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The Architectural Review
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Handcraft Paper,
Xinzhuan, Yunnan
Province, China
by TAO on page 30
Photograph:
Shu He

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'Pancho Guedes is the most creative person I have ever met'
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Andrew Ayers is the author of *The Architecture of Paris*. He is fondly (though informally) known at the AR offices as our French Social Housing Correspondent. In this issue he comments on the latest social housing in Nantes, France

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Roberto Bottazzi is a tutor at the Royal College of Art in London, where this year his studio is exploring the potential of urban agriculture. Here he critiques Rachel Armstrong's *Living Architecture*, which envisages the city of the future behaving more like an ecosystem than a machine

Peter Buchanan continues to expound on the *The Big Rethink* using Integral theory to expand our understanding of the purposes of architecture

David Cohn is an architecture critic and writer based in Madrid and frequent contributor to these pages. In the *Buildings* section he pens an in-depth study of the El Batel Auditorium by Selgas Cano

William JR Curtis writes regularly on Spain. In this issue he pays tribute to his friend, the Spanish architect Luis Moreno Mansilla, who died recently

Andrew Dawes worked for many years in the Netherlands under Herman Hertzberger and Claus & Kaan before setting up his own practice, Zoda Architects. Also a tutor at London South Bank University, here he critiques Mecanoo's Maritime and Beachcombing Museum in Texel

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Dennis Gilbert shot Selgas Cano's auditorium complex in Cartagena, Spain. He is an eminent photographer who in 2005 was awarded an RIBA honorary fellowship for his distinguished contribution to architecture

Jonathan Glancey recently left the *Guardian* after 15 years as the newspaper's architecture critic. Author of many books, including *Nigel Coates: Body Buildings and City Scapes*, he is perfectly placed to dissect Coates' *Narrative Architecture* for the *Reviews* pages

Jon Goodburn is senior architectural lecturer at the University of Westminster and director of the Working Architecture Group. He writes this month's *Broader View* on the influential and diverse work of anthropologist Gregory Bateson, a subject he delved into for his PhD

Rob Gregory made two special issues on Japan while AR Assistant Editor, and this month he reports on Toda House in Hiroshima by Kimihiko Okada. Now AR Associate Editor, Rob is also programme director for the Architecture Centre, Bristol

Brian Hatton is a lecturer at the Architectural Association in London and co-author of *A Guide to Ecstasy* with Nigel Coates. This month he reviews a new book on the cult of starchitecture

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Andrew Mead is a London-based writer on architecture and the arts, and is fondly (though informally) known at the AR offices as our Teutonic Photography Correspondent. In this issue he reviews a book on German photographer Hans-Christian Schink, whose striking images capture the tension between nature and culture

Ben Newman is a British illustrator who created the portrayal of Pancho Guedes for this month's *Reputations*, which was written by Peter Cook. By neat coincidence, Newman took part in 75 PETERS, an art project of specially-commissioned portraits of Cook made to celebrate his birthday

Alan Powers is an author, lecturer and editor of the journal *Twentieth Century Architecture*. As an expert in architectural preservation he reviews the many interpretations of 'green' in a new exhibition at the Garden Museum in London

Christian Richters studied at German art school Folkwangschule and is now a freelance architectural photographer known for his coolly constructed images. He has photographed Mecanoo's Texel Museum in the Netherlands

Georgina Ward is a recent graduate from the Bartlett School of Architecture and the AR's Internship Programme. She is currently working at John McAslan & Partners. Here she makes a written and drawn study of the Old Town of Damascus

Michael Webb is an architectural writer and critic based in Los Angeles. For this issue he jumped at the chance to interview Wang Shu, while the 2012 Pritzker Prize-winner was passing through LA

Austin Williams is an architectural lecturer at Xi'an Jiaotong-Liverpool University in China. This month he writes on TAO's Museum of Handcraft Paper, which nestles under Gaoligong Mountain of Yunnan in China

Ellis Woodman is Executive Editor of *Building Design*, the weekly architectural newspaper, where for the last decade he has carved a reputation in Britain as the leading architecture critic of his generation. Woodman curated the British Pavilion at the Venice Biennale in 2008. He is also the architecture correspondent of the *Telegraph* newspaper, and this month the AR is delighted to welcome Ellis as our new columnist

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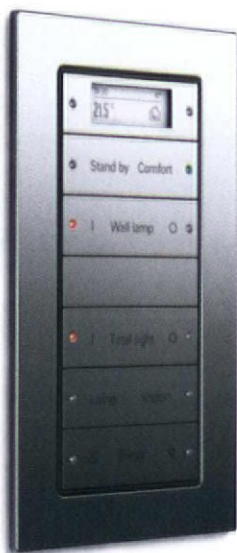
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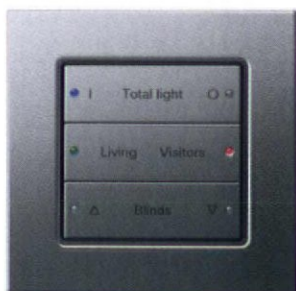
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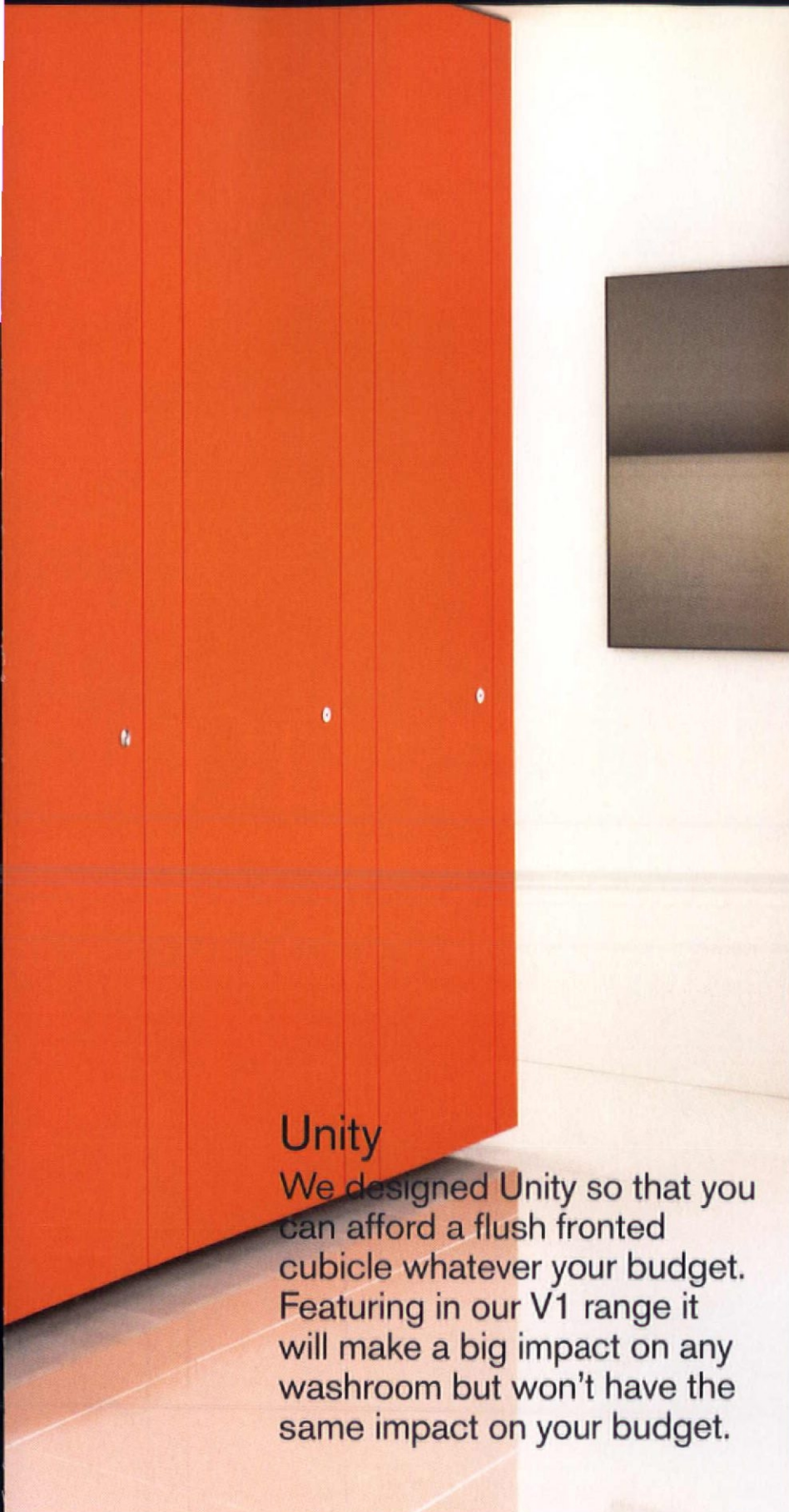
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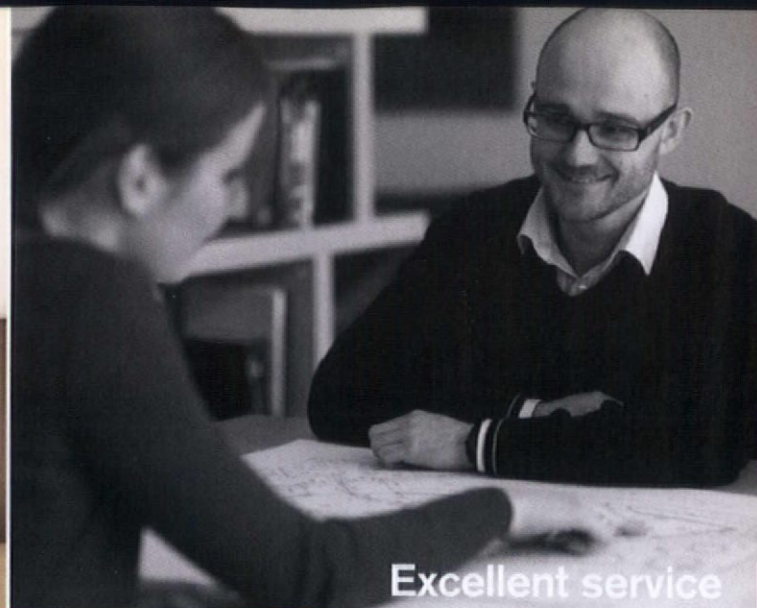
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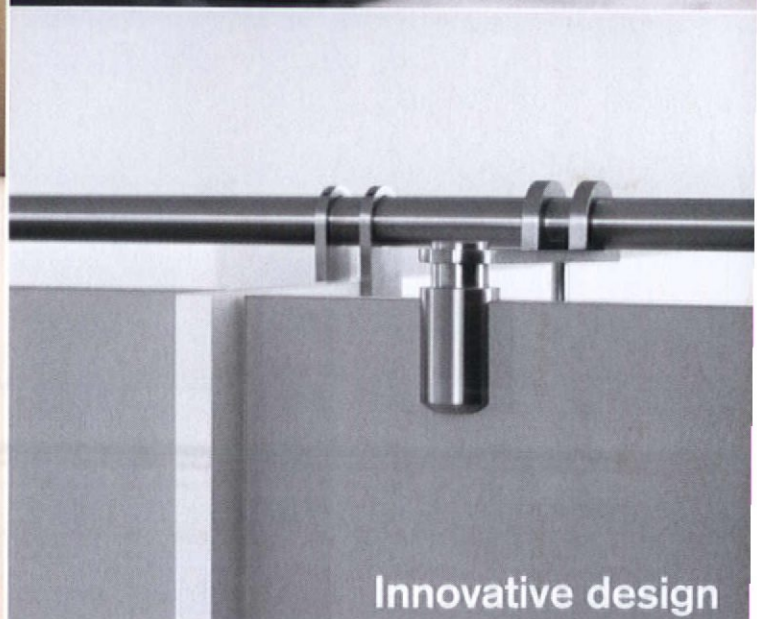


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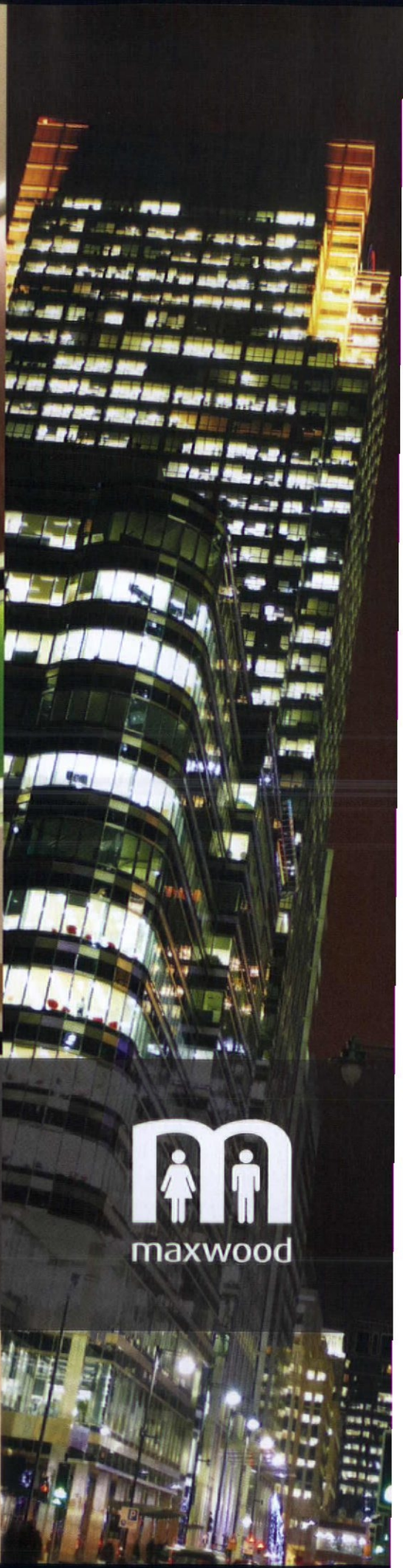
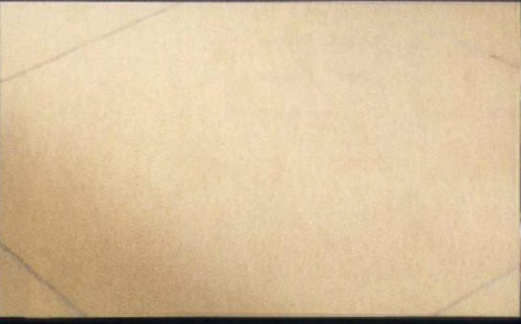
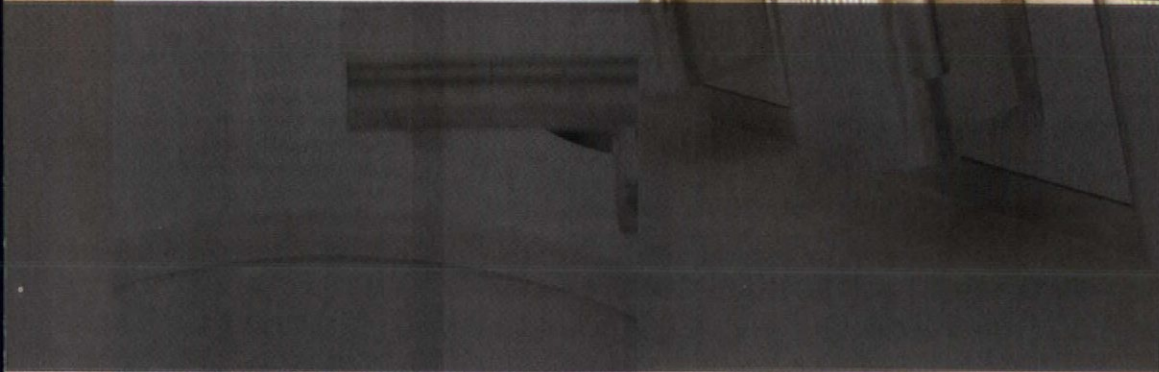
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AR House celebrates this wellspring of creativity with a

major award of £10,000 for the design of the best one-off house. All projects must be built. There is no age limit. Entries will be judged by an international jury, including Sofia von Ellrichshausen (Chile) and Peter Salter (UK), chaired by Catherine Slessor, AR Editor. Entry deadline is 27 April.

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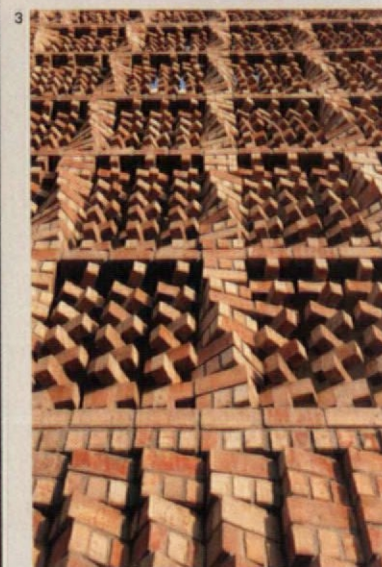
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AR Products



Due to be presented in Vienna in early May, the Wienerberger Brick Award is now in its fifth cycle. Through this biannual award, leading brick and paver manufacturer Wienerberger recognises outstanding international examples of modern brick architecture. The award has five categories, and judging criteria include innovative exterior design and skilful use of brick, together with functionality, sustainability and energy efficiency. This year's winners will be assessed by a jury consisting of architects Plamen Bratkov (Bulgaria), Rudolf Finsterwalder (Germany), Hrvoje Hrabak (Croatia), John Foldbjerg Lassen (Denmark) and Zhang Lei (China).

Examples of globally outstanding buildings using clay products were submitted by international architecture critics and journalists. The worldwide research conducted by these

architecture 'scouts' helped Wienerberger to identify brick buildings designed to make a lasting impression. Projects range from building with standard wall and facade bricks, to the creative use of roof tiles and clay pavers. Special attention is paid to how the building blends into its surroundings as well as to the form, aesthetics and general quality of the architecture.

The prize has been awarded every two years since 2004 and the 2012 Gala will take place in Vienna City Hall on 3 May. A total of 50 projects from 28 countries and five continents have been nominated for this year's award, which is endowed with a total of €27,000 in prize money. An accompanying book *Brick 12*, published by Callwey, will feature all the nominated and award-winning projects.

'With the Wienerberger Brick Award, we want to cast a

spotlight on how innovative and versatile brick can be when used as a construction material in architecture today,' says Heimo Scheuch, CEO of Wienerberger. 'Especially in contemporary, forward-looking architecture, the choice of material plays an increasingly important role. Brick is not just timeless and innovative, it also is a durable and environmentally-friendly material that makes an important contribution to energy-efficient building.'

With 232 plants in 27 countries, Wienerberger is the world's largest brick producer and the largest roof tile manufacturer in Europe, as well as market leader in concrete pavers in Central and Eastern Europe. Founded in 1819, the publicly listed company employs some 12,000 people worldwide.

For more information visit wienerberger.com and brick10.com

1. The new State Forum and Parliament Building for the Principality of Liechtenstein, by Hansjörg Göritz Architecture Studio, overall winner of the Wienerberger Brick Award 2010 which celebrates innovation in the use of brick in architecture

2. The Morjan-Poeten family house by Nikolaus Bienefeld which was awarded third prize

3. External wall detail from the South Asian Human Rights Documentation Centre in New Delhi by Anagram Architects which took second prize. There are 50 entries for the 2012 Wienerberger Brick Award which will be presented in Vienna in early May

Editorial view

If we are to reconceptualise architecture, we need to re-evaluate what sort of lives we want to lead

What are the true purposes of architecture? And how can we reconceptualise our understanding of these purposes to give greater meaning to our lives? Architecture, the self-styled 'mother of the arts', occupies a curious yet crucial position in human history and consciousness. In effect, it is the most resonant manifestation of what it really means to be human, embodying how we conduct our relationships with each other and the planet. Architecture crystallises the essence of human civilisation in ways that art, literature, music and science do not. The archaeological remains of Egypt, Greece and Rome poignantly illuminate the lives of its long dead citizens. And over the centuries, architecture has been a bellwether of the human condition, an evolving expression of the political, social and cultural spirit of the age. Today, it still gives physical structure and colour to our existence; each of us can doubtless summon up a personal chronology of particular buildings and places that have orchestrated a lifetime of experiences.

Yet architecture's ubiquity is also problematic. 'Our relationships with it are so intimate, so fundamental, as the settings for our lives, that we do not register fully how much they sustain and shape us', as Peter Buchanan observes in this month's *Big Rethink* (p75). And in common with many aspects of modern civilisation, in the confusing aftermath of the modern and postmodern eras, architecture's relationship with humanity has become fatally distorted, its

enriching sense of purpose lost. This has led to fragmentation, anomie and the rise of junk architecture, a reflection of our ever more dislocated and junk lives.

But how to redress the balance? In seeking to restore architecture's relationship with human culture, we must look deeper and redefine what it is to be human and what sort of lives we want to lead. Only when we know who we want to be can we begin to conceive of what our environment might be.

'Redefining who we want to be, as well as regenerating our culture and redesigning our environment to help bring this about, is probably the most urgent, epic and exciting challenge of our times,' argues Buchanan. This takes conventional notions of sustainability beyond objective technical performance and into the realms of being able to cultivate a subjective connection with humanity and the wider cosmos.

Architecture then ceases to be about frivolous self-expression and the vacuous quest for 'new' forms or fashionable theories that currently preoccupy many practitioners. Instead, it becomes a way of participating in the 'constant creative emergence that is evolution – natural, cultural and personal'. Rather than taming nature, we act in concert with it, drawing on its 'purposely designed culture' while nurturing deeper understandings through research, analysis and intuition. In this way we can expand the world of human possibility and finally give true meaning to what it is to be fully human.

Catherine Slessor, Editor

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Functional design or an expressive art form? Building technology or scientific reflection? Working in the Architectural and Urban Design and Engineering (AUDE) unit of the Department of the Built Environment at Eindhoven University of Technology offers a lot of challenges. We place architectural design in a broader context. Today, that's more important than ever. But as well as that, the design process deserves a sound theoretical base. Creativity and technology also belong together. In our education, design and (design-related) research are inseparably linked.

The Architectural Design and Engineering chair in the AUDE unit focuses on education and research relating to built objects. The challenge is to find the right balance between functional and technical characteristics and the expressive art form. Societal developments are leading to a shift from new building to the re-use and transformation of what we already have. Sustainability and energy-saving are urgent issues. Building components from the supply chain have a significant - and not always positive - influence on design. Just as the culture of design in the outside world focuses on topical themes like these, the same applies to our academic agenda.

Do you have a clear vision on these issues? And can you handle setting up a logical, well thought out educational program? Can you work with your team to start a research line focusing on architecture and building technology? Do you have a demonstrable affinity with both design practice and scientific research? Then you may well be the architect we're looking for!

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Overview

PRITZKER PRIZE

A message to China

Wang Shu, the Chinese recipient of the 2012 Pritzker Architecture Prize, is a champion of architectural heritage in a country that has erased much of its built past, says *Michael Webb*



Ningbo Museum, Yinzhou, Ningbo, China (AR March 2010) designed by Wang Shu, surprise winner of this year's Pritzker Prize

One of the earliest Pritzker laureates was IM Pei, who left China to study and work in the US, and returned at age 88 to create a museum in Suzhou (AR October 2007), the city of classic gardens where his family had lived for nine centuries. His building drew on the rich heritage of Chinese architecture, and now the Pritzker jury has awarded its prize to Wang Shu, an architect who champions that tradition from his base in Hangzhou. It's an inspired choice, for it lends support to a maverick who stands apart from most of his contemporaries, crafting buildings that recycle old materials and reinterpret traditional forms. The selection sends a message to the Chinese authorities and the developers they coddle: 'respect, don't erase the past'.

Very little of that past has survived the successive depredations of Mao and the new capitalists. A few landmarks are preserved, a handful of villages and old quarters have been tarted up for tourists, but nearly all the vernacular buildings have been demolished. 'From 1950 to 1980 the Chinese were brainwashed, lost confidence in their own culture and blamed it for their

poverty,' says Wang. 'The new China lacks appreciation for old things, having never learned about them. The heritage is largely lost, but there is a possibility of bridging the divide between contemporary and past times. That feeds into a widespread desire to become a more creative nation.'

It's appropriate that Wang received word of the Pritzker on his mobile phone while showing his wife and 10-year-old son the army of terracotta soldiers in the tomb of the First Emperor near Xi'an, where his parents now live. Past and present collided, reminding the architect of experiences that had shaped his life and work. He was born in 1963 in Urumqi, a city near the remote north-western frontier, and he learned to appreciate the vast sweep of the Chinese landscape as a child, on a four-day train trip to Beijing. During the Cultural Revolution, when the school his mother taught at was closed, he joined local farmers in planting vegetables in the grounds. After graduating from the Nanjing Institute of Technology he settled in Hangzhou, a city that has grown exponentially but still preserves memories of its imperial past and

the beauty of a lake surrounded by wooded mountains. He practised calligraphy and immersed himself in the world of landscape scrolls, especially of the Southern Song dynasty (1127-1279), which made Hangzhou a centre of artistic expression. In that era, he might have become a scholar, wandering in the countryside or settling in a garden villa to paint and compose poems. This idealised world of cloud-capped mountains, unpolluted streams and delicate pavilions is far removed from present-day realities. And yet, while drifting across the misty lake in a small boat, Wang can imagine he has been transported back in time.

In the 1990s, he spent seven years restoring old buildings, working hands-on for long hours with artisans and learning their skills. Friends thought he was crazy, but it laid a solid foundation for his practice. In 1997, he and his wife Lu Wenyu established the Amateur Architecture Studio, a name that expresses the love he feels for research, design and the process of building. He was already teaching at the China Academy of Art when he won the commission to design its new campus on

farmland outside the city. That gave him the opportunity to draw on his skills and memories to achieve a fusion of urbanity and nature. The Xiangshan campus (AR July 2008) comprises 21 buildings, which were built in two three-year phases. They form a linear community that embraces the natural and manmade landscape. Wang strove to capture the gestural freedom of a calligrapher's brushstrokes and the tension between the characters and the intervening spaces. Seven million tiles and bricks, salvaged from old buildings demolished in Hangzhou's race to modernise, are used as cladding or infill in boldly modelled concrete frames. Jagged openings and swooping roofs abstract traditional forms without mimicking them.

Still more abstract is the cluster of six residential towers he designed for a developer friend who was persuaded to build something radically different from the norm. It began as a collection of small neighbourhood buildings, and ended as 26-storey stacks of duplexes with gracefully curved balconies that give owners the illusion they are living in a house rather than an apartment block. As these two projects were nearing completion, Amateur were working in the port city of Ningbo, converting a riverfront factory into a municipal art gallery. Immediately after, they constructed a monumental history museum (AR March 2010) that employs the language and materials of the campus on a grander scale. The museum is on a flat site, at a good distance from other buildings, so Wang conceived the 24m-high block as a mountain, like the dominant feature of a landscape painting. In Hangzhou, he accepted a commission to reanimate a one kilometre stretch of decayed 19th-century buildings along a main street in what remains of the old city. He remodelled existing structures, narrowed the street to incorporate gathering spaces and made a small museum

that is a tiny masterpiece of craftsmanship, with its diagonally boarded walls, timber vaults and spiky tiled roof.

As a teacher, Wang is eager to embark on ambitious projects. 'Every village was once its own little city with a distinctive structure and character,' he says. 'They are being systematically destroyed to create metropolises.' He hopes to establish a branch of the Academy of Art in the countryside where his students might spend half a year collaborating on projects that upgrade infrastructure and amenities, to make rural living more appealing and stem the flight of young people.

