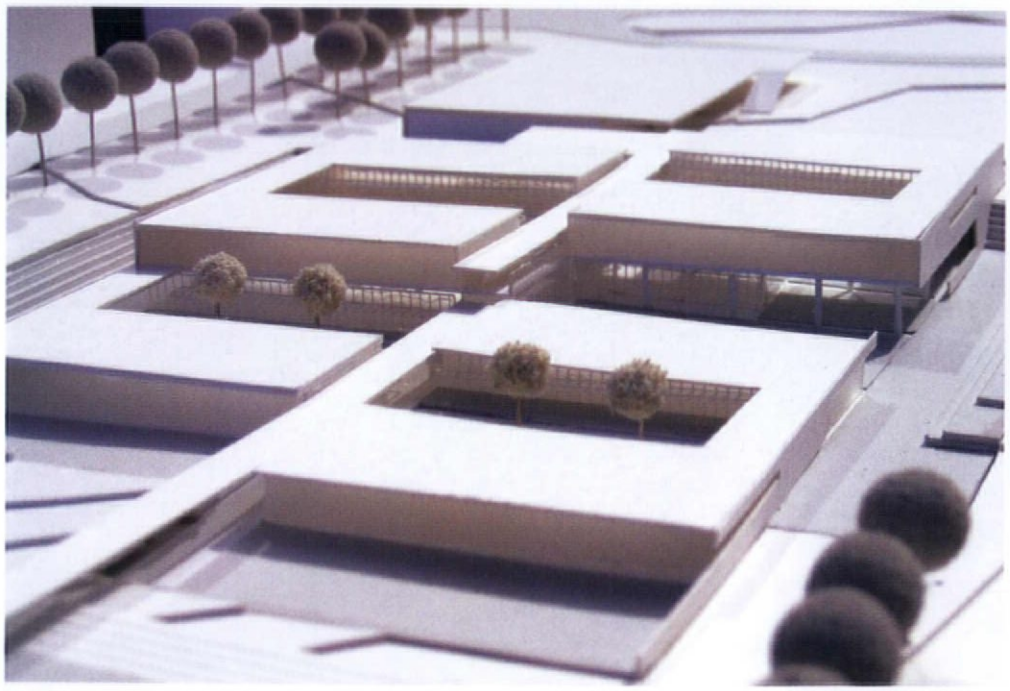
We share the same eye level but cannot meet.

The introduction of this descending entrance is perhaps a reference to Roman archaeology (as suggested by Scarpinato), or has arisen from necessary site decontamination (surely this is not necessary to such a dramatic degree?), but either way it is ironic that it is entirely excavated when the existing landscape is completely flat. It is more surprising still that there is no obvious step-free access to the school, and it takes persistence to register a remote small side gate leading to a ramp. One's heart goes out to parents arriving with young children in pushchairs, or students on bicycles, let alone disabled people. I wonder, where does this disregard for some types of user stem from, when I was anticipating the sense of inclusivity for which Hertzberger is so widely known? When I ask him, he explains that he 'likes the movement of the steps going down as it is the opposite of the monumentality of going up – it is against the plinth in Western culture' – disregarding the issue of inclusivity.

But happily, having reached the lower ground floor, a world of familiar openness and delight does indeed lie in abundance within the building, even if it is hard to find on the street. From within the foyer, against a simple backdrop of plaster, exposed concrete and grey metal-framed glazing, there are views of courtyards beyond, of the open circulation spaces running the length of the school and of daylight dappling the floor. The combination of horizontal slot windows to the outside world and glazed corners to classrooms allows glimpses in, out of and through rooms in a layering of people and architecture. At a grander scale the structural grid breaks down to reveal a large dining room with vast sliding

> 'The proposal to open up and liberate the plan may appear at first to be less innovative than other recent schools, but here in Italy it is radical'

1



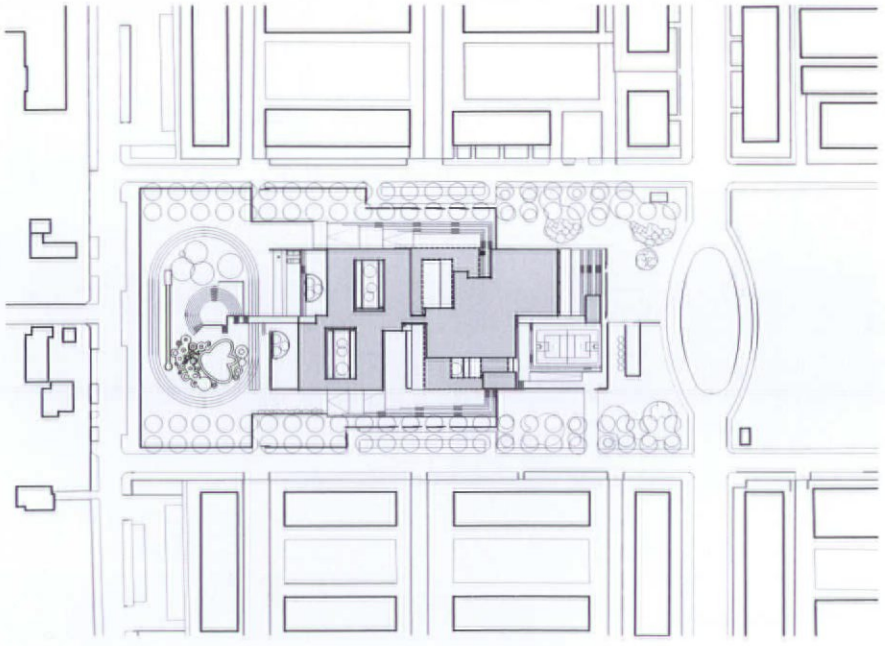
2



1. Model showing the low-lying courtyard blocks of the school
2. The shuttered concrete soffits of the overhangs provide shade from the intensity of the Roman summer sun
3. The facades are a masterful reprise of planar Modernist abstraction

3



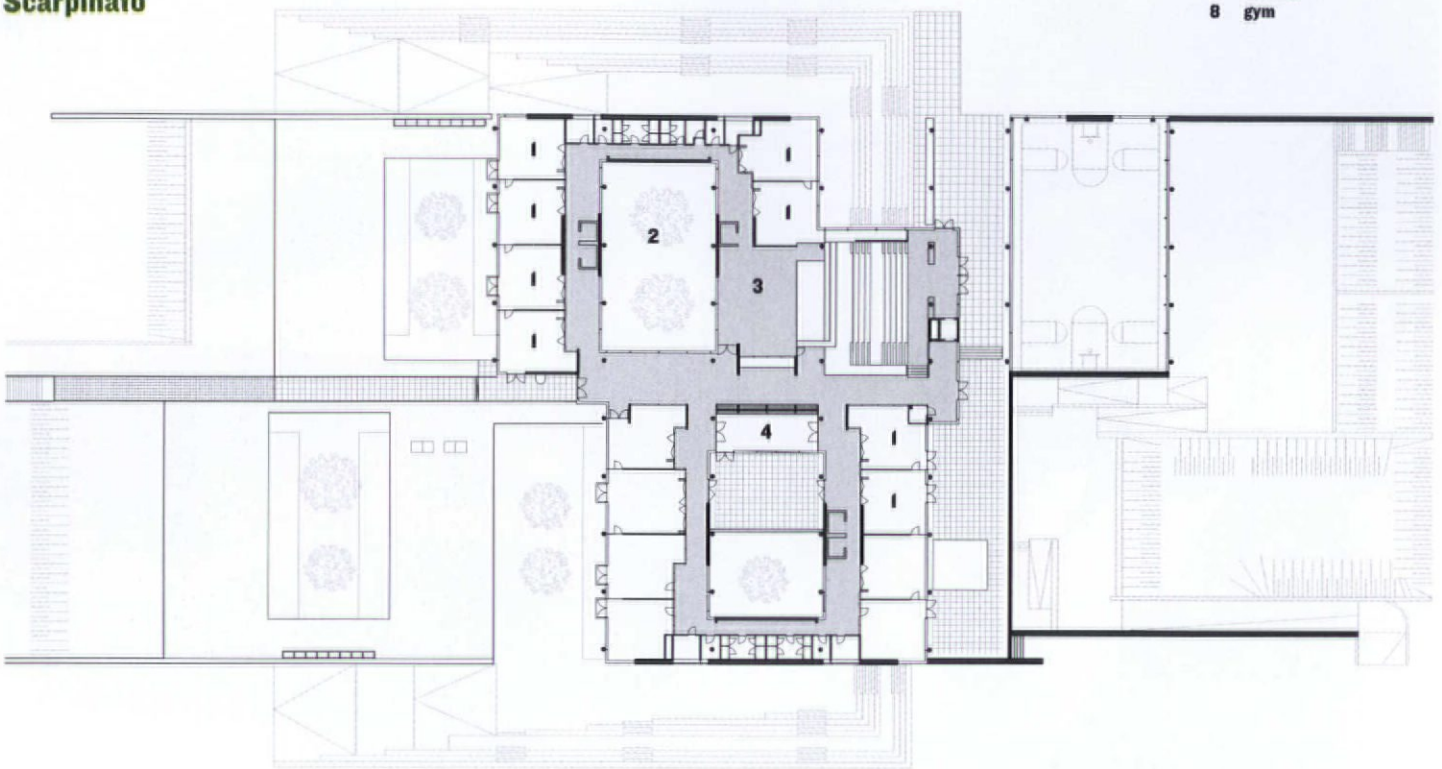


site plan

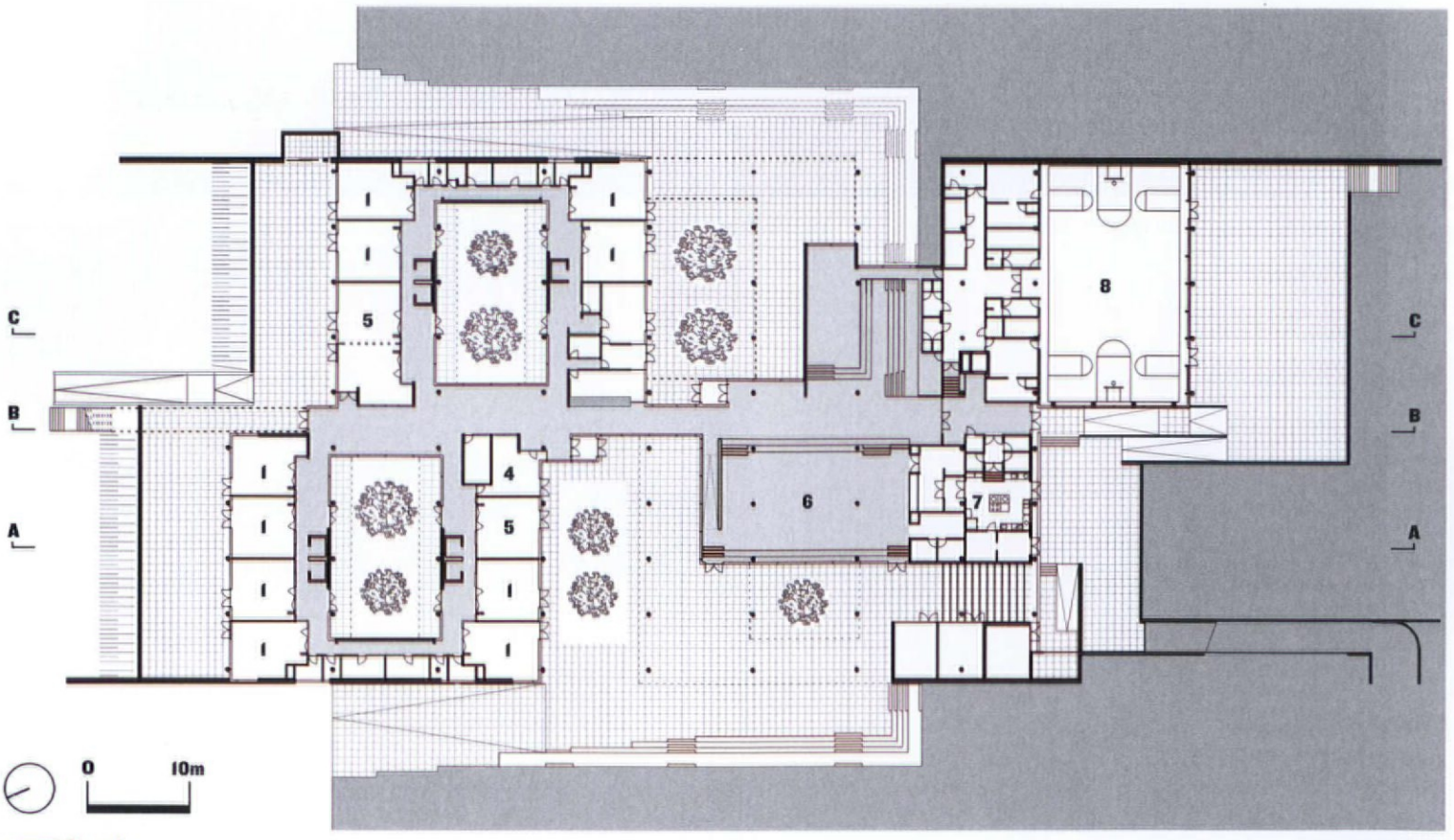
I Mosaici School, Rome, Italy, Herman Hertzberger and Marco Scarpinato

I Mosaici School, Rome, Italy, Herman Hertzberger and Marco Scarpinato

1 classrooms
2 courtyard
3 theatre
4 reading room
5 laboratary
6 restaurant
7 kitchen
8 gym



first floor plan



ground floor plan

4



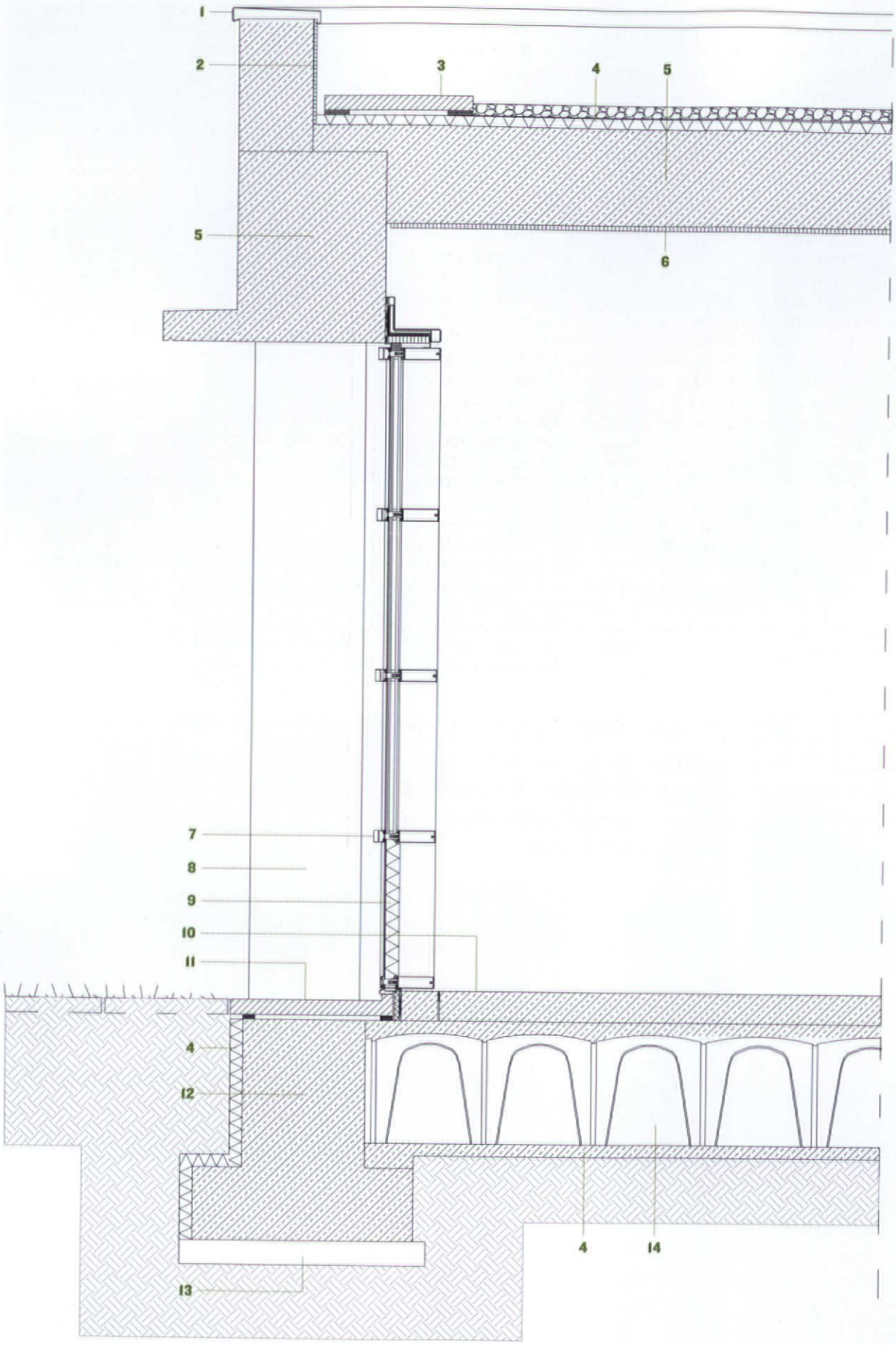
5



6



4 & 5. Concrete (brut and painted) and timber make for a clean, warm interior
6. A huge divider can be slid across to separate or join spaces on the central spine of the building



1 steel rain canopy
2 70mm thermal insulation
3 tiled service walkway
4 insulation
5 reinforced concrete beam
6 sound absorbing ceiling
7 aluminium curtain wall
8 concrete column
9 preprinted aluminium insulated panel
10 screed with underfloor heating system
11 tiled walkway
12 concrete foundations
13 foundation plate
14 ventilated crawl space

detailed section through auditorium wall

Architects
Herman Hertzberger and Marco Scarpinato
Underfloor heating
Rehau
Lifts
Kone
Lavatories and flooring
Marazzi
Photographs
Herman van Doorn

I Mosaici School, Rome, Italy, Herman Hertzberger and Marco Scarpinato

screens that open it onto the spinal route, and then a theatre carved out from the ground at one end, which clearly acts as the heart of the school. It feels interconnected yet calm.

There were challenges brought about by these cultural differences of bringing together a liberal architecture based on informality with the more traditional pedagogy of Italian education. Hertzberger's plan is informed by layers and transparency: 'Compare walls, walls, walls with glass, glass, glass. I am convinced the modern school should include social education, the children should get along together, help each other, have discussions with each other.' And he still advocates, as in his projects from over the last 40 years, that the building needs its inhabitants to determine its mode of use: 'the challenge is about how to anticipate and to not be neutral.'

From the outside it is hard to differentiate between spaces for young children and those for teenagers, as there is no obvious progression or scalar adjustment to acknowledge this transition. The thought of having to occupy exactly the same type of room from a young age through to being a teenager seems a little stern or even ungenerous, and here Hertzberger's notion of architecture as a universal framework seems to lack sensitivity to the diverse needs of different users who share the same space. Is this refusal of differentiation in case it is read as exclusive?

Is this conundrum at the heart of public architecture? That to make something work for everyone – to refuse an architecture that acknowledges hierarchy, that is calibrated to particular needs, or that responds representationally to its context – inevitably means that people at either end of the spectrum suffer from having less than satisfactory accommodation, or in environments that under-perform at an urban scale? Likewise, eschewing the representational role of architecture as an act of communication underplays the role that it can play in bringing delight and discovery to its users. I wonder how many chance encounters will happen in a public building so hidden from view?

Notable, too, in this age of the individual as opposed to the collective, and the digital versus the concrete, is the absence of an informal, self-led type of learning inside the classrooms that northern Europeans take for granted. Without computers and set out in regimented rows, children learn irrespective of their age – so that the youngest children do not have role-play areas, or the older ones access to laptops. This rigidity is something that Hertzberger keenly acknowledges is not to his liking, noting that 'Italians have a different culture of learning.' But he is optimistic about the future, as for him it will evolve: 'it is important to see structure as a matrix of all things that come next.'

On the day I visit, children in the auditorium listen excitedly to Hertzberger explain where the idea for their school came from, and how he would like to see it used. They clap and stamp their feet in delight as he asks the city authority to complete the project by providing large tables in the courtyard that will take advantage of the canopy shadows, around which individuals could gather to work on their own projects in the company of others – 'the big table as a representation of family, of debate, as social binding'.

This is a subtle shift in preconceptions, and perhaps a demonstration that Hertzberger's radical nature lies less in physical form or urban territories, or even at a material scale, but more at the level of breaking down preconceptions about social interaction. To question why schools in Italy do not yet commonly 'claim the climate for learning', as he proposes, is a deft transposition of a common feature of everyday domestic life (what Italian does not take advantage of a shaded outdoor terrace, whenever possible?) to the scale of the institutional. The legacy of Hertzberger is laid out here when one remembers how subtle, but critical, his influence on architecture has been. Aside from the manifesto architecture of revolutionaries that recast society structurally, few architects in the 20th century have taken the time to ask these disarmingly simple questions about how a social landscape might evolve, and to draw reference persistently from real life rather than imagined notions.

Despite this, the feedback from users is tremendous, and in the spirit of Hertzberger the building aims to let inhabitants interpret and customise its spaces to their own needs.

To this extent, the city client says that Hertzberger has set a challenge to the teachers to reinvent every activity, and the new headteacher says she feels repressed by old schools now, instead finding the new school – with the continuum of inside and outside – reassuring, and representing openness. The sense of optimism is palpable, and even the politicians become enthused, with the deputy leader of parliament saying the project is about empowering children to feel at home, to unleash their potential.

> 'Hertzberger's radical nature lies less in physical form than at the level of breaking down preconceptions about social interaction'

7



8



7. Steps form an amphitheatre
8. In the classrooms, children are lined up in traditional rows: a contrast to the forward-looking architecture of the school

Tourist Information Tower, Tokyo, Japan, Kengo Kuma

TOKYO STOREYS

Kengo Kuma's tower of stacked and canted layers offers visitors new views over a revitalised district of historic Tokyo


海鮮居酒屋
はなの舞
Denny's

Tourist Information Tower, Tokyo, Japan, Kengo Kuma

2





location plan

3



REPORT

KEN TADASHI OSHIMA

Rising eight storeys above the heart of Tokyo's downtown Shitamachi area, the Asakusa Tourist Information Tower marks architect Kengo Kuma's continued efforts to revitalise and reinvent traditional Japanese culture and urban space. This year, the Shitamachi area has witnessed a rebirth following years of economic decline, with the development of western Tokyo and the recovery operation in the wake of the devastating Tohoku Great East Japan Earthquake in March 2011. Following the opening earlier this year of the 634-metre Tokyo Skytree as the tallest tower in the world, Kuma's Asakusa Tower stands as the new symbol of the revitalised Taito Ward fronting the landmark Kaminarimon Gate to the famous Asakusa Sensō-ji temple, the oldest Buddhist temple in Tokyo.

Bridging centuries of sacred and profane worlds, the Asakusa Tower's multi-canted roof structure is a conscious counterpoint to the dynamic evolution of the surrounding urban space. While the Asakusa Sensō-ji dates back to 645, the vibrant Nakamise-dōri street leading to it is said to have come about in the early 18th century when souvenir shops were permitted to line the approach. The precincts also include the Nishinomiya Inari Shinto Shrine dating to 1727, a five-storey pagoda and the dominating Kaminarimon 'Thunder Gate' at the entrance. Although the temple was bombed and destroyed for the most part during the Second World War, it remains one of Tokyo's most popular tourist destinations and is seen as a symbol of the city and nation's post-war rebirth, and of peace.

Kuma's competition-winning scheme for Asakusa is one of many of his efforts to rebuild aging buildings in Japan. He also has an ongoing preoccupation with the revival of Japanese industries and craft skills, now in decline since their peak decades ago. In his Chokkura Plaza project and Stone Museum he made use of traditional stone cutting techniques and promoted the appreciation of Ukiyo-e wood-block prints in his Museum of Hiroshige Ando through the use of slim wooden louvres (AR October 2001). For the Nezu Museum (AR April 2010), he reconceived the traditional oversailing roof to appear razor thin and situated the famed Kabukiza theatre in Ginza within a high-rise complex.

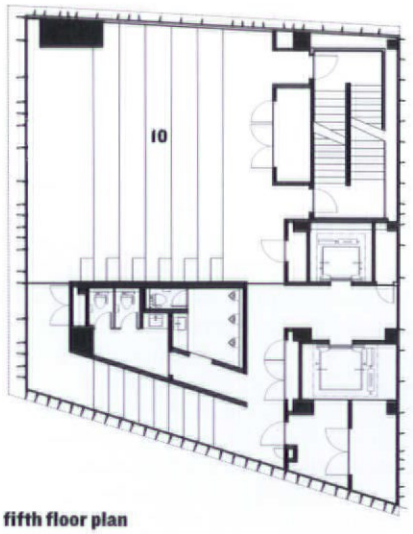
The Asakusa Tower stands as a beacon to welcome tourists from abroad and within Japan. While Asakusa is a top destination for Japan Tourist Bureau tours for foreign visitors, such traditional culture can remain equally foreign to a younger Japanese generation. The particular character of this district is sensed immediately upon arrival at the subway station through multiple images of the area's festivals and historic structures illustrated on subterranean walls, which then continue up to the street. In this mileu, Kuma's 38.9-metre tower serves both as a landmark and three-dimensional urban sign. Actual signage is limited to a discreet question mark at ground-level to entice those in search of further information.

The double-height information lobby contains a tableau of maps, brochures, a large model of the Taito Ward, and large video screen with announcements and images of the district. In presenting Asakusa old and new, the centre provides wi-fi links to its web page and dynamic views of the busy urban crossing that subtly change as you ascend the

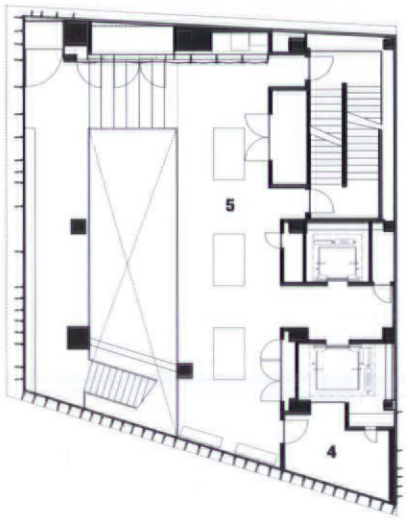
1. (Previous page) the Tourist Information Tower reads as multiple layers of single-storey houses, an impression of domesticity reinforced by the wooden detailing. This also refers to the nearby wooden pagoda of Sensō-ji temple — an equally ahistoric structure, which was rebuilt after the war
2. The Tower's wonky silhouette merges with the angular cityscape of the Shitamachi area of Tokyo
3. From certain angles the wooden slats of the facade predominate, cancelling out obtrusive reflectivity



second floor plan



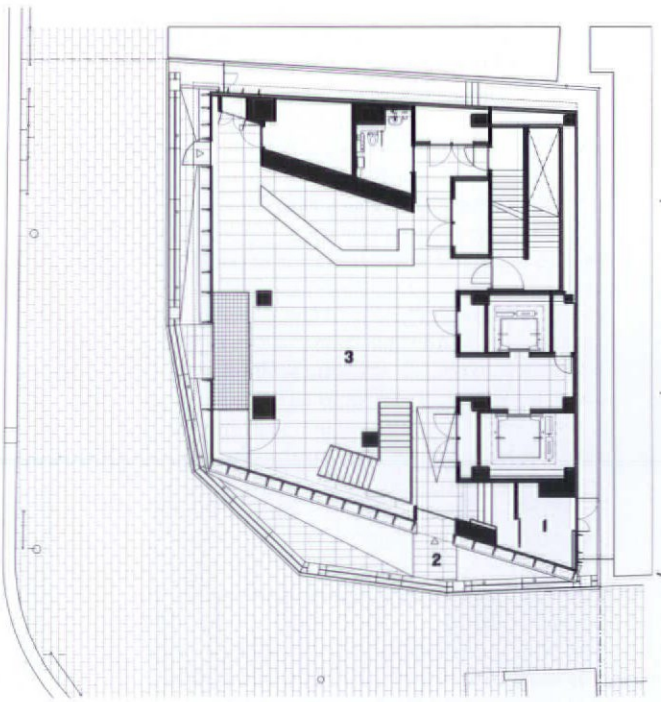
fifth floor plan



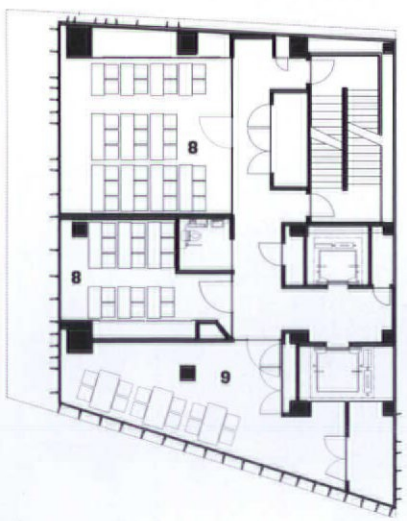
first floor plan



fourth floor plan



ground floor plan



third floor plan

1 foreign exchange
2 main entrance
3 information lobby
4 storage
5 tourist information
6 office
7 group tourist support
8 conference room
9 seminar room
10 multipurpose room



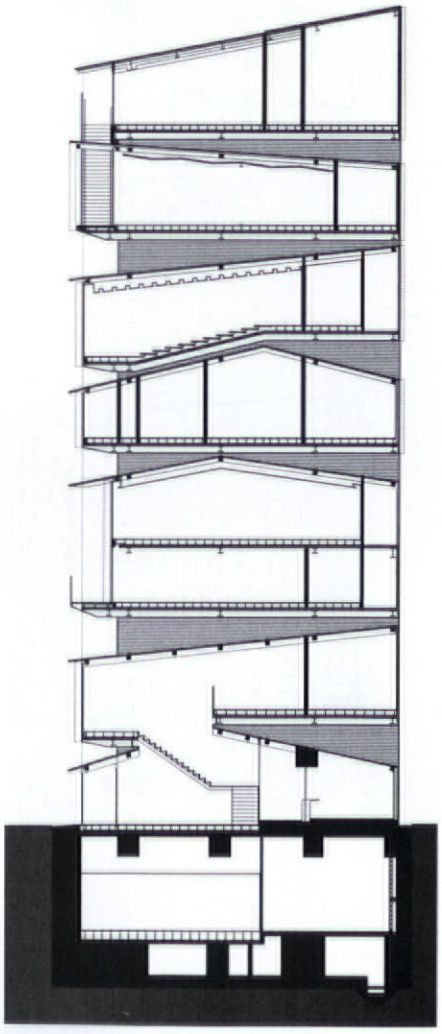
winding stair to the upper mezzanine level. Along the way, you can view a model of a *mikoshi* portable shrine (originally a feature of the crossing that would emerge behind the opening face of a clock), and then look out to elevated views framed by the external wooden louvres of the central shopping arcade leading to Sensō-ji.

Set against the building's urban presence and monumentality, the interior is a surprisingly intimate sequence of spatial experiences. Built on a site of only 326 square metres, Kuma's tower adopts the 'pencil building' typology of many neighbouring slender towers. The built structure maintains the small-scale character of the historic Asakusa district as a series of one- or two-storey stacked volumes for small-to-medium conferences, seminars, group tour support, lectures, events and exhibitions, with a top level viewing deck and café. The tower as realised is distinctly more solid than the initial transparent schematic model in its spatial fluidity of an open passage from the basement to the fourth levels depicted in the competition scheme. Yet in the end the haptic qualities of wood, stone, paper and steel appeal far more to visitors.