As an architect, he prefers to work on a modest scale. 'My studio is like a small school,' he explains, 'and sometimes I give my 10 assistants time off for homework assignments, to read books on art and philosophy and watch recommended movies. I don't want them to become like workers in a factory. Life is important, too.' Wang himself was planning two years off to spend with his son, but that ambition has vanished with the attention the Pritzker is sure to bring.

OBITUARY

Luis Mansilla 1959–2012

William JR Curtis

The abrupt and unexpected death of Luis Moreno Mansilla leaves a void in Spanish architecture. All who knew him will remember his piercing intelligence, his impish sense of humour and his humility, a combination which made him an endearing colleague and a great teacher. Luis was an artist in the art of friendship who considered the other person's point of view, often replying with an enigma. In his architecture, he combined intellectual rigour with sparks of creative insight which made everything seem deceptively simple. He was always in search of the right idea for each scheme,



A major contribution: MUSAC contemporary art museum in León by Mansilla + Tuñón

and often found inspiration in unexpected places.

Luis enjoyed rules in order to transgress them. He was deeply serious but saw the value of play. These attitudes are sensed in the works achieved by him in partnership with Emilio Tuñón from 1992 onwards, after both of them left the Moneo studio. Some of these buildings will go down in history as major contributions to the discipline – one thinks for example of the MUSAC in León (2001–4) with its zigzag plan of unfolding exhibition spaces which rightly won the Mies van der Rohe Award for European Architecture in 2007. Others, less spectacular, such as the Museum of Fine Arts in Castellón (1996–2001) with its rigorous sense of order and restrained civic stance, will also deserve a place.

The work of Mansilla + Tuñón combines clarity of thought with spatial richness, modern techniques of construction with craft, individual expression with a sense of historical continuity. Taking into account human use,

context and construction, they have achieved architectural poetry through the orchestration of materials and light. In an era of facile recipes and transient dogmas, Luis the teacher will be remembered by his students both in Spain and abroad for his Socratic method which gradually revealed possibilities to each student, while also hinting at his own creative search.

When I heard the shocking news I had a flashback to all the occasions we had met, for example driving across the vast spaces of Castile-León to see the MUSAC almost completed, or admiring Aalto's own house in Helsinki with Luis's wife, Carmen Pinart the painter, and with Emilio his partner: always the same curiosity about everything from door handles to the architect's philosophical position, always the same penetrating questions and humorous remarks, always that same knowing and enigmatic smile.

First published in the Spanish newspaper El País, 25 February

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Broader view

An ecology of mind

In the 20th century, the diverse work of Gregory Bateson was hugely influential in many fields. Now his thinking and writing could offer an essential guide to the future of architecture and urbanism, argues
Jon Goodbun

The anthropologist, cyberneticist and ecologist Gregory Bateson (1904-80) observed that matter (what things are made of) and pattern (how they are organised) have tended to be treated as distinct disciplinary areas of study within the dominant traditions of Western thought. For him, the pattern/matter dualism represented one version of a deep conceptual structure which can be found in other iterations, such as form/substance, mind/matter and culture/nature.

A similar dualism structures our concepts and experience of architecture: we perceive built space as bodily experience and conceive it, abstractly, in the form of symbolic and iconographic languages, and various kinds of cognitive mappings. Moreover, we find a similar distinction in the very division of labour that underlies modern building production: it is typically conceived as a mental practice, an immaterial labour that informs the matter of the world through the embodied material labour of builders. Following feminist theory 'pattern' (or 'form') is often viewed as the privileged side of the pairing, one that is deeply structured and indeed gendered within our language: pattern comes from the Latin *pater*, meaning father, while the word matter derives from the Latin *mater*, meaning mother.

It is often stated that a mechanistic, deterministic and reductive materialism took hold of Western thought at some point during the industrial revolution. There is much truth to that, although other very different and often non-dualistic cosmological models were also active throughout the enlightenment. Since the mid-19th century the sciences themselves have suggested new conceptions of matter and life, often less concerned with the search for fundamental parts than with the relational systemic processes that are active in the world. Throughout the 20th century a

series of attempts were made to explore new ways to describe the relation between matter, life, the self and mind in general – interests that continue to animate much interdisciplinary work today.

Bateson was in some sense present at the end of one scientific worldview and at the emergence of another, and reflecting upon his work reveals opportunities and tasks not yet taken on. His thinking is also directly and indirectly relevant to current architectural concerns. He moved across disciplinary boundaries in his study of how organised systems – mental, social, biological and ecological – evolve, change and learn. He started his career in biology, but shifted into anthropology in the 1930s, working with Margaret Mead. They were key participants in the seminal Macy cybernetics conferences, which produced the staggeringly influential work that forms the foundation of much of today's thinking around complexity, ecology, computation and cognition.

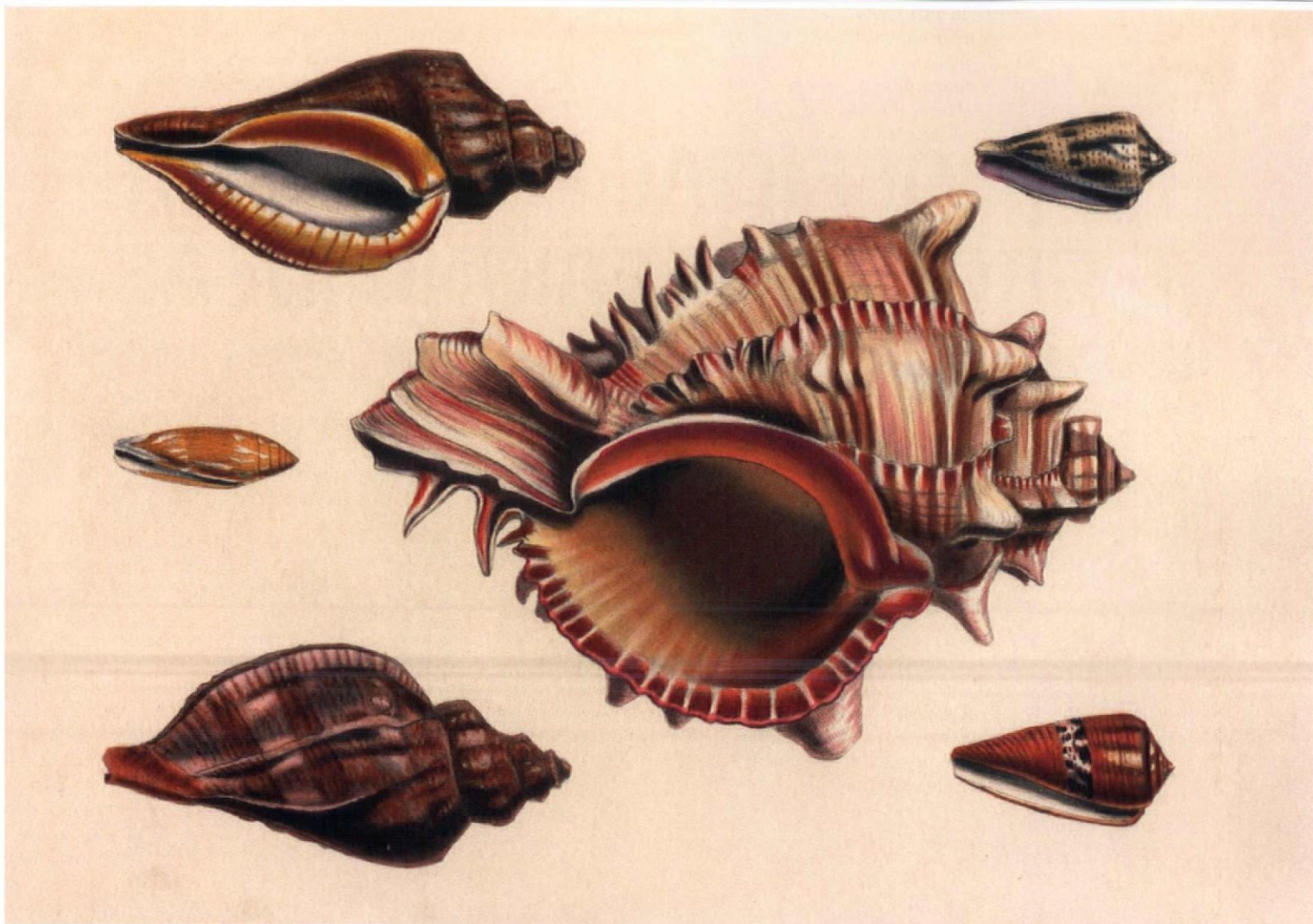
After Macy, Bateson went on an extraordinary intellectual journey, inspiring much of the anti-psychiatry movement (notably RD Laing and Felix Guattari), and later inspired Guattari's work with Gilles Deleuze; he mentored Richard Bandler and John Grinder as they founded neuro-linguistic programming (NLP). He came to consider all complex material systems as immanently language-like, or even mind-like, insofar as they respond to differences in their environment. He called this approach 'an ecology of mind', an attempt to move beyond the dualism that had, he argued, resulted in worldviews that were either 'excessively materialistic' or 'totally supernatural'.

Bateson's project was in fact a radical re-imagining of what ecology might be. Instead of a science concerned with controlling complex systems, he led a radical tendency among some cybernetic theorists who

argued that the very insights of systems thinking and the sciences of complexity showed that control was often neither possible nor desirable. In a short but incisive text Bateson outlined possibilities of an ecological urbanism, arguing that cities needed to be understood as complex systems that could not be fully understood through concepts such as efficiency or indeed quantitative systemic management. He argued for a planning approach that built in over-capacity and redundancy, as this would ensure the most open future social potential, and most adaptive relationship with non-human ecologies.

More generally, Bateson developed an idea around ecological aesthetics which brought together in a new way thinking about form and living matter. He argued for a new kind of science built upon relationships rather than just objects, and articulated through an explicit (rather than unacknowledged) aesthetic use of metaphorical systems in reasoning about our relation to the world. At the same time, Bateson argued for a completely different conception of what the human self is, stating that 'the total self-corrective unit which ... "thinks", "acts" and "decides", is a system whose boundaries do not at all coincide with the boundaries either of the body or of what is popularly called the "self" or "consciousness"'. Ultimately for Bateson the human self can only be understood as an ecological phenomenon, both embodied and moreover extended into its environment, and his thinking resonates with more recent concepts such as Richard Dawkins' notion of extended phenotypes (which argues that the structures that organisms build are extensions of their bodies).

Bateson's teaching and research methods ultimately focused on exploring aesthetics as a means of building a new scientific method. Bateson would



Gregory Bateson asked his students to look at a range of sea shells as if they had never seen them before and convince him 'that these objects are the remains of living things'

present the students with crab, lobster and conch shells, asking them to imagine that none of them had seen one of these before, and to proceed to 'produce arguments that will convince me that these objects are the remains of living things'. It is a fascinating challenge. There is of course no simple, correct answer, but the discussion involves recognising patterns and structures, and speculating what processes and relations they might have internalised and networked in space and in time. Referring to this in his final book *Mind and Nature* (1979), Bateson ultimately asks: 'What pattern connects the crab to the lobster and the orchid to the

primrose and all four of them to me? And me to you?'

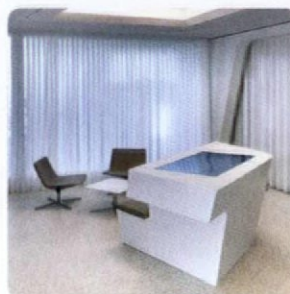
Bateson became increasingly involved in the environmental movement, arguing that the emerging environmental crisis was in no small way the result of an imaginative failure to correctly see how human relations are embedded within a broader web of life. His approach often suggested a very different set of priorities to narrowly defined conceptions of sustainability, and perhaps primarily suggests a new kind of architectural knowledge based upon a study of spatial relations rather than commodity objects. He wrote that 'you decide that you want to get rid of the by-products of human

life and that Lake Erie will be a good place to put them. You forget that the eco-mental system called Lake Erie is a part of your wider eco-mental system – and that if Lake Erie is driven insane, its insanity is incorporated in the larger system of your thought and experience.'

Bateson can be criticised for failing to sufficiently acknowledge the more direct economic and social ecologies that also shape our minds and bodies, and this is one area I see where his work can be developed today. Equally, by ultimately privileging mind, he never fully escaped the dualism that he was so cautious of, although as Tim Ingold has recently suggested, we might

today usefully think of Bateson's conception of mind as a description of 'the cutting edge of the life process itself', charting life's 'creative advance into novelty'. It is in fact in this respect that I think we would find Bateson speaking a word of warning to the recent call in these pages for 'a complete architecture'. For Bateson, to be 'complete' or 'whole' is an illusory aim, whether as a profession or contemporary individual, as to be really whole we must include a radical incompleteness and openness to the future, and must in fact, explore modernity. This today, would I think be a Batesonian answer to what we are and might be.

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Nuuk's picturesque facades give little sense of Greenland's wider social and economic challenges

Nuuk, Greenland

Striving to reconcile tradition with progress, Greenland's capital is experiencing a dire housing shortage which looks set to intensify, reports *David A Garcia*

A colony of Denmark from 1721 to 1953, Greenland now has self-rule and self-governing status (since a referendum in 2009), and administers its own territory and resources. But on the world's largest island, land ownership is complex and unorthodox.

All land is owned by Greenlandic municipalities and leased for private or commercial purposes when required. However, only the foundations and any above-ground construction are owned by the lessee; the land below it is not.

This results in an urban landscape devoid of fences and walls. Housing and public buildings populate the landscape as if dropped from the sky. There is a minimum distance of 10 metres between buildings for fire safety, but otherwise towns and hamlets have grown organically. Access to the coast and the impact of local topography are the key design determinants. Stepping out of your front door means, literally, stepping into public space.

Most Greenlandic housing takes the form of archetypal, gable-roofed timber dwellings. Almost exclusively clad in timber due to the combined effects of tradition, malleability and a long established supply line from Denmark, most buildings have weathered well. Colourful facades are still common, but originally had a more pragmatic purpose, communicating a settlement's

functions over long distances to passing fishermen. Supply stores, churches and schools were painted red, hospitals yellow and municipal buildings blue. This chromatic code took another twist during the Second World War, when another layer of information was added. A number and letter combination known only to the Allies were painted on rooftops in order to identify a particular settlement from the air while confusing enemy aircraft.

Nuuk, the administrative capital, has some exceptions to the tradition of gabled houses. In the late '60s, Block P was erected as part of the Danish government's strategy of decanting Greenlanders from fishing villages into 'modern' housing schemes. A 200m-long concrete block with 320 apartments, at one time Block P housed one per cent of Greenland's population. It was the envy of many hoping for better accommodation, but it proved a major disaster. Doors were often not wide enough to enter while wearing full winter attire, closet space was minimal, and all hunting and fishing gear ended up hanging from windows or balconies. Blood and fish guts regularly clogged the drainage system, since the only place to carve up fish was the bathtub. Block P is now scheduled for demolition. Architecturally and culturally misconceived, it is not the only example of inappropriate

design imposed from a distance.

With a population of just over 56,000 inhabiting the world's largest island, Greenland is the least dense nation on the planet, yet lack of housing is endemic. The current demand for housing in Nuuk, with a population of just over 15,000, has generated waiting lists of up to 17 years. If plots, flats and allotments are contested by several claims, ownership is decided by lottery; unbelievably, a national policy.

This lack of housing is largely due to lack of investment. It is prohibitively expensive to build in Greenland, all construction materials have to be imported and no attempt has been made to challenge or explore alternative ways of building here. Granite is abundant but too brittle for construction purposes, so it is still cheaper to build in Denmark (or even China) and transport the end result to Greenland than to build locally.

As the search for mineral resources (iron, uranium and rare-earth metals) intensifies, Greenland is facing an industrial and social revolution. Inward migration is set to explode, increasing pressure on a society that can barely accommodate its own population. Despite its growing importance in the 'Wild North' group of circumpolar nations, Greenland still finds itself uncomfortably skewed between centuries of tradition and Western economic ambitions.

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ELLIS WOODMAN

Though small, the Flemish architecture scene is the envy of Europe: but for how much longer?

On 6 December last year Belgium finally formed a government – a six-party coalition, headed by the socialist, Elio Di Rupo – having gone without one for a record-breaking 589 days. Months of talks between the country's highly balkanised political classes had made little progress, but after Belgium's credit rating was downgraded by Standard and Poor's in November, a sense of urgency was finally accepted by all. Di Rupo's administration is now setting in place the kind of austerity measures that most governments in the West began to impose two years ago. The irony of the situation is that, during its holiday from government, the country's economy did notably better than most. Quarterly GDP data for the end of 2011 identified Belgium as enjoying 0.7 per cent growth – a figure that compared with 0.2 for the UK, 0.3 for the US and a particularly alarming zero for France. Sceptics of the slash and burn approach being adopted to tackle the world's economic woes regularly cite Belgium's prolonged prosperity.

For architecture enthusiasts, the prospect of Belgium's imminent belt-tightening represents particularly bleak news as over the past decade, the Dutch speaking part of the country, Flanders, has established itself as home to one of the most progressive architectural cultures in the world. I am currently experiencing this at first hand, having been recruited to the international jury that is selecting projects for inclusion in the latest edition of the biannual Flemish

Architecture Institute yearbook. As a British critic, contending with the marked contraction in the number of buildings – architecturally ambitious or otherwise – being completed in the UK, it has been galling to witness such a wealth of production. Although the population of Flanders stands at just over six million, this year's yearbook received over 350 submissions, of a mean standard with which precious few countries could compete.

This is testament to the fact that – as with Japan in the 1950s or Switzerland in the '90s – Flanders happens to have produced a world class generation of architects in the past decade, in the shape of such practices as de Vylder Vinck Taillieu, 51N4e, Office Kersten Geers David van Severen and Huiswerk. However, these sudden outbreaks of talent are never quite as unpredictable as they at first appear and in the case of Flanders it is certainly significant that the current generation is the first to have emerged since the 1993 redraft of Belgium's constitution granted the Flemish community a significant level of political autonomy.

Among the many new political appointments established in response to that change was the creation of the post of Flemish government architect, the Vlaams Bouwmeester. The Antwerp architect Bob Van Reeth was the first to take up the post in 1998 and proceeded to set in place an innovative competition process to which all public commissions in Flanders are now subject. Every

six months, the Bouwmeester publishes an 'open call' for submissions of interest for forthcoming public commissions. Architects enter a single portfolio and identify those schemes for which they wish to be considered, dramatically reducing the workload that is usually faced by practices pursuing commissions through a competitive route.

In contrast to the risk-averse nature of most competition processes, the norm in the Flemish system is to draw up a shortlist of five, of which two might have built a similar building before, two might be younger firms looking to move on to bigger things and a final one might be foreign. For many architects from countries where it can prove near impossible to secure work in a sector without previous experience, competition wins in Flanders have been crucial in enabling them to advance their careers. Given Flanders' modest size, such a determinedly non-protectionist approach to foreign competition is remarkable, but the Flemings recognise that such a spirit of openness is both a means of raising standards and discovering new ways of doing things.

The lesson of the region's recent success is that strong architectural cultures only emerge if a society makes a commitment to nurture them. Whether Flanders' commitment to architecture survives Belgium's current programme of austerity measures we may sadly know all too soon. The fear must be that we are now witnessing the end of a golden age.

LAST WORDS

'Saddam Hussein was not very consistent in his architectural choices. He commissioned either great works by great architects, or very kitsch architecture by others.'

Catriona Davies on modern Baghdad
CNN Middle East, 20 March

'The Eisenhower family seems to utterly detest the metal scrim ... adding that these kinds of design elements are "usually found in the Communist world".'

Frank Gehry's Eisenhower memorial
reported on *dirt.asia.org*, 20 March

'The students at Princeton would indulge themselves in a sport of identifying buildings by the tiniest cropped details. An architectural version of *Name That Tune*.'

Greg Lynn, *Fulcrum*, 14 March



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REVIEWS

Alternative practice

David Rosenberg, *Spatial Agency: Other Ways of Doing Architecture* (Reviews, March)

When the review of this review appeared in the March issue of the AR, it was a bit of a surprise to find that the review of the book was not in the March issue of the AR.



Seeing beyond the heroic male member and sharing credit where it's due

Reading David Rosenberg's piece on *Spatial Agency: Other Ways of Doing Architecture* (Reviews, March) – which in the online version was titled 'Till et al under the spotlight' – you might have been mistaken into believing that the main author of this book was Jeremy Till. While he is of course the most prominent figure among the three authors, all the same, there are three: Nishat Awan, Tatjana Schneider and Jeremy Till. We all have our share in the thinking behind and production of the book; the research was conducted collectively, which was in the spirit of the groups and practices researched.

The text that was allowed to appear in the AR, however, focuses on the senior male member of the team. And, you could say, the easiest one to attack, too, given Till's standing and professional status. By doing that, your reviewer does exactly what we find architecture to be complicit in: the focus on the single male 'hero' instead of the recognition and acknowledgement of the multitude of 'others'. Had the reviewer spent as much time investigating the background and biographies of the two other more junior and female members of team he would have found rich and varied backgrounds of activism and practice. Simply because those backgrounds were not as easily accessible, this superficial reading leads to a superficial set of assumptions.

Don't get me wrong, Rosenberg can have his opinion. What I object to is the way in which the reviewer makes assumptions about the set-up of the team and the role of the women within that team. That Till – simply because he is the professionally highest-ranking figure in this collaborative endeavour – was in charge of this work intellectually; that, because of that, he has got to be 'responsible' for it, and, that *Spatial Agency* must therefore be the logical extension of his

oeuvre. While Rosenberg makes mention of the 'collective' behind the writing of the book, it doesn't have any consequences on the conclusions he draws. He doesn't even consider the possibility of another reading. In other words, the women – for whatever reason – seem to be a mere accessory, not important enough to even mention by name (apart from the reference to the full book title at the end of the article – again this refers to the web-based text).

I find it unacceptable that Rosenberg as the author of the review did not rise above this most obvious reading and that the AR as the publisher did not challenge Rosenberg's interpretation before going to print. Considered in the light of debates around the historic and contemporary role of female researchers and practitioners in particular and of teamwork more generally, this leaves me puzzled as well as furious.

Tatjana Schneider, University of Sheffield

Further reading

I am so pleased to see the entry of the Integral theory into the world of architecture (*The Big Rethink*, March). It needs courage to do so and here you have shown this: congratulations.

However, I cannot but stop myself from mentioning the essay on Indian architecture, by Sri Aurobindo, the great Indian philosopher and whose writings are now widely read. His essay, published probably in the early 20th century, sets the stage for the world to understand the depth of architecture, as a reply to Dr Archer, the renowned art critic of his time. I would be glad if *The Architectural Review* can finally also have the courage to publish this essay so that the world of architecture takes the traditional Indian principles of design more seriously.

I also do not understand why this text of Sri Aurobindo on architecture has still not entered

the syllabus of architectural education. Here it is for you: Volume 20, 'The Renaissance in India with a Defence of Indian Culture', section on art and architecture, page 270 onwards, at sriaurobindoashram.org/ashram/sriauro/writings.php
Dharmesh Jadeja, comment on AR website, 7 March

Martin Charles remembered

In his fine obituary of Martin Charles, Peter Davey omitted to make a point about Martin's self-imposed ambition and professional ethos. Martin did not just take beautifully composed and technically perfect photographs; they were also very informative about the building and together made up a coherent set that told as much as possible about it. When commissioned to illustrate an article or book he preferred to read the text first, if possible, and asked how many pictures were to be used. If four, he would sum up the whole building in those few; if 10 he would convey the building more completely, and most likely every photograph would be different to those he would have taken if only four were to be used.

I remember once looking at a fine image by another photographer Martin also admired. He then commented that even if he had seen that particular shot, he would not have taken it: although beautiful it told too little about the building. That sums up Martin.

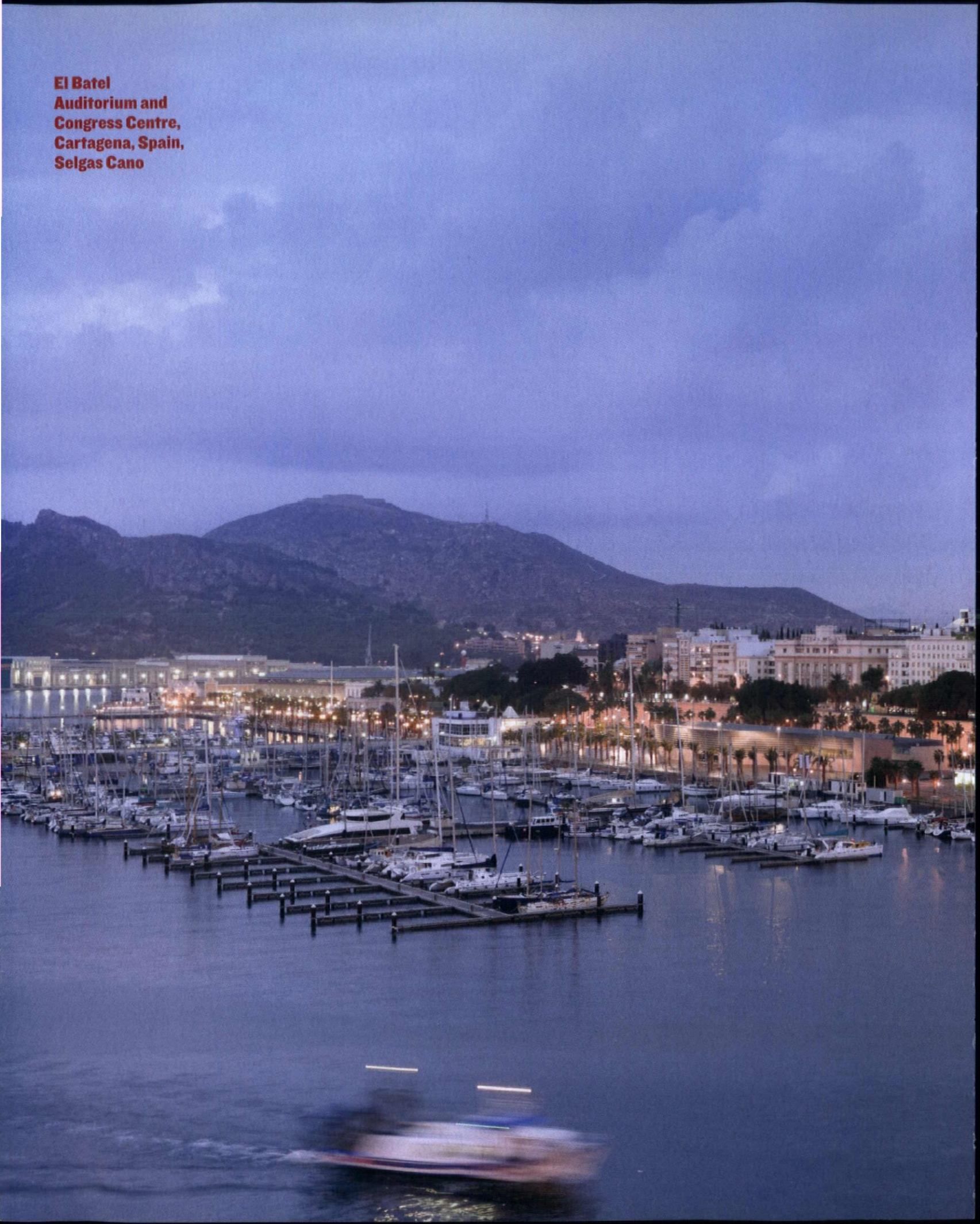
Peter Buchanan, London

Erratum

In the second essay of *The Big Rethink* (AR February), the chart reproduced from Charlene Spretnak's *The Resurgence of the Real* should have read 'extreme relativism' in the middle column of 'truth mode'. A correct version is now online at architectural-review.com/TheBigRethink

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**El Batel
Auditorium and
Congress Centre,
Cartagena, Spain,
Selgas Cano**



PLANE SAILING

At this waterfront congress centre, Selgas Cano's adept handling of overlaid translucent planes elevates cheap materials into a rich experience



CRITICISM

DAVID COHN

Last March, when Queen Sofia inaugurated the Batel Auditorium and Congress Centre in Cartagena, Spain, the moiré patterns thrown off by the thin stripes of her suit played a nice riff against the backlit translucent plastic walls and lime-white rubber floors of the building. In fact, everyone looked terrific strolling up and down the long entry ramp to the concert hall. Like the expanse of stone that spreads out before Philip II's monastery-palace at El Escorial, or the sandy walks in Madrid's Retiro Park, the building's luminous, abstract surfaces put everyone on stage, transforming their moving figures into a stately pop ballet.