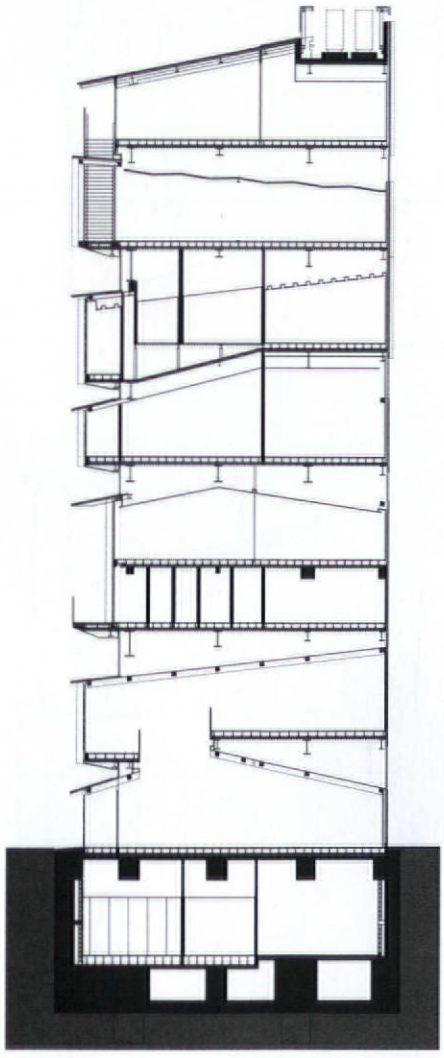
Indeed the tower has many faces and expressions. From the exterior it could be read as the transposition of the horizontal urbanscape to a vertical stacked landscape. By night it can be seen as an oversized *andon* lantern facing the famous red lantern across the street in the temple complex. In contrast to overt Japanese readings, the tower's side section expresses the freedom of Adolf Loos's *raumplan* – most explicitly in the stepped auditorium space stacked on top of the 5th floor large conference room. Gaps between the stacked volumes house the HVAC equipment to enhance the effect of the tower's section. Building on its almost cartoon-like character, the building's graphics highlight this spatial clarity – especially useful in finding your way in using the enclosed stair and lift. In fact from early on in his career, Kuma's designs have had a strong monumentality, evident in works such as

Tourist Information Tower, Tokyo, Japan, Kengo Kuma

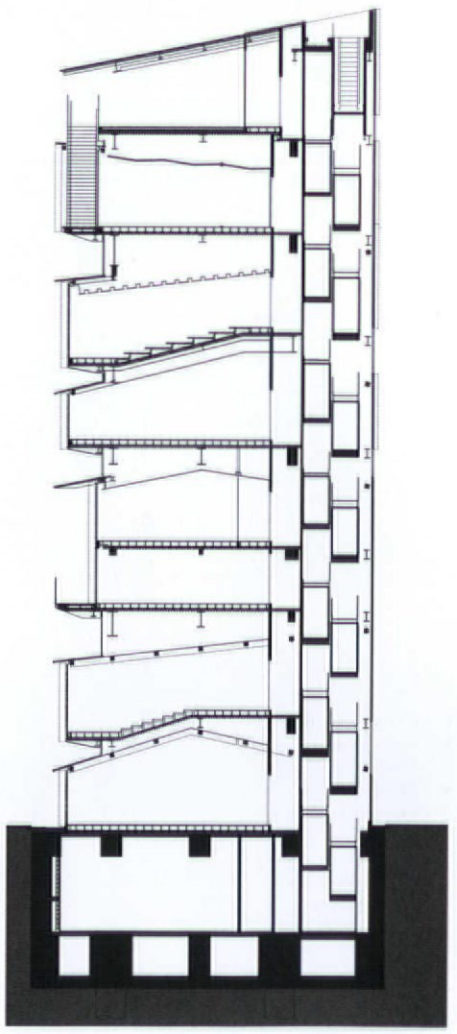
'Bridging centuries of sacred and profane worlds, the multi-canted roof structure is a conscious counterpoint to the surrounding space'



section AA



section BB



section CC

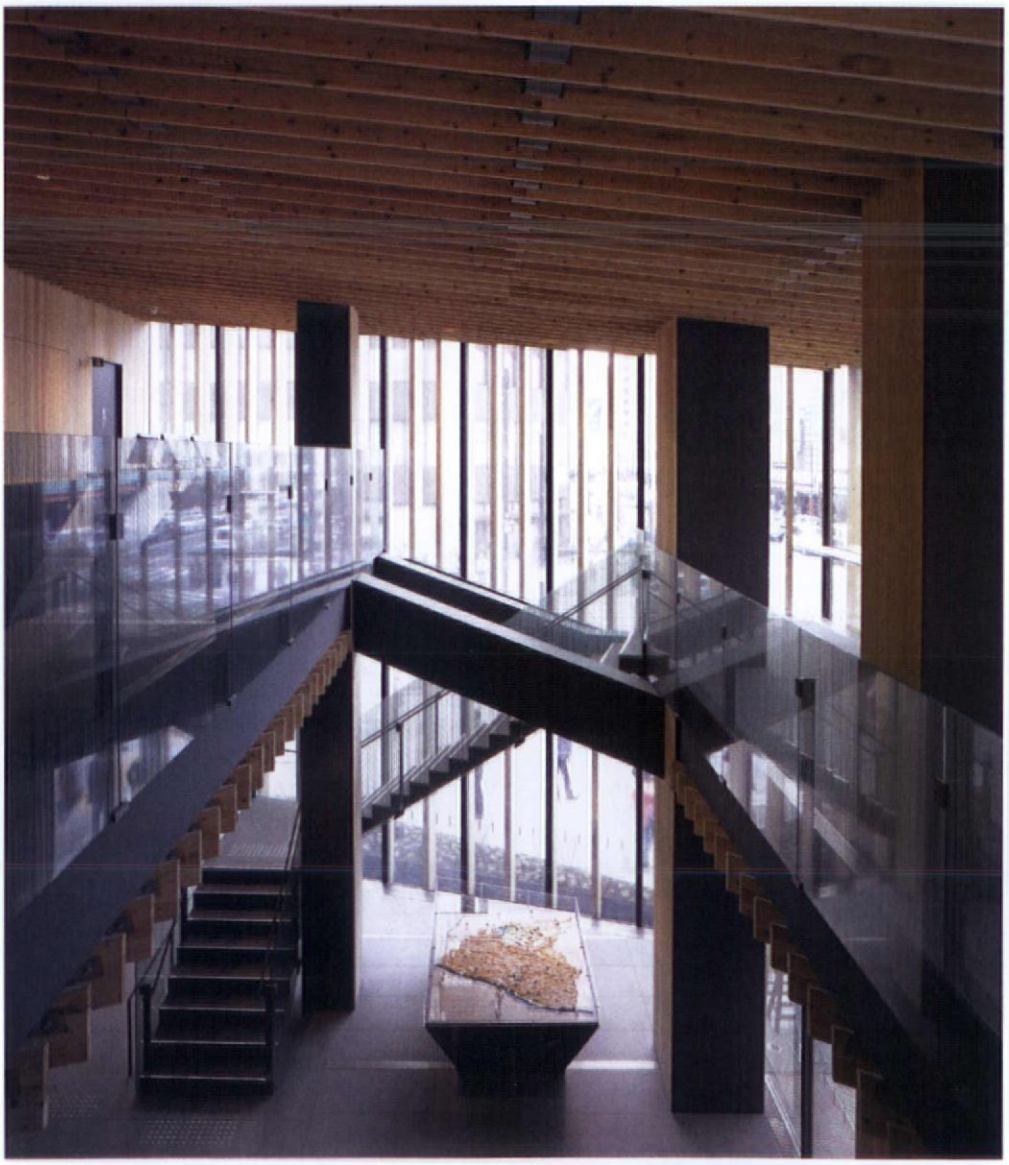
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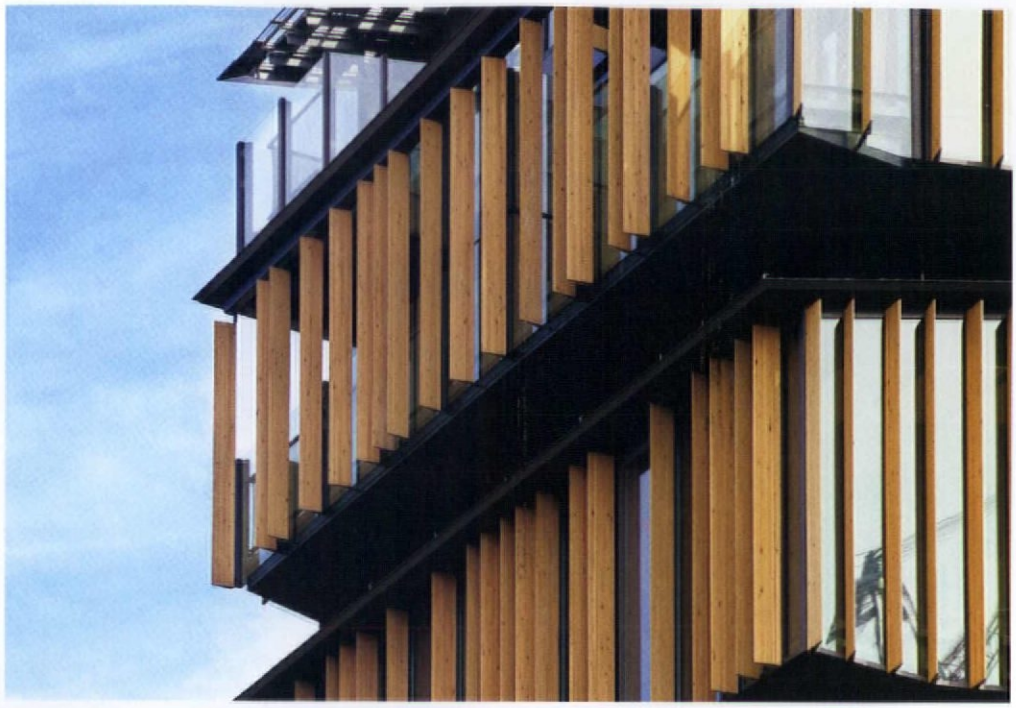
4-6. Alluding to Japanese vernacular building traditions, the timber slats of the facade are continued within the building as thin exposed beams, a disconcertingly antique feature in such a consciously modern structure

Tourist Information Tower, Tokyo, Japan, Kengo Kuma

7. From outside, the timber slats allow the building to be read as ancient or modern, depending on your angle of approach
8. The building's playful yet monumental character recreates the area's fantasies of the fantastic

Architect
Kengo Kuma
Lighting
Endo Lighting
Lavatories
Toto
Photographs
Edmund Sumner

7



8

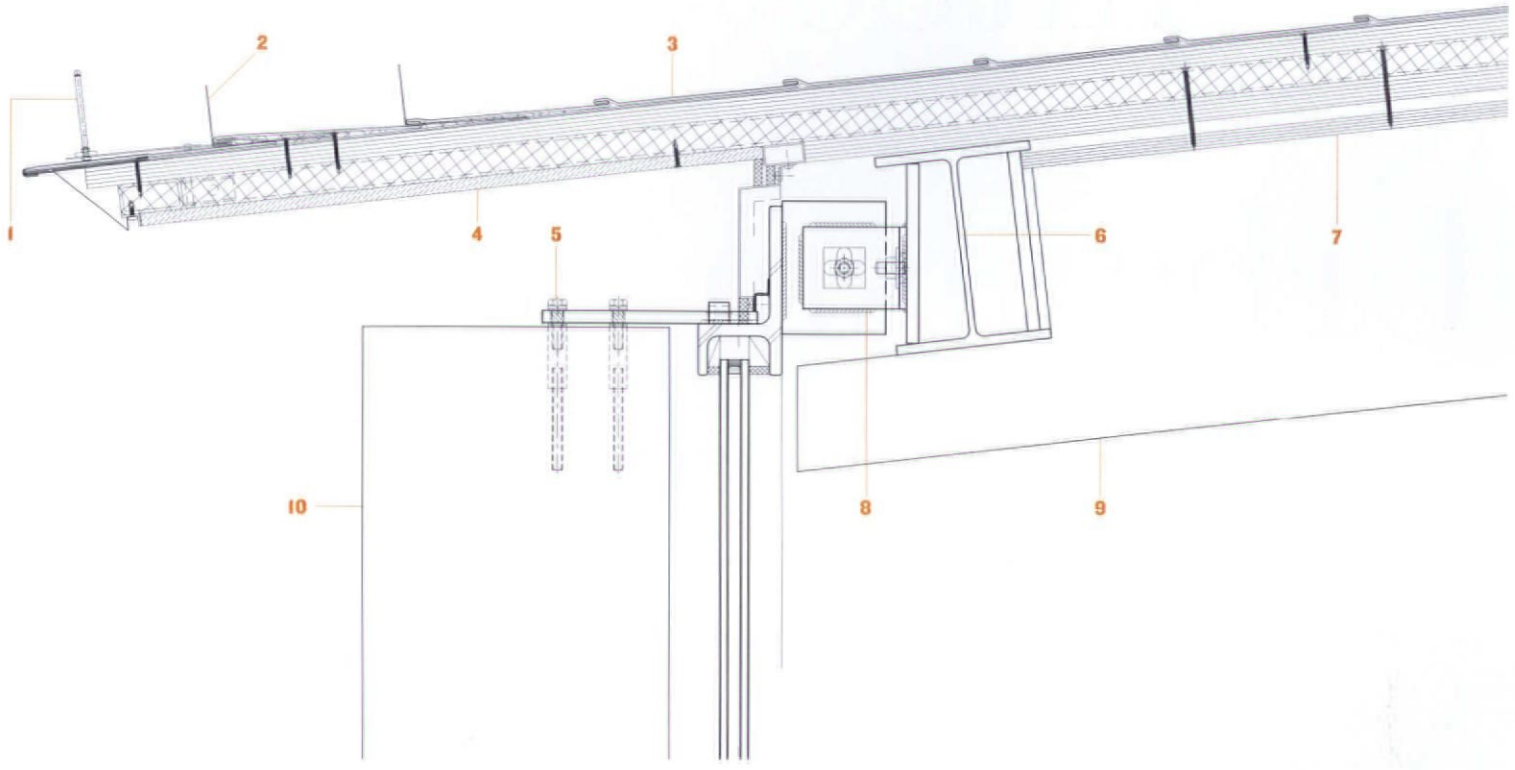


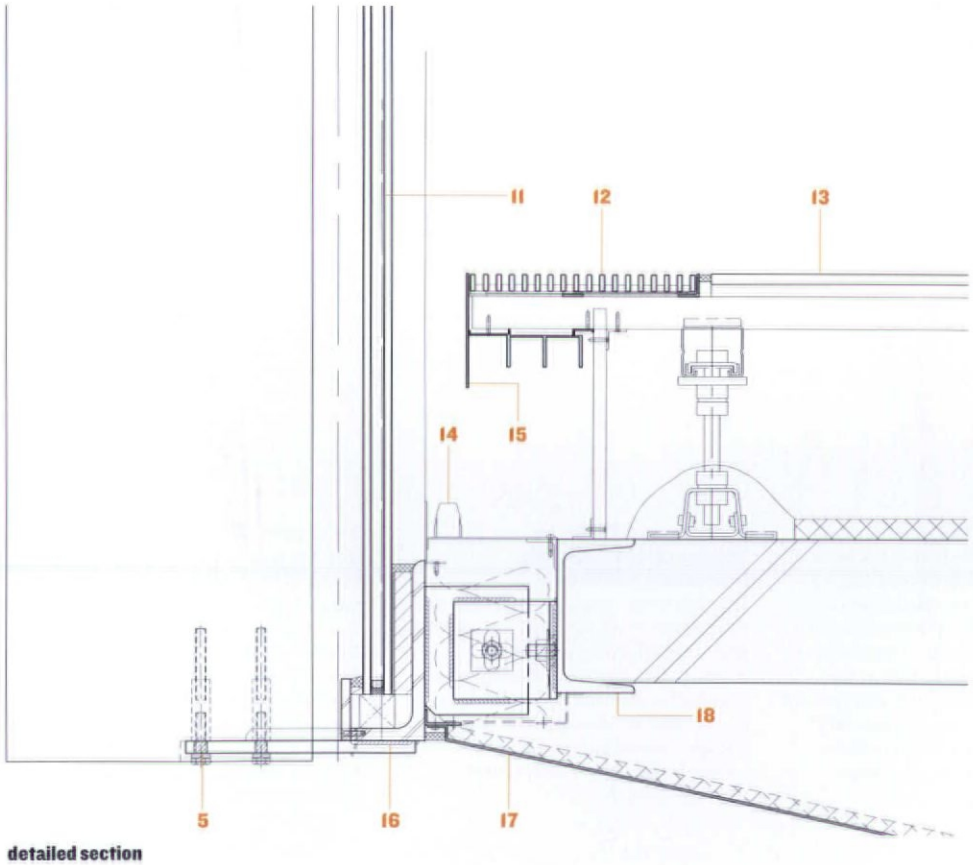
the M2 Building (1991), a homage to Loos's Chicago Tribune competition entry with its oversize column massing.

The tower's monumental yet playful character revives and recreates the area's fantasies of the fantastic, and how these relate to the religious character of Sensō-ji. The temple's five-storey pagoda was once juxtaposed with a timber-frame replica of Mount Fuji constructed in 1887 as an entertainment attraction (rather like Disneyland's 1959 Matterhorn ride). Although this faux Mount Fuji was torn down in 1889, the 12-storey brick Ryōunkaku tower featuring one of Tokyo's first lifts provided new views of the area until it was destroyed in the 1923 Tokyo Earthquake. Scaffolding constructed around the pagoda also offered similarly dynamic and changing views of the area for tourists in the pre-Second World War era.

In effect, the Asakusa Tower recreates these vertical promenades to offer views of adjacent towers and landmarks including the Asahi Beer Company's headquarters office tower rendered as a large beer mug with a faceted foam-like top and Philippe Starck's famous adjacent beer hall with its signature golden flame hovering above.

Embedded in this context, the Asakusa Tower embodies multiple aspects of the area's rich history, both sacred and profane, while providing new urban views and perspectives. Unlike the Tokyo Skytree with high admission fees, long queues and remote panoramas from above the clouds, the viewing deck of the Asakusa Tower is free and offers vivid aerial vistas. Functioning brilliantly as a tourist information centre and urban signifier, it connects body and mind with Asakusa's past, present and future.





detailed section

1 bird wire
2 snow guard
3 galvanised steel sheet
4 12mm silica calcium board
5 connector
6 194 x 150mm steel I beam
7 15mm wood cement board
8 steel fastener
9 timber ceiling louvre
10 timber facade louvre
11 double glazing with low E glass
12 grating for air conditioning
13 15mm oak flooring
14 LED indirect lighting
15 light diffusing panel
16 steel L section
17 steel panel

Architecture & Urbanism

Architecture & Ecology

The AR is collaborating with the Royal College of Art and the Victoria & Albert Museum to produce Architecture& – a series of architectural discussions in London. There will be five events in total and the first two will look at urbanism and ecology. All events will be held at the Victoria & Albert Museum. Tickets are £9 full price, but a special concessionary rate of £6 is available for AR readers. For how to book visit architectural-review.com/ArchitectureAnd

Architecture & Urbanism
Tuesday 13 November, 7pm, Hochhauser Auditorium
Debating the development of London with Peter Wynne Rees, the City Planning Officer who approved, among many other developments, Norman Foster's Gherkin; and Liza Fior from the art/architecture practice muf, an advocate of community engagement who has recently been working around the fringes of the Olympic Park. Chaired by Will Hunter

Architecture & Ecology
Tuesday 4 December, 7pm, The Lydia & Manfred Gorvy Lecture Theatre
Exploring the future of our planet with Rachel Armstrong, the author of TED Book *Living Architecture* and a leading 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.' Chaired by Will Hunter

Royal College of Art

AR

V&A



LEARNING FROM SCHAROUN

Embodying radical yet humane ideas about the potential of architecture to shape social and pedagogical interaction, Hans Scharoun's 1970s primary school at Marl came close to demolition, but is now being restored to accommodate a new use as a music school, in a programme that engages and resonates with the architect's original design intentions

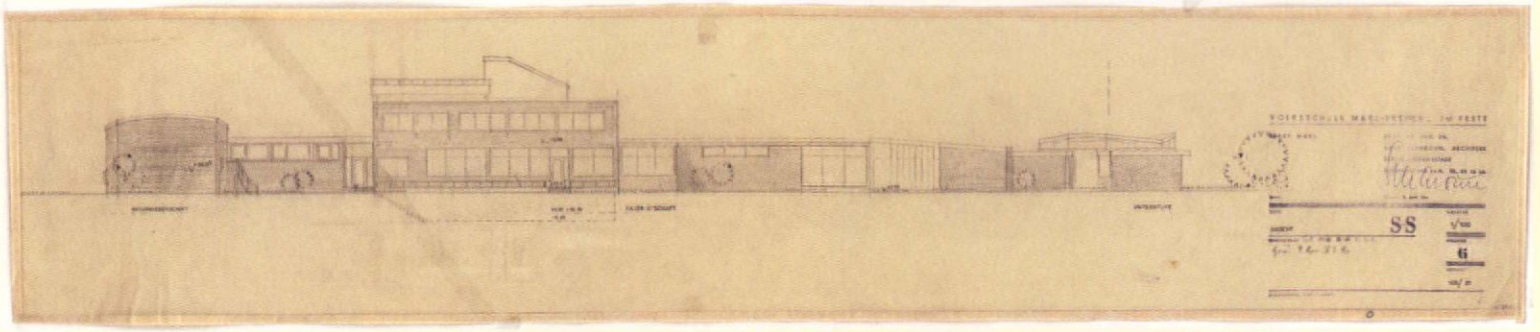
PETER BLUNDELL JONES

PHOTOGRAPHS BY DENNIS GILBERT

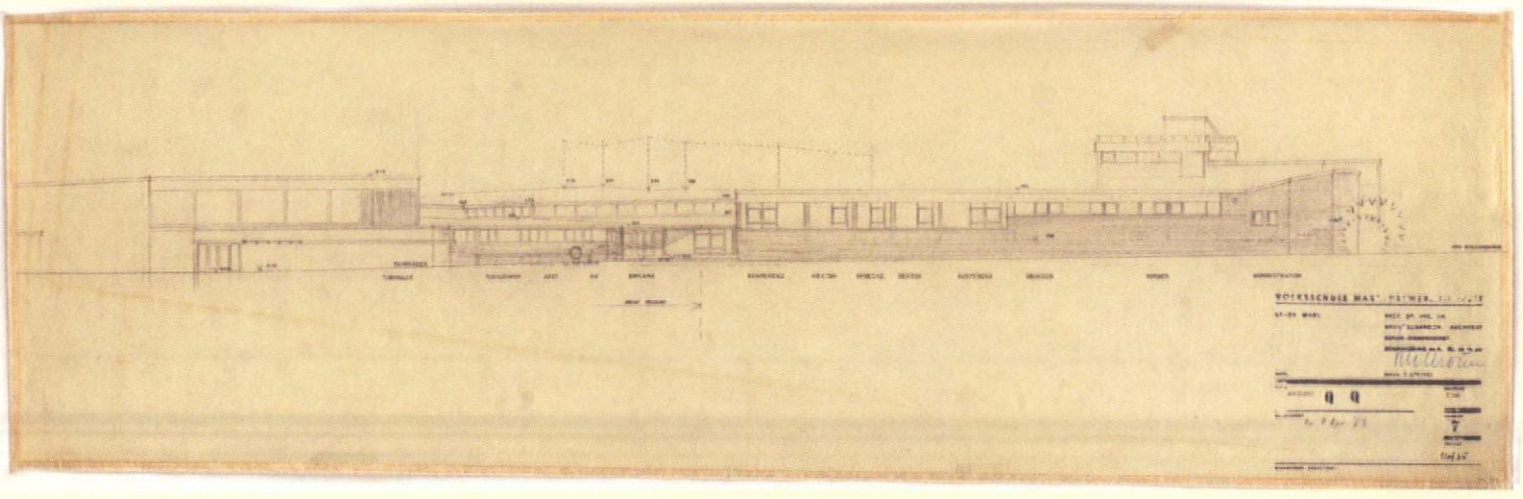
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1 auditorium/assembly hall
2 break hall/foyer
3 lower school classroom
4 middle school classroom
5 group hall
6 gymnasium
7 changing rooms
8 staff offices
9 science
10 workshop
11 domestic science
12 zoology courtyard and aquarium
13 covered way
14 playgrounds
15 main entrance

3



4



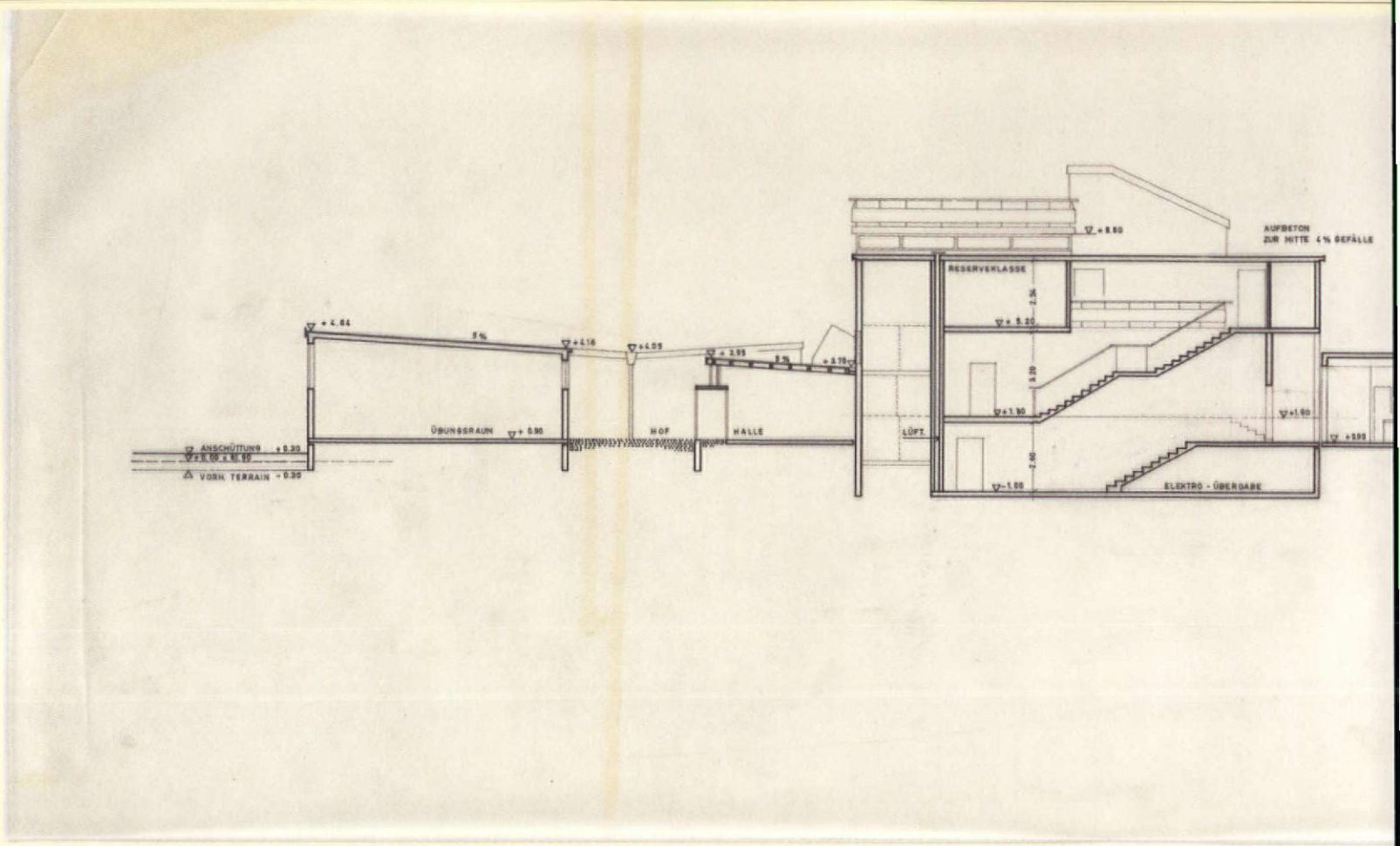
Hans Scharoun planned a handful of schools in the post-war years of which two were built: the Geschwister-Scholl girls' *Gymnasium* at Lünen and the larger *Haupt und Grundschule* at Marl, both in the industrial Ruhr during the prosperity of the German *Wirtschaftswunder* of the late 1950s and early '60s. Both projects look back to an idealistic model school Scharoun had presented at the conference *Mensch und Raum* at Darmstadt in 1951, at which also Martin Heidegger presented his famous paper *Bauen, Wohnen, Denken*.

Scharoun's radical concept envisaged a school articulated as a series of diverse individually shaped elements strung together like houses in a village and linked by a street-like interior. Not only was this intended to give the rooms separate identities closely related to their functions, but also to develop in the pupils a high degree of territorial identity. There were even theories about why classrooms for differently aged pupils should have different shapes and colours. A specific site was envisaged for this prototype, but no budget was forthcoming so nothing was ever built. However, Scharoun's design soon became the milestone for extreme specificity in architectural thinking that it has remained ever since.

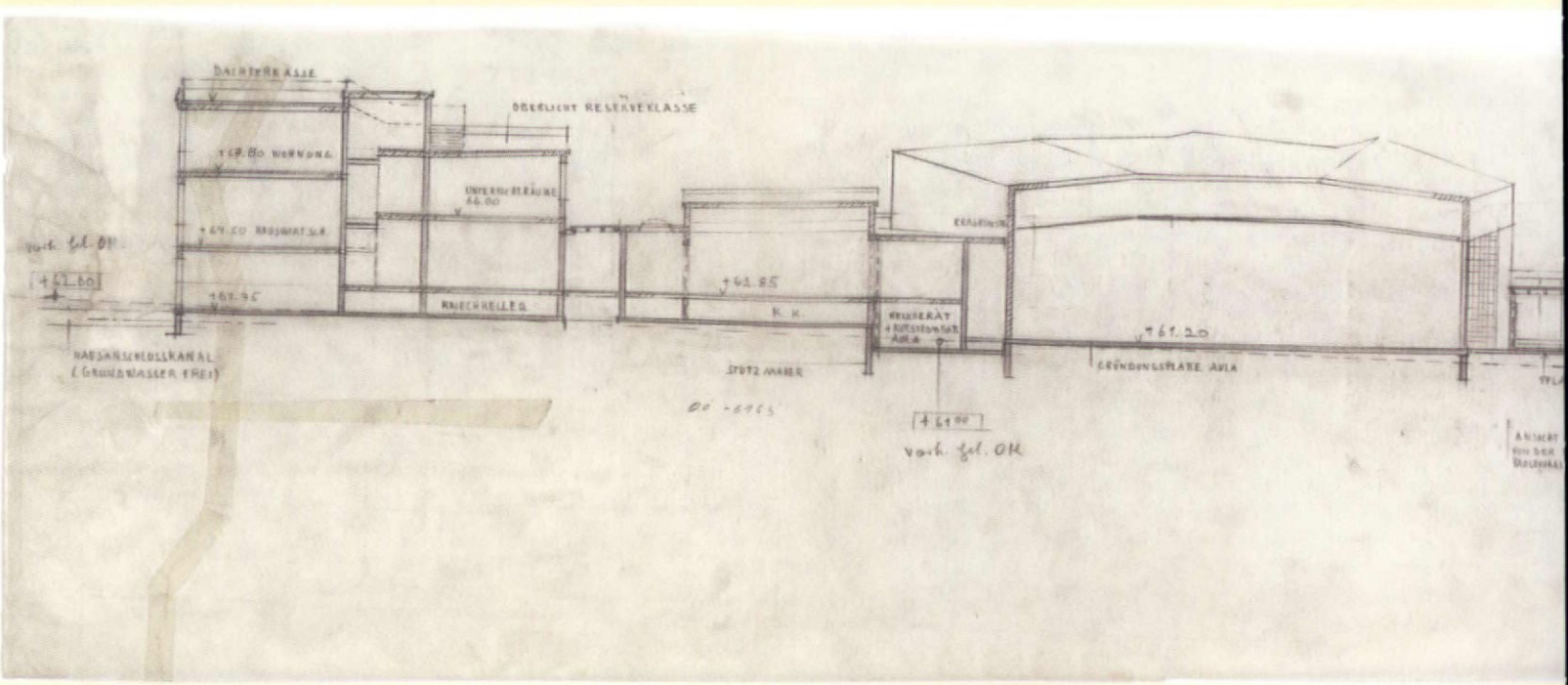
Even as a conference proposal it met some opposition: the conservative Paul Bonatz, architect of Stuttgart railway station, dismissed Scharoun as a '*zerdenker*', a destroyer of rational thought, and such insults are still occasionally heard from those who regard departure from the right-angle as a sin. But Scharoun's approach was applauded by progressive teachers and left-wing politicians, and by the mid '50s he had been commissioned for a girls' *Gymnasium* in Lünen, named after the brother and sister martyred for opposing the Nazis, Hans and Sophie Scholl. It was an existing school that had survived by sharing the premises of another, but only with great difficulty, and it was largely due to the efforts of head Bruno Wieloch and a couple of governors that the project was initiated. Scharoun worked closely with them, sharing their social and philosophical aims. As he put it at the opening: 'Since children are so impressionable in their early years, a rich childhood can be the foundation for a whole life. Education is not just the development of intellectual capabilities, not just the achievement of particular knowledge and abilities: it is a process which allows the bringing together and developing of all faculties. Therefore learning must be in

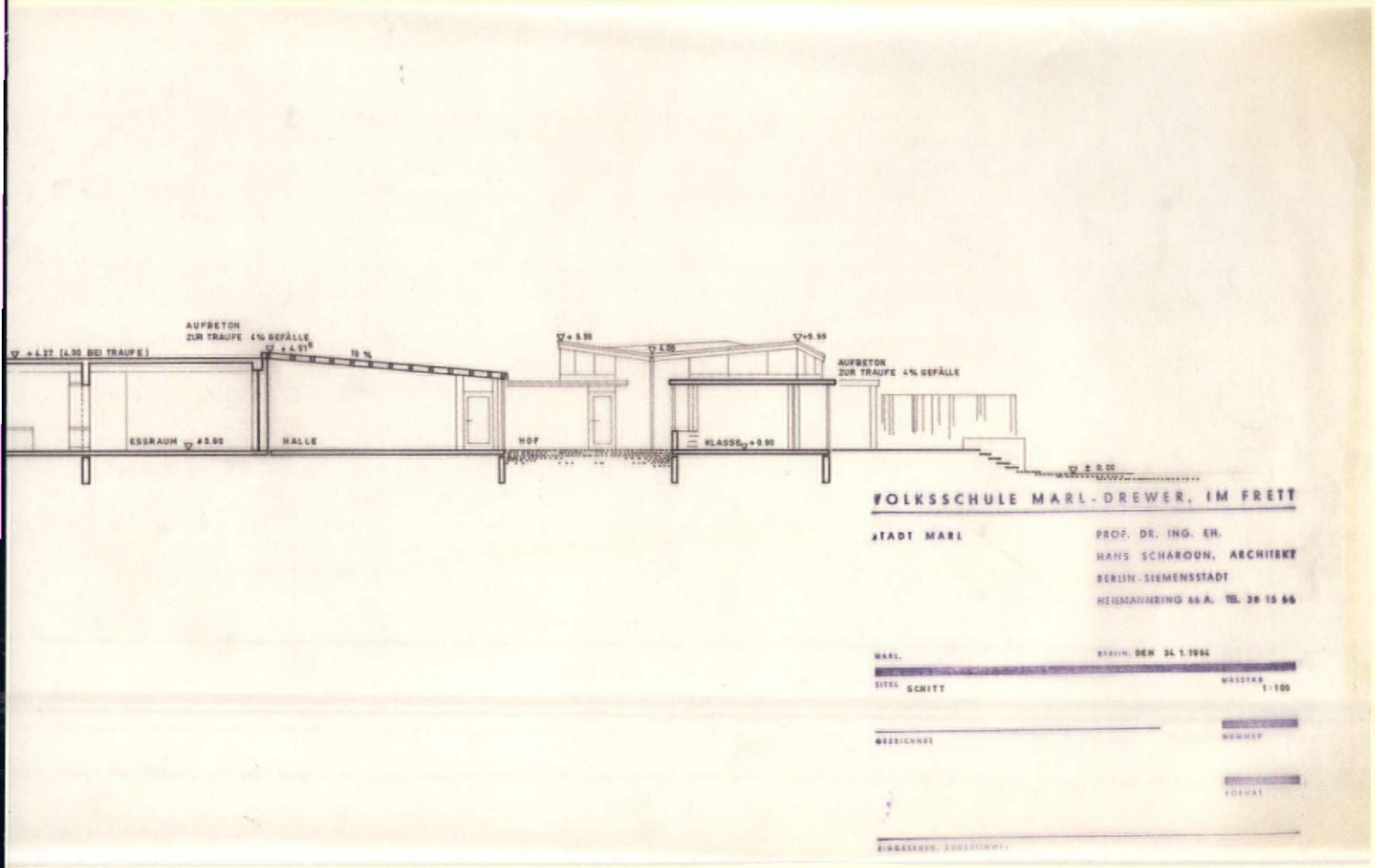
1. (Previous page) pupils at Marl primary school in the 1970s, when the school was first completed. Spatial differentiation between the various parts of the complex created a strong sense of place, encouraging personal identification with particular elements
2. Plan of Marl, centred on the assembly hall. The four school units are clearly identifiable. Groups of rooms around the assembly hall served various specialised subjects, such as art and domestic science
3 & 4. Scharoun's original elevation drawings

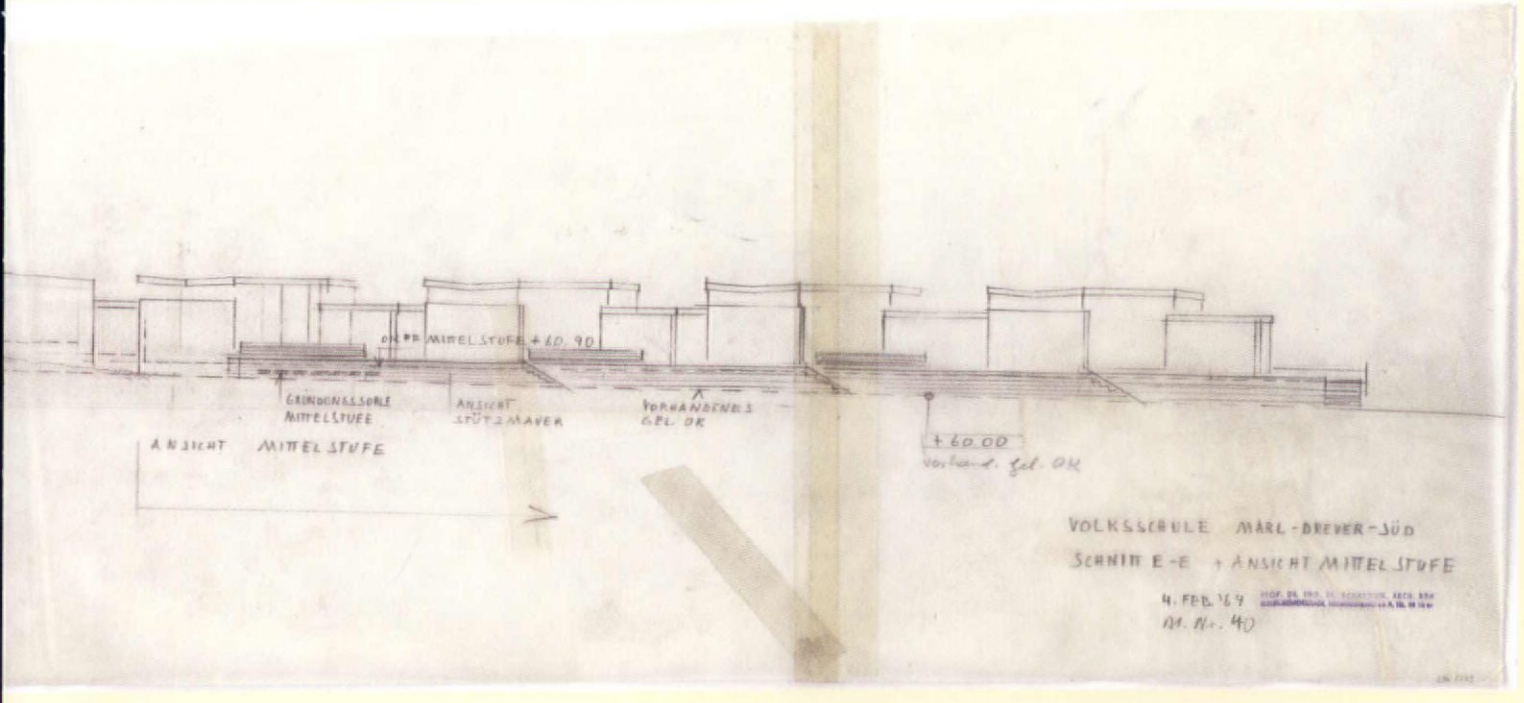
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AUFBETON
ZUR MITTE 4% GEFÄLLE
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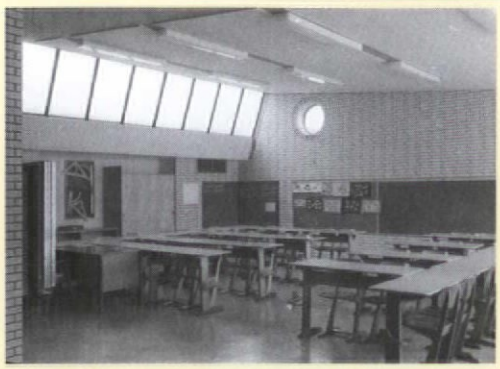
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ÜBERLICHT RESERVEKLASSE
RAUCHKELLER
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AUFBETON
ZUR TRAUFE 4% GEFÄLLE
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ESSRAUM
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VOLKSSCHULE MARL-DREWER, IM FRETT
STADT MARL
PROF. DR. ING. EH.
HANS SCHAROUN, ARCHITEKT
BERLIN-SIEMENSSTADT
HEIMANNRING 66 A. TEL. 38 15 66
MARL.
BERLIN, DEN 24. 1. 1964
SCHNITT
MASSTAB 1:100


OK FR. MITTELSTUFE + 60.90
GRUNDRISSSOHLE MITTELSTUFE
ANSICHT STÜTZMAUER
VORHANDENES GEL. OK
ANSICHT MITTELSTUFE
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4. FEB. '64
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5 & 6. (Previous page) original section drawings of Marl school showing the differently scaled spaces and relationship to site
7-12. A selection of archive images from the 1970s when the building was first completed
7. Typical classroom
8. Low-rise classrooms cluster round the school assembly hall

harmony with the child's growth and development, and the school, like the home, must stand as evidence that the earth is a good place to dwell.'[1]

The school was closely tailored to the girls' needs as Wieloch saw them, and it proved educationally successful, despite Wieloch's early death in 1974 and a change to co-educational status. In 1983, Hermann Korte, the second head, reported that despite the endless changes in structure and organisation suffered by all German schools in that period: 'the intimacy, atmosphere and freedom of space which Scharoun created and which generations of pupils and staff have helped maintain, remain valid today. These qualities pervade our life together, positively appreciated by pupils, staff, and parents alike.'[2] A 70-page anniversary booklet with stories, photographs and art work from staff and students, press cuttings and other marginalia, record the vivid life the school had enjoyed over this 25 year period. A personal visit in the mid 1990s confirmed the school's continuation and some reinvigoration of the ethos by a new head after some years in the doldrums. Some unsympathetic infill due to space pressures and temporary extensions involving standard site-huts had been reversed following historic listing, and the original colour scheme had been restored.

The fate of Scharoun's other built school, at nearby Marl, has been less happy, despite a hopeful and progressive start, and despite it having been Scharoun's final chance to put his educational ideas into practice. Marl was a new town founded in the 1920s around a coalmine, and it later provided the workforce for a large chemical works. Its mayor in the 1950s was Rudolf-Ernst Heiland, a left-wing politician connected with the trade unions who had been condemned for treason by the Nazis and spent a year and a half in a labour camp. He was a long-standing member of the Bundesrat and so won power and influence, and had money to spend in what Edgar Reisz called 'The Proud Years'.[3] Heiland saw that his ever growing, sprawling town had no real centre, and in 1958 organised an international architectural competition for a new town hall, not just as housing for the town's bureaucrats and social events, but also as a deliberate landmark, a *Stadtkrone* in Bruno Taut's sense, open to the people and promoting democracy.

'Scharoun's radical concept envisaged a school as a series of diverse elements'

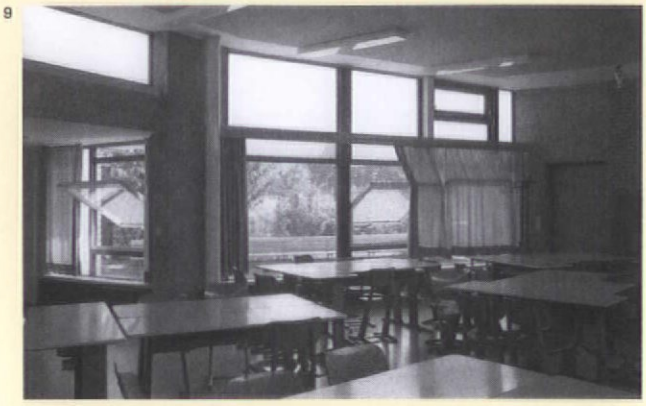
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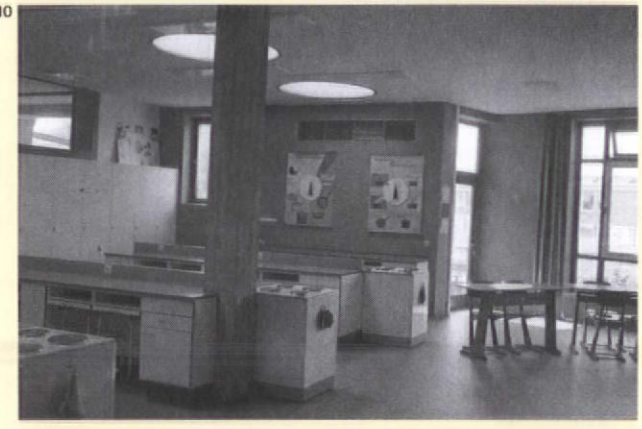
Among invited architects were not only Scharoun, but Alvar Aalto and Arne Jacobsen. In the first of two competition stages the two outstanding schemes were those of Scharoun and of Van den Broek & Bakema, but finally Van den Broek won and their scheme was built, particularly appreciated for the external image given to the public hall and council chamber with its great folded roof. Scharoun's second-placed design was praised for its open public realm but criticised for allowing domination by the bureaucratic office block which constituted the largest part of the brief, a difficult problem: Van den Broek put them in four small towers, of which only two were built.

Heiland was so impressed by Scharoun and his social ideas, that he gave him the commission for a large school as a kind of consolation prize, but with an adequate budget and very long and detailed consultation. The idea of the *Klassenwohnung* (classroom-flat) as the second home for the child which had been developed for Lünen was repeated, again with clerestory-lit main teaching space, annexe, external teaching space and cloakrooms, the *Klassenwohnungen* strung together along a generous *Gruppenraum* which could be used for activities shared between them. As with the first school project for Darmstadt, the classrooms were differentiated in relation to the ages of children between *Unterstufe, Mittelstufe* and *Oberstufe*, each given its own group territory, though the eldest had the least identifiable territory, being intended to possess the whole. The classes in their different wings fed into an irregular street-like foyer surrounding the central assembly hall and theatre which gave the school its heart. Here not only assemblies and teaching events were to be held, but also films, plays and concerts, making it a cultural centre for the whole area in the evenings.[4] The school was orientated, classrooms for the youngest children being set to the south, the entrance and staff-wing to the north, and the gymnasium at the north-east corner with direct entry for use by adults in the evenings. On the west side was a range of purpose-designed rooms for specialist subjects including natural science and domestic science. A northlit workshop with forge and heavy tools was meant to evoke the atmosphere of a factory, both to mimic the conditions of production and to prepare pupils for later life in industry. Changes in site level were exploited in directional steps offering the kind of spatial punctuation found in all Scharoun's later work, and guiding the visitor through. Most of the school remained

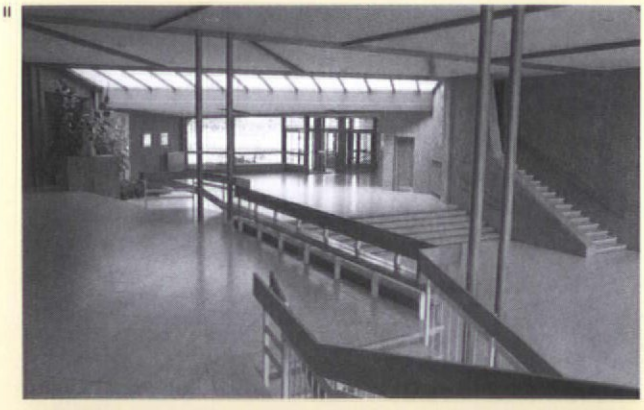
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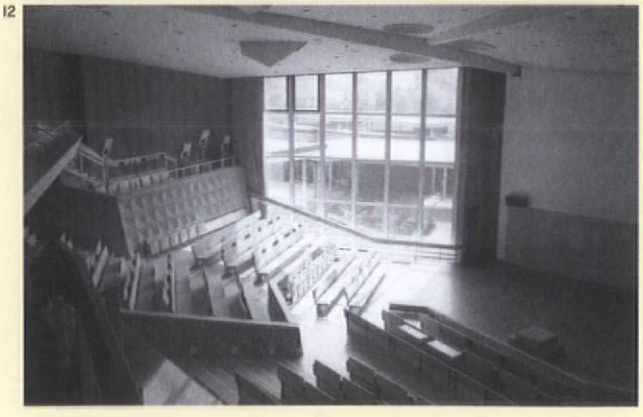
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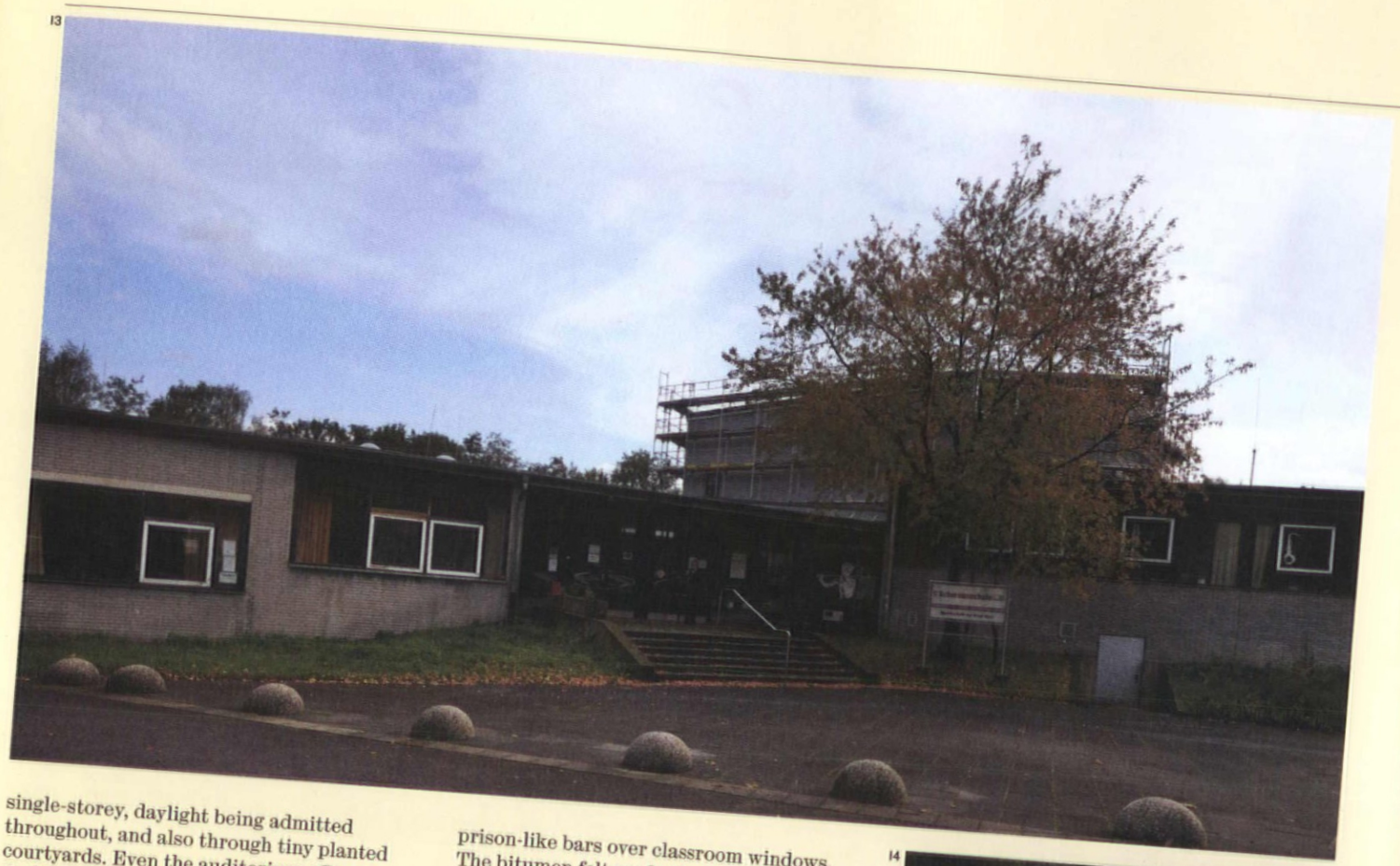


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9. Classrooms are generously daylit and overlook small gardens
10. Classroom fitted out for domestic science
11. Circulation space between the entrance and the assembly hall. Such spaces have an indefinite, transient feel, encouraging movement and exploration
12. The assembly hall is the architectural and social focus of the ensemble

13



single-storey, daylight being admitted throughout, and also through tiny planted courtyards. Even the auditorium offered daylit conditions with a big window and tubular rooflights closable by rotating shutters like butterfly valves.

Unfortunately Heiland died in 1965 when it was still under construction, so the political impetus waned, but the building was completed more or less as planned, with good materials and finishes, and an impressive atmosphere. Already by the time of a visit in 1972, though, some conditions of the brief had changed and classes were overcrowded, but the atmosphere was good, and much appreciated by staff and students. The school was even considered too beautiful by some staff and therefore extravagant. But changes in the German education system took their toll, and a crisis arose over pupil numbers, for the local housing estates had been planned for young families whose children grew up and left for work or university, and enrolment fell. New uses were invented for parts of it, including a music school and a home for refugees, but partitions had to be added, breaking the fluidity of the internal street. Maintenance was neglected and vandalism began, break-ins counteracted by addition of prison-like bars over classroom windows. The bitumen felt roofs, the inevitable '60s solution for low-pitched roofs, began to age and leak, so that by the early years of the new millennium the building was in a sorry state, worsened by the fact that it remained unoccupied for three years. Mould was a health threat and an embarrassment, so the municipality resolved in 2006 to convert it into an old people's home or to demolish it.

In horrified reaction, a local group that appreciated its quality and pedigree started an *Initiativkreis* (Initiative circle) led by Pastor Hartmut Dreier, a Green Councillor, with the help of the regional branch of the BDA (Bund Deutscher Architekten). An international letter-writing campaign was launched and symposia were organised. The building was listed, and investigations soon revealed that the mould infestation was superficial and therefore reversible.

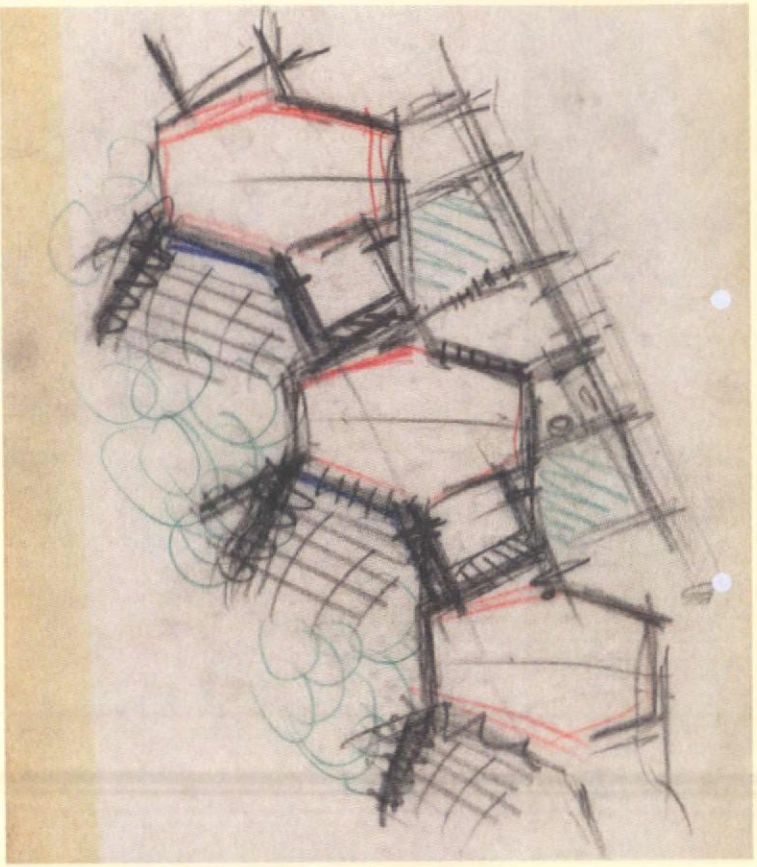
'Fifty years on Scharoun's design for Marl presents the classic plan for the aggregated school'

14



13. Since the building has been listed, renovation work is now in progress under the guidance of Christoph Ellermann of Münster-based Pfeiffer Ellermann Preckel Architects. The aim is to restore the fabric and transform the school into the hub of a network of regional music schools
14. The decaying condition of the classroom roofs

15



16



15. Original sketch of a classroom cluster. Each cluster of polygonal rooms is linked to a communal space or *Gruppenraum*

16. Translucent glass block wall in the gymnasium
17 & 18. Before and after remedial work, giving a sense of how the school is being brought back to life

17



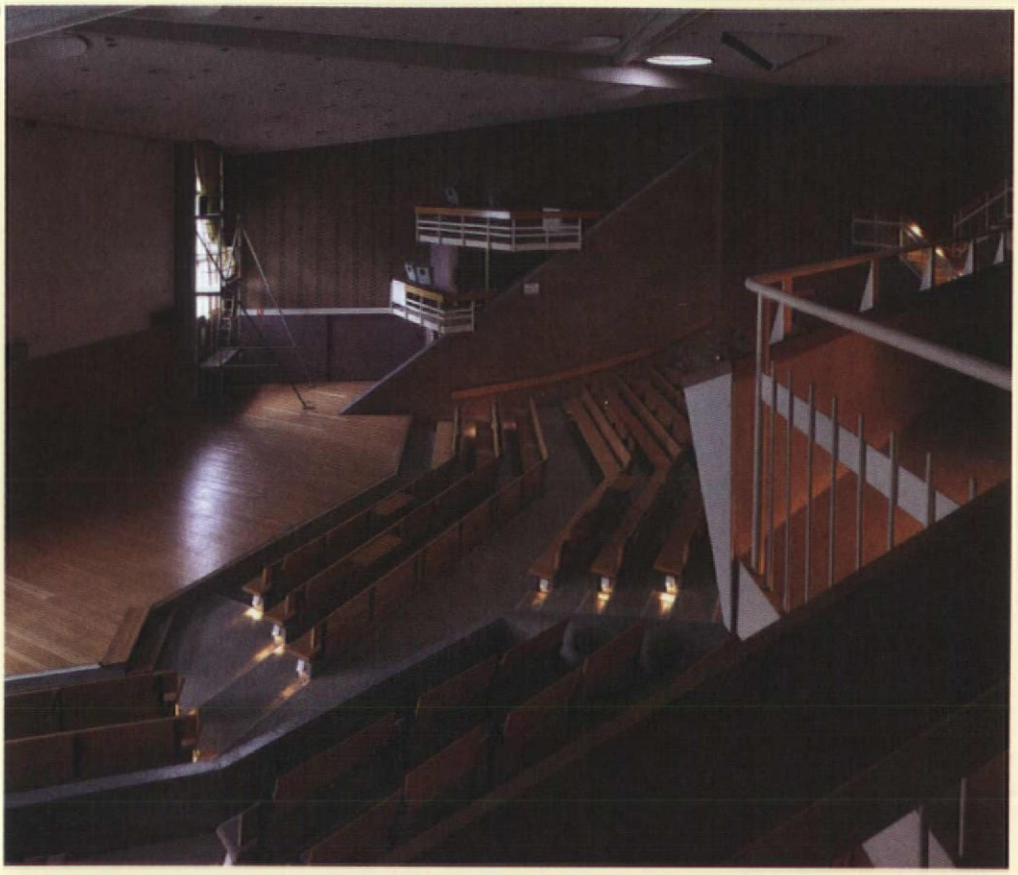
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Efforts were made to find a new use in harmony with the original educational intentions, and the idea arose of making the Scharoun school the centre of the regional network of music schools, using its assembly hall (Mini-Philharmonie as the Principal calls it) as their concert hall. Following renovation, classroom wings will also be reused as a local primary school. After much political lobbying and involvement of ministers, votes were won, money was found, and renovation has begun. It necessarily includes replacing roofs, double glazing and extra insulation involving minor changes of detail, but on the whole it respects the original concept. A new life is promised, and already northlit workshops have become effective music rooms.

Fifty years on Scharoun's design for Marl presents the classic plan for the aggregated school, more disciplined and surefooted than any successors I know,[5] so that by now accusations of irrationality and 'zerdenkerism' seem completely misguided. His individual elements of building have their own evident logic and discipline, yet are also well interrelated, with every swing of angle or change in level used to advantage, and with an unfolding view and a leading route the constant concern. Many rooms are actually rectangular with straightforward load-bearing construction, yet the system is always local, and the in-between spaces are in contrast irregular, so one recognises them to be of a different kind. As regards the theatre at the heart, an irregular quadrant folds the audience around the action, recalling a semicircular pattern of gathering still seen with public performances in the open air, which extends back to Greek theatre. That this was a relatively late design development is proved by the existence in the archives of an earlier two-storey version of the school fully drawn up that had a more ordinary box-like hall at an upper level, though with the same aggregative layout and wings of classrooms. The polygonal classrooms can be used in centralised or linear mode, and their hexagonal shape allows clerestory lighting from all sides. Those for the younger children are tighter, more enclosing, those for the older children more conducive to the imposition of discipline. Tapered, raked lecture theatres and sawtooth roofed workshops add further recognisable forms, and in a building without chimneys the brick flue of the workshop forge provides a powerful accent. All helps to differentiate one part from another and establish different territories with clear thresholds and evident changes of scale.

19



20



19. The assembly hall, described by the school Principal as a 'Mini-Philharmonie'. Recalling the semicircular gatherings of Greek theatre, an irregular quadrant folds spectators around the action

20. Part of the internal street that threads together the spaces. Physically and socially, the school is conceived as a kind of microcosmic city, structured around individual elements and linking streets

Scharoun believed this would help the child understand what it meant to belong to a small group relative to a large one, and to move between the two. The school is a city with separate houses and linking streets, and its dense low-rise form, with constant exposure to the outside world via windows and rooflights of many kinds, means that the natural world is never far away. The junior school is reached by an open roofed link, and the internal street was meant to keep at a buffer temperature, not the usual 23 degrees Celsius. Little courtyards relieve the classrooms, and at two prominent corners they provide light and view to the internal street, one a former biotope as part of natural sciences. The linking street, with its varying levels, built-in seats, and well-placed rooflights is still the most enticing and impressive space, and generations have recognised and enjoyed its atmosphere, but late variations in published drawings suggest that this was the last and most difficult part of the design, with careful readjustments of the steps in the floor and decisions about the canopy with its irregularly placed radial steel structure. The apparent lack of geometric discipline differentiates this open zone from more regular elements around it, so stressing its transitional function. Here more than anywhere the avoidance of the homotopic and autistic grid brings life and freedom.