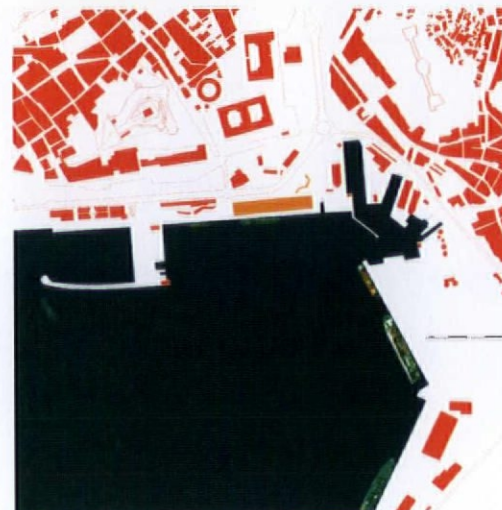
The building, designed by José Selgas and Lucia Cano of the Selgas Cano studio in Madrid, extends for 210m along the former mercantile wharf of the port, and is itself conceived as a promenade. It terminates the larger promenade that stretches for 1,000m along the waterfront, incorporating restaurants, cafés, a yacht club and the National Museum of Underwater Archaeology, designed by Seville-based architect Guillermo Vázquez Consuegra and opened in 2008. Together with Rafael Moneo's restoration of the Roman Theatre (AR February 2009), located on the hill behind the wharf and also opened in 2008, these works form part of an effort to attract tourism and redevelopment to this ancient city and naval base, founded by the Carthaginians in 227BC.

From outside, the building resembles an industrial assembly line of unadorned volumes in different sizes, interrupted by abrupt

vertical cuts that throw natural light into transitional interior spaces. The volumes are finished with great simplicity and evident economy in repeating profiles that, were they not translucent and glowing with LEDs from within, would differ little from conventional industrial-grade corrugated siding (the cost of the 18,500sqm building was €34.5 million).

Selgas Cano designed just three custom extrusions that clad virtually every vertical wall. For backlit and translucent surfaces, they designed a wide clapboard-like element with fitted edges along its length and a slightly peaked profile (like an open hand, says Selgas), which is made of Plexiglas on the exteriors (to block UV radiation) and polycarbonate inside (for its fire resistance). The extrusion has an uneven ribbed back to break up light and blur images and imperfections. It is tinted in various tones, including solid white for opaque backlit walls, and aquatic blue for the main auditorium, where it is backed by mirrored film to set off shimmering reflections. Three beads of accent colours, each six microns wide, are laid into the translucent elements (phosphorescent oranges, yellows, blues, greens).

The short end walls of the exterior are clad with a screen of irregularly-placed vertical aluminium fins, with an asymmetrical triangular section (one face is curved and two are straight). The Madrid street artist SpY designed a vivid colour scheme for the entry facade screen, which has a double reading depending on your direction of approach (left or right). It is emblazoned with a supergraphic 'B', the architects' preferred name for the complex, which comes from the Batel Beach that lies beneath the wharf. The roof, visible



location plan

**El Batel
Auditorium and
Congress Centre,
Cartagena, Spain,
Selgas Cano**



north elevation

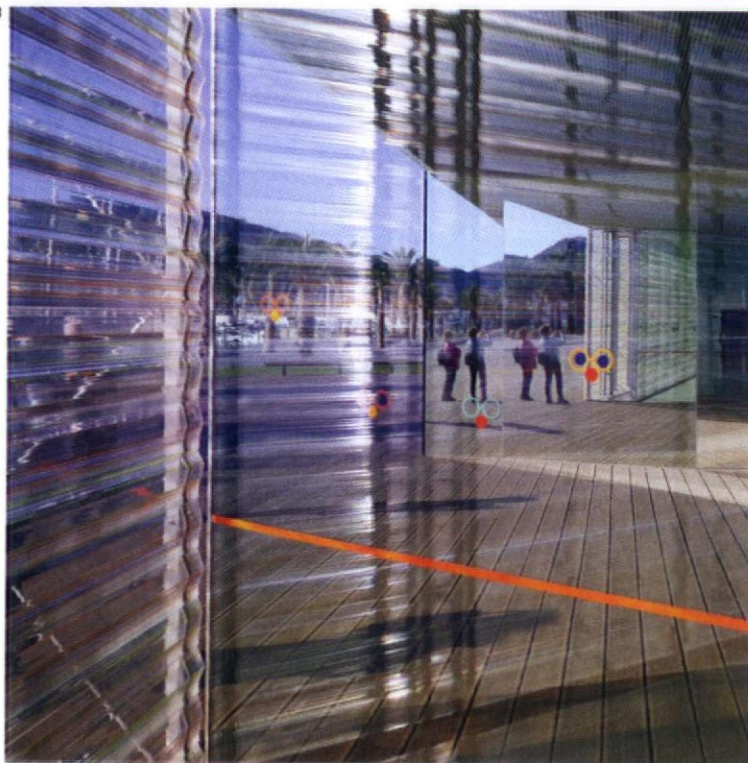


south elevation

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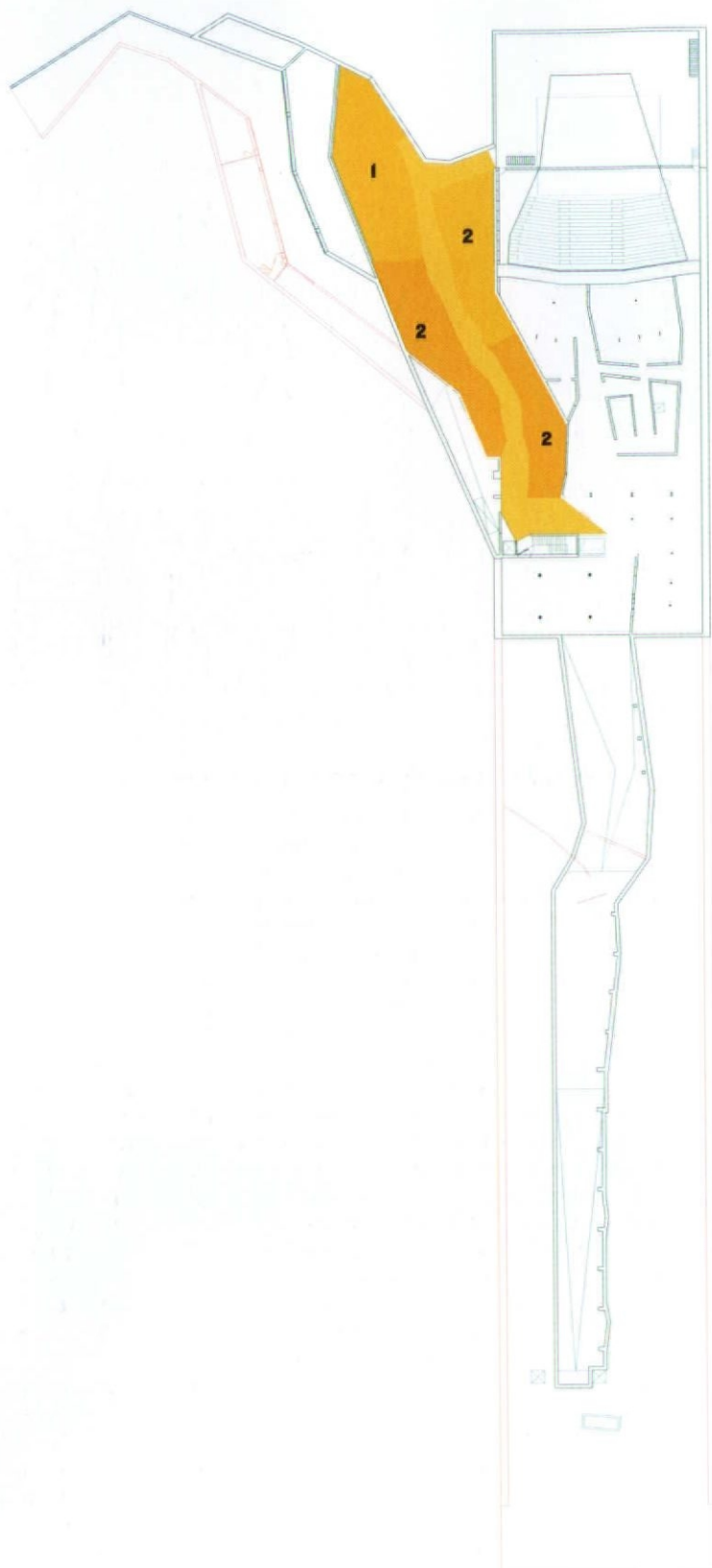


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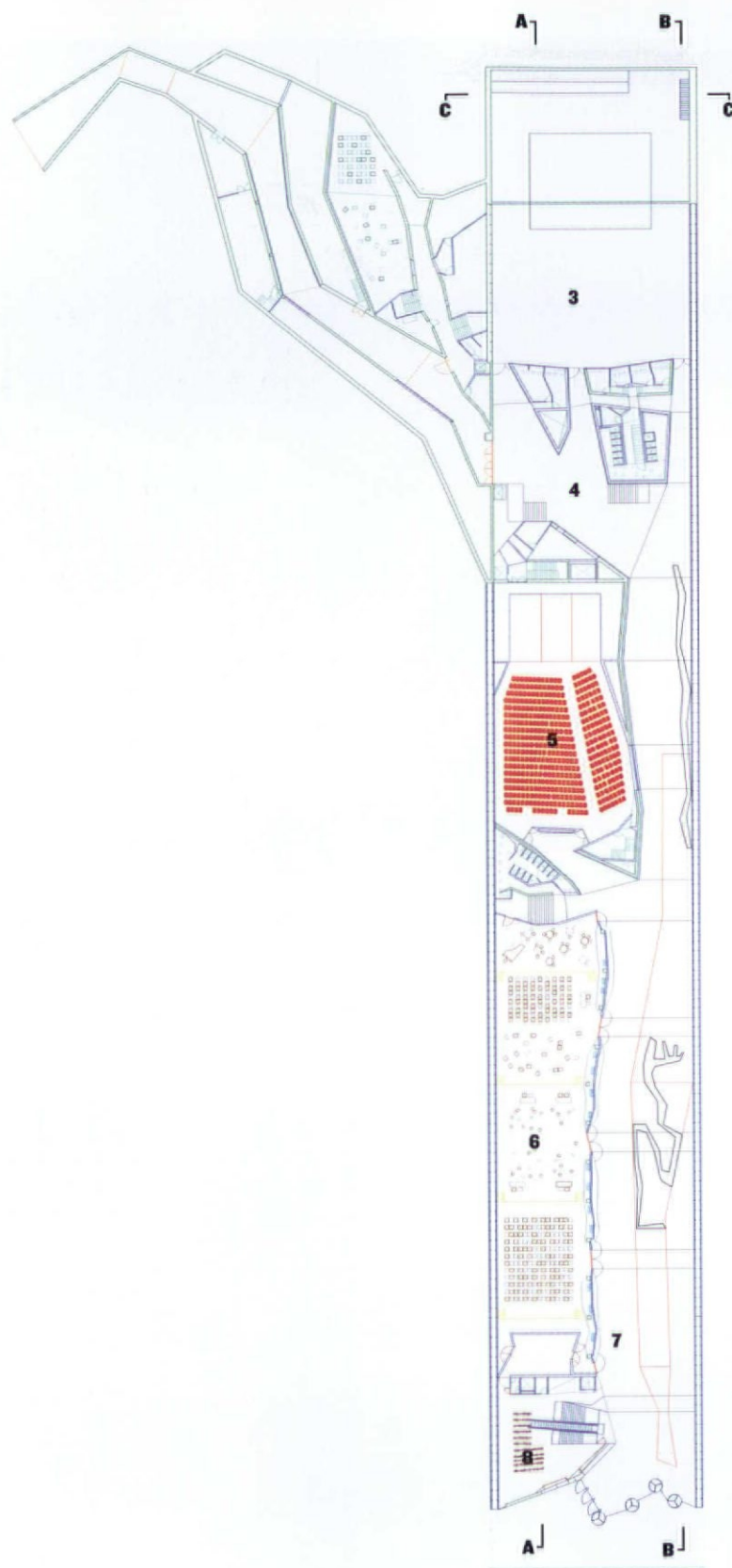
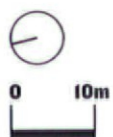


1. (Previous page) at dusk the glowing building is reflected in the placid harbour waters
 2. Lateral veins of colour dramatise the perspectival recession of the long facade
 3. The Plexiglas extrusions on exterior walls have an

irregular profile that creates a rippling effect to match the surface of the sea beyond
 4. The open terrace of the restaurant incorporates the public space of the street, an irreducibly Spanish touch

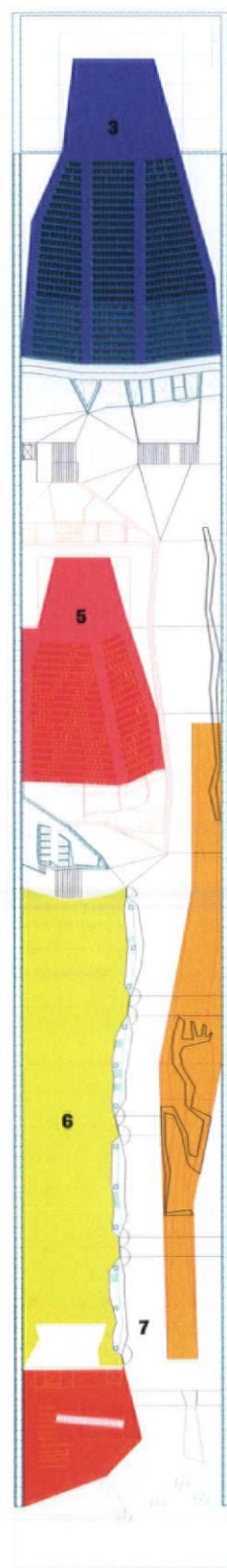


basement plan

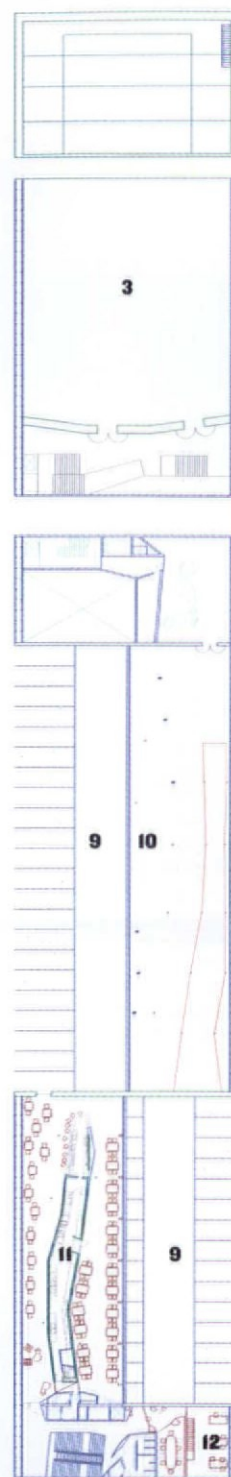


lower ground floor plan

- | | | | |
|---|------------------------|----|-----------------|
| 1 | rehearsal room | 7 | lobby |
| 2 | dressing room | 8 | wardrobe |
| 3 | orchestra auditorium a | 9 | terrace |
| 4 | amphitheatre access | 10 | exhibition room |
| 5 | orchestra auditorium b | 11 | restaurant |
| 6 | Congress room | 12 | office |



ground floor plan



first floor plan

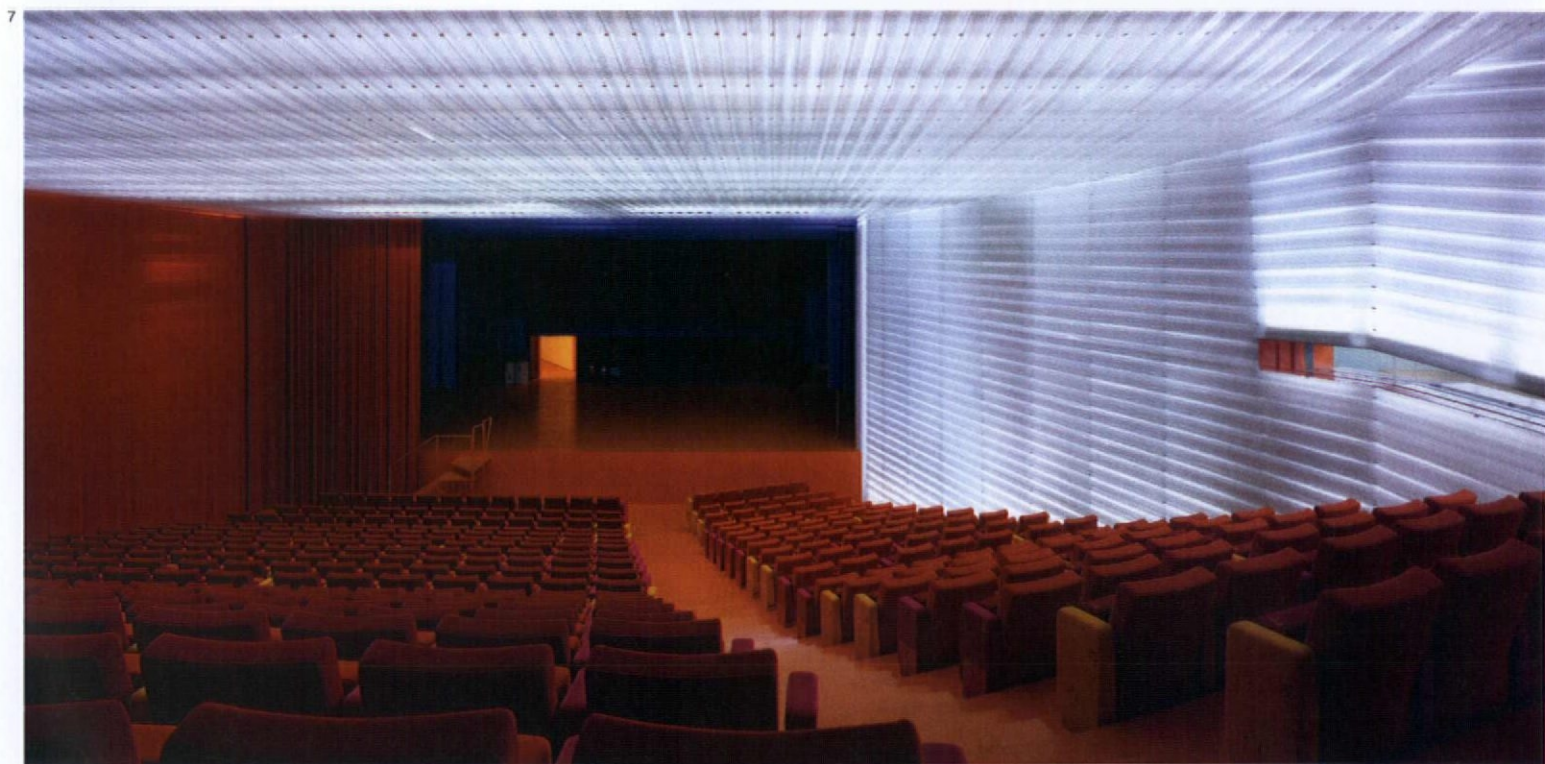
**El Batel
Auditorium and
Congress Centre,
Cartagena, Spain,
Selgas Cano**



5. The long ramp down to the main auditorium negotiates a space, criss-crossed by stairs, which houses the information desk and intermission bar



6. Before the concert hall the ceiling suddenly soars to enclose the stairs to the two upper decks



from the heights behind the building, is also of aluminium.

Opaque sections of the exterior, including the stage house and parts of the auditorium, are screened with translucent horizontal piping, also streaked with dyes and lit up inside. The pipes overlap in a deep, irregular section, and are held in place with a surprisingly simple hooped clip. For the large terraces of the restaurant and exhibition hall on the upper floor, this piping runs horizontally as a sun screen.

Entering at the head of the linear building, visitors are slowly immersed in a world of light, colour and reflections, drawing them more than 100m down the main ramp towards the 1,500-seat auditorium, which is located 15m below ground to minimise its exterior volume. Along the way they filter around a bright-red suspended ramp that ascends to the exhibition hall, and pass orange gashes in the backlit walls that house the information desk and *ambigué* (the intermission bar), zigzagging benches and a clear plastic bubble chair by Eero Aarnio that is suspended under the ramp (hello, Barbarella).

A run of meeting rooms steps down parallel to the ramp, in a sequence ending with a smaller auditorium seating 500. On the floor above, the restaurant and cafeteria, with interiors by the architects, feature an assortment of classic 1960s pedestal chairs by Eero Saarinen, Pierre Paulin, Eero Aarnio and Verner Panton, arranged around the architects' wire-leg tables. The wire chairs on the terrace are by Junya Ishigami. In these spaces and the adjacent exhibition hall, long gashes in the ceilings admit natural light.

The long descent to the main auditorium

'Selgas Cano take realism and solemnity out of low-cost tech and approach it instead as a liberating opportunity for playful invention'

comes to a climax in a soaring vestibule, enclosing the accessways to the two upper seating decks. A maze of suspended stairs and balconies, crafted in nautical white-painted steel, face off across the narrow chasm against a wall of orange-coloured ETFE that catches fiery light from the evening sun. Measuring 28x12m, the wall is the largest continuous ETFE cushion ever made, according to structural engineer José Romo, and is unique in its flatness, achieved by running vertical tension cables through it at regular intervals.

After the hot glow of this interlude, the cool aquatic wash of the auditorium has a big sensorial impact. Curtains inside the walls can open to flood the space with daylight, while another ETFE clerestory over the stage tints the head of the sloping polycarbonate ceiling in contrasting orange at sunset. Acoustic engineer Higini Arau, who also worked on Selgas Cano's 2006 polycarbonate-lined auditorium in Badajoz, claims that the acoustic performance is close to perfect, with 'a response to low frequencies as good as the finest wood'.

Backstage spaces are independently accessed from the exterior via a winding ramp, which is covered in a colourful arching canopy. Mechanical services, with their louvres and vents, are cleverly concealed here.

Site furnishings include wooden decking with inexpensive outdoor lighting on 'wilted' stems (the curve in the post allowed for a slimmer section, explains Selgas), and breakwater stones dredged up during the site excavation, which serve as sculptural benches.

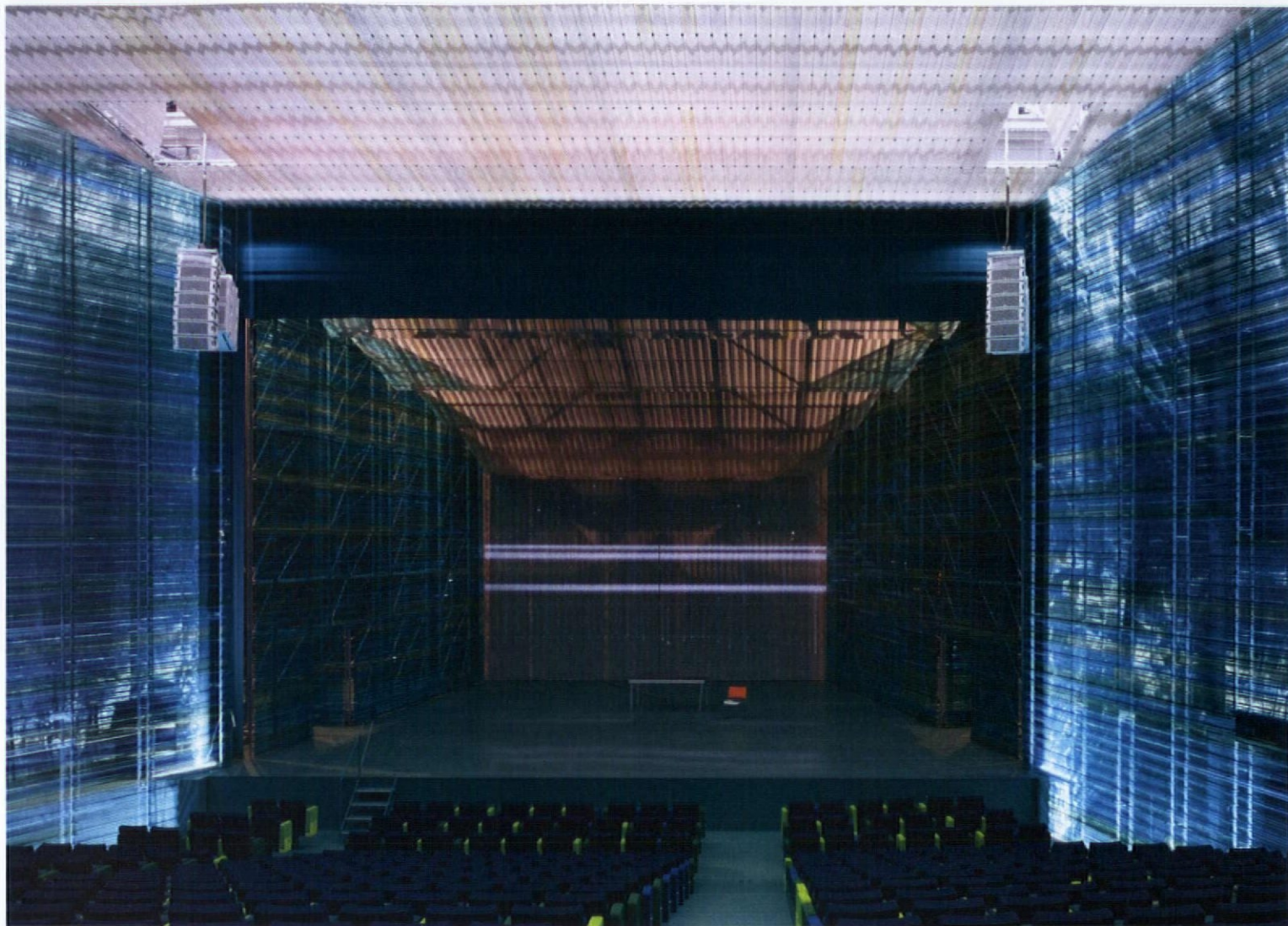
The straightforward massing and simple, ingenious detailing of Selgas Cano's building belongs to a Spanish tradition of low-tech functional design that can be traced back to Alejandro de la Sota's work in the 1950s and '60s, and to the early minimalist work of Ábalos and Herreros in the 1990s. Lately, architects like Selgas Cano have reinvigorated this tradition not only with the latest technical innovations such as ETFE, but also by drawing on the industries that serve the thousands of hectares of plastic-sheet greenhouses in southern Spain. And unlike many of their predecessors, Selgas Cano take realism and solemnity out of low-cost tech – its overtones of deprivation or asceticism – and approach it instead as a liberating opportunity for playful invention.

At a deeper level, Selgas Cano's design defines architectural play in terms of registering light and colour planes in space and movement. And in essence, like the spreading plaza of El Escorial, these abstract qualities have much to do with the wide-open, treeless plains of the archetypal Spanish landscape. The architects themselves make a similar point: 'This long construction feeds on the heritage of its site: the immaculate straightness of the pier edge (straight), the invariably calm sea (flat), the artificially horizontal plane of the dock (flat), and the sky as a variable background to this plane (plane on plane).'