Buildings change, and highly specific designs are often criticised as inflexible, but it hardly seems to matter in this case that a northlit workshop has changed into a practice room. The severest territorial definition still present is the universal one: the gendering of WCs, but the perceivable polarity between workshops and housework, doubtless gender-based in 1960, can disappear. All in all, sympathetic new use as a music school promises a healthy future, and shows how drastic shoehorning can be avoided by careful negotiation, installing an appropriate new programme in place of the old.

1. Scharoun's speech at the opening 13 June 1958, school anniversary booklet p3. The final sentence is the title of an essay by Bruno Taut from 1919.
2. School anniversary booklet p6, my translation.
3. *Die Stolzen Jahre* was the title of the episode in his film series *Heimat* when the story reaches 1960.
4. The dream of many educationalists, realised in many German Waldorf (Steiner) schools where the theatre is the central element, but also as advocated in the UK by Henry Morris, instigator of the Cambridgeshire Village Colleges including Gropius and Fry's Impington with its projecting auditorium.
5. Lucien Kroll, Günter Behnisch and Peter Hübner have all designed highly aggregated schools, many of which have been published in the AR

21. One of the original hard edged workshops with its distinctive sawtooth roof
22. A workshop now converted into a music practice room. Scharoun's original spaces have proved extremely adaptable to new uses
23. The fluid informality of the architecture lends itself to colonisation by students. Once on the brink of being demolished, the school can now look forward to a future that respects and responds to Scharoun's intentions

21



22



23



LOUIS KAHN
THE SPACE OF IDEAS

As Kahn's last project is finally completed in New York and a major monographic exhibition opens in the Netherlands, the architect's work has proven to be a unique and transcendent art with an increased relevance to the current age. Drawing on archetypes from many different sources, Kahn synthesised an authentic modern language that resonates intimately with place, programme and culture

WILLIAM JR CURTIS

'... only in the vacuum lay the truly essential. The reality of a room, for instance, was to be found in the vacant space enclosed by the roof and the walls, not in the roof and walls themselves.'

Okakura Kakuzo, *The Book of Tea*, 1906

Louis Kahn died over a quarter of a century ago but his work is only just beginning to have the overall treatment it deserves. As his contribution recedes into history, its long-term implications for world architecture have become ever more evident. After the formalistic gymnastics of recent years, his architecture stands as a sentinel of principle. Kahn's architecture possesses many dimensions and cuts across geographical and cultural frontiers. It refuses to fit transient critical agendas. So much of the literature on Kahn ends up telling more about the obsessions of the authors than about the architect's work. The attempt by writers of Postmodernist persuasion to claim Kahn as a father figure seems entirely ludicrous in retrospect given the authenticity and gravitas of his work. Equally the attempts by various 'Minimalists' to install Kahn in their pedigree risk distorting him and reducing his apparent 'simplicity' to a recipe of geometry and materiality. More recently there has been the slogan of the 'tectonic' as a supposed answer to a world filled with arbitrary images, but here again Kahn slips through the rhetoric. Kahn's architecture is full of inversions: masses which suddenly seem weightless, materials which dissolve into immateriality; structures which reverse load and support; rays of light which reveal the realm of shadows; solids which turn out to be voids.

'Architecture', declared Kahn, 'is the thoughtful making of spaces.' His work contains many examples of indoor and outdoor rooms conducive to meditation. One thinks for example of the Salk Institute in La Jolla, California (1965) which uses an open space to address the horizon line of the Pacific, and which employs a channel of water and light to suggest a metaphysical dimension in the research into the hidden laws of nature. Or again, one thinks of the Kimbell Museum in Fort Worth, Texas (1972) with its cycloid vaults split open at their crest to admit a crack of daylight to the interiors where it is diffused over polished concrete surfaces. In these late works, Kahn seems preoccupied with making the immaterial visible through the most elemental means. Structure, space and light are fused. He seems intent upon uniting several geometrical and structural ideas in tense unities which touch the mind and senses of the observer in a direct way. Historical echoes are abundant, but it is possible to overplay these, and to forget that Kahn transcends his sources, establishing an order of his own. While it does condense and distil images, this order is above all abstract. Kahn uses a Modernist abstraction to contain a complex content, even sometimes to suggest a metaphysical void. His work escapes stylistic categories, sometimes touching archetypal levels in experience.

Kahn can be considered one of the few architects of the 20th century to have come to terms with the problem of defining an authentic, modern monumentality. His designs for sacred spaces of diverse religions (church, synagogue, mosque) combined the idea of assembly with

1. The National Assembly in Dhaka, Bangladesh, employs symbolic geometries to evoke the origins of architecture and institutions. Diverse sources of inspiration from Classical antiquity to Buddhist stupas are fused and transformed to express powerful notions of modernity and nationhood in an emerging post-colonial state

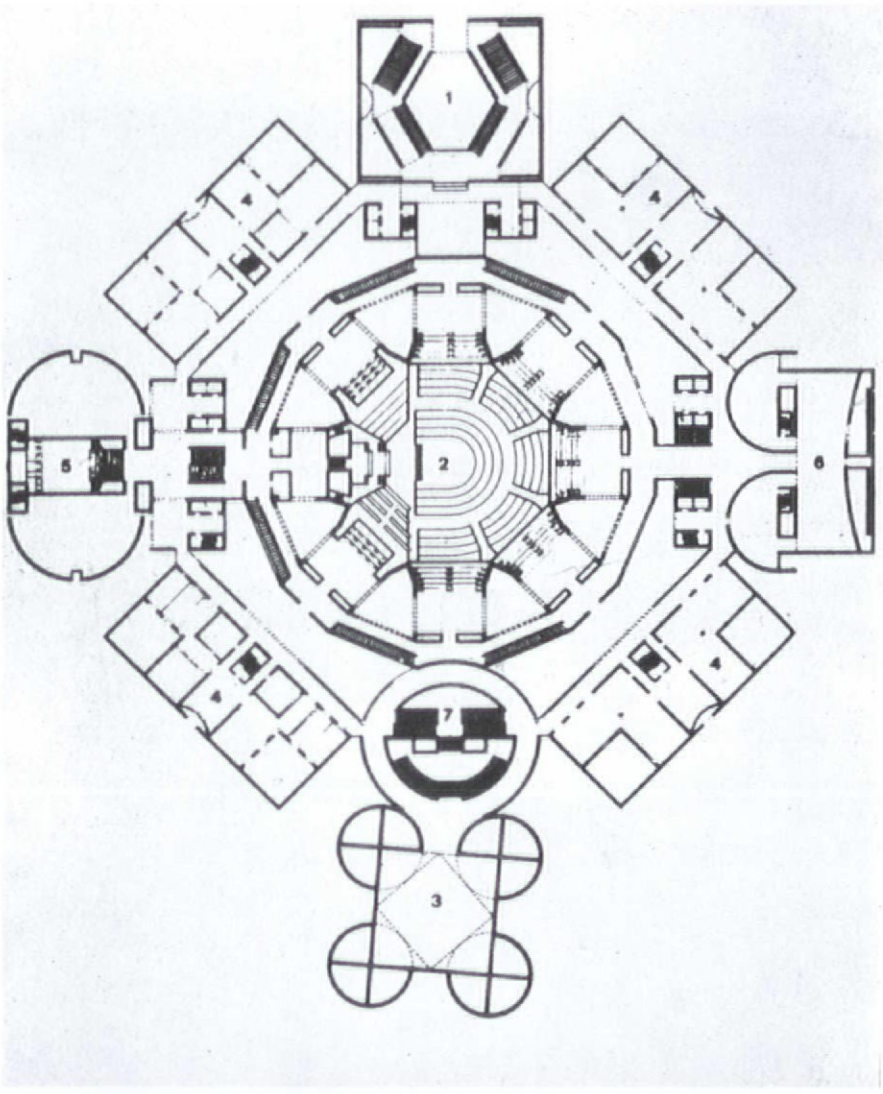


a sense of the transcendent. Light was one of the keys in this suggestion of an invisible order. Through symbolic geometries Kahn evoked the origins of architecture and institutions. With buildings such as the National Assembly in Dhaka, Bangladesh (1976), the former East Pakistan, he interpreted the contradictions of representation in a post-colonial state and succeeded in fusing together Eastern and Western traditions. There are echoes of centralised types of different periods and cultures including the Pantheon in Rome, the medieval fortress of Castel del Monte, Mogul tombs, Bengali mosques of the Sultanate period, even Buddhist mandalas and stupas, but these diverse inspirations are fused and transformed in an active configuration of voids traversed by axes and laid out in a clear hierarchy. One recognises too Kahn's interest in the geometries of nature, including crystals and snowflakes. Above all the spatial conception is modern, a reversal of dense masonry masses: a celebration of voids filled with light.

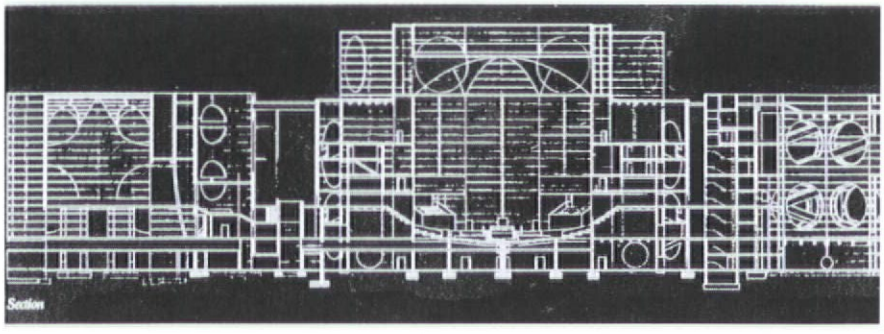
The Beaux-Arts discipline of the architect's education served him all his life when it came to organising

'Kahn transcends his sources, establishing an order of his own. His work escapes stylistic categories, sometimes touching archetypal levels in experience'

2



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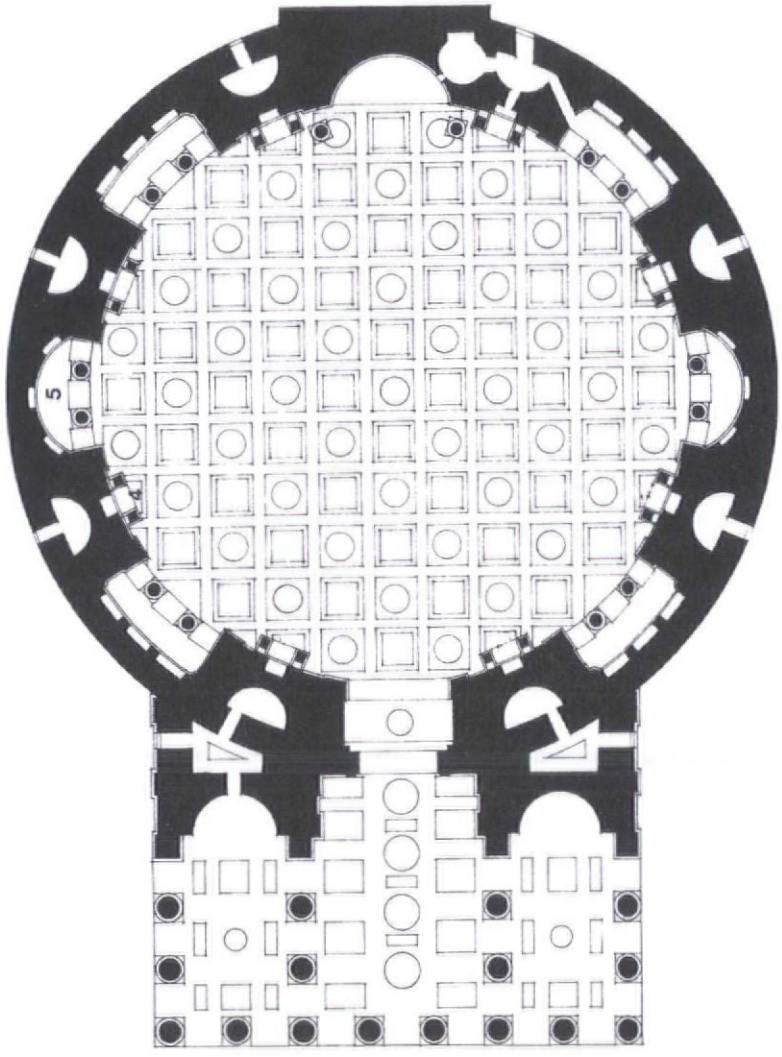
programmes and plans, especially ones involving ceremonial. But before the stage of articulation there was the stage of discovery and with each design Kahn sought out a central idea, a crystalline form of thought, which brought the whole thing alive. He often reverted to centralised spaces surrounded by fringes of secondary ones to give shape to institutions, whether libraries, parliament buildings or dormitories. The plan of an ensemble, including interior and exterior spaces, was the visual equivalent to a 'society of rooms'. In the case of Dhaka, Kahn investigated variations of centralised schemes to embody the notions of a symbolic centre and assembly. He eventually established primary and secondary axes expressing the interrelations between the different functions of a parliament and national monument. A mosque was included, its castle-like form turned off the main geometry to align with Mecca. One is reminded of Kahn's fascination with the towers and flanking walls of citadels.

With its huge facets of concrete dissolving in light, its marble mouldings like bindings, and its giant gashes of shadow, the Assembly maintains a stern presence and aspires towards a timeless dimension. In effect it idealises the state which it represents in grandiose, almost excessive terms, by providing a microcosm of power, a symbol with virtually cosmic overtones. Kahn's work in Dhaka incorporates several periods of history (local and general), and grapples with questions of identity by attempting to give shape to a post-colonial order combining secular and religious aspects in its polity. The building is a democratic emblem in a country which does not yet have a fully functioning democracy, a statement of 'modernity' which nonetheless contains numerous ancient resonances. Kahn here proved that he could transcend the limits of Western architectural discourse, giving shape to the social and political aspirations of nations newly liberated from imperialism. He penetrated the substructures of the past and transformed them through his usual abstraction into resonant emblems of modernity.

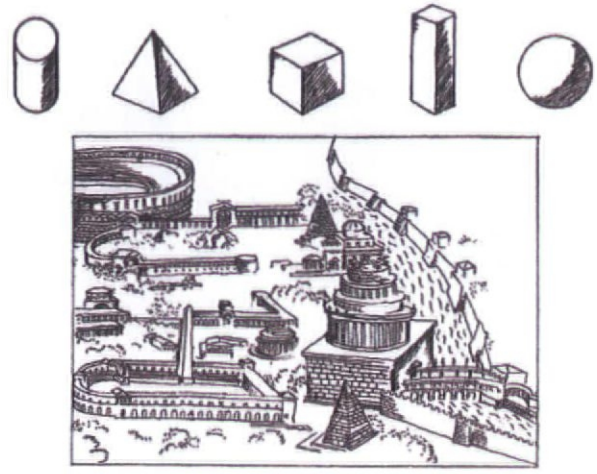
The Assembly in Dhaka is a majestic work, Kahn's answer perhaps to Le Corbusier's Parliament in Chandigarh, but it is nonetheless flawed by its inadequate response to the demands of a searing, wet tropical climate. To later architects on the Indian sub-continent seeking touchstones in tradition and preoccupied with questions of post-colonial identity, his solutions in Dhaka and Ahmedabad (the Indian Institute of Management, 1974) revealed new ways of synthesising the new and the old, the local and the universal. But like Le Corbusier's buildings in India, they also required a critique. They contributed to the formation of a modern architectural culture including the likes of Charles Correa, Balkrishna Doshi, Raj Rewal and Anant Raje, all of whom 'excavated' Indian and other traditions via modern filters. Kahn's architecture works with the slow wave motions of time. Even a recent building such as the Chandgaon Mosque in Chittagong, Bangladesh (2006) by Kashef Mahboob Chowdhury reveals the long distant influence of Kahn in its spatial organisation while also transforming basic mosque types from the Bengali Sultanate period (14th and 15th centuries). Like Le Corbusier, Kahn was both a mirror and a lens: helping

'Kahn penetrated the substructures of the past and transformed them into resonant emblems of modernity'

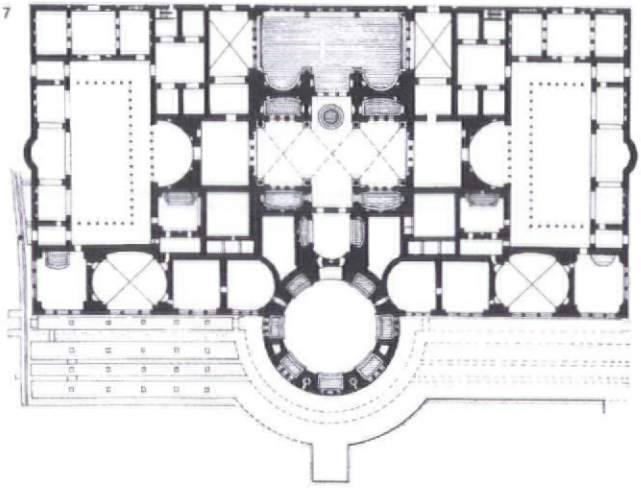
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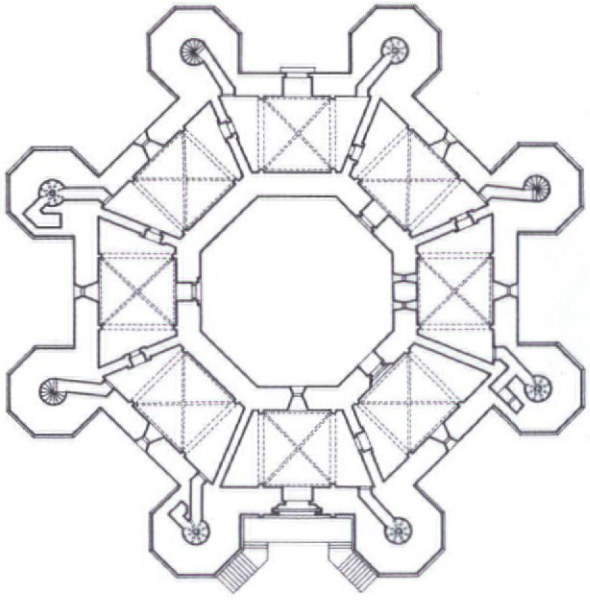
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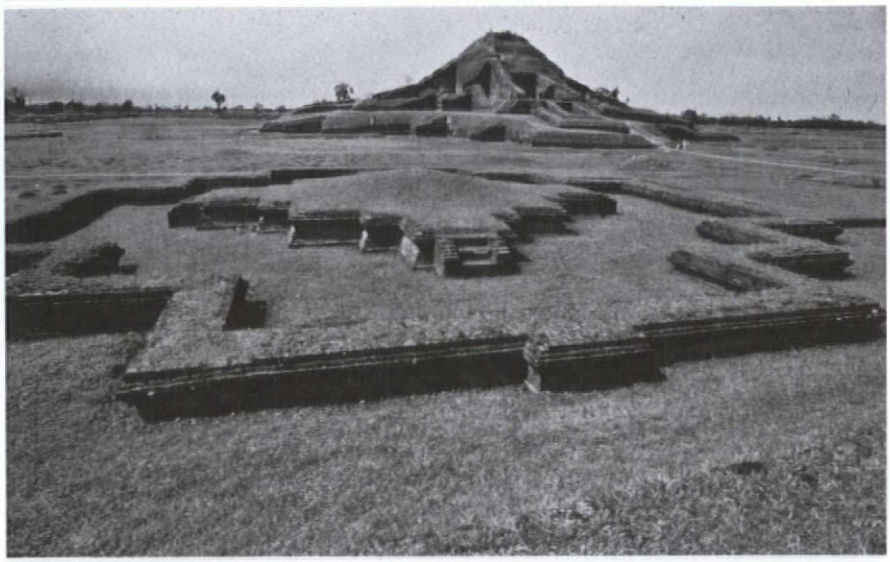
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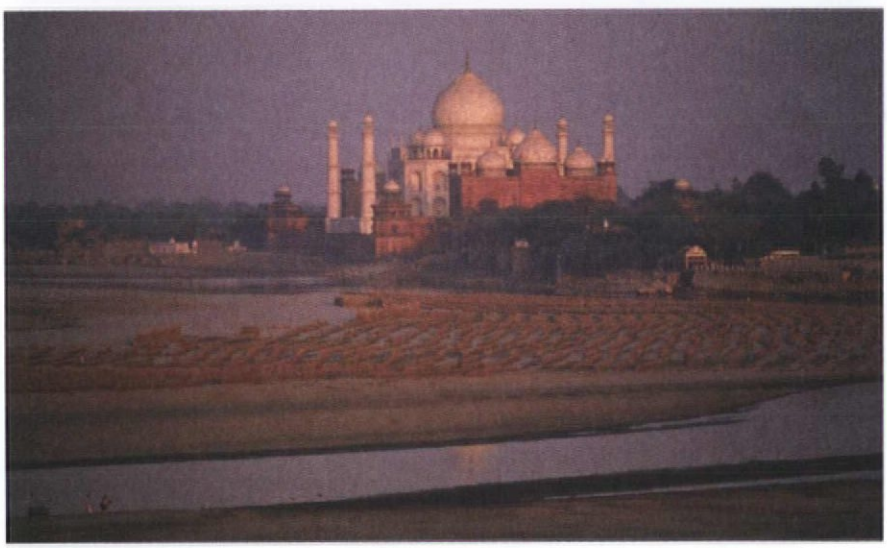
2. Plan of the National Assembly. The centralised organisation embodies ideas of the symbolic centre and assembly. The castle-like mosque element (bottom, centre) is placed deliberately off axis to align with Mecca
3. Section through the National Assembly showing the grandiose scale of the spaces
4-7. Kahn drew on archetypes from both Western and Eastern cultures to create a uniquely transcendent architectural language

4. Plan of the Pantheon in Rome, a circular temple dedicated to all the gods, originally commissioned by Marcus Agrippa and rebuilt by the Emperor Hadrian circa AD 126
5. Plan of the Castel del Monte, a compactly geometric 13th-century citadel in Apulia, Italy
6. Sketch by Le Corbusier of Roman ruins and primary solids, abstracting the essential geometry from Classical forms
7. Plan of the Baths of Caracalla in Rome dating from the 3rd century

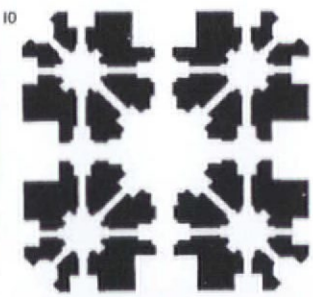
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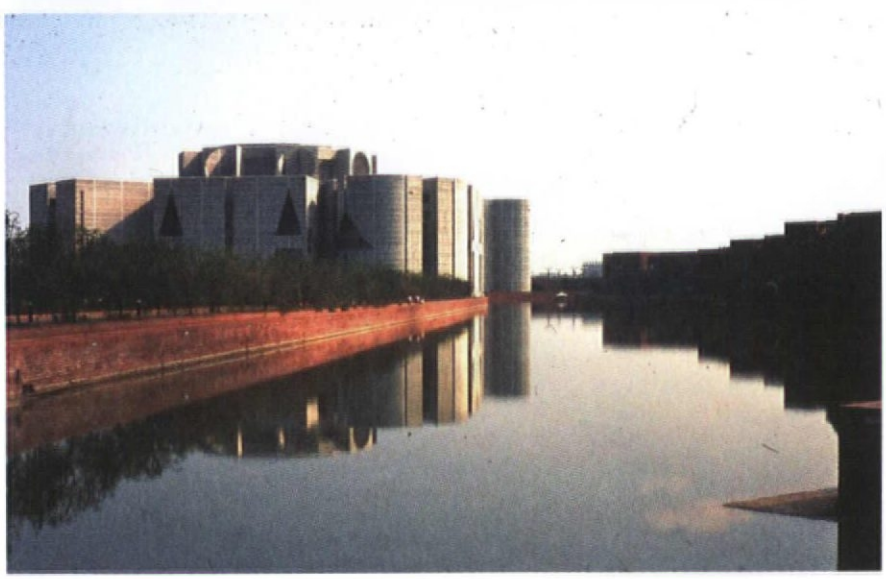
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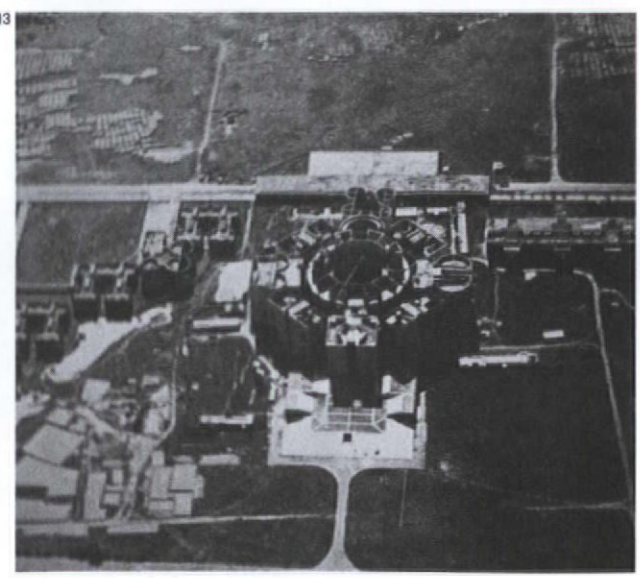
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8. Ruined Buddhist monastery and stupa circa AD 750 at Paharpur, Bangladesh
9. The Taj Mahal, 1643, in Agra, India, seen from across the River Jumna. The white marble tomb rises up from red sandstone structures
10. Plan of the Taj Mahal
11. Plan of Humayun's Tomb in Delhi, circa 1570, a landmark in Mughal architecture and a precursor to the Taj Mahal
12. The citadel-like volume of Kahn's National Assembly rises up from a red brick base surrounded by water
13. Aerial view of the National Assembly

later architects to find themselves while also opening up new perspectives on generic problems and basic types.

Kahn aspired to an architecture 'timeless but of its time', but responded to the essence of different cultural and architectural pasts. This is why it is so important to liberate him from the territorial claims sometimes made upon him by those who would see him as a principally 'North American' architect, by those who would claim him for a particular religion, or by those who would try to restrict him to a Western Classical discourse. Kahn was a convinced 'universalist' and his work contains resonances for architects pursuing other agendas in places and times far from the points of origin. In the years immediately after Kahn's death in 1974, there were any number of architects wandering around mumbling about 'what a brick wants to be' and imitating the bold circles and textured materials of Kahn's buildings. As usual one has to distinguish between the letter and the spirit, the outer features of style and the guiding principles.

Those to learn most from so-called masters do not imitate their works directly. In Europe, echoes of Kahn's ideas about types can be sensed in the nostalgic theorising of Aldo Rossi and La Tendenza in the 1960s and in the work of architects of the Ticino in Switzerland (Botta, Galfetti et al) in the 1970s. Tadao Ando probably could not have been Ando without the example of Kahn, but here it was a matter of geometrical order, space and light, as well as resonances with tradition. Ando's typical concrete surfaces were surely inspired by the planes dissolved in light at Salk, but these in turn drew a great deal from Le Corbusier's Carpenter Center for the Visual Arts at Harvard, right down to the handling of grooves and joints. Such is the vitality of a modern tradition in which chains of solutions follow one after another in fresh inventions.

The Kahn continuum

Kahn, then, has never been entirely absent: he continues as a subterranean channel which surfaces here and there, often in unexpected places. The hovering cupola and majestic space filled with light of the Palacio de Congresos in Salamanca (1993) by Juan Navarro Baldeweg could probably not have been the same without Kahn, although there is nothing obviously Kahnian about it. The Auditorio in Barcelona designed over 20 years ago by Rafael Moneo is a sophisticated transformation of the concrete frame, metallic window panels and wooden interior casing of Kahn's Mellon Center at Yale. The Saratoga Avenue Community Center in Brooklyn designed by George Ranalli and completed only a couple of years ago is haunted by Kahn in its luminous central, communal space with its soffit floating above and its light entering at clerestory level and at the corners. There are echoes too of Wright and of Scarpa, but Ranalli has absorbed these influences over the years and established a language and a craft of his own.

Surely that is the point about any reassessment of Kahn by younger architects. The scholars may beaver away to reveal this or that aspect of his career and personal life, but it is the works themselves which should be the main subject of study for the architect. These continue to hold up well (even if there are practical problems of upkeep) and life continues within them. A recent visit to the Library at Phillips Exeter Academy (1972) revealed how well the building has settled into the historic campus, to the point where one almost has the feeling that this stark brick ruin, with its ambiguous readings of wall and frame, its monumental central space with its suspended stacks, and its intimate carrels of oak next to the windows, must have stood there for centuries before the surrounding neo-colonial structures were even built. Then there is the warmth and intimacy of certain of Kahn's houses with their built-in wooden furniture, circuitous routes, textured brick or masonry planes, and their controlled views of the landscape.

In the period of Kahn's maturity, his archaism stood out strongly against the shiny glass and steel of his corporate contemporaries in the USA. He responded to the forces and aspirations of the so-called 'American century' including its powerful institutions and its then unparalleled industrial skills and materials. An outsider in many ways, he knew how to make appropriate rooms and settings for American establishment institutions such as colleges of the Ivy League, with their oak panelling, gold-framed portraits and Oxbridge pretensions. Kahn grappled with the problems of his time, and in the process of extending modern architecture beyond the thin formulae then prevalent, avoided the descent into kitsch traditionalism followed by the likes of Philip Johnson or Edward Durell Stone. His impeccable control of materials, such as silvery naked concrete, travertine, brushed stainless steel and wood, put him in a league of his own. But finishes were the outer expression of structural ideas. They gave body to the anatomy of intentions. They reinforced an ethos, a feeling of the way things ought to be. Kahn celebrated the directness of materials but it makes little sense to include him in the dubious fictions of the 'New Brutalism'. He explored 'spaces between' but was remote from the table talk of the ever nebulous Team Ten. He was one of those figures to transcend movements and isms altogether.

The best of Kahn's works still seem fresh as if they were able to cut through time. Arguably he did not have the full recognition he deserved in his own lifetime and, as is usual with major artists, his reputation suffered eclipse immediately after his death. But despite changing fashions he never quite disappeared from architectural discourse either, especially in the 'non-Western world'. To judge by the current interest in his work (the first major exhibition and catalogue for roughly 20 years*), Kahn is once again coming into focus. Then there is the posthumous completion of his design for the Four Freedoms Park – the memorial to Franklin D Roosevelt – which is about to open on the southern end of Roosevelt (formerly Welfare) Island in the East River parallel to Manhattan. This was planned shortly before Kahn's death in 1974 to memorialise the President of the New Deal and to celebrate one of his key speeches, the 'Four Freedoms' discourse of 6 January 1941: Freedom of Speech and Expression; Freedom to Worship; Freedom from Want; and Freedom from Fear. Kahn was sympathetic with the social outlook of Roosevelt, and came up with a design which he described with the phrase 'a room and a garden'.

14



15



14. Dedicated to President Franklin D Roosevelt, Kahn's Four Freedoms Park has finally been realised. The site lies on the tip of an island in New York's East River, with the Manhattan skyline and UN Building as a backdrop
15. A 'floating' bust of Roosevelt marks the entrance to an outdoor room at the end of the park

Kahn's drawings portrayed a rectangular outdoor room protruding from the south tip of the island into the East River. This was approached by means of sloped banks planted with lines of linden trees and converging in a dramatic perspective towards a suspended bust of Roosevelt. Behind this plinth was the outdoor room itself, framing a view of the vast space of the East River and the Manhattan skyline, including the oblong slab of the United Nations Building to one side. Here is not the place to go into the process by which the project was revived then built. But the achievement of Kahn's work is testimony to the persistence of several organisations and individuals, and to their faith in both the political and international ideals represented (which have been in short supply in recent politics). It also of course embodies an act of faith in the perennial quality of the architecture of Louis Kahn. Welfare Island, as it used to be called, was once the home of lunatic asylums and a smallpox hospital, but this project has opened up a public park and provided an outdoor space with a certain sacred character.