El Batel Auditorium and Congress Centre, Cartagena, Spain, Selgas Cano

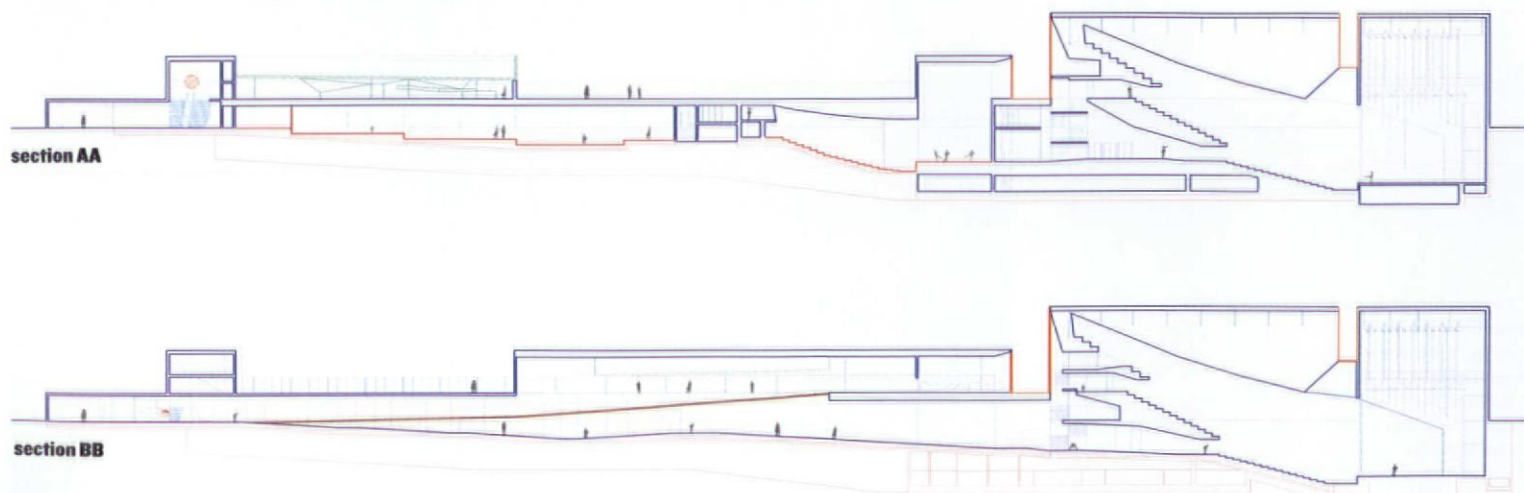
7. The smaller, 500-seat auditorium glows with deep red upholstery and pearlescent white walls
8. A collection of classic architect-designed '60s chairs provides seating in the café, a long, low space lit by clerestory glazing

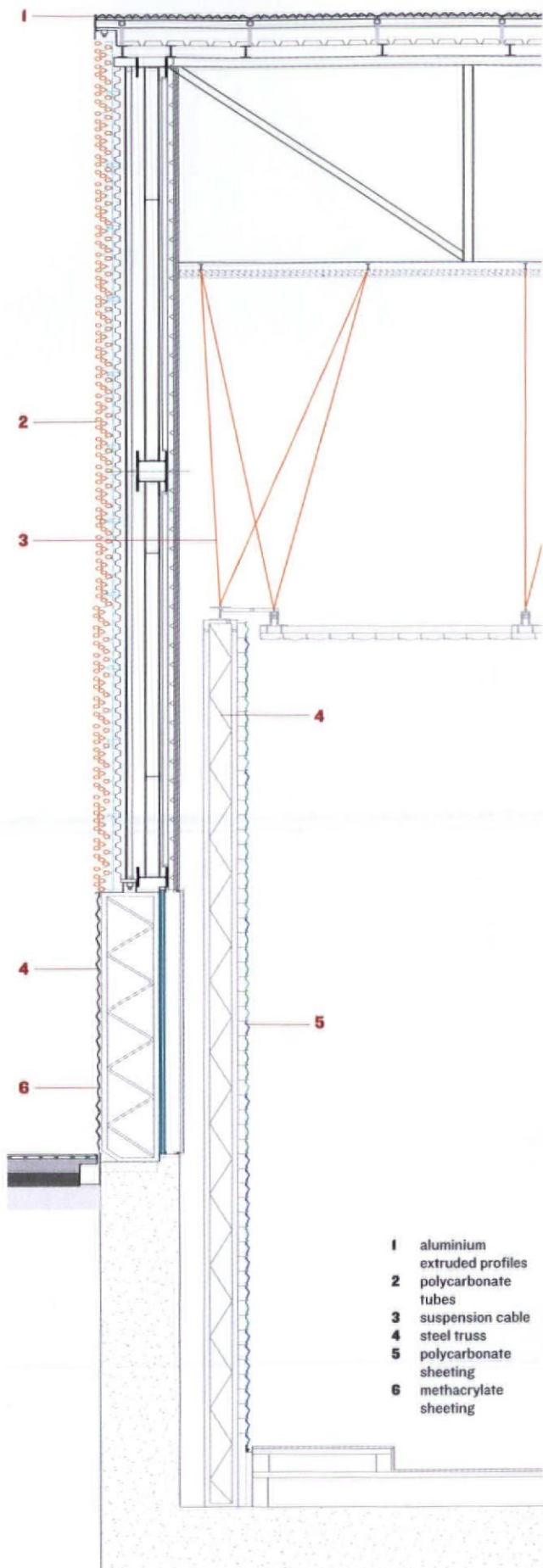




**El Batel
Auditorium and
Congress Centre,
Cartagena, Spain,
Selgas Cano**

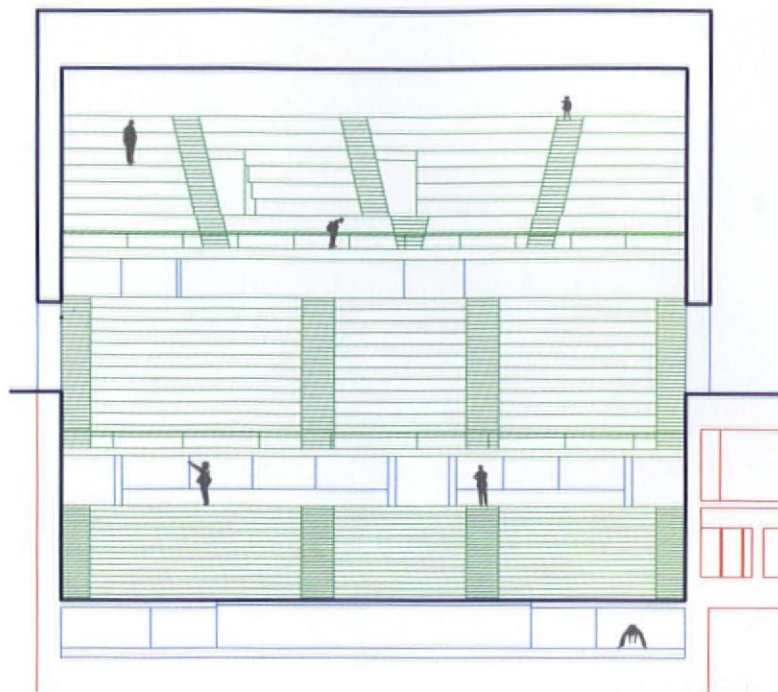
9&10. The main auditorium is bathed in blue light, creating an appropriately oceanic atmosphere for the waterfront space





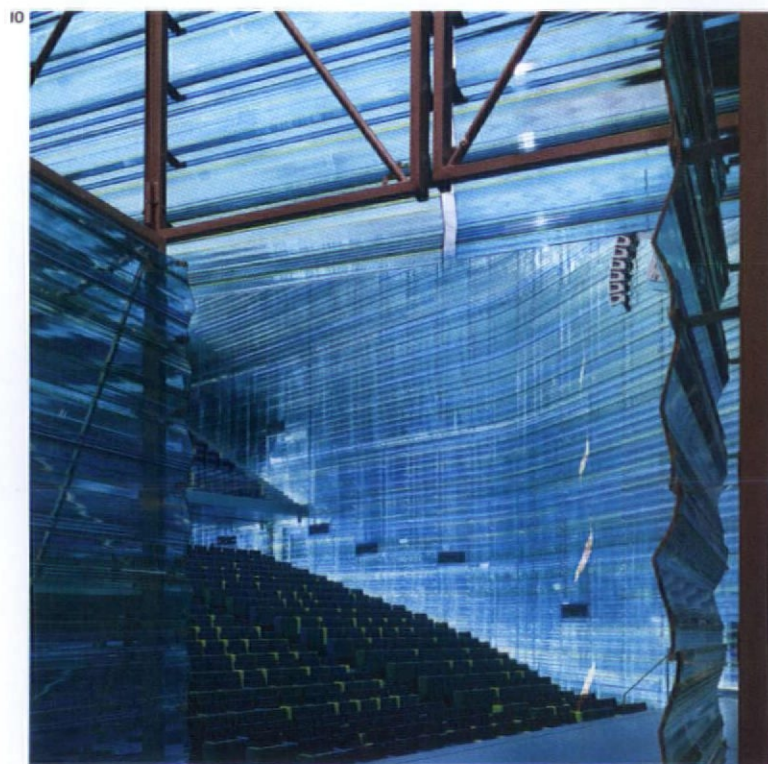
detailed section through auditorium wall

- 1 aluminium extruded profiles
- 2 polycarbonate tubes
- 3 suspension cable
- 4 steel truss
- 5 polycarbonate sheeting
- 6 methacrylate sheeting



section CC

Architect
Selgas Cano
Auditorium seating
Figueras
Floors
Priolpas
Lighting
Idealux
Photographs
Dennis Gilbert
Iwan Baan





1. (Opposite) poised on slim steel pilotis, the spiralling coil of the house resembles a bird's nest, with the ground plane freed up to become a garden
2. The clients wanted their house to 'float in mid air' to take advantage of spectacular views over the Honshu coastline

2

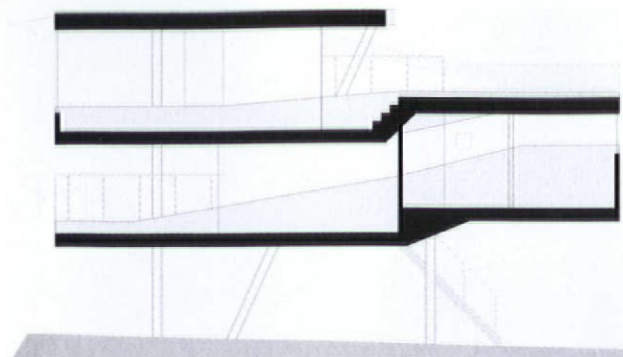


RAISED HORIZON

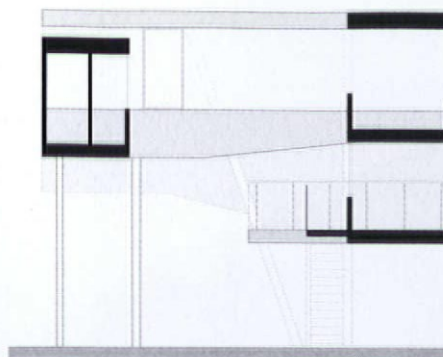
Lifted in the air to exploit coastal views, this new family home in Hiroshima unfolds around a continual promenade

**Toda House,
Hiroshima,
Japan
Kimihiro Okada**

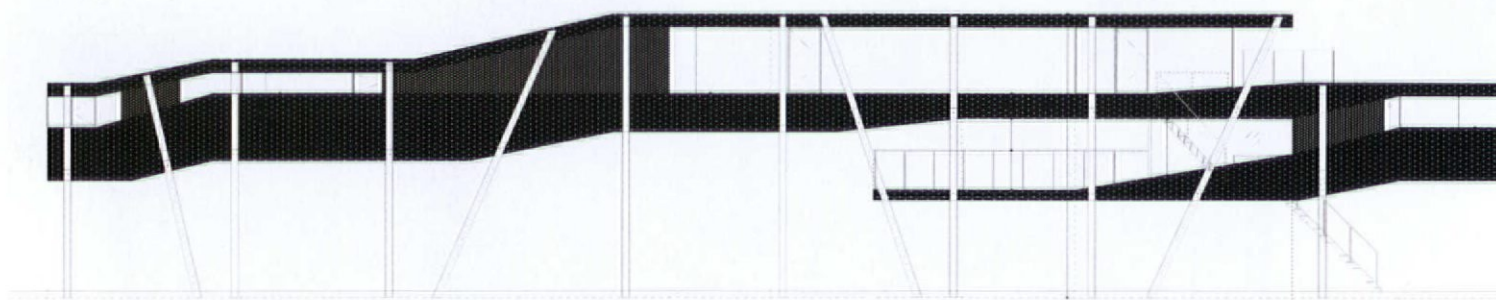
**Toda House,
Hiroshima,
Japan
Kimihiro Okada**



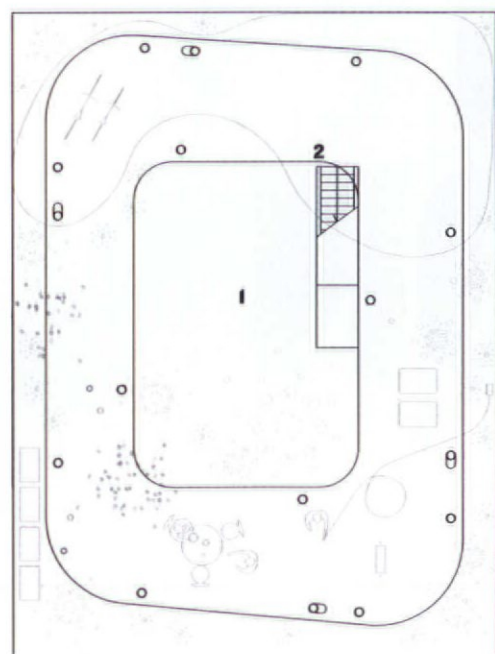
long section



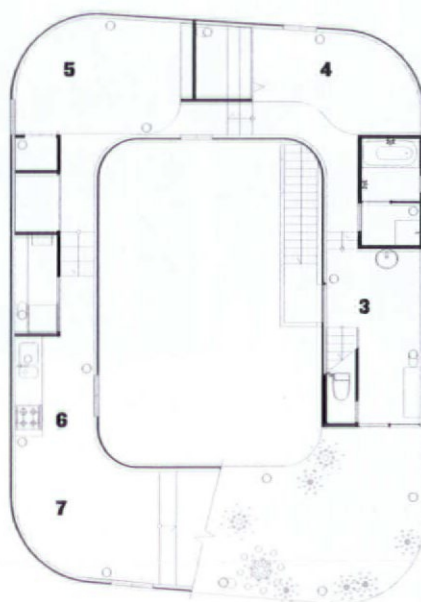
cross section



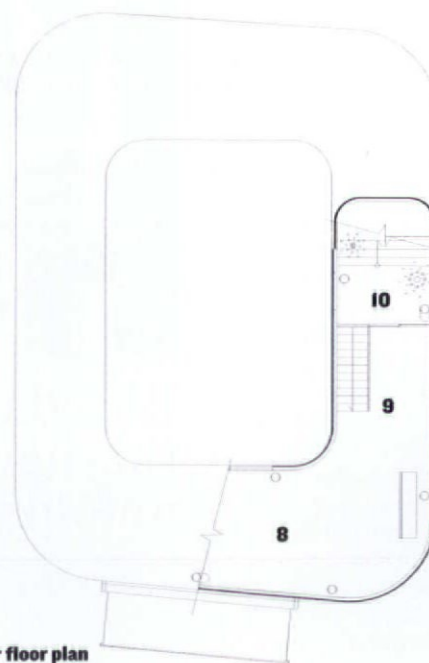
'unwrapped' elevation



ground floor plan



first floor plan



upper floor plan



- 1 garden
- 2 entrance stair
- 3 hall
- 4 child's bedroom
- 5 main bedroom
- 6 kitchen
- 7 dining
- 8 living
- 9 study
- 10 terrace



REPORT

ROB GREGORY

When the clients of Toda House bought this site in the suburbs of Hiroshima with a view over the western coastline of Honshu, they had no architect and no preconceived idea of what they actually wanted to build. What they did know, however, was *where* they wanted their home to be positioned on the plot; though not in plan, as you might expect. Instead, rather unusually, in section, specifying the height at which they wanted to reside.

'Can we just have a second storey?' they asked, having selected their architect in 2006 from a lifestyle magazine feature on talented but untested individuals who have worked in the shadow of more famous and celebrated designers. The crux of the question was really, 'can our house float in mid air?', and fortunately they chose an architect capable of bending the rules, as the then 35-year-old Kimihiko Okada had spent the previous seven years in the office of Ryue Nishizawa unpicking the idea of the traditional suburban home on projects such as the

Moriyama House in Tokyo (AR August 2007).

The reasoning behind their question and the desire to make their home levitate was not simply an urge to be different or to make their new home stand out on a typical street. The rationale had a number of well-grounded intentions: firstly, to capture those ocean views that could only be seen from a notional second storey level, set at least 5 metres above grade; secondly, to occupy a single room – ideally on one level – to promote family engagement, interaction and shared activity with their young daughter; and thirdly, to build a shop at street level, the client's longer term ambition. All of which ruled out the more conventional option of building a two-storey villa and roof garden, and all of which justify Okada's apparently wilful response: a glade of trees, columns and dummy columns containing services set beneath a 115sqm coil of continuous and undivided space that rises higher still in a gentle 360 degree anti-clockwise loop from a first floor entrance to a second floor living room and roof terrace.

4



From outside, the tapering walls and clerestory windows suggest a series of internal spaces ramping up in a gentle spiral. Okada, however, has avoided the questionable practicality of sloping floors pursued so radically by his former employer at the Rolex Learning Centre in Lausanne (AR May 2010), opting instead for simple sets of steps. The 12 internal risers are divided into four short flights – one on each side of the house's rectangular plan – that couple up

3. Spiralling gently upwards, the internal space is a continuous elevated promenade
4. A conspicuous neighbour – the house in its suburban context



5. Main living and dining area. Different spaces are denoted by changes in level and subtle variations in the floor texture. The radiused geometry defines wider spaces at each corner
 6. Daughter's bedroom
 7. Main bedroom
 8. For a less circuitous route, a straight flight staircase is a shortcut from the entrance hall to the living room
 9. The kitchen
 10. A study sits at the top of the house, completing the domestic promenade architecturale



**Toda House,
Hiroshima,
Japan
Kimihiro Okada**

with enclosures for bathrooms and storage to create four distinct points of transition. Visitors ascend 16 steps before even entering the house, then a left turn brings you to three steps between the hallway and the daughter's bedroom. Three more lead from here to the parents' bedroom (both simply screened by curtains); four more rise higher still into the kitchen and dining space; and the final two steps reach the summit and connect with the uppermost living room with its panoramic vista and, around the final corner, a study directly above the entrance.

Along the way, different floor finishes denote each change in level, from screed in the hallway, to carpet in the bedrooms, bamboo in the kitchen and timber parquet in the living room. Rising and turning four times en route, other subtleties include incremental shifts in plan and section, with radiused corners seamlessly adjusting the width and geometry of the continuous steel and concrete floorplate to

provide broader spaces at each corner. Changes to the height of the perimeter wall establish a greater degree of privacy between street and bedrooms and open up short views across the elevated courtyard and afford more distant panoramic views of the ocean beyond.

'What is interesting', Okada says, 'is that once you start walking and circulating the plan, you soon come back to the beginning, only to realise that you're one storey higher,' describing the benefit of his stepped loop in relation to more conventional planning strategies. 'On a relatively small site you get to walk a long way,' he continues, 'and this establishes the perception of distance between spaces and creates a greater sense of spatial generosity that you would find difficult to achieve in a more efficient square plan.'

Clearly efficiency was not the architect's primary concern, and while criticism can be levelled at the design in relation to the ratio of internal volume to exposed

surface area, the workability of the plan cannot be denied. Key to this is the provision of a single full-flight of stairs that unlocks the logic and full potential of the plan, providing a shortcut from hallway to living room. This responds to the family's current dynamic, allowing guests to bypass both the bedrooms and kitchen when visiting at night, but also establishes a configuration that the couple's young daughter may come to exploit as she gets older, affording her greater independence with a direct route from bedroom to front door giving her the option to avoid disturbing (or engaging with) her parents and guests.

As with many notable modern houses, the hallway is the spatial fulcrum and it is here that the architect playfully alludes to Le Corbusier's seminal Villa Savoye, placing a basin by the front door and offering two routes up and through the house, one fast and one slow, that work together to choreograph a new domestic promenade architecturale.



Architect
Kimihiro Okada
Taps
Grohe
Basins
Agape
Photographs
Toshiyuki Yano





Museum of
Handcraft Paper,
Xinzhuang,
Yunnan Province,
China,
TAO

PAPER CRAFT

A new museum dedicated to the historic Chinese art of papermaking is authentically rooted in the relationship between context, craft and construction



CRITICISM

AUSTIN WILLIAMS

It has long been held that there are 'four great inventions of ancient China': gunpowder, the compass, printing ... and papermaking. Indeed, in AD100, while Tacitus was scribbling on wooden tablets about Britain's barbarian hordes, on the other side of the world a Chinese eunuch named Cai Lun had the balls to create a sheet of paper using wood fibre and hemp.

Up until that point in the Han Dynasty (206BC–AD220) messages were inscribed on bamboo, silk and even the shoulder blades of oxen (also known as oracle bones). Cai Lun's technological leap could be said to be the first real Information Revolution, but it still took a thousand years for papermaking to reach the West. Each vellum version of the 15th-century Gutenberg Bible, for example, required 170 calves' skins. To mark what the Chinese government calls 'his contribution to civilisation', a tomb and temple in Cai Lun's honour were built in Shaanxi Province, and he takes pride of place in Beijing's Eunuch Museum: a tourist must-see containing 'authentic scenes' from a castration room.

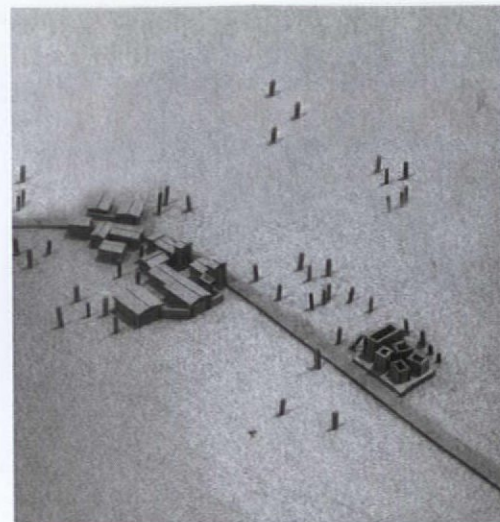
Paper is everywhere in China: used for lanterns, scrolls, paintings, toys and decoration, and the Chinese are inordinately proud of their paper-making and making-with-paper history. A paper manufacturer has just begun construction of a £21 million

museum of rice paper in Anhui Province, while a small paper-cutting museum founded by artist Liu Ren is located in one of Beijing's many *hutongs*. Ren's home is a typical example of small-scale museums – some no more than family homes – that are cropping up all over the country, contributing to the official statistic that cites China as having more museums than the UK (China has 100 new museums opening every year).

One of the latest museums to be constructed is the Museum of Handcraft Paper, which is situated near the village of Xin Zhuang in Tengchong County, Yunnan Province. High in the Gaoligong Mountains – a UNESCO World Heritage site – this is a remote location for a museum. It is a remote location for anything. It's a six-hour flight from Shanghai, or, if you prefer, 45 hours and 19 minutes by sleeper train (for the grand total of £46).

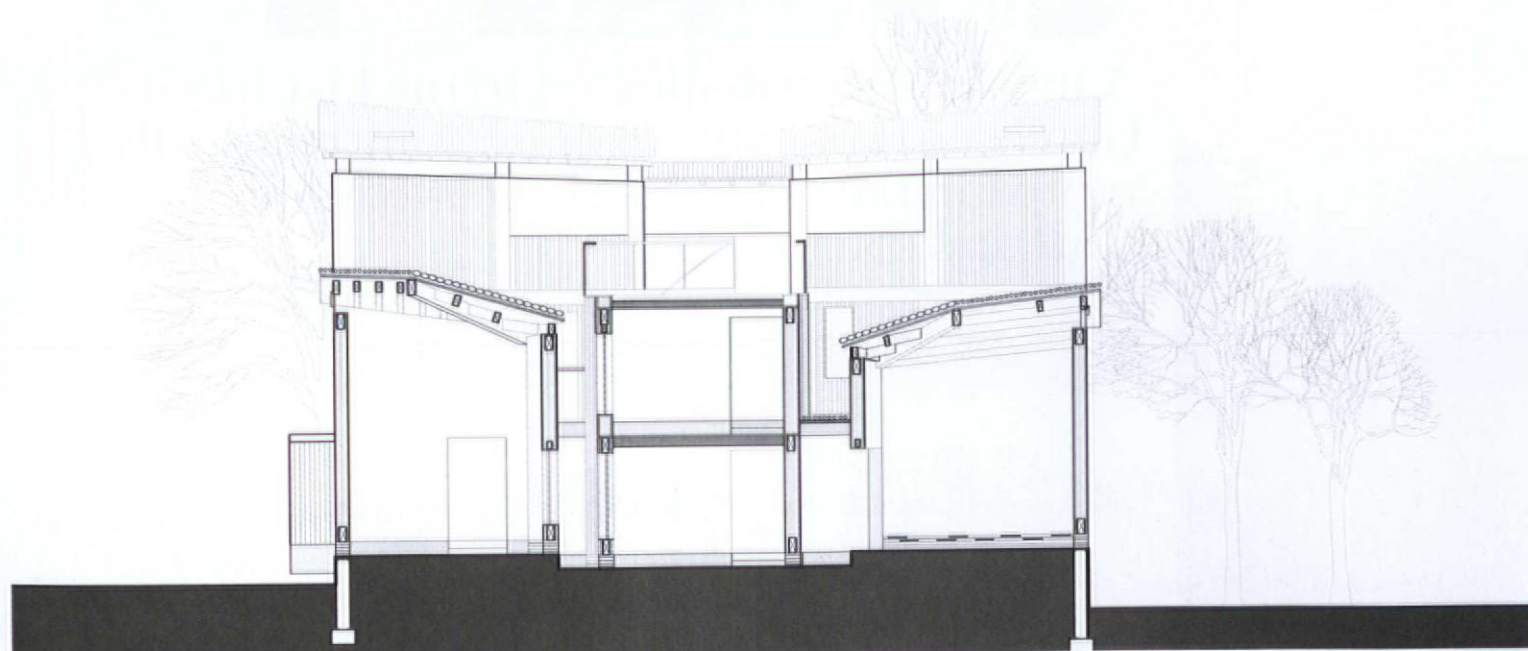
Designed by Beijing practice TAO ('Trace Architecture Office'), it is a modern twist on the local vernacular. The founder of the practice, Hua Li, told me that 'the building is conceived as a micro-village, a cluster of several small buildings', and his exploration of traditional village geometries and regional materials mean that the buildings settle into their surroundings. Even with nothing for miles around, they manage to meld with the background.