The masonry portions of the project are constructed from monolithic blocks of Mount Airy granite from North Carolina. These off-white masses of stone have been cut with great precision and assembled with sharp joints. They stand out against the rough grey boulders washed by water which form the base of the scheme. The tilted and angled ground forms focus attention on the bronze bust of President Franklin Delano Roosevelt while activating the foreground to the distant skyscrapers and grids of Manhattan. One moves around the statue to find the Four Freedoms text inscribed on the rear of the plinth. The view from the 'outdoor' room is breathtaking and recalls the framed view at Salk which also pulls the distant vista into the life of the space. There is a sense of infinity. The 'room' is defined by giant blocks of granite each 36 tons in weight, set with a gap of an inch between them. The lateral faces between the blocks are polished so that they reflect light like polished mirrors. The effect is astonishing, especially in the early morning when rays pierce the narrow slots between the stone blocks, dematerialising them and casting lines of sunlight across the floor of the outdoor room. Here surely is Kahn's ultimate statement on 'beginnings': the archetypal room rising out of the waters; the first parting of the walls; the revelation of the primary elements of structure; a creation myth dealing with the origins of architecture and the founding principles of democratic freedom.

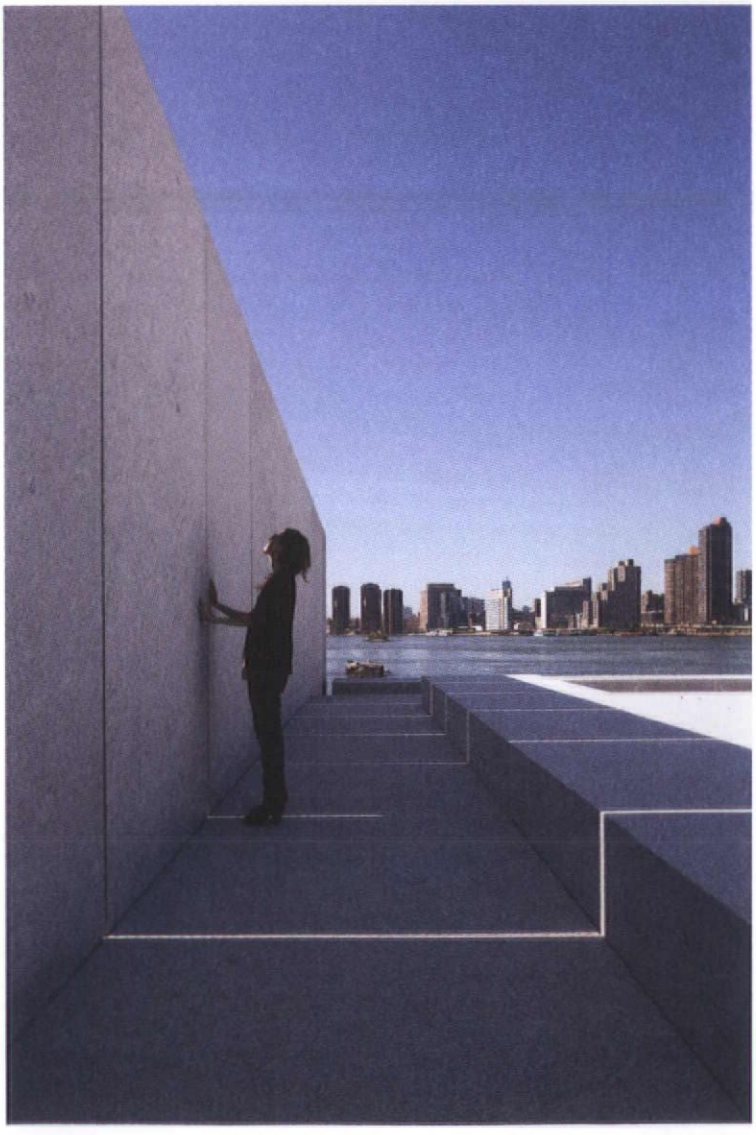
Purists will complain that the Four Freedoms Park is not a hundred per cent as intended (there have been the slightest adjustments in heights of levels and in the spacing of trees), that the effect is a bit too heavy, but the impact is nonetheless strong. This is an architecture which, rather like the steel blades of Richard Serra, works upon the sense of gravity as well as the sense of sight. One experiences the masses physically and the tilted ground planes and diagonal ramps engender both compressions and expansions of space. There are no direct historical quotations, yet the place has an ancient feeling about it, as if a Pharaonic temple had been shifted to an island opposite Manhattan. Kahn's memorial to Roosevelt distils many of his ideas about monumentality but in a manner

16 & 18. Lines of linden trees create a green space in the city, defining the edge of the park and converging in a dramatic perspective towards the outdoor room and the bust of Roosevelt
17. The outdoor room is enclosed by monolithic slabs of off-white granite. The huge blocks are cut and assembled with immense precision

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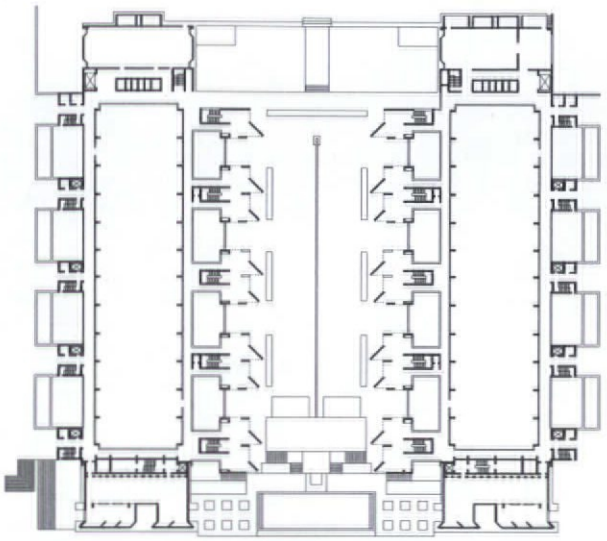
'Kahn's memorial to Roosevelt distils many of his ideas about monumentality but in a manner which plays upon ambiguities of perception'

19. Section through the Salk Institute at La Jolla, California, Kahn's most seminal design
20. Courtyard level plan of the Salk Institute
21. Concrete wall planes shape an architecture of light and shadow
22. The courtyard at Salk frames the ocean and draws in the horizon
23. At Four Freedoms Park, granite monoliths define views of the city
24. Razor sharp lines of light penetrate into the joints between the blocks

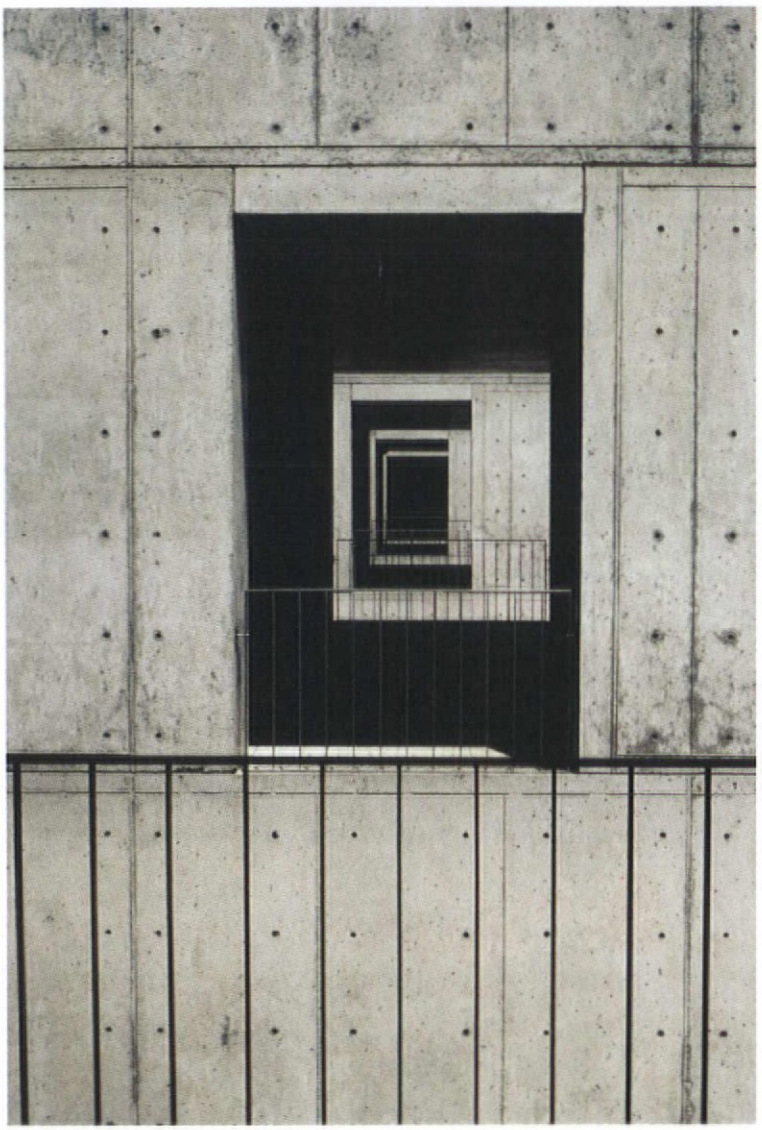
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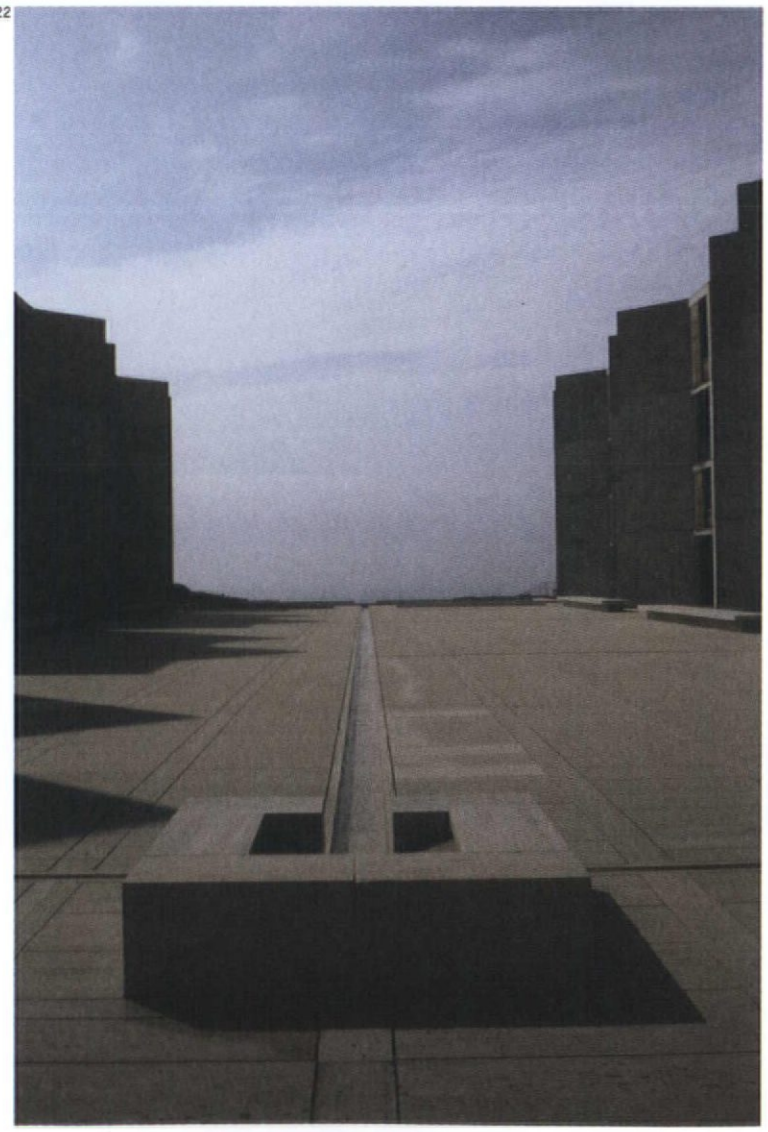
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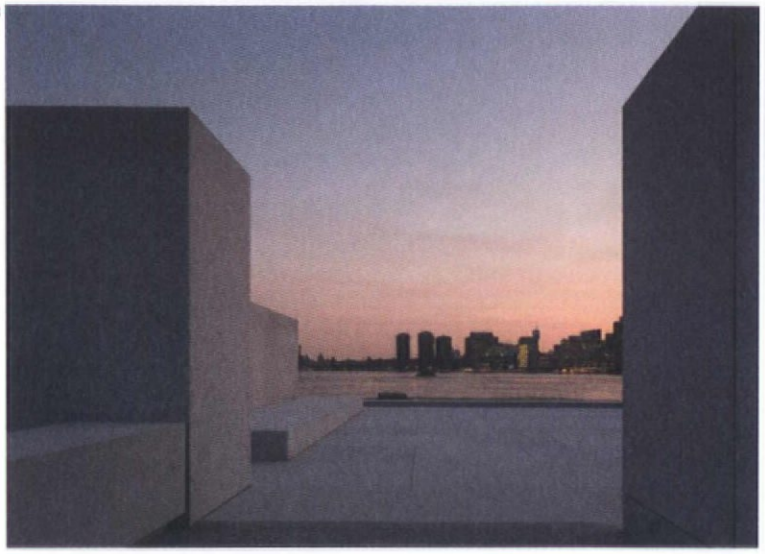


which plays upon ambiguities of perception. The floor of the outdoor room is read as a platform in direct relation with the distant views of the river which are pulled into the field of vision as in a proscenium. Immediately beyond the edge of the platform is a ha-ha which obviates the need for a railing and which encourages the feeling that this space belongs to a wider universe. Perhaps this is Kahn's way of celebrating the universality of Roosevelt's message for humanity.

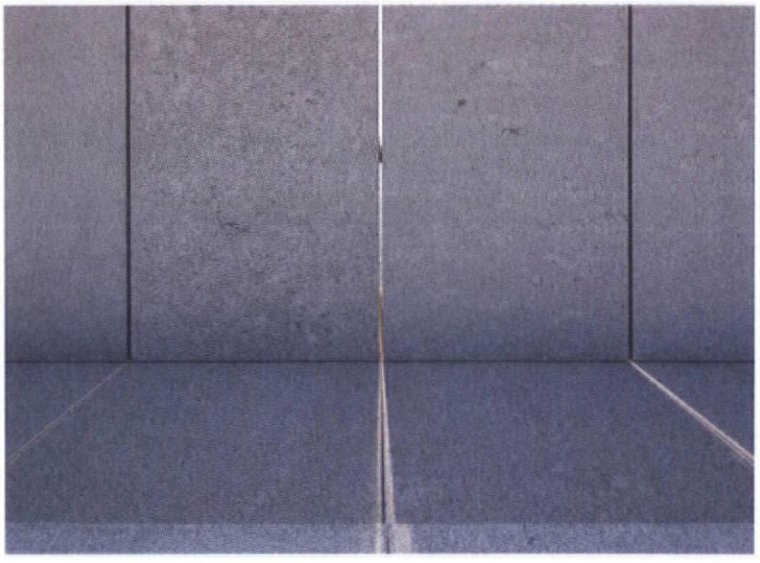
Inevitably one compares the outdoor room of the Four Freedoms Park in New York to the one at the Salk Institute in La Jolla which of course relies upon naked concrete, travertine and water for its materialisation. But it is precisely the immaterial which counts with Kahn and it is possible to think of the 'philosopher's court' at Salk with its low benches and its breezes from the Pacific as a volume of air brought alive by light and by the atmospheric conditions of this part of the coast where whales pass by on their long journeys and birds gather before diving into the sea. The central line of water running east-west draws the distant horizon into the space, reflects the setting sun and suggests a subterranean realm. Kahn's monumental gateway to the Pacific perhaps recalls the Propylaea on the Acropolis in Athens, but in an abstract form, and it captures the energies of the surroundings in its frame. How can I ever forget giving a lecture in the building with Jonas Salk in the front row, then re-emerging on the plaza to find the evening light caught in the water channel like a shining line of mercury after the sun had dropped below the horizon; or the experience of a storm over the Pacific with sheet and fork lightning framed by the angled planes of the buildings, as if in a scene from a Greek tragedy. Kahn's epitaph could have been written by Octavio Paz: 'It is not with stone and wood, but with light and air, that I have marked my passing.'

* For current exhibition see *Louis Kahn – The Power of Architecture*, at the Netherlands Architectural Institute, Rotterdam, until 6 January 2013, organised by the Vitra Design Museum at Weil-am-Rhein, the Architectural Archives of the University of Pennsylvania, and the Netherlands Architectural Institute, sponsored by Swarovski and Vitra, and curated by Jochen Eisenbrand and Stanislaus von Moos. The exhibition is accompanied by a substantial and fully illustrated book *Louis Kahn – The Power of Architecture* (Vitra Design Museum, 2012), editors Mateo Kries, Jochen Eisenbrand, Stanislaus von Moos, which contains a vast amount of fresh graphic and archival material as well as penetrating articles on several of the guiding themes and key buildings of the architect. For India's impact on Kahn and Kahn's on India see particularly Curtis, 'Modern Architecture and the Excavation of the Past: Louis I Kahn and the Indian Subcontinent', op cit, p235ff. See also *Anant Raje Architect, Selected Works 1971-2009*, editors Amita and Shubhra Raje, foreword William JR Curtis, introduction Gautam Bhatia (Anant Raje Foundation, Ahmedabad and Tulika Books New Delhi, September 2012). For a brief history of the realisation of the Four Freedoms Park and the role of former collaborators of Kahn such as David Wisdom and Aldo Giurgola, the importance of the Chairman of the Four Freedoms Foundation William vanden Heuvel, the contribution of the Chicago Applewood Foundation, and the achievement of the Executive Director on site, Gina Pollara, see Beth Broome, 'Franklin D Roosevelt, Four Freedoms Park, Louis I Kahn', *Architectural Record*, October 2012. Photographs: Aga Khan Foundation, 1, 12; William JR Curtis, 9; James Ewing, 14-18, 23, 24

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24



'The view from the outdoor room is breathtaking and recalls the framed view at Salk which also pulls the distant vista into the life of the space'

PALLADIO REASSESSED BY EISENMAN

Peter Eisenman's current exhibition at Yale School of Architecture leaves behind the mathematical analysis of Palladio's villas espoused by Colin Rowe and replaces it with a volumetric analysis. In so doing, Eisenman overturns much of the traditional thinking around Palladio, and shows him to be an endlessly parametric experimenter and a paradigm for the present

ANTHONY VIDLER



Under the slightly misleading title of *Palladio virtuel*, Peter Eisenman has constructed one of the most instructive, intellectually challenging, myth overturning, and it must be said, beautiful, exhibitions of recent years. It is instructive because it does not assume the viewer knows everything, and its didactic texts, drawings and models tell a story on many levels. It is intellectually challenging, because at the level of disciplinary architectural knowledge, it demands serious attention and a willingness to revise commonplaces. It is myth overturning because it sets out to critique many of the truisms attached to Palladio studies over the past half century. And its beauty stems from its impeccable presentation, superb model-making and drawing, and an inventive spatial installation. The models, indeed, in their apparent simplicity, their volumes coloured in white, grey and black, and set in illuminated frames within the pilasters of what seems to be a centralised Palladian villa, would be enough of an exhibition in themselves.

The organisation seems simple enough: 20 Palladian villas from all moments of his career, modelled in three dimensions, are framed vertically in emulation of pages of Palladio's own *Quattro libri,* joined, in an annexe, by as many analytical line drawings of the villas. Seemingly equally simple, because effortlessly represented, the central space of the exhibition is composed by the conjunction of two apparently disparate volumes: that of Palladio's project for the Palazzo Dalla Torre (1555) and the church by Carlo Rainaldi, Santa Maria in Campitelli built a century later – a sign of imminent destabilisation that will characterise the exhibition as a whole.

The effect of the framed models in their niches, the abstracted columnar space that encloses them, allowing controlled glimpses into and out of the Rudolph gallery beyond, with a glowing golden light infusing the whole, is breathtaking and in itself a major aesthetic experience: Palladio within Palladio within Rainaldi within Rudolph – at the very least an exercise in architectural *demonstratio* that bears witness to a profound and knowing architectonic sensibility. This, however, is where the simplicity ends and close reading has to begin.

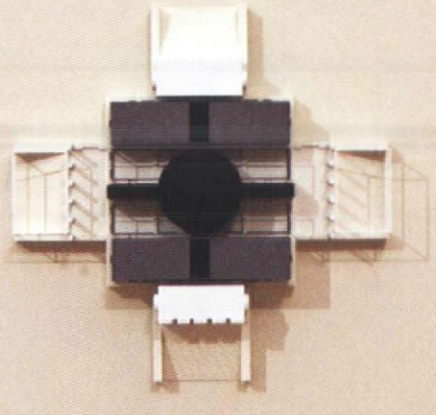
First, some historical context. It is well known that it was in meeting Colin Rowe at Cambridge in 1960 that Eisenman was confronted with an interlocutor whose intellectual reputation as a formidable critic of contemporary and modern architecture had been publicly established 13 years earlier by a now canonical article in *The Architectural Review* entitled 'The Mathematics of the Ideal Villa. Palladio and Le Corbusier Compared'. We might, for the purposes of this review, assume that Eisenman's introduction, not to Palladio, but to an intellectually interpreted Palladio, stemmed from this meeting and the ensuing friendship and Italian journeys. It is also well known that Rowe had derived the initial inspiration for this article from an earlier publication by his teacher Rudolf Wittkower in the *Journal of the Warburg and Courtauld Institutes of 1946*, that incorporated a diagrammatic chart of the typical plan forms of Palladian villas, reduced to rectangles and squares, modulated in a grid that operated according to an ABABA rhythm. Rowe, taking this grid for his armature,

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VILLA ROTONDA

1566

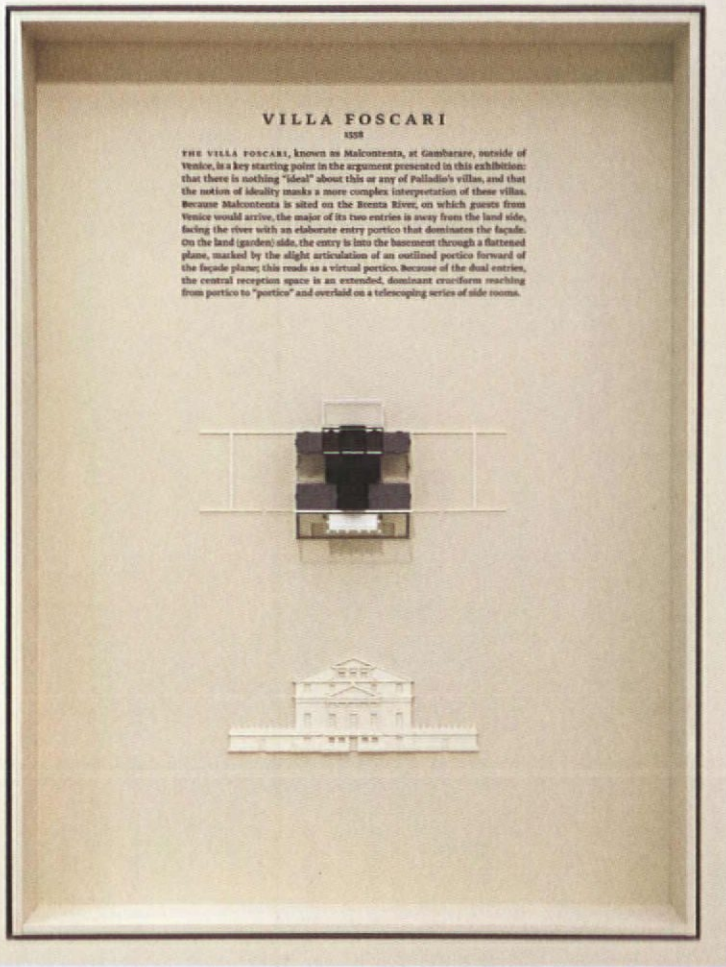
KNOWN AS ROTONDA, THE VILLA ALMERICO outside of Vicenza is often considered the most "ideal" of Palladio's villas for its four porticos and biaxially symmetrical appearance. It is also the most well-known in popular circles and thus is thought to be the "easiest" to understand. But these easy exterior characteristics belie the fact that the interior is organized by two different strategies that have little to do with the exterior. The first is a spatial layering across the major axis. The second, the reciprocal of the first, creates a spatial grain parallel to the cross-axis. These axes even have different widths, creating inconsistent dimensions in the transition spaces.



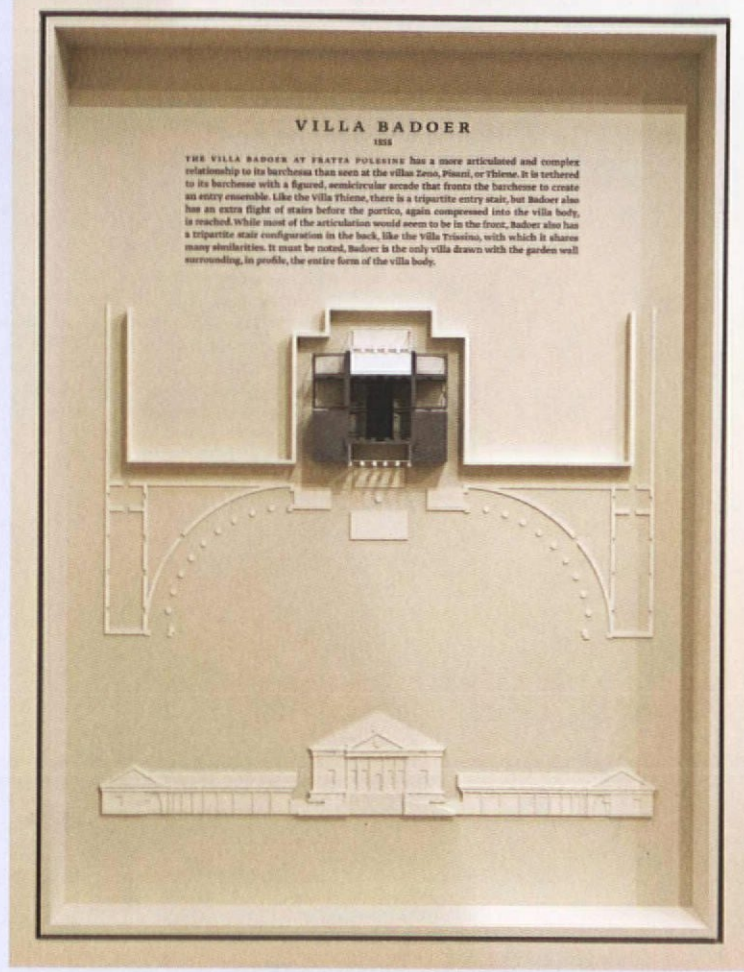


1. The central space of the exhibition is composed by the conjunction of two apparently disparate volumes: Palladio's project for the Palazzo Dalla Torre (1555) and the church by Carlo Rainaldi, Santa Maria in Campitelli, built a century later
2. Palladian villas are modelled in three dimensions and framed vertically in emulation of pages of Palladio's own *Quattro libri*

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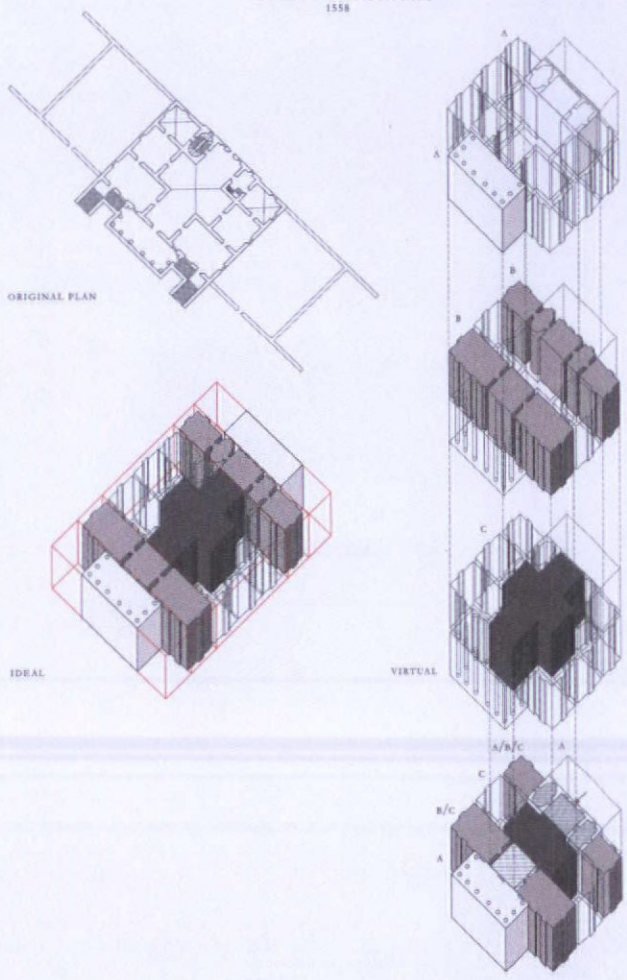
applied it to a witty comparison of the Palladian plan schema to that of Le Corbusier's villas – Villa Malcontenta to Villa Stein at Garches, Villa La Rotonda to Villa Savoye at Poissy. We may also assume that Eisenman's understanding of the spatial relations joining and differentiating the late Classical villa and the Modernist villa stem from this interpretation.

There was much debate in Britain after the war as to the correct formulation of modern architecture, still in the shadow of the 'masters' – Le Corbusier, Mies van der Rohe, Aalto – and especially, given the pressure for post-war productivism and standardisation, to the correct mathematical ordering of the elements of architecture. This debate was divided between those who took the Gropius view of mass-production standards and those who espoused (mainly for aesthetic and cultural reasons) the new humanist mathematics propounded by Le Corbusier in the first volume of his *Modulor*, published in 1953. A further note was added by the translation of Matila Ghyka's *Nombre d'Or* as *The Geometry of Art and Life 1946*, a diagram from which Rowe published the next year in his Palladio/Le Corbusier article. The debates were intense, and no more so than at Cambridge in the period

'For Rowe, the fundamental link between the Mannerist and the Modernist was their ability to 'reduce' the language of their age into formulae that were easily transformed, project by project'

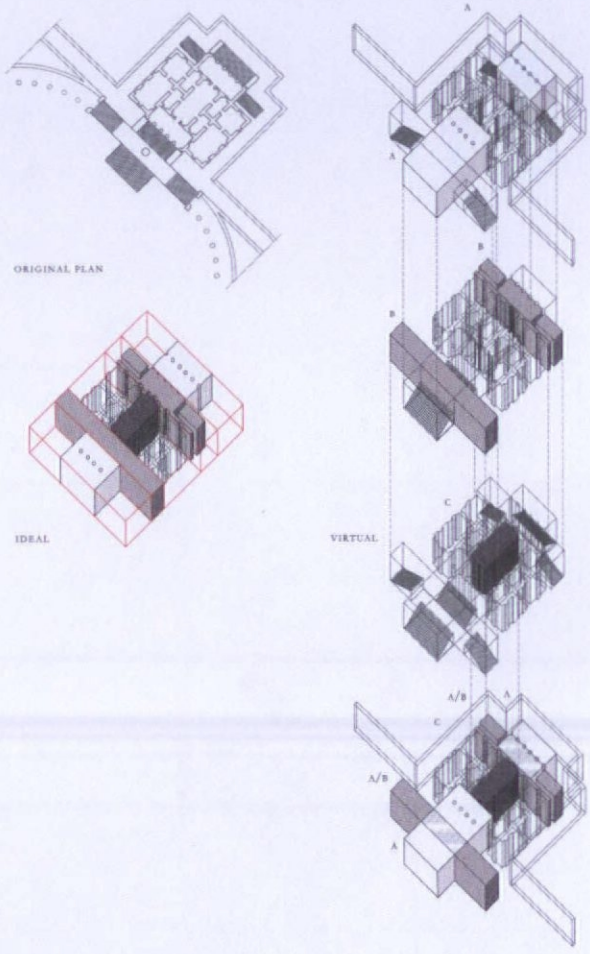
5

VILLA FOSCARI
1558



6

VILLA BADOER
1555



3 & 4. Models of Villa Foscari and Villa Badoer. Eisenman has identified three fundamental volumes characteristic of all 20 villas: the portico, or entry space (white); the transition or circulation spaces (grey); and the central or main spaces (black)
5 & 6. There are further drawings in the annexe space of each of the 20 villas, some of which include the agricultural outbuildings, which have previously been ignored by scholars

1950-60, when the literal mathematisation of architecture and its future adaption to computer design was being strongly advocated first by Christopher Alexander, then by Lionel March, and supported from 1956 in order for architecture to gain a reputation as a scientific discipline, by the new Professor, Sir Leslie Martin.