Taken as a whole, the appearance is typical of a self-contained, self-protective Chinese village arrangement, where, hidden behind



site model

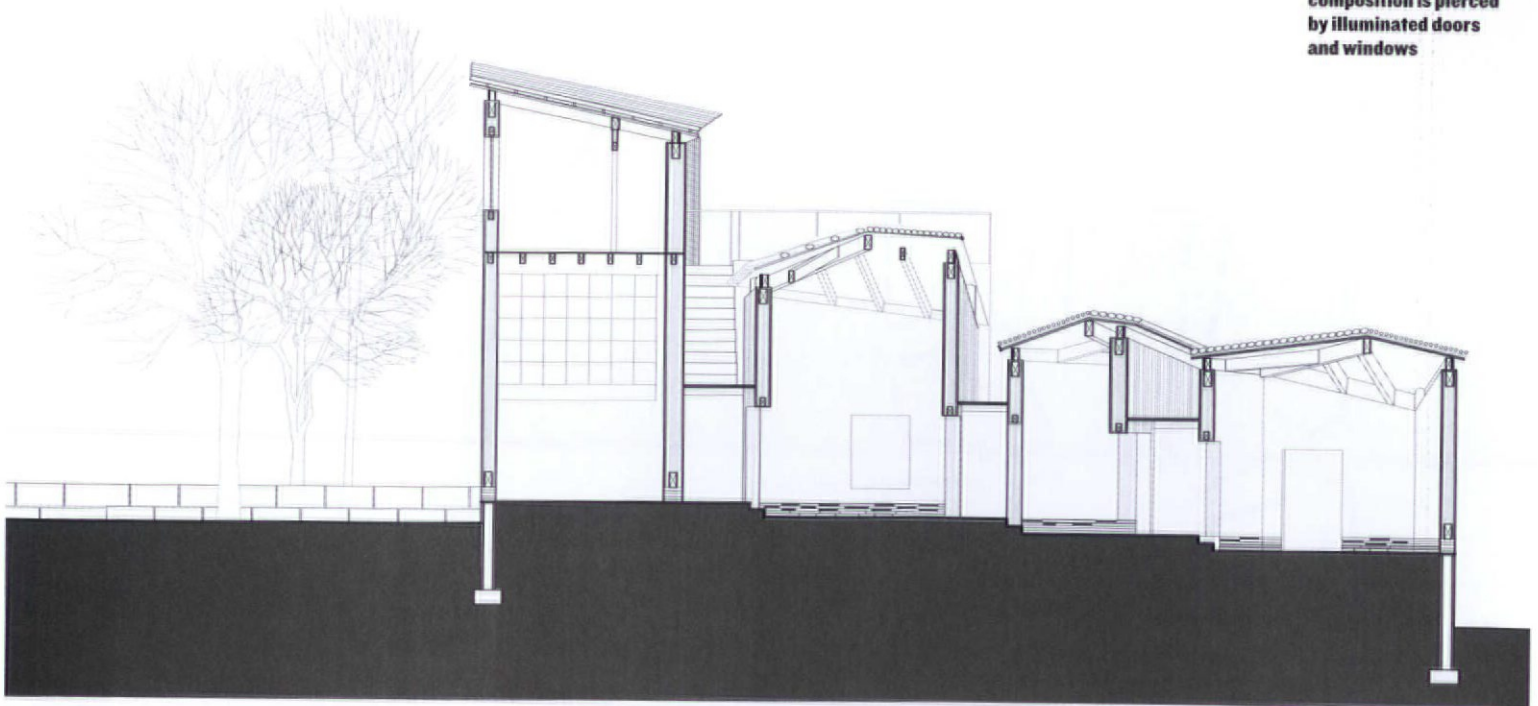
**Museum of
Handcraft Paper,
Xin Zhuang,
Yunnan Province,
China,
TAO**



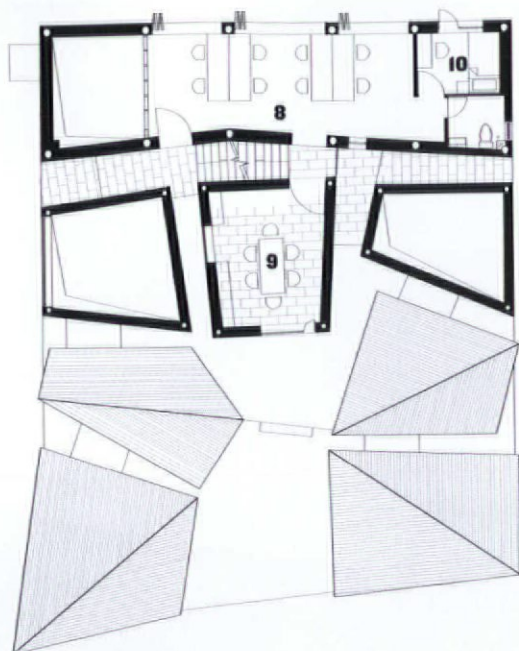
cross section



1. (Previous page) the discrete, angular volumes nestle amid the remote rural landscape
 2. After dark the hermetic composition is pierced by illuminated doors and windows

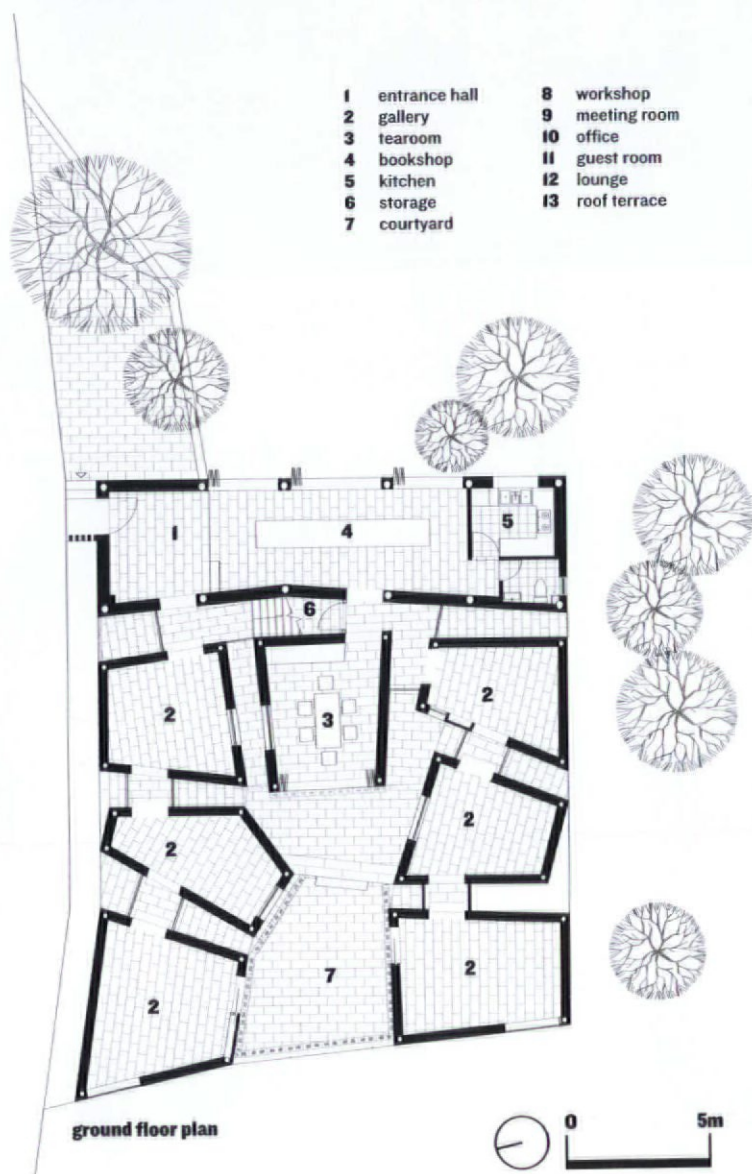


long section

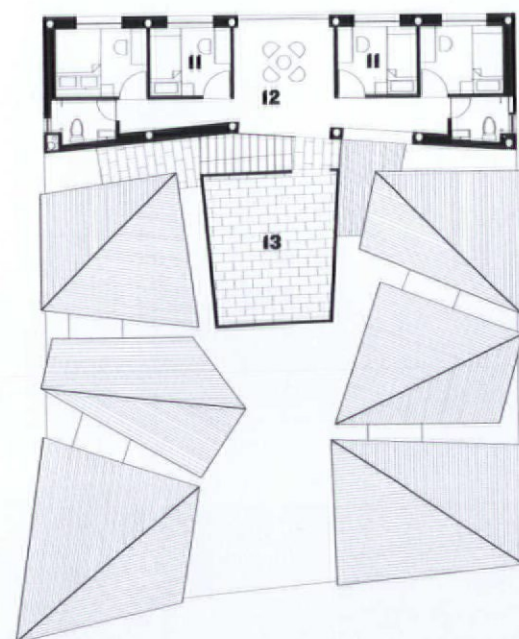
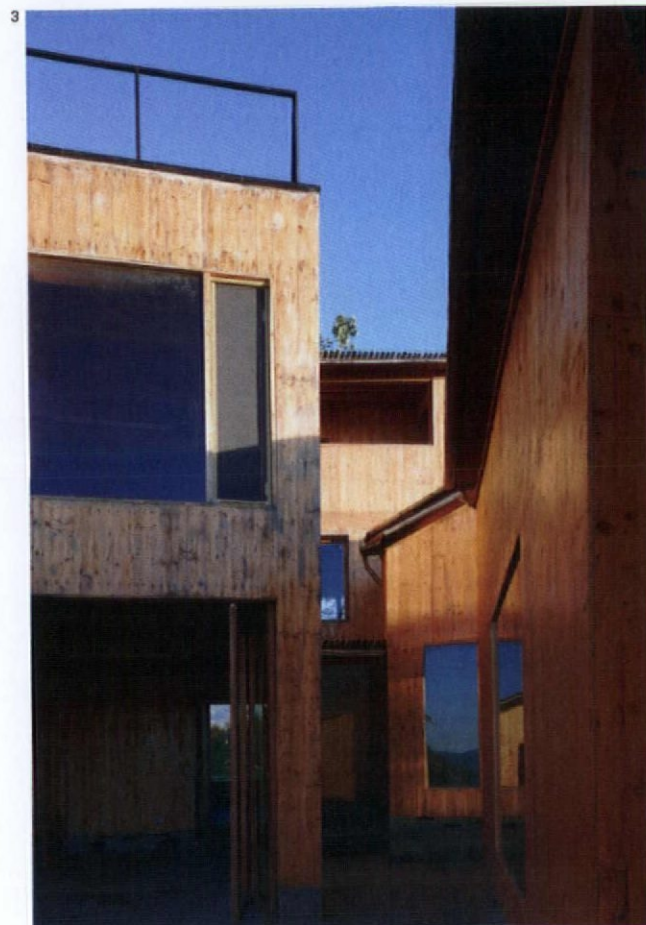
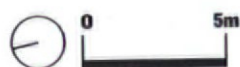


second floor plan

- | | | | |
|---|---------------|----|--------------|
| 1 | entrance hall | 8 | workshop |
| 2 | gallery | 9 | meeting room |
| 3 | tearoom | 10 | office |
| 4 | bookshop | 11 | guest room |
| 5 | kitchen | 12 | lounge |
| 6 | storage | 13 | roof terrace |
| 7 | courtyard | | |

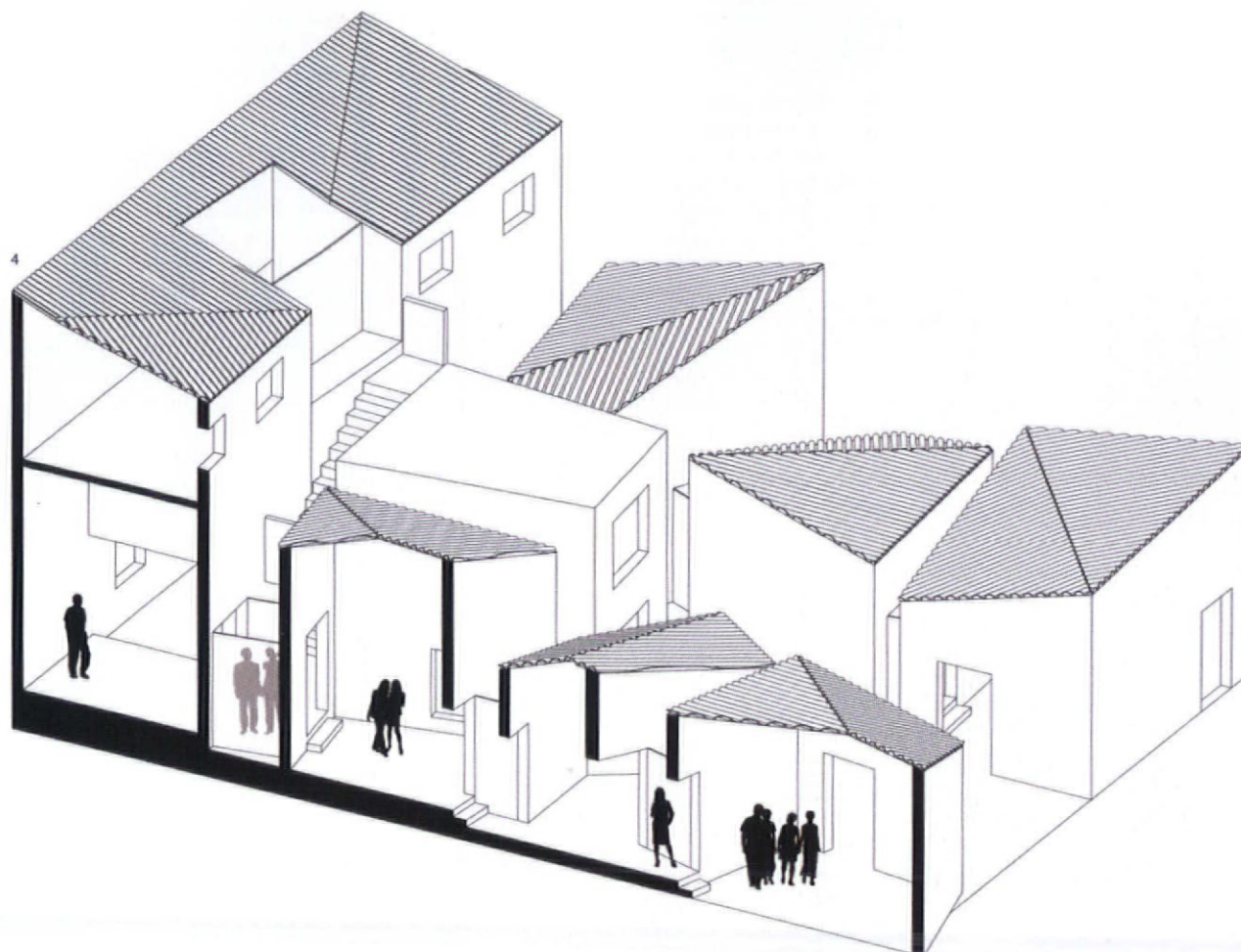


ground floor plan



third floor plan

**Museum of
Handcraft Paper,
Xinzhuang,
Yunnan Province,
China,
TAO**



the walls, along narrow alleys, the communal space opens up in a flurry of washing lines and the chatter of peasant life. Ironically, this building represents more bourgeois ambitions altogether: the preservation of cultural heritage. Indeed, Hua Li is critical of architecture's 'obsession with fancy forms', and says that he is more committed to 'exploring (the) ontological and essential meaning of space and tectonics in architecture, (and) its social and environmental impacts'. But first let's take a look at the layout.

Six museum galleries are arranged around a small courtyard, with a three-storey building along one edge and three gallery/studios along each of two wings. The buildings are seen from the main road leading into the village, and the main public elevation displays areas of blank gallery wall with hidden recesses between each one. On first appearance, these niches seem to present the visitor with the possibility of turning and wandering down *shikumen*-style alleyways between individual buildings. The slight overhangs of the roofs fall inwards so that there is only a hint of the roof material and of the activities beyond.

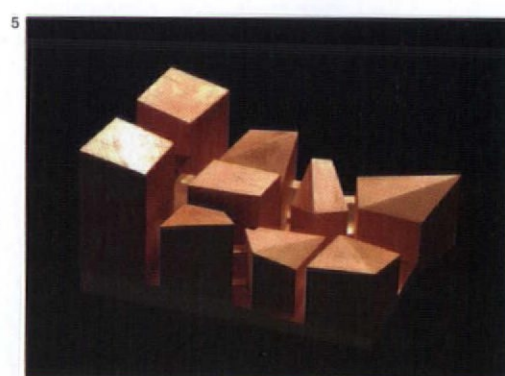
The dominant, three-storey, almost rectilinear block forms the entrance to the museum. A full-height picture window on the

main corner of the building allows visitors a glimpse inside the double-height reception space, which leads on to a ground floor tearoom. The tearoom is the pivot point, providing access into the two wings, external enclosure and the floors above.

The discrete gallery rooms, which have quirky shapes on plan, step down to follow the natural slope of the land and there are many interesting changes of level and angle – with surprising and unexpected views across, through, and out of the building.

Each gallery along each wing is joined by short low-level corridors that are little more than full-height windows. These are clearly intended to frame views out, but also allow the lush mountain ranges that dominate the surroundings to become integrated into the building. In traditional Chinese gardens the framed, or 'borrowed', view is carefully chosen to capture a scene as a poetic composition in its own right. In this museum, however, the windows are much larger and more all enveloping, and are deemed to provide a greater connection to – rather than distance from – the view. Hua Li says that by connecting the interior to the surrounding landscape – farmland and countryside – these views 'hint at the relationship between paper-making and context'.

Above the tearoom are a series of open-



3. Part of the network of narrow internal 'streets' between galleries

4. Sectional axonometric reveals the changes in level as visitors proceed through the tight cluster of galleries

5. The maquette reinforces the impression of a microcosmic village crossed by narrow streets

**Museum of
Handcraft Paper,
Xinzhuang,
Yunnan Province,
China,
TAO**

plan workshop spaces, and above that on the second floor are small artists' cells, or guest dormitories. A roof terrace accessed by an external stone staircase takes the visitor up onto a second floor roof terrace that offers views over the dramatic countryside, but also provides the first clear sight of the bamboo roof covering, the stark original colours of which are intended to fade into the landscape over time.

The roof planes fall in two directions from the diagonal ridge, and the bamboo looks loosely attached – tied, almost – to the structure. In truth, the roof has been constructed to modern building standards and the bamboo has simply been overlaid as a finish rather than functioning as the primary waterproof layer. But even so, the simplicity of the material still manages to convey honesty rather than parody, and this may have more to do with the construction methods than the overall design.

Built by a group of local farmers and villagers, the architect says that 'the building is deeply connected with the local people', which incidentally means that costs were kept down to around £60,000. Post-and-beam construction has been used and solid timber logs (the main posts of the three-storey building are 9m long, for example) have been jointed and pinned together. Throughout the building, hand-edged mortise and tenon joints (which are known as 'Sun and Mao' joints, in Chinese) connect the main structural elements. The goalpost frames were built

on the ground and hauled up, and, while guy ropes anchored them in place, the horizontal floor plates were slotted in and bracing was added. Local coniferous Sha wood (fir) is used throughout.

The inherent flexibility of these materials and structural techniques has historically made them more resistant to earthquakes than masonry structures. But it was predominantly the unavailability of other materials and skilled labour that led to this choice of construction method. Qualified labour was brought in to complete the phases of construction that the local people were not skilled in, such as plumbing, fenestration and industrial product fit-outs.

The plinth at the base of the external walls is made from local volcanic rock and, as the external ground level falls away, the horizontal plinth stays level to form the low level enclosing wall at the front. Cross ventilation is achieved through gaps in the plinth rather than by the natural porosity of the material itself. A Chinese colleague informs me that there is a rather boring proverb that says, 'there is neither sweltering summer nor severe winter in Tenchong, but a rainy day brings the temperature down'. Given that the local climate is always mild, the architect says 'there is no need for insulation'.

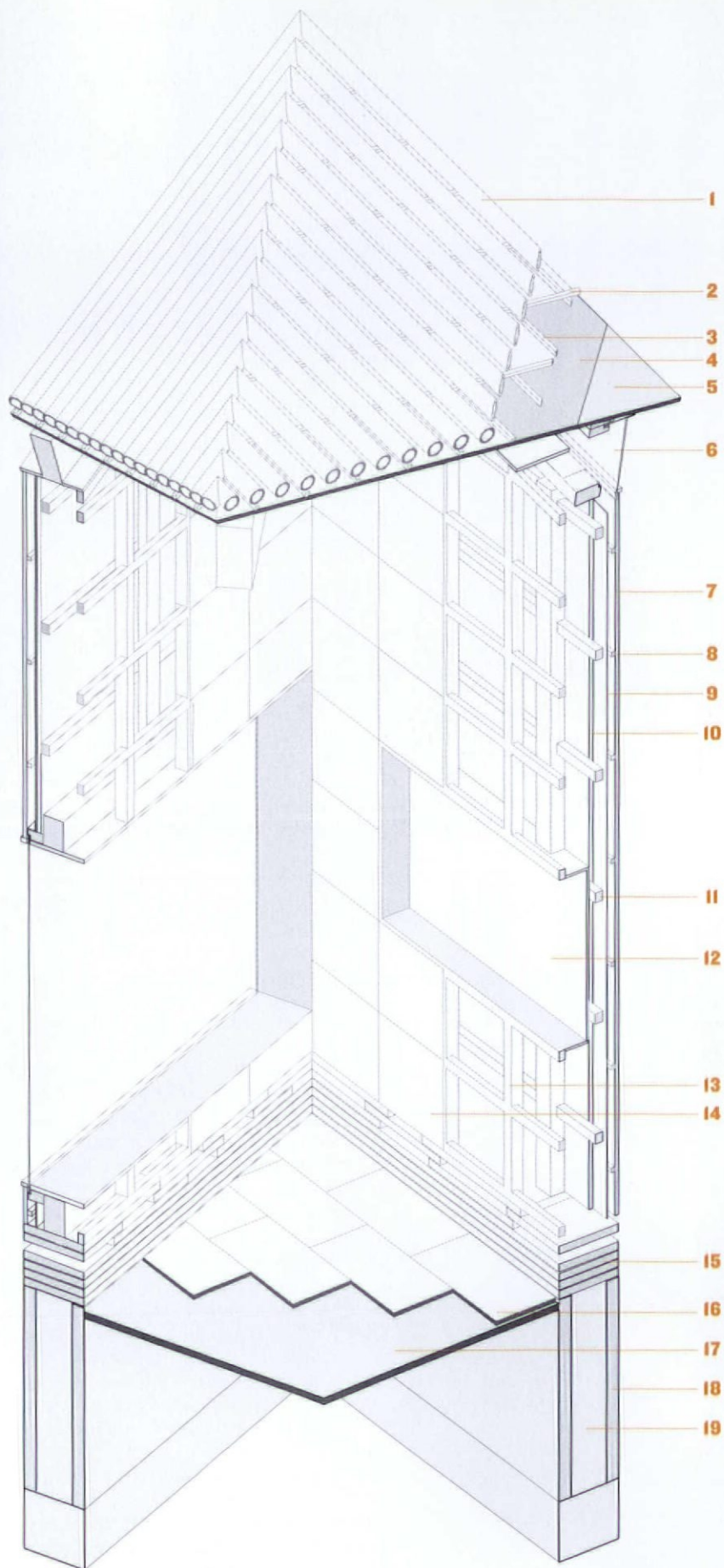
The ceilings are exposed timber and some of the walls are finished with bare timber planks of warm reddish hues. The museum exists to exhibit the history, technique and

6. The main paper-making studio, its intimate, workmanlike atmosphere reinforced by warm, organic materials

7. (Opposite) daylight floods a low-ceilinged bookshop space, panelled with light fir and paved with dark volcanic stone



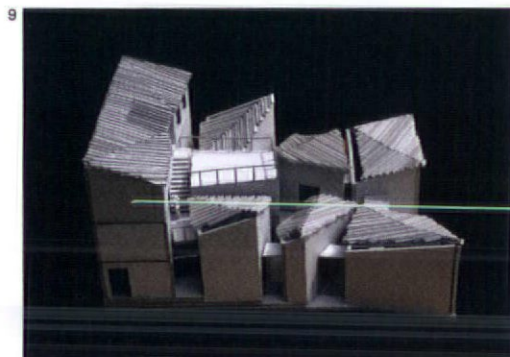




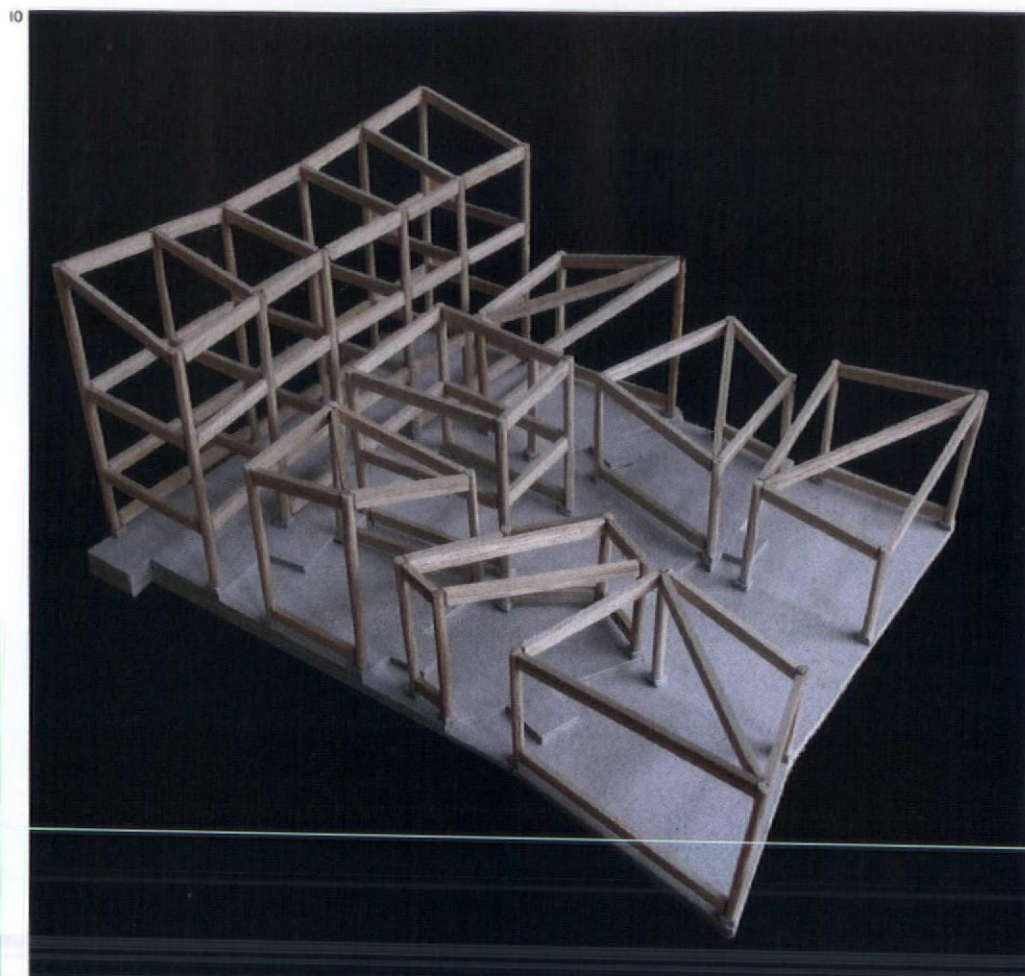
- 1 bamboo roofing
- 2 20 x 20mm timber strips
- 3 50 x 60mm timber strips
- 4 2mm waterproofed galvanised iron sheet
- 5 20mm timber board
- 6 glass panel
- 7 20mm fir board
- 8 20 x 20mm horizontal timber strips fixed to 20 x 20mm vertical timber strips
- 9 5mm waterproof membrane
- 10 20mm plywood
- 11 50 x 50mm horizontal timber strips fixed to 70 x 70mm vertical timber strips
- 12 niche for exhibits
- 13 30 x 50mm timber frame
- 14 handcrafted paper glued to frame
- 15 40 x 300mm volcanic stone laid horizontally with ventilation holes
- 16 20mm volcanic stone
- 17 30mm cement mortar
- 18 50mm volcanic stone
- 19 200mm pebble concrete

cutaway detail of external wall

**Museum of
Handcraft Paper,
Xinzhuang,
Yunnan Province,
China
TAO**



8. Translucent paper panels, handmade on site, are applied to the walls, revealing the timber framework beneath
9. Inclined bamboo-clad roofs create a crisply chiselled geometry
10. Model of the building's structure shows the 'goalpost' framework arrangement



product of paper making and large areas of the internal surfaces have been covered with the local handcrafted paper in 450mm square sheets, set out on timber studwork, allowing light to filter through in places. Additional high-level angled slit windows also throw direct light into the interior.