Martin, as Sean Keller has recently noted, was a friend of Gabo and Nicholson, and therefore understood Russian Constructivism as a first step towards the science of the art, but it is clear that Rowe and then Eisenman were not in agreement. For Rowe 'mathematics' was more a device for the *parti* submitted to cultural/spatial interpretation, and not to be taken as a rule or fixed parameter – he was more interested in the relation between the formal structure of the plan and its implied visual and actual movement patterns – centroidal for Palladio, peripheral for Le Corbusier, thus Classical and Modern.

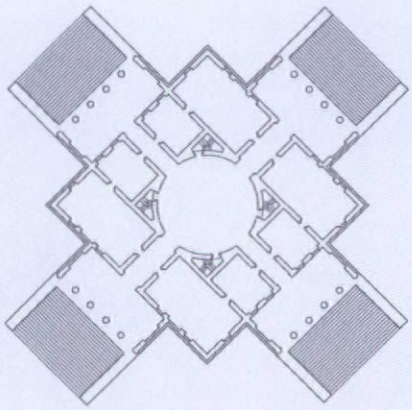
For Rowe, the fundamental link between the Mannerist architect and the Modernist architect was both architects' 'late' relationship to their epoch, and their ability to 'reduce' the language of their age into formulae that were easily transformed, project by project – 'types' one might say. They were also important for their ability to publish internationally, idealising and presenting their work to those who had not experienced it in person in an easily reproducible way.

In Cambridge in the period 1960-62, this paradigm worked, at least for those tutored by Rowe. Eisenman's characteristic 'slice and dice' formal method, for example, was derived from two other canonical articles by Rowe, 'Mannerism and Modern Architecture' (1950), and, with Robert Slutzky, 'Transparency: Literal and Phenomenal' (conceived 1956-58 but not published until '63). The former took the art-historical concept of Mannerism, newly imported into Britain by Wittkower and Pevsner, and applied its imputed formal distortions and inversions to Modernism, especially in the reading of the layers implied or stated in facades; the latter ranged from the Modernist notion of 'transparency' opposing the literal transparency of a Gropius at Dessau, to the implied, phenomenal, transparency of Le Corbusier's project for the League of Nations building. Referring to the complex layering of the picture-plane in Cubist painting, the authors identified a series of striations passing through the volumes of Le Corbusier's project, illustrated in axonometric.

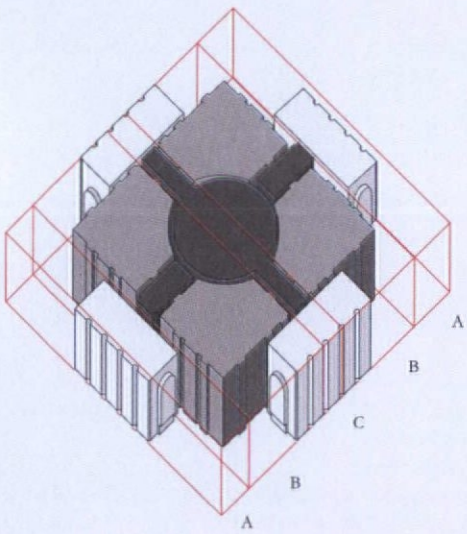
This model of Modernism's Mannerism was disturbed,

7

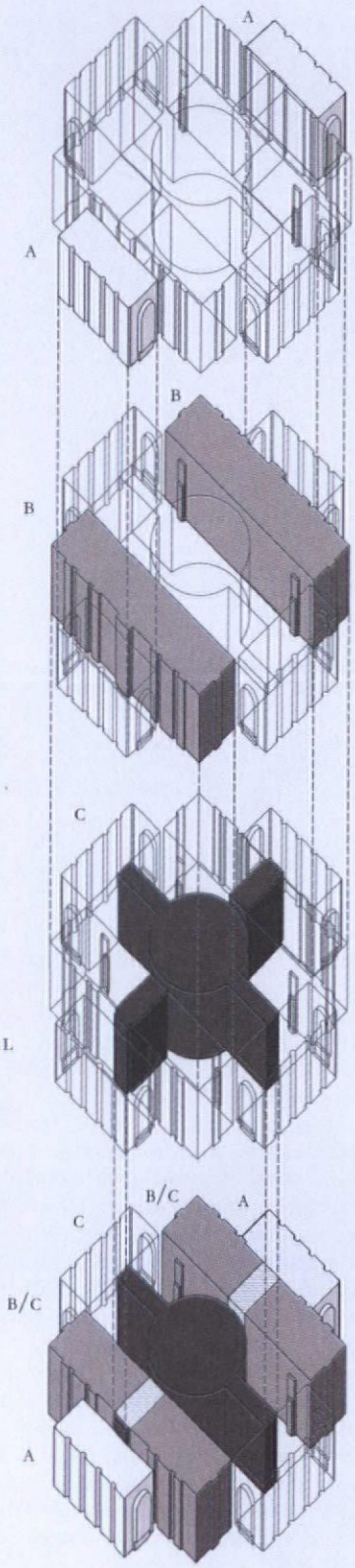
VILLA ROTONDA
1565



ORIGINAL PLAN



IDEAL



VIRTUAL

'Eisenman's point is to demonstrate that none of the villas, however pure they seem at first glance, has any formal consistency – or rather has any formal typological consistency in relation to one another'

7. For each villa a comparison is made between three representations: the plan as built or projected; the 'ideal' plan as redrawn by Palladio for publication; and the purported descriptive text accompanying these re-drawings

however, with Eisenman's discovery of Giuseppe Terragni's Casa del Fascio, Como. Here, and perhaps despite the presence of Rowe, he was confounded by a paradigm that did not seem to fit the Palladian/Corbusian model. A solid cubic block layered and cut as if made of compliant cheese – Mannerist in its depth of surface, but not at all Palladian in plan, and certainly not susceptible to analysis according to the principles of *le plan libre*.

The shift that Eisenman worked was one that still remained within the Corbusian paradigm but that took off from an interesting and deliberate 'misinterpretation' of the formal principles set out in *Vers une architecture*: '*volume*', '*surface*', '*plan*'. In the English translation by Frederick Etchells in 1927, the word '*volume*' was translated as 'mass'. Now obviously both Rowe and Eisenman were aware of this confusion, and indeed Eisenman continued to make '*volume*' the linchpin of his emerging formal method. Now, in the light of the Casa del Fascio, volume is treated not as a volume of space created by internal pressures but as a conceptually solid mass. This 'mass' is then open to modification from two equally conceptual forces – the inner characteristics of the volume and the external pressures of implied movement. The surface of the mass/volume is then eroded and layered accordingly, a layering that continues to have a ripple effect throughout the conceptual solid, thus explaining or framing the incidental and empirical moves of function within. The result, for Eisenman, was his magisterial doctoral thesis, completed at Cambridge in 1963, outlining 'The Formal Basis of Modern Architecture', which, with the shifted ABABA grid of House I, initiated the series of 'Houses' developed after 1965.

But in the Palladio exhibition under review, there has been a move away from the plan and three-dimensional grid patterns explored earlier, and reversion to a more fundamental use of the three-dimensional volumetric model of analysis. Rather than tracing the modifications of the Wittkower-Rowe ABABA grid, Eisenman has identified three fundamental volumes characteristic of all 20 villas: the portico, or entry space (white); the transition or circulation spaces (grey), and the central or main spaces (black). A volumetric typology has thus replaced the traditional geometrical schema attributed by Wittkower to Palladio's villa typology. Further, Eisenman has not been content simply to model the villas as built, or the villas as redrawn by Palladio in the *Quattro libri*. Rather he has constructed a triple model for each villa – the plan as built or projected, the 'ideal' plan as redrawn by Palladio for publication, and the purported descriptive text accompanying these re-drawings. The models and drawings in this exhibition present all these different modes of villa-representation, layered one over the other.

Eisenman then introduces a third move, one that complicates the scene still further. Wittkower and Rowe, and of course, Le Corbusier, as well as most neo-Palladian architects, have concentrated their attention on the idea of the villa as a pure, freestanding, geometrical object, secure in its mathematical harmony and aesthetic unity. Despite the efforts of more recent historians to emphasise the nature of these villas as standing at the centre of large-scale farms dedicated to the agricultural development of the Veneto, this idea of the ideal villa has persisted. Eisenman, however, has insisted on incorporating, where appropriate, the outhouses, barns and other constructions that linked the central house to its working function and the surrounding landscape – the *barchesse* or estate buildings. These, he insists correctly, form an integral part of the architectural ensemble, planned and often drawn by Palladio, but ignored by architectural historians. Thus for 13 of the villas, Eisenman includes the *barchesse* in his volumetric analysis, causing a considerable reformulation of their internal spatial composition.

The deciphering of these moves, and the tracing of their impact on the reading of a Palladian 'villa', now put into question as a stable, unified, geometrically clear object, could, for the viewer of this exhibition, and the reader of the small catalogue, take many hours, if not days. But Eisenman's point is not to explicate one or another villa as having one or another formal structure; it is to demonstrate that none of the villas, however pure they seem at first glance, has any formal consistency – or rather has any formal typological consistency in relation to one another.

Such an analytical effect, however interesting, is not directed towards demonstrating the absolute ineffectivity of typological or formal rules. Nor is it simply a very successful attempt to confound the 'Palladio' of Rowe, or of his teacher Wittkower – this paternal assassination is carried out with exemplary tact, as a constantly shifting volumetric/mass analysis supplants plan/geometrical typology. Rather, Eisenman's point, one which has been a consistent leitmotif of his theoretical practice from the beginning, is to open up what he calls 'the possibility of an architecture', one that emerges from a 'redrawing of the very boundaries of the discipline', a constant comprehension of undecidability, and an awareness of indeterminacy that underlies the architectural project from the outset.

Eisenman's contemporary quest, that is consciously bound to unending irresolution, is aimed toward an architecture of formal ideas that live through the process of design, and continue to live through construction, and posthumous idealisation, in all the potential states represented by three-dimensional models, object, texts and drawings. For Rowe, analytical conjunction of Palladio/Le Corbusier represented his perception of a continuing state of 'Mannerist' ambivalence toward Classical canonical, or Modernist codes (which he deemed stemmed from the same root), and their meaningful disruption. For Eisenman, these codes have always displayed their instability, have in some way, always been 'Mannerist', but without the stable, Classical reference that art historians attributed to the distortions of Mannerism. Eisenman's re-envisioning of Palladio as an endlessly parametric experimenter, as opposed to the pure geometrician he has been seen to be, presents Palladio as a paradigm for the present, a Palladio no longer *virtuel*, but insistently *actuel*.

***Palladio virtuel* exhibition, Peter Eisenman with Matt Roman, Yale School of Architecture Gallery, until 27 October 2012.**

To read Colin Rowe's AR piece on 'The Mathematics of the Ideal Villa', visit architectural-review.com/ColinRoweIdealVilla

Drawing a conclusion

NIALL HOBHOUSE

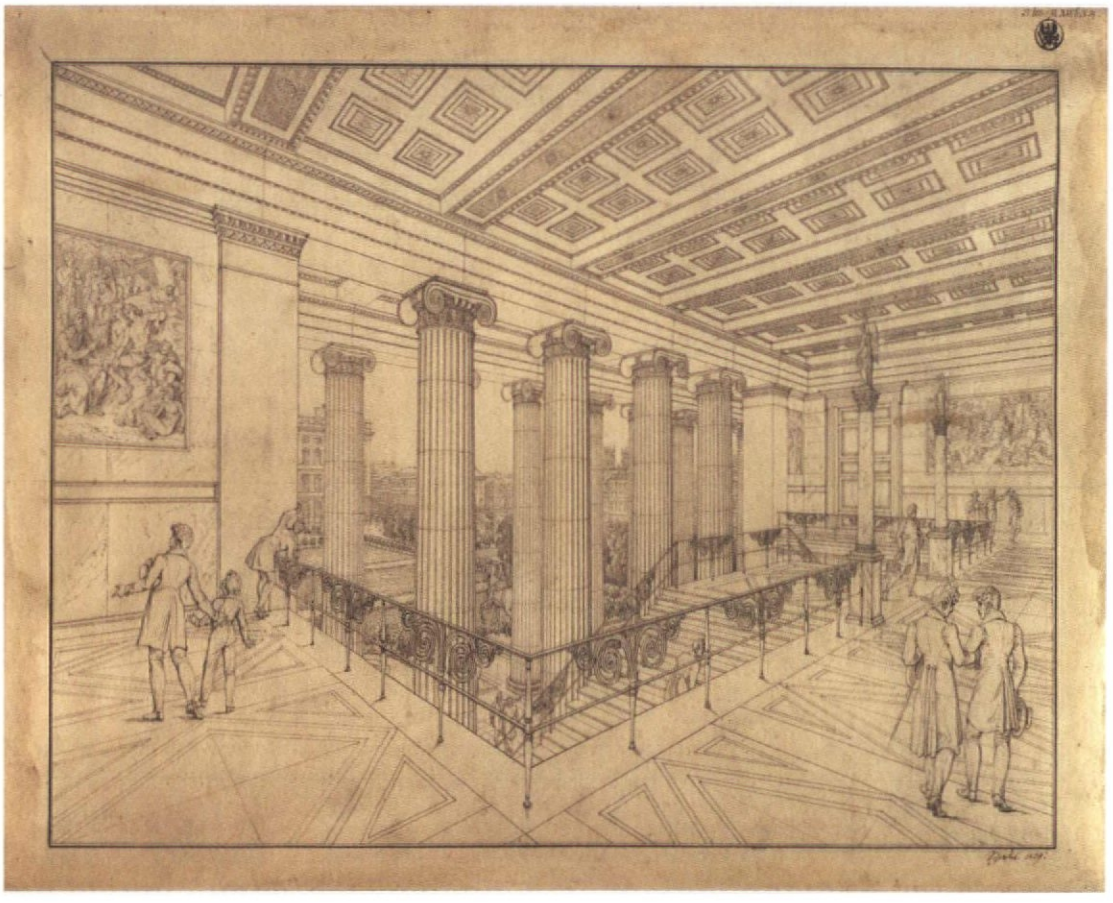
Schinkel in Berlin,
Kupferstichkabinett, Berlin,
until 6 January 2013

It turns out that what Schinkel did, most of the time, is sit at his table, and draw. This shouldn't surprise us given that anybody's pantheon of great architectural innovators – let us say, Michelangelo, Palladio, Borromini before him, or Wright, Le Corbusier, Asplund since – were each just as boldly experimental in how they represented their buildings. You can be a great draughtsman and a rotten designer, but not so easily the other way round. Even Louis Kahn, always uncomfortable with his pencil, becomes an exception that might prove this rule; he does know that paper is the true medium of design, and it is the lack of finesse of the exploratory sketches that passes directly into the planar awkwardness of his great early buildings.

If drawing is the prerequisite for greatness, Schinkel was lucky as well to find himself coming of age in early 19th-century Berlin. The Napoleonic occupation of Prussia until 1812 meant that for 10 years there was very little opportunity for a young architect to practise but plenty for travel sketches, 'illuminations', dioramas and for major experiments in oil painting. We should not take these years as fallow, or even as an apprenticeship. Nor, certainly, did Schinkel and we learn here that throughout his career he returned often to painting for the theatre and on canvas. On the day before the heart attack from which he was never to recover, we find him strolling in the zoo with Dr Waagen – no less – and talking with enthusiasm of a plan for a 90-foot panorama, in which all the great buildings of civilisation could be represented to the public.

In these early years of not being an architect, experimental drawing became for Schinkel a sustained practice, the ingrained habit of imagination in which all the insights derived from the production of two-dimensional spectacle worked their way into his conception of architecture and of the modern city. This easy integration of thought, eye, hand, pen, paper, decorative conception and, finally, of built form, makes Schinkel close to unique. Only Scarpa comes close and even then, in front of the greatest sheets in this exhibition, you can sense something in Scarpa's obsessive rituals that is mannerist, even performative.

Schinkel's next lucky break was to find himself in a cultural and political world after 1815 in which there was plenty to build, and not a lot of money to build it. His royal patrons saw in the threat of a re-run of Napoleonism the urgent need to transform themselves, publicly at least, into a bourgeois institution. Schinkel was asked by the Wilhelmine monarchy to build not palaces but villas, outside Berlin and in Potsdam, in which every architectural expedient was employed to disguise scale, to break from the rhythm and historic language of the Baroque facade, and to introduce a studied accessibility. New churches in the city were allotted scrupulously between Catholic and Protestant congregations; the opera house and theatre were re-imagined as a resort for the middle class; the public museum became a fetish of nationalism, and of social interaction

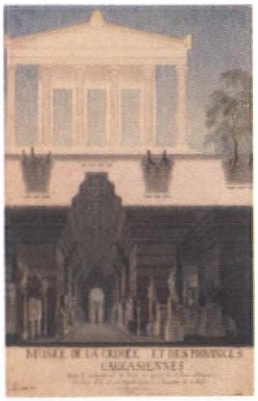


Below: an inside view of the main staircase at the Altes Museum in Berlin, 1829. Schinkel owed much of his success to the rise of the public museum to become a fetish of nationalism and of social interaction

(Schinkel's visit to London in 1826 was to see what Smirke was just completing in Bloomsbury); finally, an altogether new European building type, good for a hundred years, emerged in the Bauakademie. Everything conceived anew except, of course, a parliament building.

Schinkel the architect was the perfect subject for this model of patronage. There is just a whiff of Gilbert and Sullivan in the march of his official titles: Oberbauassessor in 1810, Geheimer Oberbaurat in 1815, Geheimer Oberbaudirektor in 1830, Oberlandesbaudirektor in 1838. It was a career that engendered an army of devoted students, assistants and followers. At his death he had commissions, or was supervising construction, throughout Prussia and beyond. The period of stability and expansion that came after it created a comfortable stylistic orthodoxy in which much of Schinkel's thinking could be replayed and enlarged by other architects. Even Behrens and Mies, 70 years later, were his inheritors.

All this disparate responsibility meant that work at the drawing table, and the production of prints to disseminate it, became even more central both to practical execution, and to the gathering of stylistic momentum. The representation of buildings on paper moved during Schinkel's career from being the deft product of sensibility and imagination to becoming the instruments of dissemination and power. For perfect exemplars of the fusion of the architect as at once both the visionary and the functionary, one needs to look at the raft of unexecuted schemes for immense palaces in exotic or imaginary places: for the Tsarina perched above the Black Sea, for King Otto on the Acropolis, for Friedrich Wilhelm IV dwarfing an ideal polis, and the reconstructions of the villas of Pliny. For such projects Schinkel was never to go 'to site', and perhaps that was the



Above: the unrealised design for an immense castle at Orianda in the Crimea, 1838, displays Schinkel's sustained power as a draughtsman which brought him into the employment of princes and tsars who sought solace in such fairytale proposals

point; they are lovely and disturbing in their improbability. One senses that the architect has here retreated to the unconstrained comfort of working on paper, and in partnership with princes who were content to dream of power that was less fragile than at home. Neither party can have done more than imagine that these strange fairytales could ever be built.

In the exhibition there is a lovely moment in which we learn that the architect, in England, discovers that the steel nib is in commercial production. The next day, as it were, we find him on the hills outside Edinburgh trying one out in a sketchbook view of the Old Town. He liked always to refer to his drawings as 'experiments in art and science', and the exhibition carefully demonstrates that Schinkel was lucky in this also. Fully a quarter of the space in Berlin is devoted to the mechanics of drawing, through a long period of great technological advance in both the media and implements of draughtsmanship: of the transition from wove to laid paper, of the range and quality of coloured sheets, of the manufacture of trace, the introduction of erasers and steel rules. Schinkel gulps it all down, bending each development to building a better bridge between the visualisation of a building, in his own mind or his clients', and its practical execution. This does, perhaps, suggest an answer to the greatest Schinkel conundrum, of how a mode of representation on paper that is often so flamboyant and theatrical comes to be transformed, somehow logically, into an architecture that we admire most for its austerity and for its economy of means.

If you want to see great buildings go and look at what still survives in Berlin. If you want to understand how great architecture can sometimes be made, then go to the exhibition. There is in fact a bit less there about the work in Schinkel's career that is now most fashionably admired – less of the furniture, the proto-Biedermeier decorative schemes, or of the Charlottenburg pavilion. This is no bad thing, and it certainly feels more an exercise in rebalancing the reputation than in revisionism. Schinkel's last great piece of luck was that his archive was bought by the King after his death and now lies in the uncomfortable, or at least very un-Schinkelian, purlieus of the Kulturforum. There his legacy can be meticulously, even lovingly, curated by scholars who really know their man, and re-offered to each generation without ever quite having to be the definitive account.

The lost decade

SUTHERLAND LYALL

The Seventies: Rediscovering a Lost Decade of British Architecture, Elain Harwood and Alan Power (eds), Twentieth Century Society, £19.50

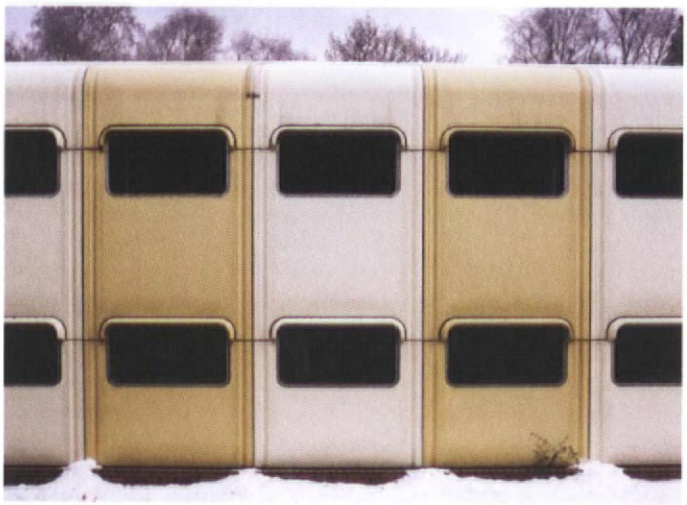
With a title like that, proper footnotes for most of the 11 articles, a comprehensive time line and half an inch thick, you expect something a bit definitive and scholarly from this 10th in a regular series published by the Twentieth Century Society. Or as contributor Gavin Stamp slightly defiantly points out, the former Thirties Society.

But forget scholarly because the book lacks a bibliography. Plus, in an act of pathetic niggardliness, it lacks an index: difficult to explain in this era of word processors most of which have a very effective Index button. You have also to remember that the society's avowed agenda is to promote and preserve architecture and design from 1914 onwards, which is not quite the same as attempting to take a dispassionate, scholarly view. In any case, picking the right dozen or so key 1970s topics and the right dozen or so experts to write about them is a bit like trying to perm the lines on a cosmic football pools card. So although the idea of

looking at a hundred of the 242 competition entries for the Burrell Collection competition as a kind of instant cross section of architecture in 1970s Britain is an interesting one, the result, like the successful scheme, is a bit inconclusive. The pieces by Alastair Fair about theatre design, Hannah Parham about mosque design in London and Simon Wartnaby (happily very briefly) on Gun Wharf are worthy enough but not all that interesting or helpful in explaining the decade's architecture.

There is too Catherine Croft's David Rock hagiography. There he is in that great 1975 mug shot, all wild hair and sexy grin. I've worked for David, like him enormously and reckon him one of the few architects who ever had a grasp of how society works at the larger scale. It's a kind of caring conservatism which factors in the reality that community development has to be marketed and funded. I've always been reminded of the way Sigmund Freud insisted that paying his consulting fees was part of the patient's therapy. But however significant Rock's contribution to grassroots development (the title of his most important study), it is not necessarily central to the ramshackle edifice which is '70s architecture. I'm not sure that singling out Rock in this way is either fair to him or helpful in understanding the decade.

So too Roland Jeffery's piece on Milton Keynes, one of the few non-disasters in that monstrous social engineering experiment otherwise known as the New Towns. It's a pedestrian narrative which ignores one of the most interesting things about the city's architecture: the very serious attempts to weave a kind of inchoate symbolism into the formal grids of the city's centre.



Below: the aging yellow/white facade of James Stirling's 1972 Olivetti training centre at Haslemere, displays a nostalgic futurism symptomatic of the '70s, which saw a revival of interest in the white boxes of the initial, pre-war phase of Modernism

The participants are probably a bit embarrassed about it all now but the architecture department at the time was a hothouse of thought transference experiments between Bedfordshire and London where most of the architects lived: respectful preservation of imagined ley lines, the inscribing of a vast yet unobtrusive Neolithic and very expensive symbol across one of the squares in the shopping city, the unbuilt pleasure park below the modest cliff at one end which featured, among many other arcane pleasures, a glass bridge and a miniature Silbury Hill, and those giveaway names of the two roads either side of the shopping city: Midsummer Boulevard and Silbury Boulevard. Surely this sub-text to the Miesian clarity of the formal bits of Milton Keynes architecture should feature in any proper study. And that extraordinary water organ which never quite got built and ...

There are also some pleasures. Louis Hellman's account of his rebellion at the GLC architects' department is a refreshingly personal memoir which captures the anger of the committed young turks of the decade. His big beef was the leaden MACE schools building system, the shadows of whose early grim advocates have reappeared in the education ministry this year. The young turks are long gone.

More thought-provoking is Geraint Franklin's 'White Wall Guys' which looks at 'a revival of critical interest in the white boxes of the initial, pre-war phase of Modernism'. What at the time seemed to be a bunch of guys grimly but ideologically virtuously working out the last gasps of the Modern Movement were, as Franklin explains, doing exactly what Modernists had long despised about the Victorians, viz reviving old styles. I think what confused us is that what was being imitated was barely a century-old style and the belief that Modernism had eliminated the notion of styles. In that convoluted thinking this meant that this wasn't a revival of a style.

Gavin Stamp, one of the original young fogeys and properly proud of his Thirties Society membership, delivers a vintage Piloti-style broadside against such events as 'the puzzling rise to celebrity cult status' of Rogers and Foster. He notes the Poulson affair in which the architect's bankruptcy 'exposed a vast web of corruption and bribery in public life'. He reminds us that in a 1972 RIBA Annual Discourse, the former editor of this organ, JM Richards, delivered a hatchet job on Modernist architects backed up two years later by Malcolm MacEwan, a top RIBA functionary, which was followed by a small deluge of 'devastating' anti-Modern texts. In an aside Stamp characterises me as 'no friend of neo-vernacular'. In fact this made-up word emerged from a commissioning discussion with James Madge at Queen Anne's Gate about a revisit he was about to write for AJ about Lansbury, the Festival of Britain demonstration site by the Blackwall Tunnel: neo-vernacular as in the equally despised neo-Georgian.

The big piece in *The Seventies* is by Elain Harwood and Alan Powers. It is a sweeping survey of the decade which probably should be read first followed by the reader dipping into the following adornments. If you are in a hurry then read Hellman for atmosphere, Franklin for thought-provocation and Stamp for fulmination. Oh and the timeline at the end. I'm sure you can pick holes in it but it's clearly the starting point for the proper scholarly study of the '70s. Which will have an index.

Forensic architecture

LINDSAY BREMNER

The Least of all Possible Evils. Humanitarian Violence from Arendt to Gaza, Eyal Weizman, Verso, £16.99

At the heart of Eyal Weizman's new book is an engagement with the problem of violence, in particular of state violence and the calculations that manage it in the contemporary world. Weizman argues that humanitarianism, human rights and international humanitarian law have become crucial technologies in calculating what constitutes a just or balanced war, and that forensic analysis is frequently at the forefront of this necro-economy. This corresponds with the shift of emphasis in the 1990s from human testimony to objects of material evidence in the investigation of war crimes and, as conflict became increasingly urbanised, representations of the built environment, fragments of buildings, satellite imagery of destroyed buildings etc being used as evidence



Above: images of war-torn architecture such as these buildings in Gaza, destroyed by Israel in the winter of 2008-09, increasingly feature in catalogues of evidence compiled in the prosecution of war crimes. The result is a form of forensic architecture used in the calculation of a just war

in courts of law. This resulted in what Weizman calls forensic architecture: existing at the intersection of architecture, history and the laws of war, forensic architecture is both an analytical method for reconstructing scenes of violence as they are inscribed in spatial artefacts and the practice of interpreting and deliberating over them in legally constituted forums.*

The book begins with an account of the 1755 natural disasters (earthquake, tidal waves etc) that wreaked havoc on both sides of the Atlantic, as told in Voltaire's *Candide*. The tale's protagonists, Candide and Pangloss set out on a sea voyage, but are shipwrecked and washed ashore in Lisbon, only to be subjected to a devastating earthquake. Emerging from the ruins, Pangloss explains to Candide that behind all these disasters was a divine calculation that optimised the relationship between good and evil, and that all that had happened was for the very best. This theology serves as background to Weizman's analysis of contemporary conflict, except that in today's world, the economy of the best of all possible worlds has given way to an economy of the least of all possible evils and divine calculation to human speculation. This does not seek to end conflict, devastation or war, but to regulate, shape and moderate it in order to make it more effective.

The book presents a number of case studies in which elements of the humanitarian present, including humanitarians themselves, humanitarian law, architectural artefacts, spatial organisation or destroyed buildings have colluded with or are evidence of this calculus. His precedent is again the Lisbon earthquake, when detailed records of buildings destroyed by it circulated around Europe, illustrating the horror of the event. The first of his case studies examines the role of humanitarian organisations in the Ethiopian famine of the mid 1980s and traces the way in which humanitarian relief became lethal to the people it claimed to serve. The second analyses the physical and procedural siege mechanisms applied by Israel in the Gaza Strip, governed by the standards of the humanitarian minimum. The third examines scientific and probabilistic models used in the analysis of the rubble left by war, to show that these are based on the same lethal technologies they set out to monitor in the first place. The book concludes with an archive of photographs of buildings destroyed in Gaza by Israel's attack in the winter of 2008-09 compiled by the Hamas-run Ministry of Public Works and Housing.

This makes extraordinary claims, not only for forensic science, but also for architecture. Weizman tells the story of the interrogation of an architectural model in the Israeli High Court at the time when legal challenges against Israel's separation wall were being heard. The model was the expert witness in the court's deliberation about the line the wall should take to be a lesser evil alternative. Weizman's narrative of the court proceedings is hilarious. He tells of how no one knew where to place the model and of how normal courtroom protocol was undone by the model's presence, but what is more important here is that the model was expert evidence or agent in the deliberation that followed. Weizman states it thus: 'The legal process came to resemble a design session, with the parties making their points on the model, sometimes balancing their pens on its miniature topography to try out alternatives'. In another example, Weizman exposes the use of software by the US Defense Intelligence Agency during the war in Iraq to model the relationship between buildings, their construction materials and techniques, people in and around them at various times of the day and type of bomb, fuse and direction of attach, to plan and reduce damage, devastation and loss of life. Here once again, architecture, in this case virtual architecture, served as expert evidence in the calculation of the lesser evil. These examples draw attention to architectural artefacts, technologies and procedures as key components in the current warfare-humanitarian nexus. They serve not only as evidence of past crimes, injustices and disproportionalities, but also bear witness to possible futures; forensic architecture is both analytical and speculative. From Weizman's meticulous critique of humanitarianism and its current dilemmas, architecture emerges as an instrument to invent new forms of struggle that are recognisant of the current paradigm of power, but which also evade, subvert and escape its calculations. For anyone involved in the field of humanitarian design, this makes devastating sense.

* Weizman and his colleagues in the European Research Council funded Forensic Architecture Project at the Centre for Research Architecture at Goldsmiths College, London University are undertaking such research in a number of human rights cases, including the 'Left to Die Boat' (Charles Heller, Lorenzo Pezzani and Situ Studio), which provided evidence that other European countries and NATO abandoned and contributed to the deaths of 63 refugees who were fleeing Libya last year.

Landscape portrait

JAMES DUNNETT

The Modern Architectural Landscape, Caroline Constant, University of Minnesota Press, $30 (paperback)

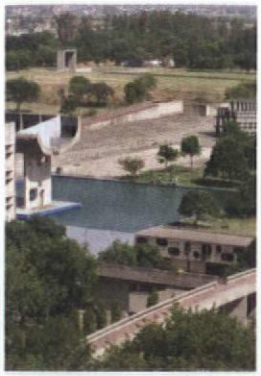
Savour the colour photograph on the cover of this book – it is the last one you will see. Savour too the detail, as it is the only image of sufficient size to show it (all others are small and grey), and truly to illustrate that evocative term 'architectural landscape': the interplay of built form with land form, plant form and space. The cover image shows a section of Le Corbusier's Capitol complex in Chandigarh with the portico of the Assembly, the reflecting pool in front of it, one corner of the Tour des Ombres, and the sculpted terrain in which they sit. Chandigarh is the subject of one chapter, where it receives a distinguished analysis first published in the AR in 1987. It is also one of the best illustrated, as Le Corbusier was first and foremost a visual artist and left plenty of material.

But this is primarily a 'word' book, from an academic environment (the author is Professor of Architecture at the University of Michigan), and almost presumes the reader to have access to supplementary illustrative material. It is a collection of papers that have appeared in a variety of publications over the last 25 years, with two new sections and an introduction added, so there is no argument that runs consistently through it. It is a rich quarry to mine rather than a text to read from beginning to end in one go, and the full reference notes will make it an invaluable source for anyone wishing to extend their study of the topics covered. But there is one theme that appears regularly, which contrasts American attitudes to land, society and land ownership with what the author perceives to be more communitarian European ideas, and what happens when the two meet. So this is a book concerned as much with larger issues of society and planning as with the details of landscape design. A chapter entitled 'Social Idealism and Urban Landscape' contrasts Clarence Stein's Sunnyside Gardens in New York with Ernst May's Römerstadt housing development in Frankfurt, 'Hilberseimer and Caldwell' contrasts their 'Intersecting Ideologies in Lafayette Park' where they worked with Mies van der Rohe, and 'Collaborative Fruits' interestingly chronicles the attempted collaboration between landscape designer Garrett Eckbo, planner Simon Eisner and 'fellow-travelling' architect Gregory Ain to build Community Homes for unionised Hollywood film industry workers in the 1940s.

The analysis of Mies's Barcelona Pavilion seen as landscape, on the other hand, perhaps seems contrived and the comparison of it with Pope's grotto at Twickenham a bit far-fetched, but many interesting observations are thrown up along the way. At either end of the time scale, the studies of Plečnik's interventions at Prague Castle and Tschumi's and Koolhaas's respective designs for the Parc de la Villette arguably strain the category 'Modern'.

It is indeed apt that Corb's work is on the front cover. We tend to assume that the aspiration to a green environment was intrinsic to the Modern Movement, but in fact it was one that Le Corbusier very largely brought with him. There is a whole strand in 'Modernism' (a term which Caroline Constant is content to use) beginning perhaps with Sant'Elia and Futurism, and continuing with the Constructivists, which was preoccupied with the 'Groszstadt', the Metropolis conceived as a hard environment, and with the imagery of technology – a tradition that effectively Stirling and Gowan much later were to take on board with their attempts to make university departments resemble power stations.

Even in Germany the early 'glass skyscraper' imagery of Mies and the notorious 'Highrise City' project of Hilberseimer of 1924 (which, as Constant records, he himself later disowned) show not a blade of grass. But from 1922 Le Corbusier's City of Three Million, drawing on ideas from Perret and Garnier as well as from the Garden City movement, is conceived as green. He challenged the accepted notion that the city was hard, the country soft. One cannot help feeling that his ability to fuse or overlay geometry and nature as evidenced at Chandigarh, where the Capitol is a true architectural landscape, is something from which the London Olympic Park might have benefited, with a result less resembling a fairground.



Above: Le Corbusier's Capitol complex in Chandigarh truly illustrates that evocative term 'architectural landscape' — the interplay of built form with land form, plant form and space

Art in architecture

AYLA LEPINE

Painting with Architecture in Mind, A Landrum and E Whittaker (eds), Wunderkammer Press, £19.99

Berlin's Neue Nationalgalerie does not accommodate art easily. Mies van der Rohe knew what he was doing. Detlef Mertens posits that Mies wanted to 'support and even provoke the emergence of new ways of displaying and experiencing art, perhaps even new ways of making it'. That may be so, and the gallery's uncompromising glass grid, its sheer openness, has certainly led to new horizons in curating. But what did Mies have to say for himself about his low-lying glass box and its audacious simplicity? 'It is such a huge hall and that of course means great difficulties for the exhibiting of art,' he admitted, 'I am fully aware of that. But it has such potential that I simply cannot take those difficulties into account.' Giving uncompromising Modernism the benefit of the doubt, the potential he spoke about was surely a double opportunity for the architecture and the art it would contain. In the 1969 Piet Mondrian exhibition, for instance, a system of white rectangular suspended panels had to be devised to compartmentalise and respond to the glass zone. Mondrian's own pictures suddenly gained an exceptional conversation partner when inserted as vertical punctuation in Mies's Berlin structure.

Painting with Architecture in Mind is less about the interface between art and architecture than how painting has dealt with, negated, or invested in architectural spaces and histories. Its scope is diverse. The strongest and most provocative essay in the collection is Eric Alliez and Jean Claude Bonne's 'Matisse in the Becoming – Architecture of Painting', in which still lives and mural projects are interpreted based on Matisse's own notions of rhythm, colour, space and modernity. Further essays interact with work by Gerhard Richter, Thomas Scheibitz, Pablo Picasso and Michel Majerus. Author Bernice Donszelmann exhibits a stroke of genius in subjecting Binky Palermo's minimalist interiors to Gottfried Semper's theories on wall coverings. Yet, there is one serious drawback to this ambitious collection of scholarly material. Each chapter

marshals big-name philosophers and critical theory to advance arguments. Some authors wield these tools with more precision than others, however, and more than one essay is rendered nearly unreadable by sentence structures and methodological assertions so convoluted as to be impenetrable. In a book that aims to clarify complex relationships between painting and architecture over the past century, this approach fails its subjects. More positively, the book's producers have conceived it as an art object, with a specially commissioned fold-out image by Brad Lochore. A penetrating curiosity about how we perceive built and artistic environments underpins the book's themes, and the collection is a tough but rewarding read.

Linda Khatir's essay investigates Pierre Buraglio's series of 'windows' from the early 1980s. Made of fragments of scavenged and modified windows, the art works exist somewhere between painting, sculpture and architecture. Khatir's jumping off point for an analysis of Buraglio's motivations is refreshingly direct: 'we acknowledge the work as a window, even though we know it is not'. A useful comparison can be made with artist Robert Ryman, who insists his paintings 'don't really exist unless they're on the wall as part of the wall, as part of the room'. But when Frank Stella and Jackson Pollock used industrial paints with metallic bases meant for cladding buildings, did their work take on an architectural gloss? There are times when art, architecture and the visual cultures of industry can be blurred to an unhelpful extent. When any given aspect of a picture gets positioned as architectural, it's necessary to pull back and get intellectual perspective.

Whittaker and Landrum's collection of essays all insist in their distinctive ways that we must rethink how painters have interacted with architecture in the age of abstraction, Modernism and conceptualism. It brings us into contact with a cohort of iconic and obscure artists whose architectural explorations with pigments and canvas are as diverse as the buildings and traditions they respond to.





Right: Peter de Francia's charcoal drawing *Private View*, 1958, illustrates much of his friend John Berger's damning critique of the art world as a 'small sophisticated section of the public who are queuing up ... for their own personal salvation via culture'
Below: Matisse, in his still life works and mural projects, displays the becoming-architecture of painting. In his 'The Dance', which inhabits the vaults of the Barnes Foundation, the painting integrates a site-specificity but it does so to make it play differently

False economy

JESSICA KELLY

John Berger: Art and Property Now, King's Cultural Institute, Somerset House, London, until 10 November

In this exhibition of John Berger's archive there is a large painting of Marxist historian Eric Hobsbawm. Visiting in the week that Hobsbawm died was poignant not only because of his death but because it marked the passing of a particular form of consciously politicised cultural criticism. Berger and Hobsbawm both attended the meetings of left wing intellectuals in the '50s known as the Geneva Club. While Hobsbawm presented a Marxist interpretation of history to readers outside academia; Berger has tackled commodification in art and culture head on through his 60-year career, in which he has moved from painter to critic to TV presenter and Booker Prize-winning novelist. Even the exhibition's title *Art and Property Now* – taken from an essay Berger wrote in the early '70s – points to his preoccupation with the economics that shape art practice. Berger is so aware of his own place in the market for culture that he donated his archive to the British Library in 2009 to avoid it entering a commercial market when he dies.

Increasingly, cultural criticism is retreating to the idea that culture and politics are separate. That's why the exhibition of John Berger's archive is so exciting, because it reminds us of Berger's argument that many cultural practices aimed at 'informing a cultural elite, which for consumer market reasons needs constantly to be enlarged'.

Rooms one and two of the exhibition are the most effective. They integrate notebooks and letters with television footage and audio recordings from the archive, emphasising the diversity of Berger's career and the consistency of his political convictions. In the second room, Berger's speech from the 1972 Booker Prize is transcribed on the wall. His decision to give half of his prize money to the Black Panther movement has become the stuff of literary legend, but what is less well remembered are his provocative reflections on the practice of prize giving in literary culture. Berger warned that prizes could encourage 'conformity' in 'the market and the consensus of average opinion' instead of stimulating 'imaginative independence' of both reader and writer.

The fifth room is for public discussions of Berger's work. This is done in the spirit of his critique of elitism in London's cultural scene. The room is meant to be an 'informal learning space where art and activism meet'. In the current climate it is more important than ever to redress the dominance of the cultural elite, which Berger referred to as the 'small sophisticated section of the public queuing up ... for their own personal salvation via culture'.

PEDAGOGY

TU Delft, Netherlands

MATTHEW BARAC
AND ANDREW DAWES

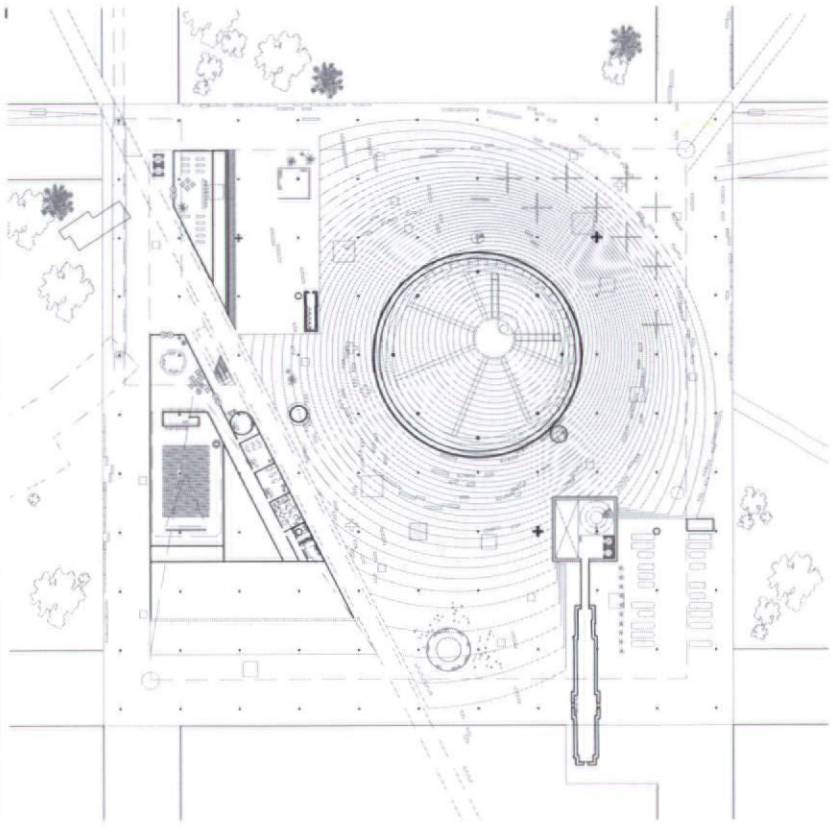
Dutch design was everywhere in the 1990s. Projects built in Rotterdam or Almere were imitated worldwide as cutting-edge ideas radiated out from the Netherlands; weighty books and glossy magazines celebrated an idiom that commentator Bart Lootsma called 'SuperDutch'. Following in the pioneering footsteps of Rem Koolhaas, their erstwhile godfather, a young generation of designers developed a slick yet unsentimental architectural genre that seemed able to adapt to the rapidly-changing market. Innovative and conceptual, the new approach refashioned the design agenda, and although truly international it did not sacrifice the matter-of-fact humility associated with Dutch tradition.

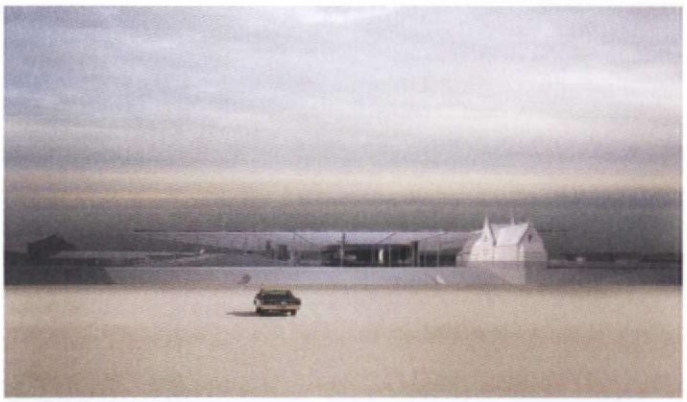
While Koolhaas may have kick-started this outburst of energy, it was also driven by political and economic changes such as increased globalisation and the widening EU market. Located in the Randstad, a continuous conurbation that is one of Europe's most populated urban areas, Delft provided a natural anchor for much of this productive activity. With nearly 3,000 students, the Technical University (TU) operates as the nation's powerhouse for architectural education. Many of these students were, at that time, working for offices at the forefront of the movement – such as OMA, West 8 or MVRDV – and the desire for typological and technical experiment prevalent in such practices was central to studio debate at Delft.

Experimental pedagogy has long been linked to innovative professional practice at the university, which counts among its emeritus faculty key characters of European Modernism, such as Jaap Bakema, Aldo van Eyck and Herman Hertzberger. Through work with or links to Team 10, the loose-knit but influential group of mid-century Modernists, they promoted a nuanced interpretation of functionalism that Dick van Gameren, Chair of Housing at Delft, celebrates in his teaching today. Consciously 'following in the steps of Bakema and the Smithsons', Van Gameren maintains the tradition of critically evaluating and analysing Modernist assumptions. Emphasising the importance of housing in Dutch debate, he prioritises 'the connection between building and context, making the link between the house and the city'.

But there has never been a consensus at Delft. Van Gameren's is one of a choice of studios for students. According to Michiel Riedijk, Chair of

1-4. In the studio of Michiel Riedijk, which analysed the successes and failures of utopian ideals in Brussels, student Timur Karimullin designed a new European Parliament, which confronted the issue of inserting a substantial institutional building project into an existing urban context







Architectural Composition, 'this supermarket approach emphasises that architecture is not stylistic but addresses the typological, cultural and material'. His own studio challenges the utopianism in much architectural dogma with hard-boiled Dutch pragmatism. The school concentrates on the transfer of design skills and knowledge in the three-year Bachelor's degree, which is taught in Dutch. The final two-year Master's course, taught in English, is more internationally orientated and encourages students to develop an architectural position in relation to cultural debate and the wider society.

Investigating the successes and failures of utopian ideals in terms of the vision of a European capital city, Riedijk's most recent studio looked at Brussels. Students addressed the discrepancy between civic ideals (as embodied in the EU charter) and the reality of some of the city's impoverished neighbourhoods (and lack of EU support). One student, Minhong Khor, responded with a series of megastructures that elevate public space, reconnecting it to the local community to bridge between structures of European identity and local settings. With a focus on the relationship between elected representatives and the public, Timur Karimullin's design for a European Parliament grapples with the challenge of articulating between a massive institutional programme and the finely-grained urban context.

Van Gameren studio's, 'At Home in the City', returns to the enduring theme of dwelling in the city. In a design that softens the boundaries between private and public domains and reimagines homecoming as a sensory experience, Jasper Spigt aims for a gradual entanglement of openness and intimacy. Alessandra Covini's project, part of a wider research investigation of mass-housing strategies in exploding cities, incorporates local rammed-earth technology into a kasbah-like proposal for affordable housing in Addis Ababa. Timber formwork is recycled as cabinets and furniture inside the dwellings.

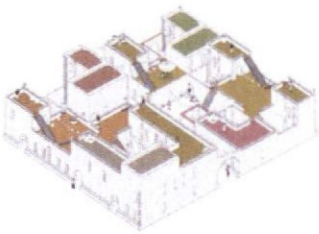
Riedijk contends that 'a common denominator at the school is craft and the teaching of design as tacit knowledge'. An enormous model workshop at the heart of the faculty and a library at its entrance underpin the pedagogical importance of understanding and making, of knowledge and history; an internal street (a motif recalling Team 10) that runs along the length of the building emphasises access. Balancing Dutch pragmatism and tradition, while orientating itself towards an increasingly international position, Delft connects a range of voices with a shared set of values.

5&6. Van Gameren's studio focused on dwelling in the city. 5, Alessandra Covini investigates affordable housing using rammed-earth technology in Addis Ababa, and, 6, Jasper Spigt blurs the boundaries between public and private realm
7. Minhong Khor's megastructures elevate public space to reconnect it to the local community in an effort to bridge between structures of European identity and the locality

4



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6



7



Albert Speer

PAUL DAVIES

The best story I know about Albert Speer is why he became architect of the Third Reich in the first place: because he had a car. That and the fact that before he joined the Nazi party in 1931 he had to walk around a forest all night to think about it. The first is very practical, the second all very *Sturm und Drang*.

Both in his family and in his studies Speer wasn't considered very good. He was bullied by his two brothers and ignored by his father, also an architect. You can imagine this most fretful of psychological backgrounds. However, Speer persevered, lacking in esteem, but craving it, buried in both self-loathing and ambition. Once he joined the party Speer had the only car in the Berlin Wannsee section. The embryonic Nazi hierarchy needed a reliable taxi service. Speer was suddenly assigned as 'Motorised SS'. Taxi drivers like to chat. The rest is history. Never has the phrase 'be careful what you wish for' proved more rueful.

A third incident illustrates his next nudge up the ladder, along with that absurd Nazi deferral to assumed rank. Speer was on site, managing his builders; Hitler came by, naturally taking an interest, and chatted with the architect for a while, then said 'Come to lunch upstairs!' and Speer replied 'But I haven't got a jacket!' to which Hitler simply offered his own. So Speer walked in to lunch with all the other Nazi dignitaries wearing Hitler's jacket. Speer took his place beside Hitler at the table. From then on, Speer was Hitler's master builder.

In a meteoric rise, Speer was made German Inspector General of Construction at the age of 31, but Hitler was the looming architect manqué. Speer built huge models of Hitler's dreams almost direct from Hitler's sketches, delivering them as presents with undeniable love. In photographs, we see Hitler kneeling at these huge models pondering each imaginary vista populated by model soldiers. We hear of excitable, torchlit excursions across the gardens to Speer's studios. But Speer was first and foremost deadly efficient at managing building work, completing each task to seemingly impossible deadlines, and even employing competing building firms at the same time so that work could progress faster (4,500 workers in two shifts on the Reich Chancellery in 1938). In this sense he is a Modernist, just as the architecture (in the deepest sense) of the Third Reich is Modernist; a machine for human annihilation. The concentration camps are factories, after all, with their logic just as ruthless.

As architecture Speer's creations are largely unbuilt, or rather obviously came down almost as quickly as they went up. We have a physical legacy of premature and not so picturesque ruins in Nuremberg, we have a pile of rubble for the Reich Chancellery (the Soviets not agreeing about agreeable ruins), some streetlights around Tiergarten, and most bizarrely some interiors of the Royal Society (which used to be the German Embassy) in Carlton House Terrace. Unbuilt we have the Great Hall about which the less said the better (although since 75,000 Jews were evacuated from their homes just to clear the site we realise it's improbable Speer could genuinely divorce himself from the Holocaust) and the Reichsmarschall Palace which appropriately looks like half-starved Baroque.

Speer ended up, not surprisingly, as a very efficient Minister of Armaments and War Production by 1943. Everybody knows under his control and against all odds, German arms production miraculously rose, only to be undone by Allied might, and by lack of men and oil.

As to the architect's architectural capabilities, even if you are prepared to consider the Reich Chancellery an excellent composition, Barnum meets the Ancients, Albert Speer stepped right into the boots of Paul Troost, a neo-Classicist who Hitler deferred to as Herr Professor. Troost met an untimely demise in 1934, but his Munich House of German Art (completed 1937) still exudes a certain leaden doom. Speer didn't do Berlin Tempelhof airport either (that was Ernst Sagebiel) with its daring neo-Classical prefabrication, even though Speer is often associated with it. Sagebiel also did the surviving Air Ministry. Instead Speer shows virtuosity in technocratic organisation.

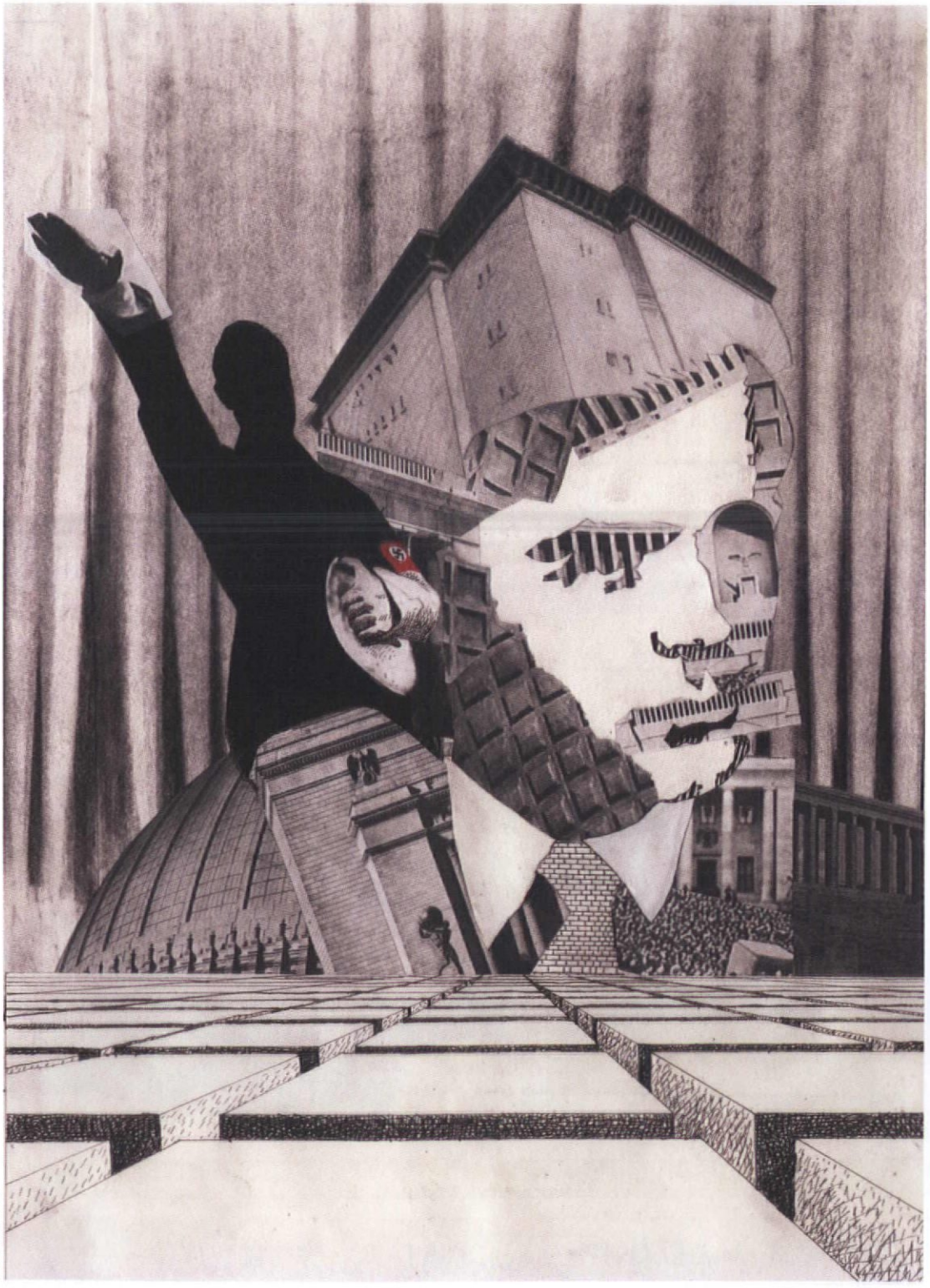
Heinrich Tessenow is often mistakenly blamed, but he was personally more inclined to communism, and denounced his pupil Speer. Tessenow seems to have had the touch to make classicism light, cool, calm and humane in the early modern era, exemplified in his Music Academy in Hellerau, and occupies the passable wing of the neo-Classical revival of the '80s, where Giorgio Grassi would rehabilitate Tessenow; and Leon Krier, Speer. Despite this, if you listened to Peter Blundell Jones, all you could see when you looked at Speer's plans for Germania was still that putrid celebration of mythological sacrifice and death that lay at the heart of Nazism.

With the ghastly mythology came spectacle, propaganda, film and searchlights. This makes Speer relevant again. Speer's sequestering of the Air Ministry's supply of searchlights for the Cathedral of Light at the 1937 Nuremberg rally was as inspired as it was scary, and with it, he represents a warning.

As does Gitta Sereny's exhaustive book *Albert Speer: His Battle with Truth*, published in 1995. The title and length suggests she finds Speer somewhat enigmatic. This enigma is largely down to the fact that at the Nuremberg Trials he argued, uniquely, for his share of collective

'Speer is a Modernist, just as the architecture of the Third Reich is Modernist. Concentration camps are factories, after all, with their logic just as ruthless'

Albert Speer
1905-1981
Education
Institute of Technology, Munich
Key posts
Third Reich Chief Architect 1942-45 Reich Minister for Armaments and War Production
Key buildings
New Reich Chancellery
'Cathedral of Light' luminescent architecture using searchlights
Zeppelin Field
Key moments
Joined the Nazi party in 1931
Nuremburg Party Rally arena model won the Grand Prix at the 1937 Paris World Fair
Planned synthetic oil production for (relatively) secure fuel supply
Imprisoned 1945-81
Quote
'One seldom recognises the devil when he has his hand on your shoulder'



JONATHAN FARR

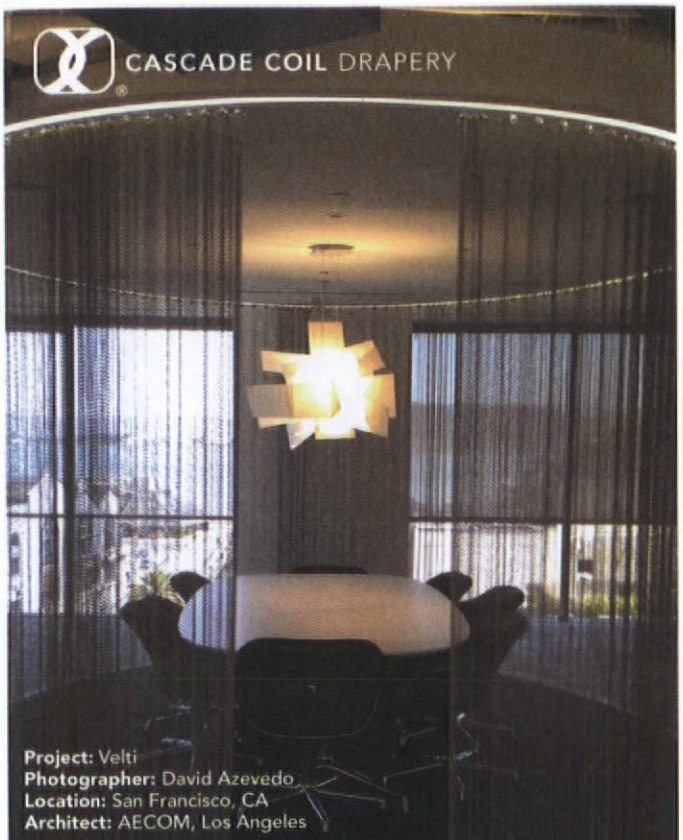
responsibility which others refuted. In doing so he appeared almost a victim. A media sensation on release from Spandau in 1966, he appeared in the canonical TV series *The World at War*, pleading at least that he prevented, or subverted, Hitler's demonic scorched earth policy in the last days of the Western front.

The question of evil aside (after all, you do not blame the desk designer for what is written at the desk), attempts to rehabilitate Speer have been mysterious. In a fit of the highest contrariness, Leon Krier claimed he was the greatest architect of the century. Krier produced a now rare (and therefore expensive), but actually rather meagre volume in this defence. But today, along the suffocating miles of German architectural bookshelves, you will still find no popular monograph.

Suave to the end, Speer did let his guard down at least once. A probing Robert Hughes asked him which contemporary architects he thought might work happily for tyrants. Speer answered that he was an admirer of Philip Johnson, and inscribed a book for Hughes to deliver personally. Johnson was at that time building his own versions of horrific bombast all over the downtowns of the United States. Only one year younger than Speer, Johnson had also unashamedly claimed that architects were 'whores' and would/should work for anybody. He even harboured his own nasty little Nazi secrets.

Overall, as a consequence of Speer's reputation, stripped classicism has not fared well other than in Scandinavia and the town halls of metropolitan London. David Chipperfield has elegantly deferred to it and Krier espoused it, but you trip over so many damning reports of Poundbury that it is almost comic. However, beyond style (for here classicism is just a style), Speer anticipates the most efficient and cynical of operatives in the corporate architectural business.

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Photographer: David Azevedo
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Architect: AECOM, Los Angeles

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THE THINK SERIES 01

Introduction by ORMS

As a practice, ORMS is keen to understand the everyday issues and challenges faced by both the architectural profession and colleagues and clients in the wider construction industry. The Think Series supports our belief that the best way of doing this is through debate and research, the outcomes of which will ultimately inform our architectural approach.

What follows is the result of the first stage in the Think process – a frank, informal and fascinating dialogue between some of the people we most admire in the industry, drawn from a wide variety of disciplines and representing many different sides of the debate. Their lively insights are highly thought-provoking and, inevitably, raise more questions than they answer. But they successfully highlight the conflicting issues which will influence the future development of London – and identify many new avenues for debate and design exploration.