At the end of 2011, the Chinese authorities finally passed legislation protecting 'Intangible Cultural Heritage' (ICH) and a number of private museums have sprung up during the 10 years that it has taken to get the law passed. This museum is one of those. It is an interesting project that develops, rather than apes, the local vernacular, but it also exemplifies the potential and subtlety of China's emerging young practitioners.

Since every family in Xinzhuang is involved in paper making, 'the entire village functions as a living museum', says the architect. 'More and more people,' he says, 'have visited the village since the museum opened to learn about traditional paper making.' Today's preservationist instinct in China seems to differ from the contemporary Western fetish for cultural reverence in that it seems to be a symbol of self-confidence rather than of nostalgia. Speaking on Chinese TV, minister Zhu Bing said, 'China's heritage protection efforts used to be concerned with

'The traditional village geometries and regional materials mean that the buildings settle into their surroundings'

tangible items including artifacts and historic relics ... (now) Chinese traditional cultural practices have legal protection.'

Culture minister, Ma Wenhui goes further, with the dubious claim that the 'cultural legacies of China's ethnic communities are facing an onslaught from modern urbanisation and civilisation'. It's a bit rich to blame modernisation for the erosion of cultural practices a mere 55 years after the horrors and ignominy of Mao's Cultural Revolution. That experiment consciously sought to destroy traditional and cultural elements of Chinese society, and it is good to see reparations being paid that in some way acknowledge that fact.

Yet, it is also apparent that the consequence of such legislation (the growth of remote, small-scale, living museum pieces) also provides the local peasants – those that haven't yet benefited from China's economic miracle – with plenty of labour-intensive 'cultural activities' to keep them occupied.

Architect

TAO (Trace
Architecture Office)

Project team

Hua Li, Huang Tianju,
Li Guofa, Jiang Nan,
Sun Yuanxia, Xu Yinjun,
Yang Hefeng

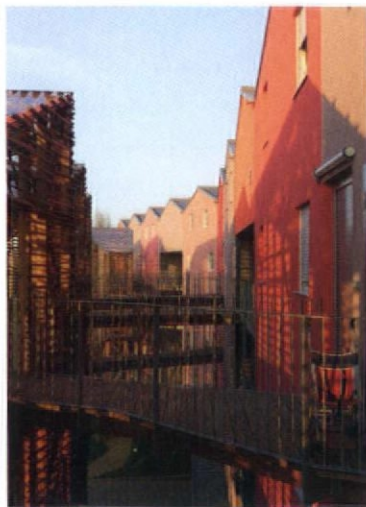
Photographs

Shu He



GREEN HOUSE

Gabled roofs, green allotments and glazed winter gardens give this social housing in Nantes a welcome and liveable atmosphere



Boréal apartments, Nantes, France, Tetrarc

REPORT

ANDREW AYERS

Where social housing is concerned, the city of Nantes is probably best known for its *unité d'habitation*, Le Corbusier's second, built in the suburb of Rezé in 1955. But this was just one small element in a vast building programme launched in response to the post-war housing crisis. New estates appeared all around Nantes, including Les Dervallières, a giant ensemble of 2,500 dwellings built by the architect Michel Favreau in 1956–65. Located in former parkland, its slabs and bars suffered the classic fate: initial enthusiasm followed by slow decline, an ever-worsening reputation, and finally, in 1996, designation under the official euphemism of Zone Urbaine Sensible (sensitive urban zone). Improvement programmes have been ongoing since then, of which the latest, launched in 2008 under the direction of architect and urbanist Jean-François Revert, involves the demolition of four of Favreau's bars and their replacement with smaller, more densely distributed apartment blocks. Tetrarc's Boréal building is one of these.

Boréal's programme was intended to promote what the French call *mixité sociale* – social

diversity, which in this particular instance could be interpreted as de-ghettoisation of the poorest inhabitants – through the dual provision of 21 social-sector rental dwellings and 18 flats reserved for first-time buyers at below-market prices. Since the private homes were intended to operate as an independent commonhold, the brief called for their complete separation from the rental dwellings in order to simplify management of the ensemble. In its principal dispositions, Boréal is the daughter of an earlier Tetrarc project, completed on the Île de Nantes in 2007 and nicknamed 'Playtime' by its designers (a reference to that staple of architecture schools, Jacques Tati's 1967 film). Perched on the street-side summit of this mixed-use complex is a row of eight private-sector 'houses' (in reality duplex apartments), whose semi autonomy is signalled by that archetype of houseness, the gable. On their street facade, the duplexes are fronted by galvanised-steel greenhouses, which, as well as providing winter gardens, offer energy savings in terms of insulation and solar gain. Access to the duplexes is at the rear, in what is supposed to read as the complex's garden. Initially the architects imagined a walkway hanging off the facade,

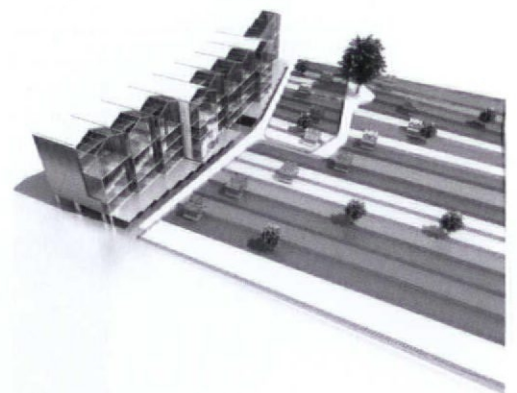
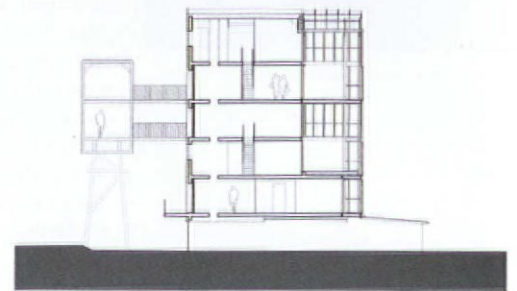
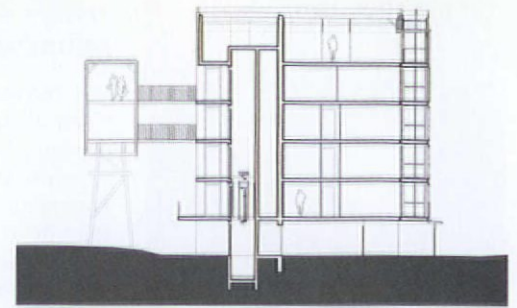
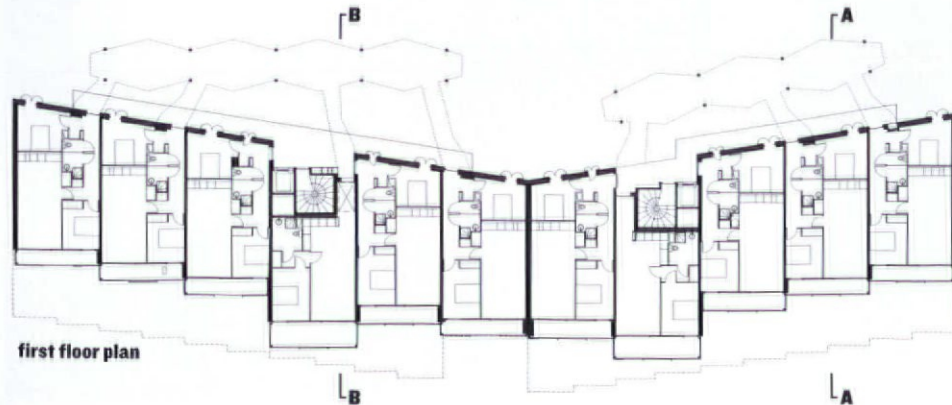
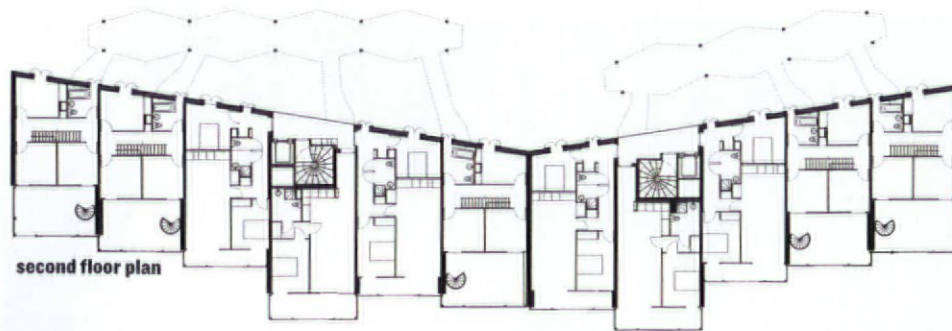
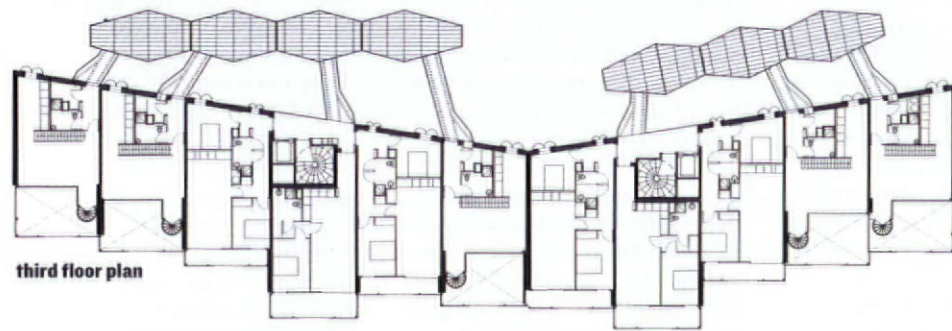
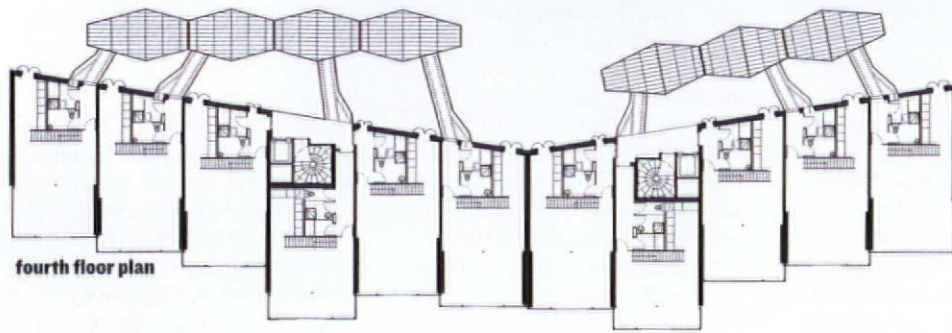
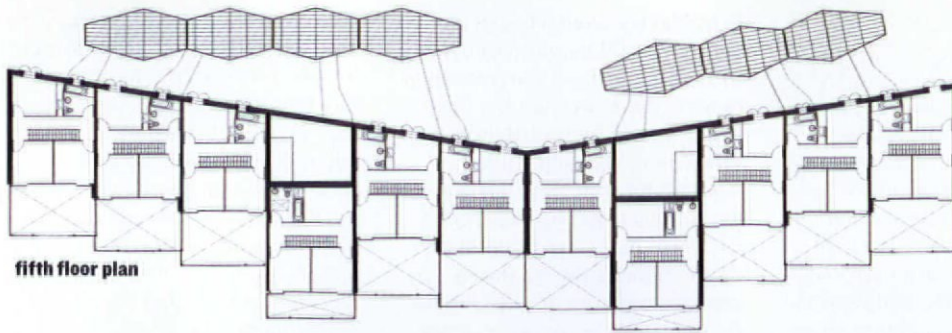
but in the interests of privacy this was detached from the building to become a covered footbridge. The result, realised in larch in deference to its 'garden' setting, takes the form of a monster bird's nest-cum-treehouse.

With Boréal, Tetrarc aimed to scale up the Playtime duplexes into an entire housing block, and we consequently find the same basic disposition of gable ends, bird's-nest footbridges and greenhouses. The building's concrete structure is raised on pilotis to form a parking undercroft, which is closed only with metal netting – this, the architects say, is to allow plant seeds to waft uninhibited across the parkland site. As per the brief, Boréal is divided in two, with commonhold flats at one end and social housing at the other. Where they join, the facades diverge at an angle of 21 degrees, essentially in the interests of formal diversity, but also to create a more 'embracing' space on the entrance side. Since hallways are often dingy problem spaces in collective housing, the architects chose to externalise them: on the ground floor they are entirely absent, the lifts and staircases opening directly onto the outside, while above they take the form of hanging walkways as well as the treehouse footbridges. The Boréal development also

3



1. The south east-facing facade is entirely glazed, creating a wall of winter gardens that insulate the apartments and encourage solar gain
2. Raised walkways contribute to a playful tree house atmosphere
3. 'Monster bird's nests' of timber slats





4. Behind the glazed greenhouse facade are spaced filled with warmth and sunlight, which some of the private tenants use as cocktail lounges
5. An open walkway, shaded by timber slats, permeates a potentially dingy communal space with light and air

Boréal apartments, Nantes, France, Tetrarc

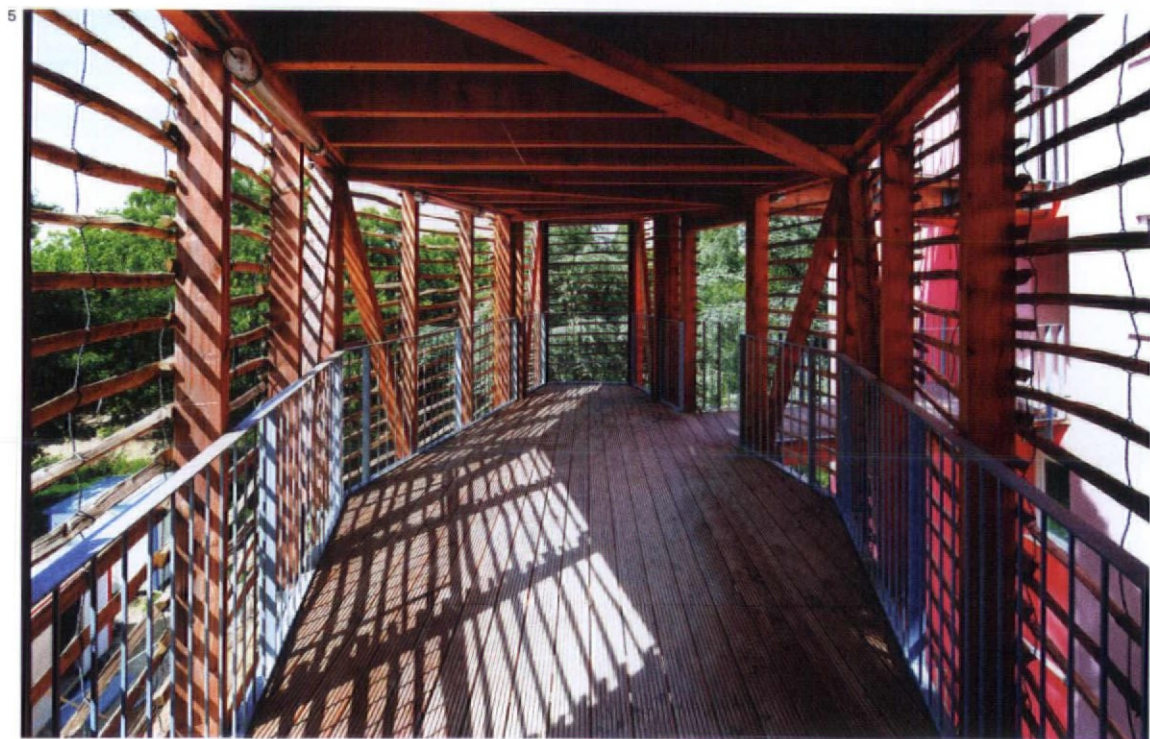
includes 25 mini allotments, laid out in strips in front of the greenhouse facades. While the private dwellings were sold with their own allotment strips, social-sector residents must apply to rent these at extra cost.

Inside, the building is divided up into six two-room flats, 17 three-room apartments and 16 four-room duplexes. While the private dwellings sold out within 24 hours, a few of the social-sector flats are still empty, rejected by prospective tenants who opted not to leave the more generously dimensioned apartments that were formerly the norm in French social housing. And this despite the Boréal flats' enjoying 'extra' space in the form of the greenhouses – 25sqm in the duplexes (only 7sqm of which is counted in the rent calculation) and 10–12sqm in the others. So far the development's success can only really be assessed from the point of view of the private-sector residents, whose flats were completed in July 2011 (the public-sector apartments were finished in January 2012). Most of them have made good use of their greenhouse terraces – the larger ones serving as dining rooms or cocktail lounges – and their feedback on the building's thermal performance is highly encouraging, many reporting that

they hardly needed heating at all this winter. Even on cold sunny days the greenhouses' solar gain can be considerable, so it remains to be seen quite how they will perform in a heat wave. The vertical surfaces between each greenhouse and the apartment proper form an insulating barrier, and residents are taught how to use the natural-ventilation systems. Energy-consumption figures are currently unavailable, but Boréal's performance will be monitored over a period of five years. One thing is sure, the greenhouses pushed up the construction cost (at €1,400 per habitable square metre it was €200 above the norm for social housing), as did the footbridges and the extra facade length necessary to achieve dual-aspect front-back apartment plans, meaning that the cheapest solutions had to be sought for all the rest.

In French there is an old expression, *avoir pignon sur rue* (literally, 'to have a gable on the street'), which today means having a (good) public reputation, but which originally referred to successful merchants who could afford an individual house in the dense medieval town. In the very urban context of the Île de Nantes, Playtime's gables signify just that, while the greenhouses stand in for the missing gardens.

But transferred to an entire apartment building in suburban parkland, this vocabulary becomes more ambiguous. Coupled with the allotment strips, Boréal's greenhouse facade reads like a jazzed-up agricultural facility; but on its entrance side, painted Portmeirion style, the building appears like a row of tall medieval houses in some Disney pirate village, an impression reinforced by the garden-folly footbridges (which also distract from the cheapness of the facade detailing). On the one hand Boréal's gables provide a visual cue that helps residents identify their own flat from among the mass – something that can encourage the appropriation of a home one did not necessarily choose – while on the other they represent the aspiration to, although no longer necessarily the fact of, individual home ownership, evoking the little-house-with-a-garden dream that has seduced a majority of France's population if opinion polls are to be believed. But this individualist drive need not entirely quash the collective spirit: Playtime's residents spontaneously got together for al fresco dinners on their treehouse footbridge, and Tetrarc hopes that, once warmer weather arrives, Boréal's will do the same.



Architect
Tetrarc
Greenhouse, roof
Danpalon
Wire facade
Arval
Rubber flooring
Mondo Sportflex
PVC flooring
Forbo Novibat
Photographs
Stephane Chalmeau

**Maritime
Museum,
Oudeschild,
The Netherlands,
Mecanoo**



SEA SHANTY

Mecanoo's addition to a maritime museum on the remote island of Texel is a meaningful dialogue between elemental forms, sober materiality and the poetic play of light





1. (Previous page) the museum's jagged roofline and sober weathered facade allude to its Dutch maritime vernacular context
2. The glazed facade reflects the island's ever-changing sky
3. Irregular gables generate a spatial dynamism tempered by the monochromatic interior palette

4. The glass is partially clothed in driftwood slats, through which reflected daylight softly percolates, animating the interior
5. Cutaway view of model showing the building's three storeys, which house (from top to bottom): galleries; ticket desk, shop and café; and more galleries. The ground floor also has the potential to be used as a village hall



REPORT

ANDREW DAWES

Set off Holland's North Sea coast, the island of Texel is home to an unspoilt landscape of dunes, polders and woods, and an insular people hardened by their geography. The journey there is not for the faint-hearted. Seemingly endless train and bus connections bring you to the country's northernmost tip, the sea hidden by the high protective dykes. A ferry carries you across to the island, and as it approaches the shore the tannoy welcomes the islanders back home, reminding you that you are but a visitor. Imagine *The Wicker Man* and the arrival of the stranger from the mainland into the midst of the clannish community of Summerisle: so must Mecanoo have felt when they won the competition for a new entrance to the Maritime and Beachcombing Museum.

The museum is on the island's sheltered east coast, in the harbour town of Oudeschild, among a scattering of small pitch-roofed houses and larger fishing sheds. In the Dutch Golden Age the fleet of the East India Company (VOC) would drop anchor off this coast before embarking on their trading voyages to the Far East. This history has not been forgotten, and when the VOC celebrated its

400th anniversary they created a grand model of their fleet off the Texel coast, measuring 72sqm, which was donated to the museum. This museum is housed in a collection of picturesque buildings and a windmill, gathered around an informal garden courtyard. The remains of ships washed up on the shores are scattered in and around these buildings, and they tell the tale of the island's maritime history.

Using the new entrance building to connect the museum courtyard to the street, Mecanoo set out to create a transparent link, initially conceiving a glazed box washed up on the island's beaches. Eager to overcome the image of urban aesthetes foisted upon the wary islanders, they invited locals to join in the design process. The glass was felt by many to be alien to the simple forms and materials of the town, and the building was wrapped in a slatted skin of weathered driftwood, responding both to the nature of the island and the exhibits within.

Not only were the architects keen to get the support of the local community, but also to help the museum in raising its national profile. Mecanoo developed their competition design into promotional literature to win the client extra funding, significantly increasing the budget of the project, and creating the

opportunity for a richer materiality and detailing for what is a relatively small building.

The search for the driftwood to wrap the museum eventually led the architects to the wooden piles lining the North Holland canal. These were being replaced, and after standing in the water for some 40 years they were dug up and brought to the island, where they were sawn to size. This in turn added another layer to the history of the museum, as it was the creation of this canal, linking Amsterdam to the North Sea, which effectively ended Texel's importance on the Dutch trading routes. With that uncanny Dutch skill for moral adaptation, the island had received something in return for what had been taken away.

Glimpsed across the jumbled roofscape of the town, the museum is rarely seen in its entirety. The broken roofline speaks to the individual dwellings of the surrounding streets, while the singular materiality and scale of the building nods at the larger sheds serving the harbour. Its weathered patina makes it feel comfortable and at home in its surroundings, as if it too has endured centuries of the harsh North Sea weather. At night the empty dark mass of the building looms large, yet as you draw closer the subdued lights within, and reflected by, the glass

**Maritime
Museum,
Oudeschild,
The Netherlands,
Mecanoo**

5



coruscate, darting between the slats of the skin in a delightfully playful manner. And looking up, the stars of the heavy Dutch sky are revealed, shining through this mysterious veiled mass.

Entry to the building is through three large openings at both front and back. Hidden behind the slatted skin at night, these are revealed by day, the facade pivoting up to create canopies above the doorways. A large basement houses the VOC model, and the exhibits reclaimed from the ocean are placed under the roof, freeing up the ground floor. Here the ticket desk, shop and cafeteria are housed, with services and circulation placed to the sides, allowing unobstructed views between street and courtyard and an overwhelming sense of openness.

The brick paving from the street wanders its way into the museum and through to the courtyard beyond. This is not a museum as precious piece of art, but one that draws sand in from the beach and visitors from the street.

Within, the materials are simple, the detailing unassuming. It is light and airy but always you are drawn to the skin, the shadows cast by the slatted facade constantly changing. You climb up the stairs and stand beneath the jagged pitches

'At night the empty dark mass of the building looms large, yet as you draw near the subdued lights within coruscate, darting between the slats of the skin in a playful manner'

of the roof, already familiar from the views around town. The diagonals of the slopes give an added dynamism to the kaleidoscope of light and shadow radiating from the facade.

While the new entrance building has not yet opened, it is already struggling with its size. Too small for a formal routing system and too large to be served by a single counter like a shop, the problem of controlling access to the museum has been left to the exhibition designer. Already a line of low shelving impedes access through the building and steers you to the ticket desk. Fortunately the shelves are portable, and once the building is opened and in use we will see how the use of this space evolves.

Mecanoo has made their name through their inventive use of materials, clear and efficient floor plans and attention to designing public space. In this museum the

practice has combined all three in a seemingly effortless manner. Heinrich Tessenow taught us that 'the simplest form is not always the best, but the best is always simple'. This building demonstrates the joy of keeping things simple. It does not demand attention but rather arouses curiosity through its skilful blend of old and new materials, and its thoughtful play of light and shadow.

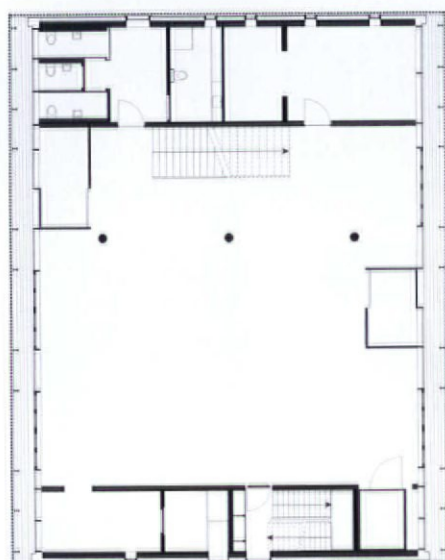
The Dutch have over the centuries developed a skill for creating spaces and places that reinforce their collective identity and freedom. This building demonstrates that skill; the building responding to the individual dwellings of the surrounding streets and yet creating a unifying whole through its collective materiality. The street has been allowed to flow into and through the ground floor, and the museum hopes that this space can assume the role of village hall; a flexible place of social interaction and a focus for the community.

The architects have succeeded not only in overcoming the initial wariness of the islanders towards outsiders, but have given them a beautifully crafted building of which they are already proud. It responds effortlessly to its context and offers the community a new gathering place.

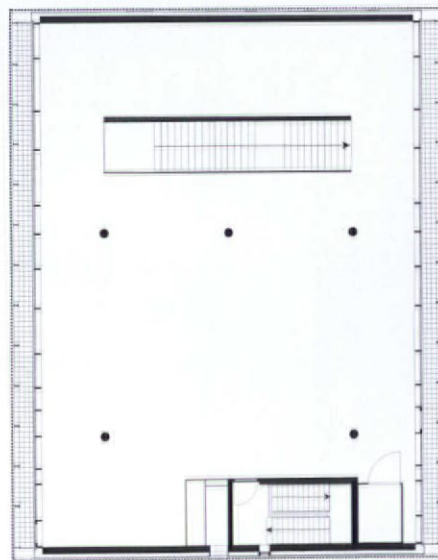
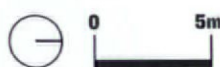


Maritime Museum, Oudeschild, The Netherlands, Mecanoo

6 & 7. Daylight penetrates the structure through the vertically-pierced facade and the horizontals of the stairs, producing a scintillating chiaroscuro lattice

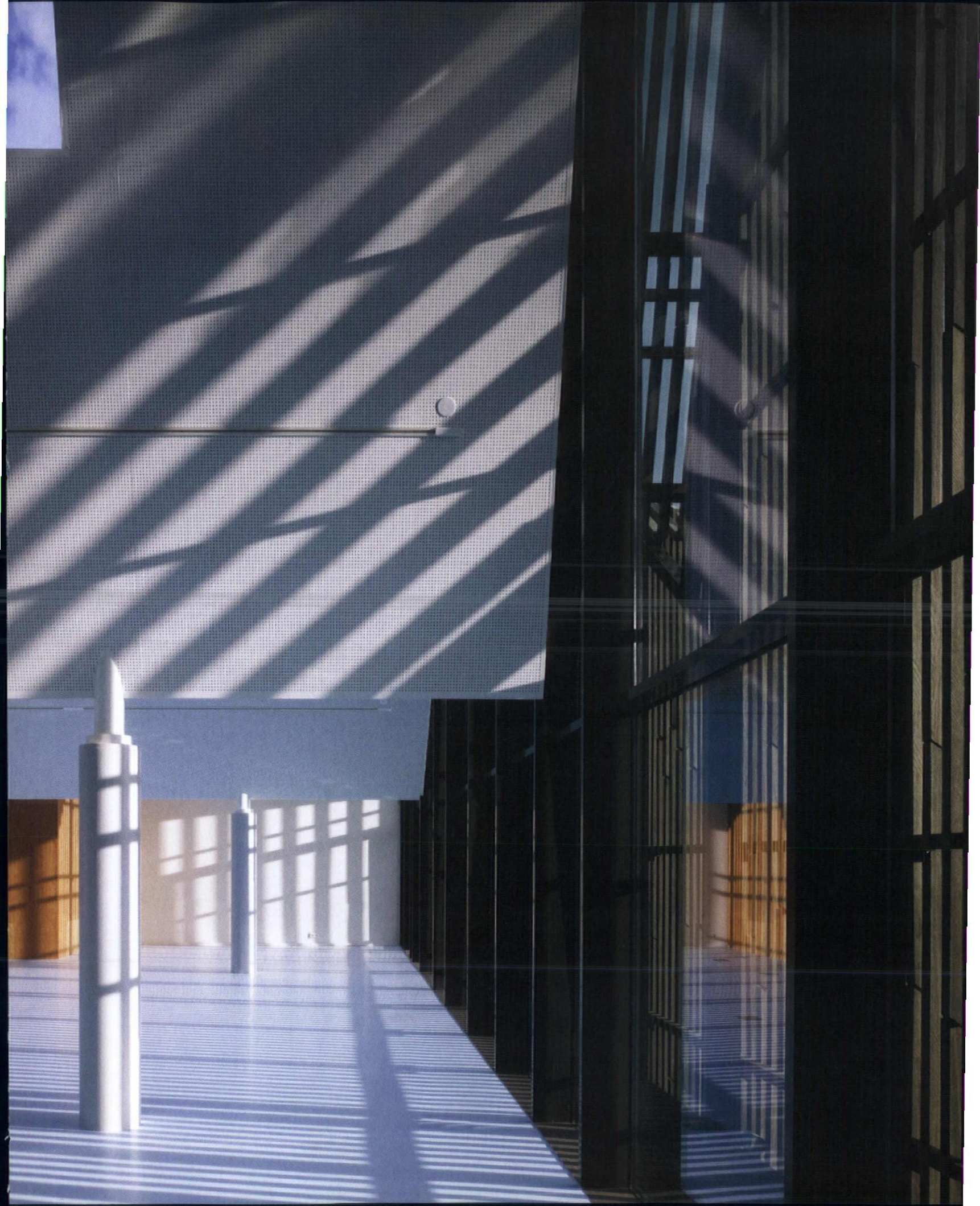


ground floor plan



first floor plan

Architect
Mecanoo
Curtain wall
Reynaers
Folding glass door
Solarlux
Interior door frames
MHB
Switches/control systems
Albrecht Jung
Photographs
Christian Richters



SPONSORED FEATURE





1. (Opposite) the central courtyard is bisected by pedestrian routes
2. Apartments on the upper floors are wrapped in delicate timber veils, like modern mashrabiya screens, through which light softly percolates

**Arketip
Housing,
Istanbul,
Turkey
Emre Arolat
Architects**

BLOCK PATTERN

This housing scheme in Istanbul reinterprets and reworks the archetypal typology of the residential courtyard block

SPONSORED FEATURE



Turkish practice Emre Arolat Architects (EAA) first appeared in the AR with a project for an airport terminal at Dalaman, a holiday resort on Turkey's Mediterranean coast, which was a winner in the 2006 AR Awards for Emerging Architecture (AR December 2006). The jury was impressed by the confident handling of a large and challenging building type, and how the resulting architecture was imbued with spatial and material subtleties. A similar ethos is evident in this project for a residential block in Istanbul. Here again a potentially anodyne building type is humanised through a considered response to site and climate, thoughtful articulation of constituent parts and expressive use of materials.

Among the factors that shaped the design were the low-rise scale of the surroundings, the relationship between public and private domains, a requirement for inhabitable roof spaces and the need to minimise running and maintenance costs. Disposed around a central garden landscaped with pools and planting, the scheme reinterprets the archetypal courtyard block – the quintessential human-scaled housing type – and the water-filled patio that traditionally provides relief in an oppressive climate. The four-storey blocks are articulated to create deep, shaded balconies that act as outdoor rooms and encourage

cooling breezes to circulate through the flats. The two upper storeys are veiled in delicately perforated timber screens, a modern version of the classic mashrabiya, so the facades subtly shift and change as the inhabitants open and close the panels.

Placed along a north-south axis, the housing blocks wrap around the tapering, split level courtyard, with communal social facilities contained below ground. To optimise natural light, flats are double banked around a central spinal corridor. Breaking up the rhythm of the blocks, the mid-point of each is loosened and detached to create a series of interstitial voids filled with gardens. Chosen to age and weather gracefully, the material palette of stone, timber and concrete is robust yet dignified. Domestically intimate, yet with a larger civic presence, the project shows how the traditional courtyard block can be reinterpreted for the modern age.

'A challenging building type is humanised through thoughtful articulation of constituent parts and expressive use of materials'



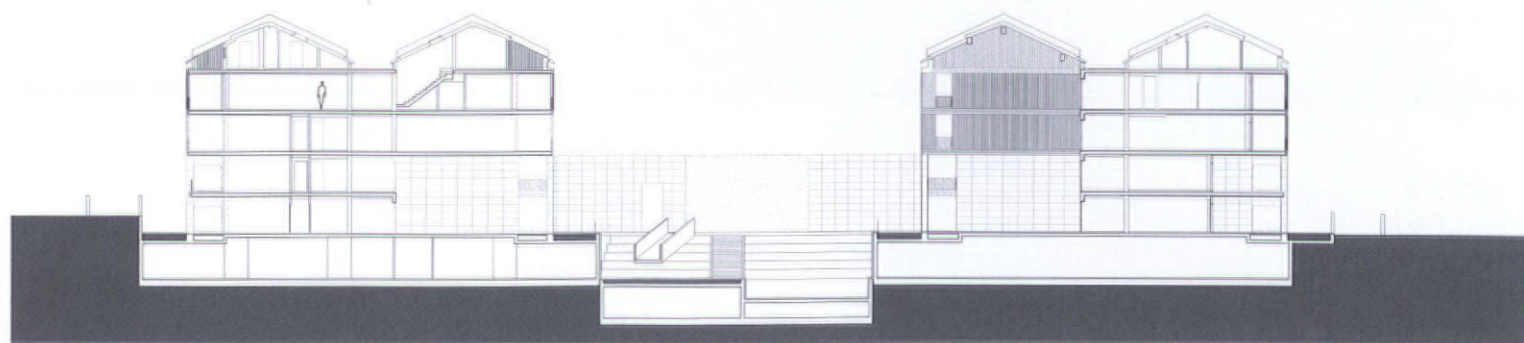
3. The palette of stone, timber and concrete has an evident refinement but is also designed to weather gracefully
4. Apartment blocks are arranged around a tapering split-level courtyard landscaped with greenery and water



first floor plan



ground floor plan



cross section

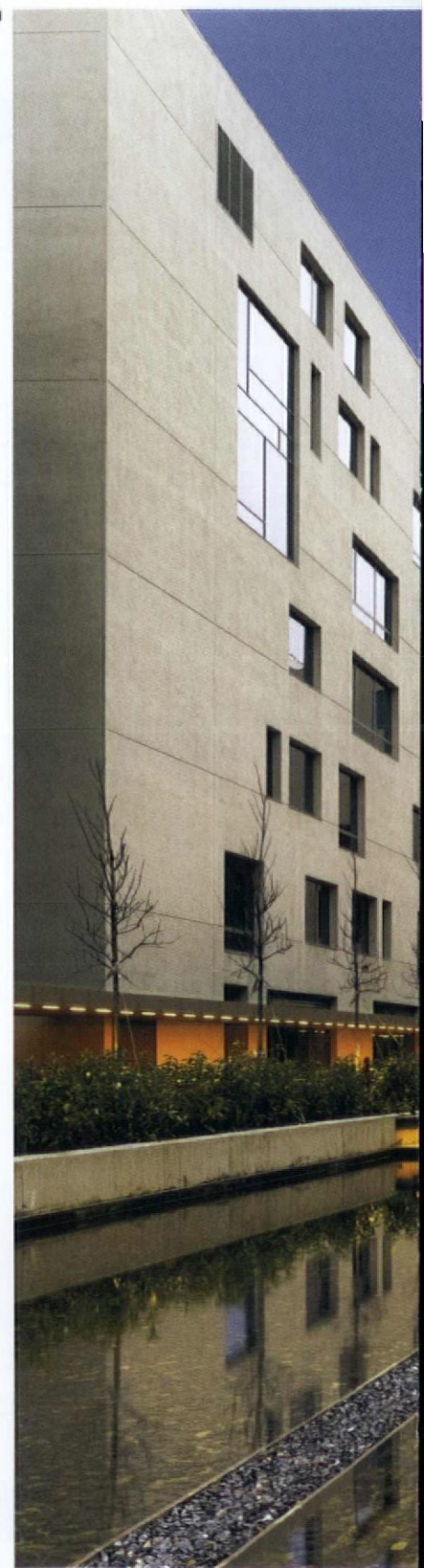
**Arketip
Housing,
Istanbul,
Turkey
Emre Arolat
Architects**

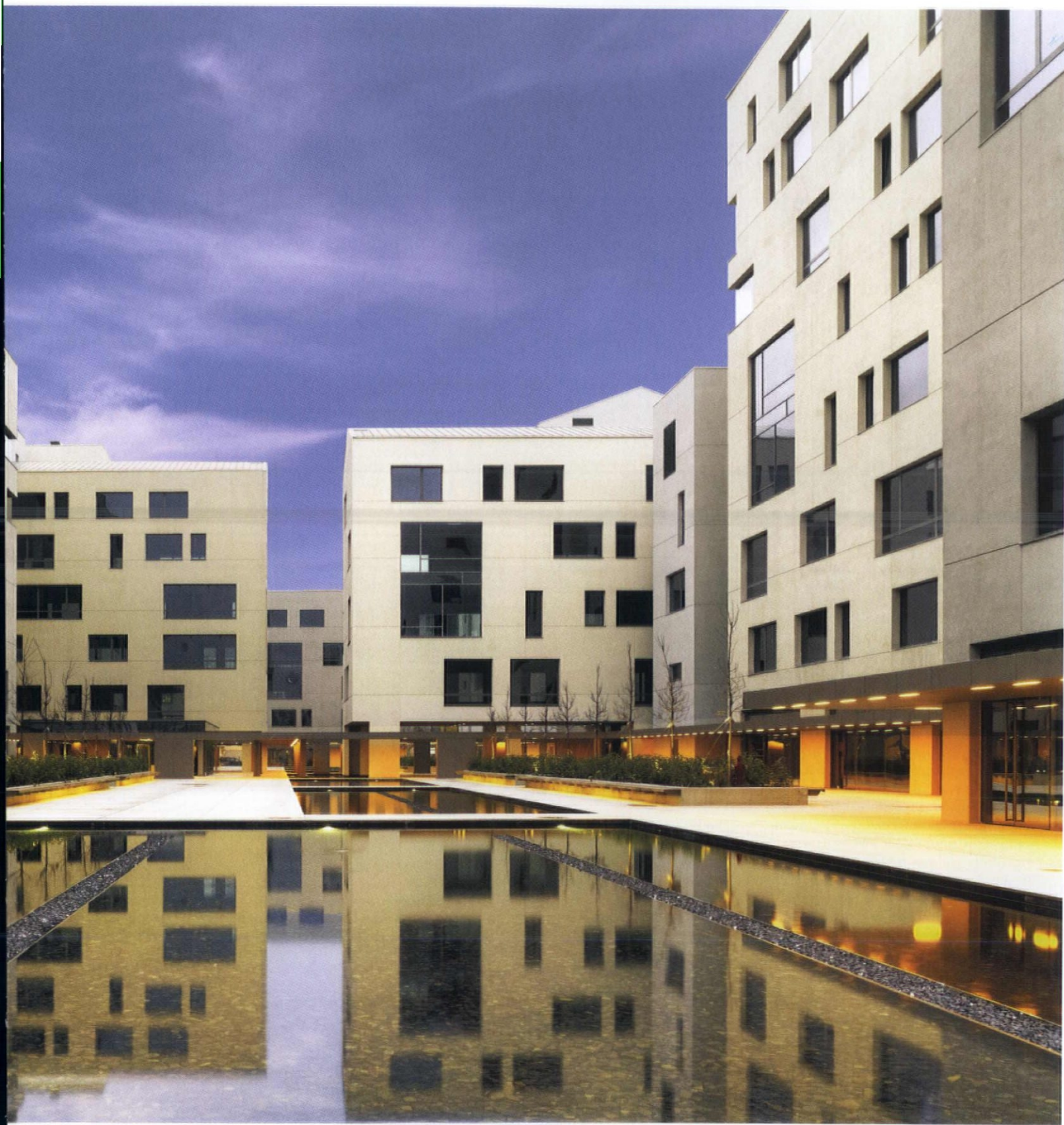
URBAN ROOMS

Spearheading the evolution of the Kagithane district of Istanbul as a commercial centre, this office park has wider urban and social ambitions

**Kagithane
Office Park,
Istanbul,
Turkey
Emre Arolat
Architects**

1. Conceived as a series of differently scaled blocks structured around planted courtyards, the Kagithane Office Park reconceptualises the generic office building as humanely scaled and connecting with the wider urban realm





2



The pressure on central Istanbul's existing commercial core has led to the development of new commercial districts along the city's north-south Levent-Maslak axis. To the west of this spine is the neighbourhood of Kagithane, a notable centre of Ottoman Modernism. Proposing an alternative to the often inflexible and soulless generic model of the office tower, Emre Arolat's new Kagithane Office Park for Tekfen Real Estate provides 30,000sqm of offices and workspaces arranged in a fragmented courtyard layout. Inspired by the urban grain and scale of Kagithane, the project aims to spearhead the area's transformation and provide a responsive model for future commercial development. Begun in 2009, the project has evolved incrementally and has reached its final phase.

The development lies on the site of a former nail factory and incorporates some existing structures. The site was analysed in depth with the aim of drilling down into the social, physical and topographical strata that make up the urban grain and shape patterns of use. A comprehensive set of digital models helped the architects to develop ideas about scale, form and the experiential quality of the architecture. A network of courtyards cultivates a sense of human scale and encourages informal interaction, while also meshing with the existing street patterns. Pools and planting soften the ground plane

3

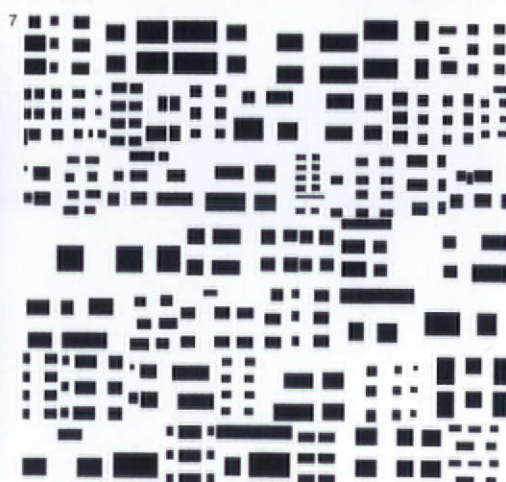
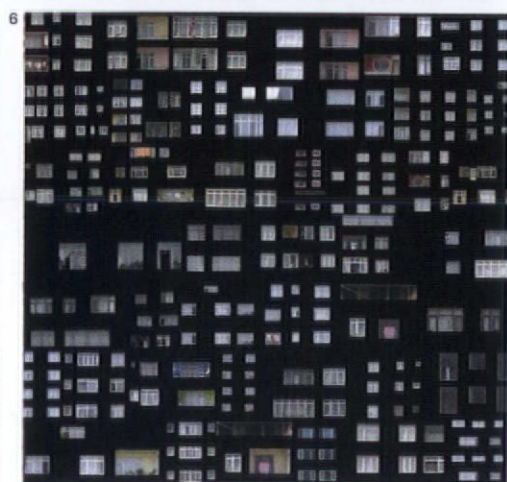
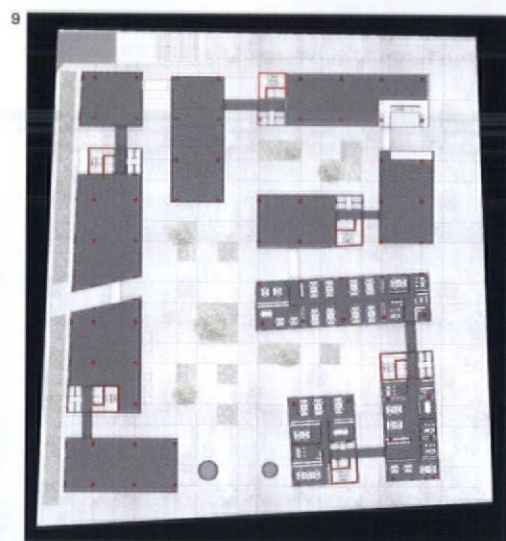


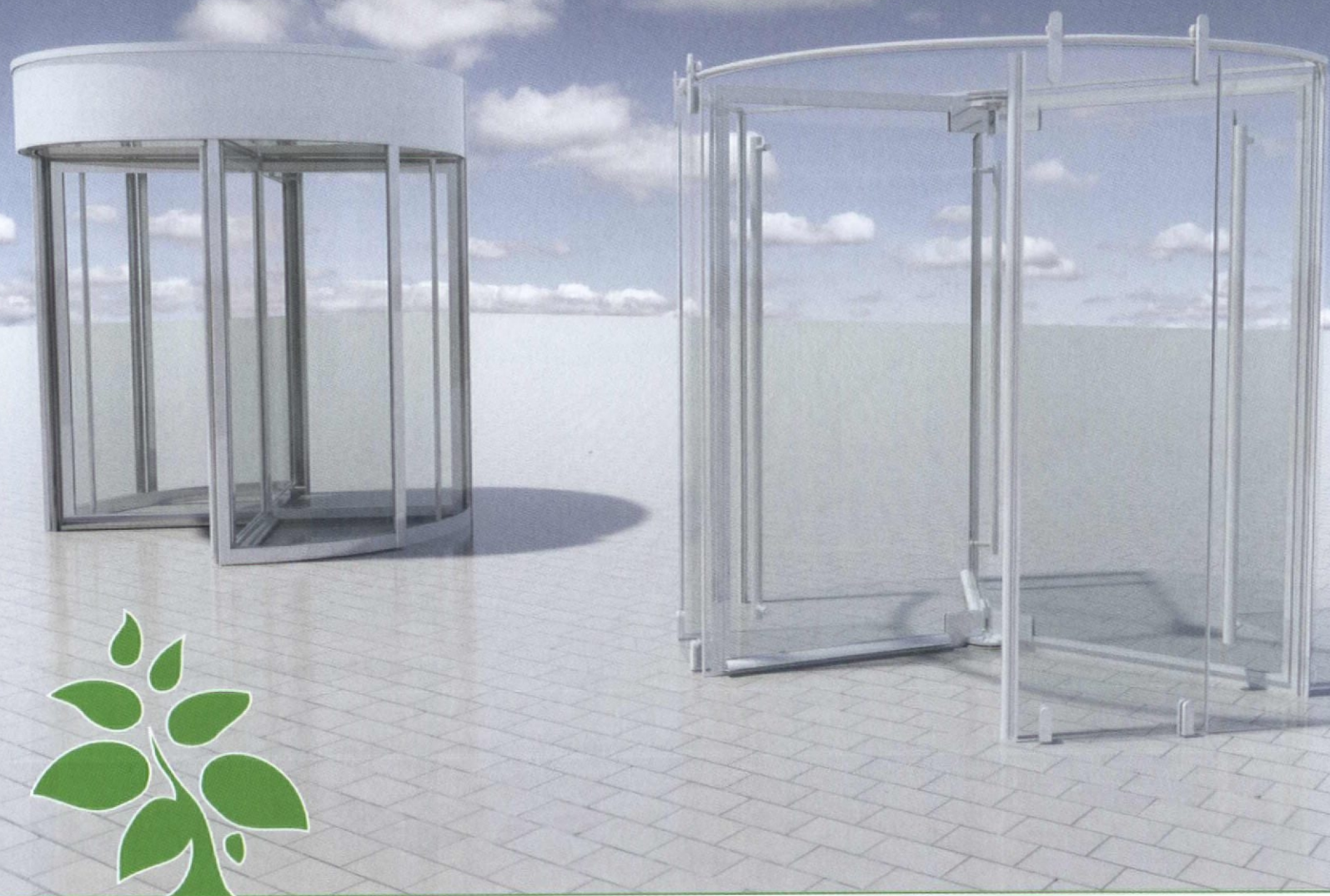
and temper the effects of the Turkish climate.

Individual buildings are simple, sober exercises in rendered concrete capped with shallow pitched roofs. They range in height but the tallest is no more than seven storeys. Drawing on the rhythms of the existing streetscape, an irregular patchwork of glazing animates and enlivens the facades. Each block provides around 400sqm per floor and tenants can colonise and subdivide the spaces as they choose. The now familiar requirement for energy efficiency underscores the architecture and the scheme has been rated LEED Silver. The project demonstrates how new office buildings can be sensitively integrated into a historic neighbourhood without compromising its essential character.

- 2. Cross section through courtyard and office block
- 3. The project in context
- 4. Typical office block
- 5, 6, 7. Facade patterns are abstracted from the surrounding urban milieu
- 8. Typical courtyard
- 9. Ground floor plan

**Kagithane
Office Park,
Istanbul,
Turkey
Emre Arolat
Architects**





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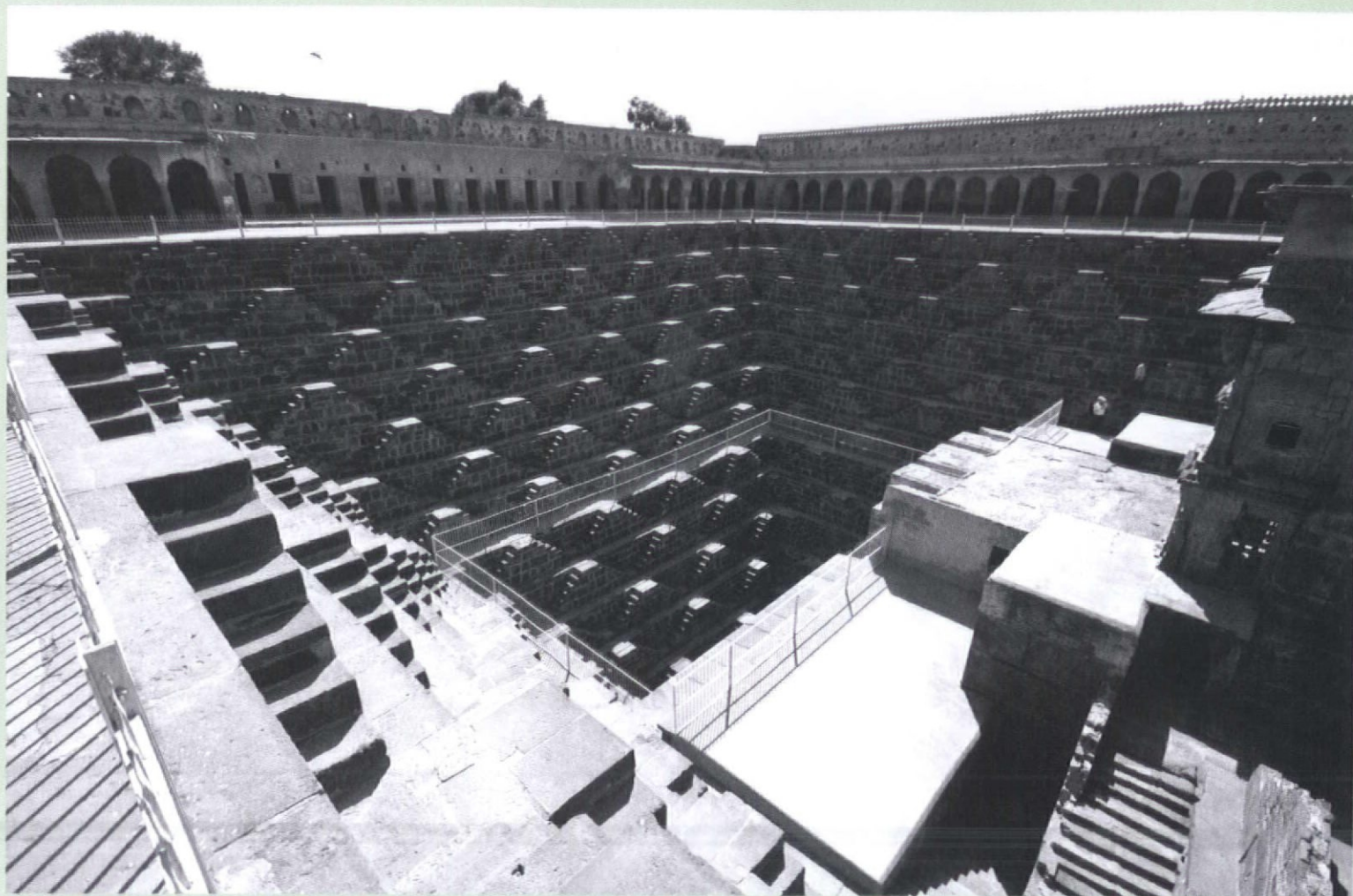
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THE BIG RETHINK

THE PURPOSES OF ARCHITECTURE

I. Indian stepped water tank, designed for rising and falling water levels, is a powerful symbolic and functional focus of communal life

In common with many aspects of modern civilisation, architecture has lost its enriching sense of purpose, leading to toxic anomie. In seeking to restore architecture's rightful place in culture, as a truly qualitatively and quantifiably sustainable art, we must look deeper and redefine what it is to be human and what sort of lives we want to lead. In this, Integral theory offers a means of rebalancing and reconnecting with deeper transcendent meaning and purpose

PETER BUCHANAN

Marshall McLuhan explained our unawareness of how much we are shaped by our communications media by saying 'Whoever discovered water, it wasn't the fish.'