The guests

Julian Baker (JB) studied at the Royal College of Art and is European Creative Director at Imagination, an independent communications agency that transforms business through creativity

Jo-Anne Bichard (JAB) is the Academic Research Lead at the Helen Hamlyn Centre for Design, where she looks at the challenges confronting workplace designers in the 21st-century knowledge economy

Neil Henderson (NH) is a Partner in Gerald Eve's planning and development department, and provides planning and development advice for a wide range of landowners, developers and occupiers

Richard Hopper (RH) is a Construction Cost Advisor at Exigere, where he is a specialist in the reuse and reinvention of existing buildings for commercial clients

Taylor McWilliams (TM) is Director of UK Asset Management and Acquisitions for Atlas Capital Group, a real estate investment, development and management firm

Bob Sheil (BS) runs the diploma unit at the Bartlett School of Architecture, UCL, and is a founding partner of sixteen*(makers), a workshop-based architectural practice

Mark Ticktum (MT) is Director of Halcyon Property UK, which he founded in 2004 to focus on high end residential and serviced apartment led schemes in central London

Austin Williams (AW) is Director of the Future Cities Project, and is now resident in Suzhou, China, as a lecturer at Xi'an Jiaotong-Liverpool University. He recently guest edited an AR special issue on China (September 2012)

Eleanor Young (EY) is Executive Editor of the *RIBA Journal*, having cut her teeth at *The Architects' Journal* while studying at night for a Masters at the Bartlett

The hosts

Oliver Richards (OR) founded ORMS in 1984, and his skills in balancing the visionary qualities of design with practicality and cost consciousness are central to the philosophy of the practice

John McRae (JM) is an Equity Director of ORMS and chief instigator of the think initiative, which reflects his own passion for creating a built environment closely informed by the users' wellbeing

Sean Hatcher (SH) is a Director at ORMS and has led work for the practice across Europe and India, as well as commercial schemes for high profile clients across central London

LONDON: TIRED OF LIFE? A DISCUSSION ON THE FUTURE OF THE CAPITAL'S DEVELOPMENT



A collaboration between British practice ORMS and the AR, the Think Series promotes dialogue between different disciplines within architecture and construction. In this first edition we explore issues around the development of London

Both commercial and residential sectors will have to meet many challenges over the next few years – and it is in London that these challenges are most sharply focused. With an estimated one million new homes needed in the capital by 2030, and an increasing urgency for London to attract business away from its global competitors, now is the time for imaginative thinking about how the city should develop in the future. London's rich grain and energy – the rubbing of shoulders, surprising contrasts and enormous diversity – have always been among its selling points, but could the current planning context and a simple lack of vision be holding London back and stifling the next phase in its growth?

JM: It's projected that London will need a million new homes by 2030. Last year in the UK we delivered 118,000 new homes so we're not even touching the problem.

MT: Where are all these people living who need the houses?

EY: I've often wondered that. I assume they're living in poor, unsuitable and overcrowded accommodation, but obviously some of the figures are a result of population predictions, aren't they?

AW: Yes, a lot of it's just statistical projection.

JM: At the moment the population of the UK is just over 62 million and the projection is that it'll be 70 million by 2031.

AW: And the figures for London are that it's currently 7.2 million and by 2016 it'll be 8.1 million. But that's exactly the same number that was living in London in 1963.

BS: Within that demographic though there's been a huge amount of change. If you think about the 1970s, everyone aspired to having their own little houses. Society was based around the nucleus of the family. But that's changed – there are more divorcees, retired folk, young professionals who don't have kids. The demographic profile is very different from 1963.

JAB: The main issue is that we've got an aging demographic, and we're all going to have to work for an awful lot longer. We're still going to have to travel to our workplaces because although we'll be able to do more work at home we'll still want to go and socialise. The divorce rate is going up too. We live longer, our children grow up and we might want to find someone else to spend the rest of our lives with. It's happening. So there is a need for more housing for single people.

OR: I worry about the inflexibility of London to meet this change, and the fact that we're strangling our opportunities. You've got to have quality of environment, but we shouldn't be so protective about our older buildings.

AW: It's ambition to build that we need. This discussion would never happen in Shanghai. It's a city of 23 million. Ten years ago it was a city of 16 million. I live in Suzhou. No one's ever heard of it, but it's a city of six million people. We just don't see the same problems in China. Whereas in the UK, the future is something we approach with trepidation. We worry about it. And that paralyses our ambition.

In contrast, several of our guests believed that rather than a lack of ambition and enthusiasm for building, London's inflexibility was more a result of restrictive planning practices.

TM: If you just let what was going to happen happen, the demographics wouldn't be what they are. Rents are continuing to skyrocket in London, and at the same time you want to introduce more affordable housing. But don't you think that this affordable housing artificially restricts the supply of homes? I think when London's current planning restrictions were put in place they were well intentioned, but they get in the way of the city's organic growth.

NH: The way it's structured at the moment, you're required to put affordable housing on site. In Westminster, for example, they might want affordable housing as part of your 14 £5.5 million units. You have to put in one unit of affordable housing that would have equated to a £5.5 million home, but you could have invested the same money off site and delivered 20 affordable units in a perfectly good location. I think that's a missed opportunity.

EY: But the actual point of mixing up the tenures is really valid. Council estates were much harder places to live before private ownership was introduced. They were really problematic, so getting that mixture is very important. There are unintended consequences to everything you do, but that's no reason not to do it.

AW: We're talking about two things here. One is housing like it's some kind of global norm. And then there's social housing because you've thought about social inequality, the fact that there are people who can't afford a house. At the beginning of the last century there was no social housing – it was all privately given workhouses. Then the Second World War brought the idea that you can't have a situation where you rely on individual capitalist enterprises to provide housing. The need was so great that they had to make it a national agenda. It wasn't a profitable agenda – it was state funding based on taxation. If that's the framework we had and we're now reverting to private developers to build social housing, that's wrong. I think ultimately that if we're saying there's a problem with a lack of housing, the government has to build some housing!

A RETURN TO THE CHOCOLATE FACTORY?

The fact that in the past private individuals – philanthropists, industrialists, moralists – have taken responsibility for social provision in London and other major UK cities has profoundly influenced the way they have grown and developed. Our debate around the issue of why today's private developers should themselves make social provision was fierce.

JM: I agree that there should be diversity in a city and that it should be allowed to grow organically. The contradiction is that in London some of the provision has been devolved to private investors, individuals and developers. But unless you have some moral reason to do so, why should you lose money? These guys aren't incentivised in any way to give and add different uses.

OR: Whereas the Cadburys, for example, had a real reason for making their workforce happy. They had an industrial business and they wanted to keep their workforce happier, living longer and so on so they could continue to make money. They had religious reasons too, but they gained either way.

BS: I think the role of professionals and everyone involved is to inform developers of the consequences of what they're doing. You don't expect every individual member of a complex team to understand everybody else's role. But if you don't understand the way in which wellbeing can make you more money, you've got to do some more research. People who are happier with where they live and where they work make more money.

MT: But in terms of an entrepreneurial business decision, unless you're very rich, it's all about the money. If you're very rich, it can be a relatively charitable decision. And if you're super rich you can make a decision that will actually lose you money for the benefit of a cause you believe in. That's fine. But when you're not rich you do it to make profit.

BS: But I'm saying you can make more profit, over a greater length of time, if you look after people's wellbeing.

NH: Mark's view is one side of the equation – you develop one building, you're in, you're out, you make a profit. On the other side you've got the private sector working as Bob is suggesting. Look at the landed estates. They're placemaking, and have been for the last 250 years. A classic example is the Cadogan Estate. They own 88 hectares in central London. In 2000 they bought the Cadogan Hall, just off Sloane Square, and it's now the first venue for the Proms outside the Royal Albert Hall. The point is, it doesn't make them any money but it's all about placemaking. The building increases the attraction of the overall place. They own two and a half thousand houses around there which it will increase the value of.

MT: It's a private city, then.

NH: There are very few examples of the private sector having that comprehensive view. But perhaps that's the role of the boroughs. Because it's only borough councils who, generally, can take that approach and take control on a civic footing.

MT: But I say let me develop property for the people I want to develop it for.

RH: It's all about making money. And it's about the quality of the product, ultimately. I'm fascinated by our discussion about the city and how it grows, but fundamentally we need to go back to where we started. London needs one million new homes by 2030. That's tens of millions of square feet of

'When London's current planning restrictions were put in place they were well intentioned, but they get in the way of the city's organic growth'

TAYLOR MCWILLIAMS

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3



1. (Previous page), the skyline of London with Foster's Gherkin in the City, and Canary Wharf in the background. With the need for a million new homes in the capital by 2030, will the planning context and lack of vision jeopardise London's status as global city and driver of the British economy?
2. Bournville, near Birmingham: the model village set up by George Cadbury with the confectionery workers' welfare in mind
3. Cadogan Hall, London, refurbished by Paul Davis + Partners. London's Cadogan Estate bought the hall in 2000, since when it has become the first venue for the Proms outside the Royal Albert Hall. It was not a money-making venture but rather about placemaking, increasing the attraction of the neighbourhood

commercial space that's going to be needed to support that population growth. And I don't see where it's going to come from. Is it going to come from reuse or is it new build? That brings you back to the whole discussion of planning and what's possible.

AW: What would be nice is a real, systematic, educational research programme so that we can get an understanding of how many new homes we really do need, and what that's based on.

MT: And I want to develop property which has an infrastructure around it otherwise I won't be able to sell my houses. Why would I want to build a load of houses in the middle of nowhere with no restaurants, no theatre and so on?

HOW HOUSING STOPPED THE CITY

The view that residential development can be more viable if it is effectively integrated with social, cultural and commercial infrastructure presents further challenges when applied in practice. How exactly do you introduce a mixture of uses in a city as multi-layered as London – and with such stringent planning codes?

OR: Mixed-use schemes in London are absolutely inevitable – and have many implications in a town that used to forbid mixed use. If you compare it with Paris, which has always been a layered city – nice shops on the ground floor and a mixture of apartments and offices upstairs – you can see it's much more distinctly divided. The inflexibility of Paris to adapt to bringing new businesses into the middle of town has been considerable, whereas in London there are fault lines, breathing spaces, which create really interesting sites for development.

TM: There are still really defined boundaries in London. It might just be a few hundred yards, but it still feels segregated for a city that's so diverse.

OR: One of the issues we're very concerned about now is the move towards residential, and whether this is going to stymie in the long term the flexibility of London. With commercial buildings you can turn them to many uses, but once a building's in residential use, it's in its final state. It's locked in. And although it's really good having people living in the middle of town, it's quite restrictive once they're there because they have rights – rights of light and so on – in the way that commercial users don't.

MH: If the final development of a physical property is residential and you can't change that use, won't there be other areas which will become commercial perhaps? Land might be regenerated elsewhere.

With London's residential planning laws requiring a mixture of affordable and private tenures, developers are increasingly feeling restricted. To them, building in the capital is beginning to make less business sense.

MH: Why should I as a developer choose to risk my own money when I'm being told by lots of people, including the law, that I should actually be building houses on site for people that aren't in my market? It doesn't even make economic sense for me to engage with them. It's just not part of my business plan. I wouldn't mind paying a tax ...

AW: There are always going to be people who need free healthcare, free education, free housing, and so on. They are part of the equation.

MT: And I'll pay a tax for them. I don't want to build affordable homes on my site.

This restrictive system compares unfavourably with the flexibility of cities such as New York, where the planning context is much looser and allows a trade-off between developers.

TM: It's a completely different system. If you own a site in New York it'll be zoned as residential or commercial or whatever. And you'll have a certain floor area ratio (FAR) which sets out how many times your footprint you can build up. But it's possible to trade in and buy air rights from next door. You still have to get certain permissions for setbacks and other things, but at least you can build buildings.

Alongside frustration at the lack of freedom to build in London, there is concern that the alternative – to make sweepingly ambitious policy decisions to ease planning restrictions – would be unacceptable to the general public. Under the current regime, simply finding new strategies to cope with the lack of new affordable housing has in itself led to widespread criticism.

AW: The point is we're not building anything in the UK. We're having conferences about how and where we should build, and we think that excuses the fact that we're not building. Ultimately it's about having a mindset to build. But instead [in places like Newham] we're saying we'll clear a few houses and by relieving these tenancies we'll buy ourselves some time.

EY: And yet we did get to a certain point with the Regional Development Agencies (RDAs) and their top-down approach. In Milton Keynes, for example, they'd got to the point where people had grumblingly accepted that there were going to have to be 400 new houses in this village, and then the RDA and all their targets were abolished.

AW: If you look at India or China you can see the way they build – fantastically, dynamically, productively. But they've made policy decisions that we wouldn't want to emulate.

BRAND LONDON

When viewed in the context of its overseas rivals, a braver, more dynamic approach to development could well provide an answer to London's predicament. In the coming years, the city will need to attract investment in an increasingly competitive market.

JB: In the next decade the world will crystallise. It will become more extreme in an accelerated fashion. There'll be megacities, which will be immune from what's happening elsewhere. There'll be fewer of them. And they'll become like a global league table.

SH: What do you mean by that?

JB: These megacities will be where all the brands will want to play, where all the commerce will start to play. This past year has been the salient year, because for the first time, when that child was born in India taking the population to seven billion, the world became urban. It's no longer rural. So now things will commoditise quicker than ever, technology will happen quicker than ever. If Apple computers were a country they'd be the ninth richest in the world. These are extraordinary changes and I think that, travelling round the world, you realise that London is extremely complacent and unsure of itself in that league table.

EY: Does it need to be in a league table?

JB: Yes, I think that Frankfurt, say, will steal all of the financial services from London in the next decade unless it starts to play properly as a global player.

EY: Well maybe not Frankfurt. Somewhere else!

JB: I agree with what Austin said earlier that there's a nervousness about how we innovate in this country. If you look at all the *grands projets* happening in Paris and elsewhere, there's a way that other countries go about creating cities that just isn't present in London. I think we're bogged down by bureaucracy and insecurity, and I think that things will eventually overtake us.

NH: I agree. You've got this problem that if you're a major bank and you want to put 20,000 employees at Canary Wharf, you need to know that there'll be 20,000 homes for them to live in. This is the crisis. If you're a major player, you're going to be looking globally at what's affordable. And eventually, if we're not building enough houses in London, it's going to be too expensive even for the banks.

AW: Well is the Thames Gateway the answer to the problem? The Thames Gateway is two thirds the size of London. Build a new city there and you'll solve the problem. But it isn't happening. They're just plugging any new development into the Bazalgette sewage system. They're not even investing in decent infrastructure.

OR: You mentioned a very important word there, Austin, which is Bazalgette. When the Victorians had 'great stinks' outside Parliament, they decided to invest in whatever it took to make the sewage system work. But we just don't understand now what infrastructure is in this country. We do it half-heartedly.

TM: I think you [in the UK] have a better understanding than most. Here you're much more focused on it than in the Sates. Our infrastructure there is crumbling.

OR: The Germans have a much more interesting view on infrastructure. It's properly funded, and whether that's because the country was completely destroyed ...

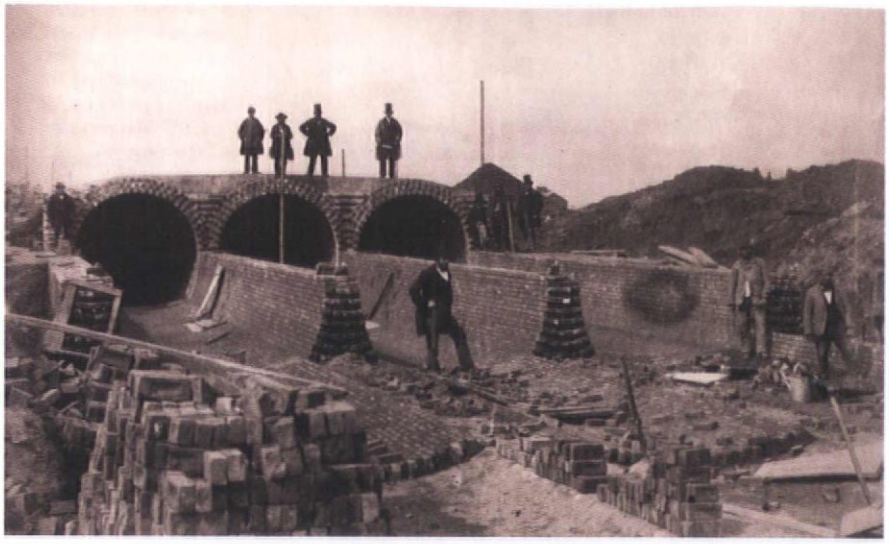
SH: It comes down to the national cultural psyche, how we choose to live. The beauty about London is that it's always been a mongrel city. People want to live here because it's culturally and liberally tolerant. People feel safe here, they mix. Whereas places like Frankfurt, while on a financial footing there might be benefits, are just not socially tolerant. That's why I don't think Frankfurt will ever take the financial services from London. It's not culturally tolerant.

COMPLEXITY AND CONTRADICTION

It seems then that London's future growth is subject to a series of conflicting issues – on the one side a desire to retain

4. The 1,100-mile sewerage system implemented by Joseph Bazalgette in the 1870s is the mainstay of London's 21st-century sewers. Today's investment in infrastructure is lamentable
5. Beijing differs from London in that it just creates more space to build when it needs it, an option not open to London

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5



> ‘There’s a nervousness about how we innovate in this country. If you look at all the *grands projets* in Paris and elsewhere, there’s a way that other countries go about creating cities that just isn’t present in London. We’re bogged down by bureaucracy and insecurity, things will eventually overtake us’
>
> **JULIAN BAKER**

the city’s energy, spontaneity and social tolerance (many of which characteristics define its global identity), and on the other the very real commercial pressure for it to remain competitive internationally, adaptable to changing work and life styles, and a good place to invest.

BS: We’ve got a long way to go before we really understand what a city is. We haven’t grasped the fact that it’s a complex system. We’re only just beginning to realise that it’s not just about living and working, it’s about a deeply complex system.

MT: If you go into the detail of what makes a great city, then that debate could last a lifetime. But actually, in terms of designing a flat pack city, a thing that you just unbolt, it’s not that complicated, is it? A bit of work, some leisure and some living, in certain proportions.

BS: I’d argue that it’s a lot more complex than that. It’s got to do with health, wellbeing, systems of living, culture. The way we’re living our lives is much more complex than it used to be.

TM: But do you think it needs to be planned or is it just organic? If you look back a thousand years, they were building these great cities, but I don’t think people were sitting there with a complicated matrix. People meet each other’s needs when they come together.

RH: I don’t think those kinds of cities exist any more. The stuff you learn about how cities grow around a central business district and so on. I don’t think lessons have been learned from that basic knowledge. Beijing grows because it just creates more space. It creates another ring of development and another, but London can’t do that.

AW: I don’t think you should over-fetishise complexity. I agree cities are complex, human beings are complex, life’s complex, but ultimately I think you should just make a start because otherwise you’re just falling into the precautionary principle of risk aversion, of not being able to know enough. I think you just have to jump in.

VISIONARIES WANTED

With London’s pressing residential and commercial needs in mind, who should hold the vision, then, for how the city develops in the future? The fact that the custodianship of the city’s future development is shared between a number of agencies and individuals could well be holding the capital back on the global stage. Our guests had strong views on the value of a single vision, and whether that could be truly effective in decision making about how the city will grow. And the discussion also turned once again to whether a more authoritarian approach is really acceptable.

SH: It’s about someone having a vision. Not only to think about what’s right for the city, but also with the confidence to bring people along with them.

JM: Paris wasn’t built on the basis of a shared vision. Apple definitely wasn’t a shared vision.

EY: So who’s the boss in London?

MT: And can the Mayor make a difference?

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8



6. Jubilant Berliners. The vision of politicians led to the fall of the Berlin Wall, paving the way for German reunification, formally concluded on 3 October 1990
7. Recladding of Millennium Bridge House in London by ORMS for the Carlyle Group
8. Reuse of buildings at 1 and 2 Stephen Street, central London, by ORMS for Derwent London

Photographs
1 Paul Hardy/Corbis
2 Universal History Archive
3 Adam Parker
4 Otto Herschan/Getty Images
5 George Hammerstein/Corbis
6 Regis Bossu/Sygma/Corbis

SH: President Mitterrand was a visionary in terms of what he wanted to do to Paris – albeit that it was probably more about his own legacy. And think about Berlin, how much that has changed since the Wall came down. They had a vision about how they wanted it to change, how they wanted to stitch two cultures together.

AW: I think you have to be very careful of the social implications of arguing for strong leadership. In Hong Kong, for example, there seems to be a sneaky regard for authoritarian decision making. Ultimately it's not who leads as an individual, it's how you tackle social and cultural malaise. It's not just Boris [Johnson], or David Cameron, or whoever – we've all got a sense of what we want the world to be.

BS: One of the reasons for that might be that the function of a vision has changed. Traditionally you could literally visualise an image of the future and all gather round it and say 'yes, that's what we want.' But we're too smart now, so it isn't happening. What we ought to be shifting towards is an understanding of the standards for how cities grow organically. And get that right, and then let it happen. Rather than trying to predict the future and then forcing that vision to happen.

AW: I slightly disagree with what you say about the past, in that we all had this vision and we'd gather round it, worshipping at the altar of Modernism. What really happened was that there was a big argument and some people didn't agree. There was a robust discussion.

BS: I was going much further back than Modernism. It's about the way that cities have been visualised. Maybe we should question driving the plan for a city through, and try much more to understand it as a system in itself, a system that has certain rules.

MT: If you don't understand it, you might make a mistake – but so what?

BS: I'm saying that rather than constantly trying to erase or adapt or force a vision that was never going to work in the first place, you approach the task in a way that's truly organic, truly adaptable and flexible. You need to plan these things.

Demographically speaking, the challenges facing London are enormous. The requirements for affordable housing in particular are a disincentive to developers, who could perhaps be supporting the building of new social housing and infrastructure more favourably through taxation. While our guests were, by and large, in favour of a mix of uses across the city rather than a more formal zoning, all agreed that the current planning context is at best limiting and at worst a stranglehold on London's future competitiveness on the world stage. Political and financial ambition, it seems, are stronger impulses to build in the 21st century than any philanthropic intention.

The debate continues as to whether the best way for London to grow is by gaining a thorough understanding of it as a complex organic network or whether we should just allow things to happen according to the checks and balances of capitalism. There were wide-ranging views on whether strong – even authoritarian – leadership could effectively set out a vision for the city's future. And how indeed that vision might look and function in contemporary London.

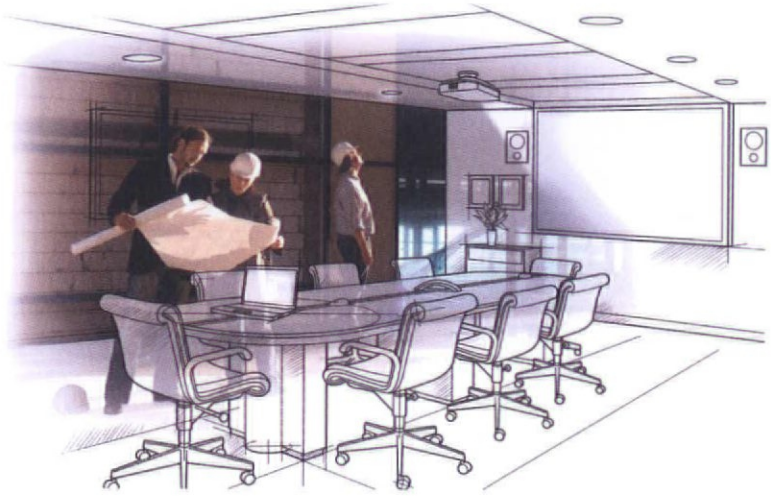
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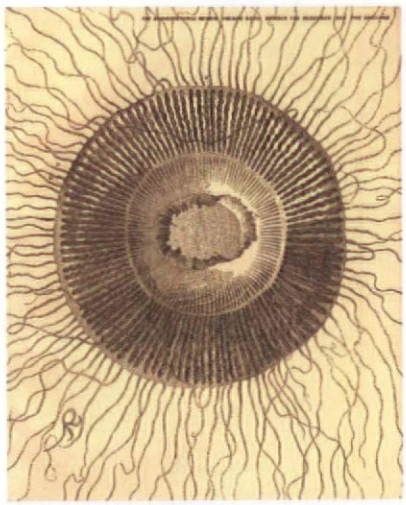
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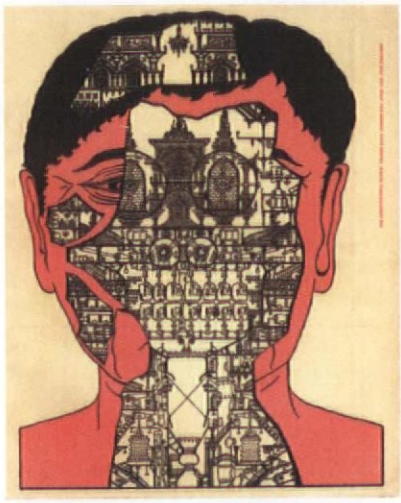
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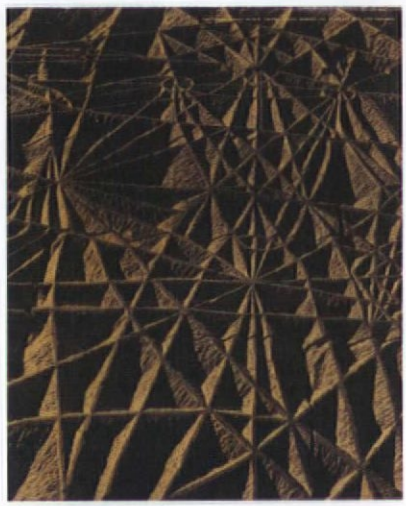
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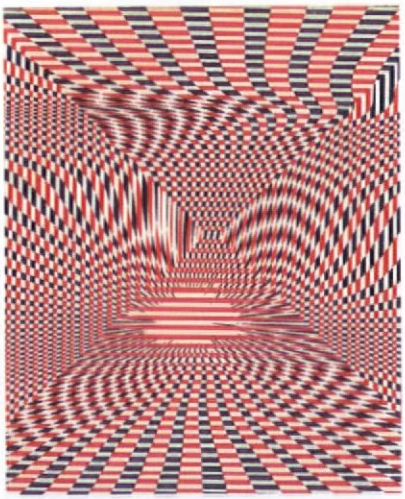
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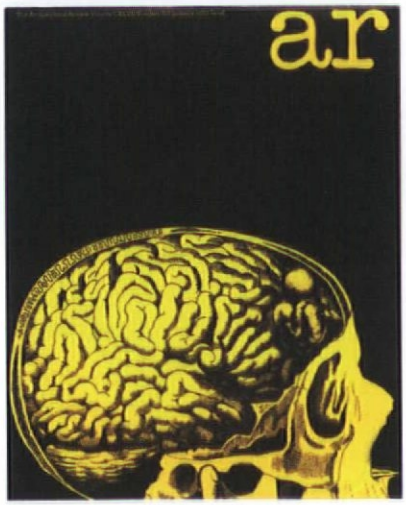


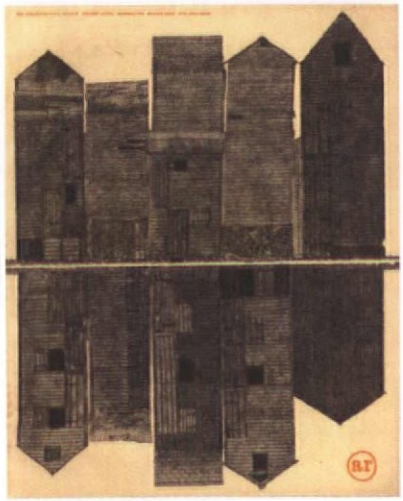


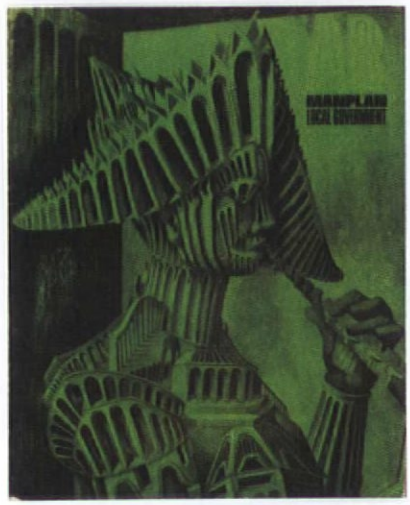






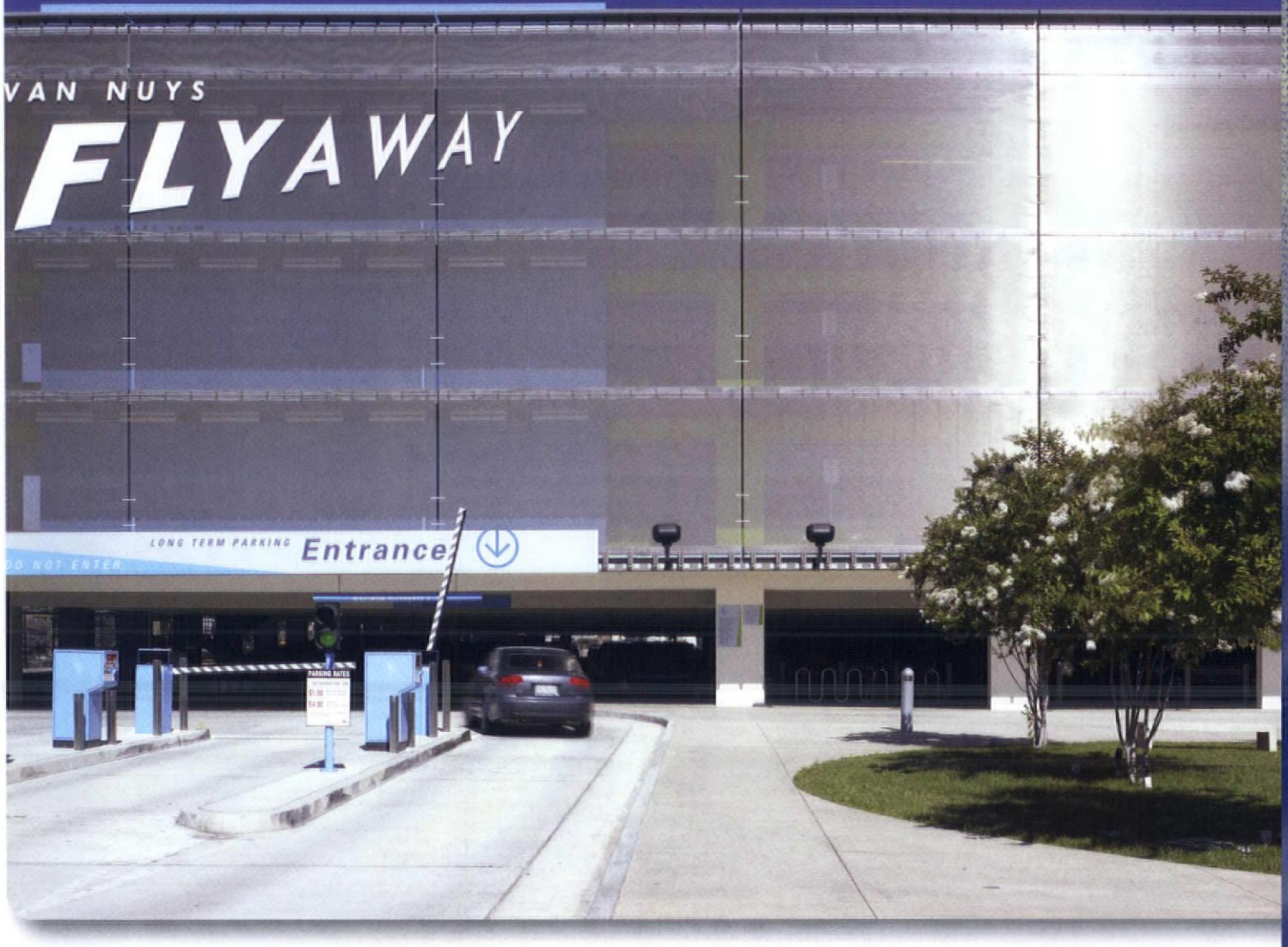






At this year's Venice Biennale, an exhibition by Steve Parnell examined the battleground of ideas in the 20th century between four influential architectural journals: *Domus*, *Casabella*, *Architectural Design* and the AR. On this month's cover and on this page are a collection of 10 enigmatic covers from our back catalogue, which were featured in the installation. Top row: December 1959; April 1968; February 1963. Middle row: December 1965; April 1969; November 1969. Bottom row: January 1970; March 1962; July 1970.

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