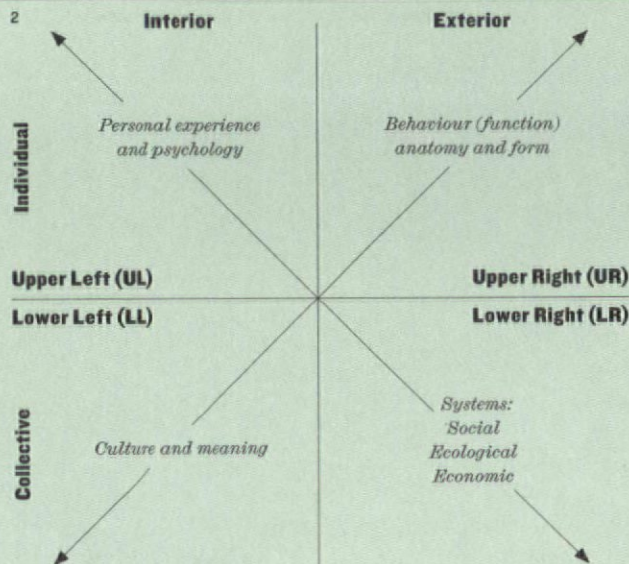
Something similar applies to architecture. Our relationships with it are so intimate, so fundamental and all-pervasive as the settings of our lives, that we do not fully register how much they sustain and shape us. Thus architecture is not a regular topic of normal conversation as are the other arts, an omission that is not fully explained by recognising that it is not only an art. Even architects underestimate how important architecture is and fail to grasp some of its fundamental purposes.

The inherent difficulties of knowing the purposes of architecture, arising from its ubiquity, have been compounded by the reductive and unbalanced views of reality, and so also of architecture, characteristic of modernity and postmodernity. In the confusing aftermath of these, any useful vision of a more complete architecture needs to be underpinned by a reassessment of its very purposes – the subject of this essay.

Of course, it is not only architecture that has lost an enriching sense of purpose. So has almost every aspect of modern civilisation. Among the clearest examples of loss or distortion of purpose is the shift from agriculture to agri-business. Just the inclusion of culture in the former word is profoundly telling. It implies that agriculture is much more than a means to produce wholesome food; it also encompasses a whole way of living on and with the land. Beyond tending the land in a spirit of husbandry and passing it on enhanced to future generations, as in the long temporal frame of culture, it includes such things as rituals of gratitude and reverence in autumnal harvest fairs, Thanksgiving services and so on. In contrast, agri-business is simply about maximising quick, short-term profits for absent owners and shareholders without caring how un-nutritious, and even toxically polluted, the food produced may be, or any regard for the concomitant destruction of soil quality, biodiversity, wildlife and rural communities.

Similarly healthcare is increasingly about dispensing drugs to maximise the profits of pharmaceutical companies and not about what would keep us truly healthy without prohibitive expenditure, such as low cost alternatives without toxic side effects, as well as nutrition, exercise, emotional support and so on. Almost everything in our late-modern world is more about making money for corporations and their shareholders rather than providing services in anything approaching an efficient, fair and equitable manner that is good for physical, mental, social and planetary health. Focusing on the quantitative and objective to the exclusion of the qualitative and subjective – the realm of meaning, morals and empathic connection – we have utterly lost our way. But let's return to architecture, which has lost its way for similar reasons, and to expanding our understanding of that.

Last month's essay introduced Integral theory, in particular the AQAL (All Quadrant All Level) diagram, to explain aspects of modernity and postmodernity. The former over-emphasises objective and quantifiable

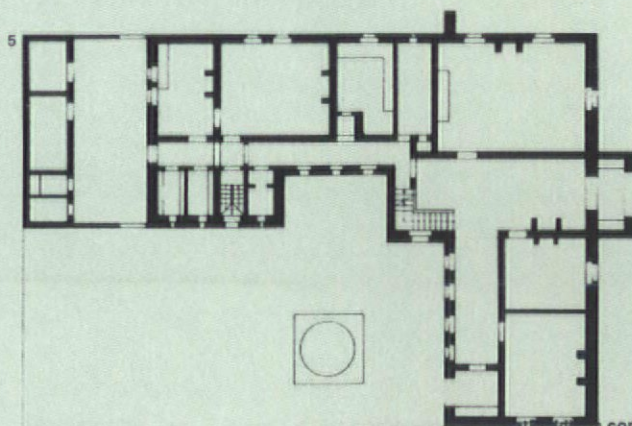
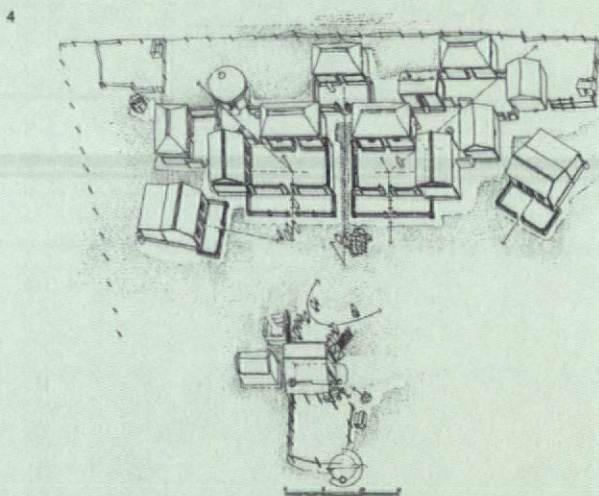
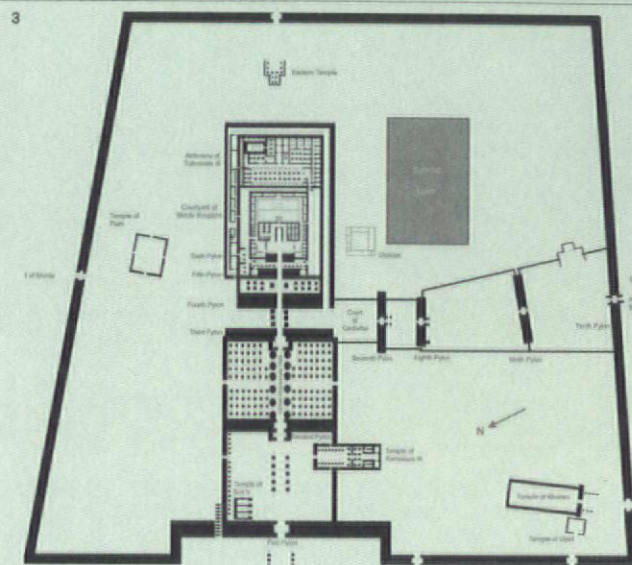


knowledge (the right quadrants of the AQAL diagram), at the expense of the subjective and qualitative (the left quadrants), including personal experience (Upper Left (UL)) and collective meanings (Lower Left (LL)).

Much modern thought even assumed that things could be understood by reductive analysis that ignored the web of relationships that constitute context. In architecture this led to stand-alone object buildings that could not aggregate into satisfactory urban fabric, and so to energy-profligate fragmented and dispersed cities that are major contributors to modernity's assault on the biosphere and community life. Systems thinking (or systems holism) puts all this in context and helps us to understand the problem, but in acknowledging only the objective, right quadrants cannot develop really effective solutions. The fundamental purposes of modern architecture are thus limited to such right quadrant concerns as shelter, security, function and so on – all of them important, but not enough for a truly sustainable architecture because they ignore what sustains us psychologically and culturally.

By contrast, postmodernity overemphasises the subjective, particularly signs and meanings (part of the LL realm of culture). But it tends to be stuck at a superficial level so ignoring the more universal drives and phenomena of the deep subjective, which includes the unconscious, the greater portion of the mind with its supposedly universal archetypes and the collective unconscious. Because it is not properly grounded in either the right or left quadrants, postmodernism sees all realities as arbitrary, mere social constructs. For postmodernism, architecture might have to deal with such mundane matters as function and shelter but is much more about representation, about conveying messages to be read (semiotics) and illustrating spurious theories (critical architecture). These too are part of any complete architecture, but only part. And the relativist postmodern mindset is incapable of undertaking the determined actions now urgently required to progress to sustainability.

2. Simplified AQAL (All Quadrant, All Level) diagram
3. Plan of Egyptian temple complex shaped around ritual
4. Plan of N'debele village surveyed by Peter Rich, organised around social and gender hierarchies
5. Plan of Red House by Philip Webb: complex compartmentation of Victorian home



As was implicit in last month's discussion, an effective way to move beyond the limits of modernity and postmodernity is to adopt an Integral 'four quadrant' approach. Giving equal attention to the objective, including the collective realm of systems (ecology, economics, technology and society), and the subjective, both of individual experience and collective meanings, it is particularly suited to architecture. Not least because to fulfil any promise of achieving sustainability we must still draw extensively on the accumulating technical expertise of the right quadrants, while delivering the psychic satisfactions that come from attending to the left quadrants. Without the promise of such deep satisfactions as a truly meaningful life lived in accord with one's most personal values and in connection with others and nature, and of having ample opportunities to fulfil all one's potential, we will lack the will and commitment to see through the objective, and undeniably demanding, challenges ahead. We will also lack that sense of inner peace, that harmony with our deepest beliefs and values, which might bring to an end the dissatisfaction and restlessness that come from an unfulfilling life (Thoreau's 'lives of quiet desperation') and fuel our destructive tendencies. And part of the corresponding reassurance of 'all being right with the world' will come from knowing that our lives and built environment are shaped in accord with the best knowledge available, and that by embracing this we participate in the great adventure of our time.

The psychological necessity for architecture

So how would we redefine the most fundamental purpose of architecture to suit our times? This redefinition should acknowledge the developmental or evolutionary views that are in the ascendant, counterbalancing both the over-emphasis on the right quadrants that has dominated for so long, and the shallowness of postmodernity's foray into the left quadrants. It should also recognise that development in one quadrant (an increase in level) is matched by corresponding development in the other quadrants. Moreover, we need to remember that architecture began not only with creating shelter (Upper Right (UR)) but also with ritual – the spatial arrangement of collective acts that forge community and heighten experience and meaning (LL). Such rituals range from those as mundane as telling stories around a campfire to once-in-a-lifetime pilgrimages along a set route to a sacred spot, the vestiges of which remain in gathering around the dining table and processing down a church nave.

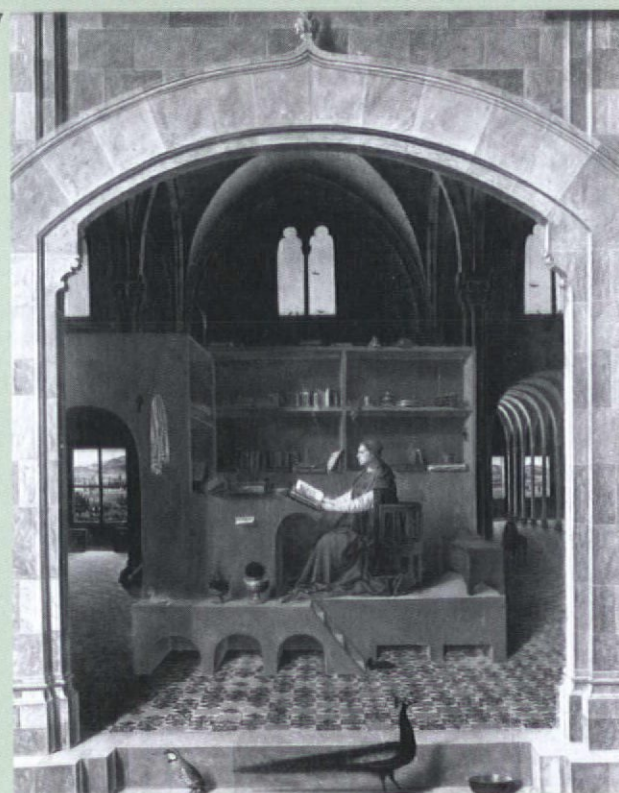
A conspicuous feature of the architecture of the last several millennia, after the prolonged period of relative stasis we refer to as prehistory, is that it has become ever more complex and differentiated. This is seen in the progression from single room huts to multi-room mansions as well as from simple gatherings of huts to villages arranged so that the huts of the chief and his wives have locations distinct from the others. It continues through towns where temple/church and palace/castle stand out from the surrounding houses, to great cities whose many diverse functions and institutions occupy a range of building types that both accommodate and communicate their contents.

What drives this compulsion to create buildings and cities of increasing complexity? Why have we progressively separated out cooking from dining, dining from living, living from sleeping and so on? Purely rational and functional explanations (right quadrant) can only be part of the story; psychological and cultural drives (left quadrant) must be involved too, probably largely unconscious ones. We have progressively sliced up and compartmentalised (in distinct rooms, for instance) what would otherwise be the continuities of experience so that we can focus on and intensify each isolated experience (UL) – originally perhaps because then free from distractions and danger. We also deploy those compartmentalised experiences in ordered relationships in space to further intensify and give additional meaning (LL) to these experiences. So secular gathering places (whether living room or piazza) might be placed centrally and an especially sacred function be set at a distance to be reached through processional pilgrimage during which anticipation and the sense of the sacred is intensified.

This compartmentalisation, differentiation and intensification are essential to how we have elaborated our many cultures – and equally to how we have created ourselves as complex acculturated persons. By separating out and dispersing our experiences spatially we also project and map our psyches in space so that we may then explore and progressively elaborate them. Thus one of the very most fundamental purposes of architecture, one underestimated by most architects, is as a means by which we create ourselves. Arguably, only language plays as important a role as architecture in driving the cultural evolution by which we have created ourselves.

But it goes much further than this: by projecting our psyches into space in this manner we not only create ourselves but also surroundings to which we sense a strong relationship so we feel at home in a world from which self-consciousness and awareness of death somewhat displaces us. This is taken to an extreme in some sacred precincts or structures that are shaped as a microcosm, a miniaturisation of the cosmos. Its parts are surrogates for celestial bodies equated with psychic drives (as in astrology, for instance) so that, aided by ritual and religious ceremony, the cosmos is internalised in the psyche, which in turn is projected into the cosmos as our home too. In all of this we are supported by the narratives and symbols, as well as rituals, that are essential parts of any culture that helps us be at home in our immediate world and the larger universe as well as the long span of time, both mythic and historical.

This is an area where modernity conspicuously failed. It promised freedom for self-realisation unconstrained by culture, community, place and history. Yet without these we are not at home in the world, hence the pervasive alienation, and the atomisation of communities into lonely individuals, characteristic of modernity. We now understand that self-realisation needs the support of and sense of belonging to this larger context. Without it we are reduced to consumers eating up the planet as we defend our lonely selves from a meaningless world by walling ourselves off with consumer goods, entertainment and other addictions. Indeed, there are strands in modern



6. Trafalgar Square, London: a secular gathering place

7. *St Jerome in his Study* by Antonello da Messina, 1529; space compartmented to serve function and intensify experience

8. Aerial photograph of Bern, Switzerland: a medieval city in which a few civic monuments stand out from the organic huddle of houses

architecture that seek an accommodation with nature as an extension of the home, as when the boundaries between house and garden are blurred, or views of the landscape are framed as intrinsic to the architecture. Beautiful as the results often are, however, this is psychologically relatively superficial and often, as is modernity's habitual mode of wresting a home from the world, backed by brute technological force, at minimum in profligate energy expenditure.

Who do we want to be?

Thus from a developmental or evolutionary perspective, such as characterises much 21st-century thought, architecture is more than a mere reflection and record of who we are. Instead a fundamental purpose, probably the fundamental purpose, of architecture is as a means for creating our cultures and ourselves. As these essays have been arguing, it is now time to redefine and reorient our architecture, to create a much more complete vision of what it is, one adequate and relevant to the challenges of today. In this process, one of the most pressing questions to ask in these historically pivotal times is: who do we truly want to be? Or, in other words: what would be our vision of being fully human?

Each major developmental stage humankind has passed through has answered these questions differently. If the Middle Ages saw piety and obeying God's will to be the ultimate human virtues, then modernity prized rationality and the tangibly measurable – an inadequate vision that eventually reduced us to irrationally compulsive consumers and brought us to the brink of catastrophe. Yet this same modernity has also bequeathed us a vast amount of relevant knowledge, even if split between many fields, to draw upon and synthesise in answering the questions of who we want to be, or what it is to be fully human, as well as powerful psychological techniques to help realise this vision.

The urgent need to progress towards sustainability makes the redefinition of who we want to be especially pressing. Much of the world – thanks to the power of Hollywood and advertising as well as the economic, political and military dominance of the USA – wants some version of the American dream. But the planet is already struggling to support those enjoying the average American standard of living. Global population is projected to rise from its present seven billion to nine billion by mid-century. But if the number of Chinese, Indians, Brazilians and so on that will become middle class and aspire to an American standard of living is factored in the impact will be equivalent to today's population expanding to several tens of billions.¹ Yet it is not only the profligate consumption of this lifestyle that is problematic; it is also that it brings so little true satisfaction, so fuelling yet more desperate consumption.

Hence the eco-theologian and cultural historian Thomas Berry wrote that progress towards sustainability depends on nothing less than redefining what it is to be human.² By this he implies that it will also be necessary to rethink all our relationships with each other and the rest of nature, including our patterns of consumption, not only to be more benign in our impacts on the planet but also to

'Architecture is more than a mere record or reflection of who we are. Instead, the fundamental purpose of architecture is as a means for creating our cultures and ourselves'

bring much greater levels of meaning and satisfaction. In his memorable expression 'the universe is a communion of subjects and not a collection of objects', the latter is the archetypal modern worldview, which is exclusively right quadrant, while the former also returns due emphasis to the left quadrants.

Determining who we want to be, or what it would now mean to be fully human, could be properly understood as a design problem. And if the planet cannot support all of us living in accord with this vision of who we want to be, then the redefinition is still too superficial. A deeply satisfying life in which we can become fully ourselves, living in accord with our deepest values that are so difficult to honour in contemporary cities and suburbs, could be achieved without overtaxing the earth's resources in the way our current vision of the good life does. Only when we have some clarity on who we want to be can we think about what kind of culture – what underlying vision of reality, what narratives and social rituals – and what sort of environment will support and facilitate the emergence of such a vision, so that we may then design accordingly. Another great legacy from modernity is the huge battery of techniques – ranging through psychotherapy, energy psychology, coaching, management processes and so on – to transform ourselves and shed our conditionings so as to take some control of our destiny and live in accord with a vision that all this knowledge obliges us to apply in the urgent quest for sustainability.

Redefining who we want to be, as well as regenerating our culture and redesigning our environment to help bring this about, is probably the most urgent, epic and exciting challenge of our times. But this must be a collaborative exercise to which many will add their voices and creative contributions. We will return to some of these themes in later essays, but here it is appropriate to merely raise these issues and move on, leaving them for readers to contemplate and contribute to. The rest of this essay is about further purposes of architecture, but first we are now also in a position to briefly clarify some other important matters.

Redefining design and creativity

So, if a fundamental purpose of architecture, and the larger culture it is part of, is to help us create ourselves in line with an evolving vision of who we want to be, then how would we redefine the purpose of design? Clearly it would be much more than mere problem solving, let alone the branding exercise or lubricant for consumerism it has largely become. Instead design should become humankind's way of deliberately participating in the constant creative emergence that is evolution – natural, cultural and personal. Note how different this is from modernity's hubristic drive to control and conquer the

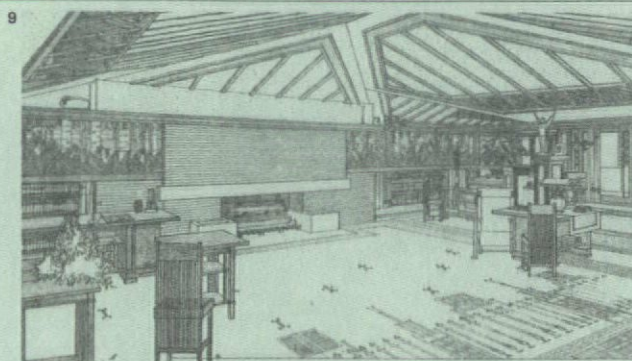
world for a humanity that is separate from it. Instead we must seek a purposively designed culture that has emerged from and includes nature.

And what then would human creativity be? Creativity ceases to be about self-expression. Instead it involves understanding (through research, analysis, intuition and so on) and then facilitating these various larger processes of creative emergence that constitute the many levels of evolution. Besides transcending self-expression, creativity then escapes the current frivolous obsessions with form and theory – a symptom of how lost we are and lacking in vision as to the purposes of architecture – to be about expanding the world of human possibility so that we can become more of who we aspire to be in our emerging view of what it is to be fully human.

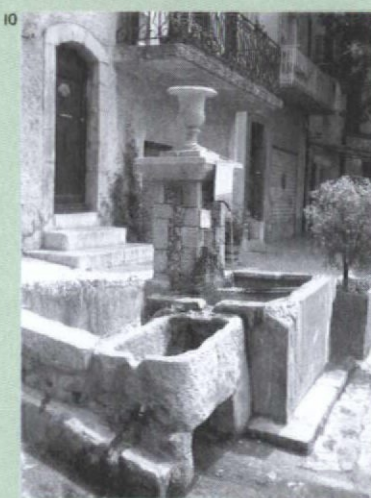
Quadrant by quadrant

With all this in mind, let's examine briefly some of the other purposes of architecture, using the quadrants to ensure a degree of balance and comprehensiveness. Only a few of those qualities relating to the right quadrants will be mentioned, and none discussed in detail. This is because after 400 or so years of modernity and 100 years of modern architecture, today's architects (aided by engineers and other consultants) have considerable expertise in these realms. Decidedly more purposes will be listed in relation to the left quadrants, where examples will also be cited of how these might be fulfilled. Yet even here the listing of both the purposes and ways of fulfilling them is far from comprehensive. The examples are limited deliberately to be only enough to spark readers into thinking of many more purposes and ways of realising them for themselves. They will thus become active participants in The Big Rethink – and the AR looks forward to letters communicating the insights that arise.

Past experience of engaging students and architects in this exercise has encouraged attempting such a participative approach. Some essays in this series are much abbreviated and simplified versions of lectures and exercises I've taught in master classes over the past decade or so. Starting with some movement and imagination exercises (devised using insights from neuro-linguistic programming (NLP)) to give an intensely vivid, visceral experience of how we project our psyches and map them in space, and then some to free the imagination, as much as a day is devoted to clarifying the purposes of architecture, quadrant by quadrant, and then listing and sketching ways of fulfilling these. With the class broken into small groups, each of these will be asked to brainstorm as many as 20 purposes within each quadrant and up to 10 design devices to realise each purpose – the best of them often satisfying more than one purpose. This long exercise has always stirred exceptionally excited participation, climaxing in the creation of a vast chart collating everybody's input. Even then, in some instances a few have continued the exercise through the night to come into class bleary-eyed the next morning. Generally, participants have reported that it is the single exercise that most expanded their understanding of the purposes and potentials of architecture as well as their personal design repertoires.



9. The living room of Frank Lloyd Wright's Coonley House is dominated by the hearth, the symbolic focus of the home

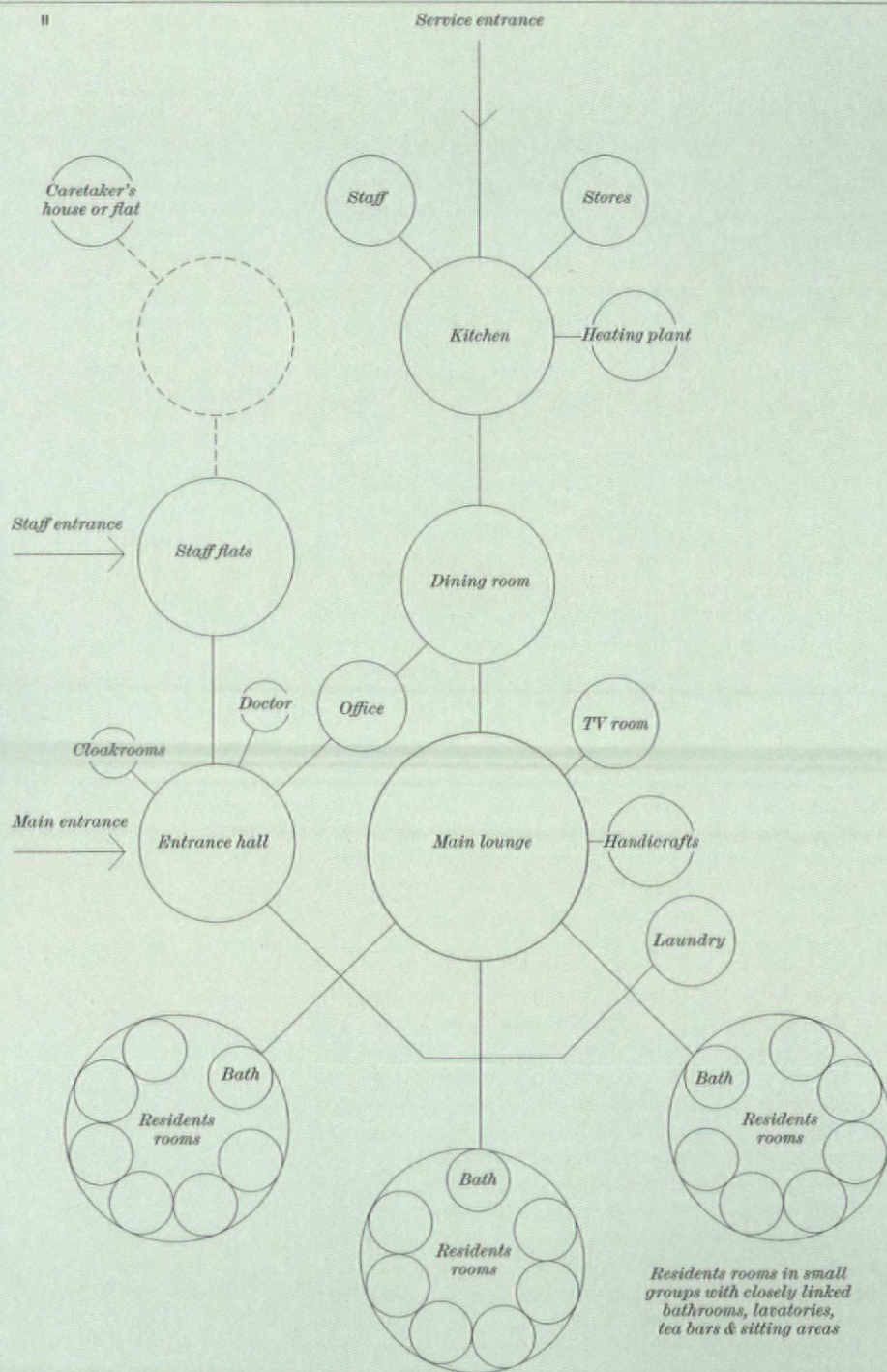


10. A village well: social focus for drawing water, washing clothes and watering animals

11. The functional flow diagram of a care home from *The New Metric Handbook*

While the AQAL diagram can be used in this manner, attending individually to each of the four quadrants so ensuring both comprehensiveness and balance, it should also be remembered that it highlights relationships between quadrants. For instance, a key concern of design today is the highly efficient use of resources, particularly of non-renewable materials and energy, and the recycling of these. The resources themselves and the logistics of obtaining and transporting them, paying for and recycling them, all belong to the LR quadrant of systems and flows. But the aspects of a building designed for efficient resource use best belong to the UR quadrant.

Yet a major reason our use of resources is so profligate is because we no longer revere the physical world of matter and energy. Cooling water splashing in a patio fountain of a house in a hot, arid region, like the warming fire in the hearth, is a semi-sacred communal focus of symbolic potency, all LL. How much more aware of these we are than when simply turning on a tap or the central heating, and even more so if the water is gathered at a distant well and the firewood from the forest in what is again usually a social ritual that strengthens communal bonds and punctuates the day. But this lack of reverence is more than the product of convenience: it is also the direct consequence of modernity's denial of value beyond the utilitarian to the nonhuman realm. Modernity's notion that such things as consciousness and spirit are found only in humans diminishes our own consciousness and spirit, as summarised by Richard Tarnas in last month's essay.



Also, most concerns that may at first glance fit into one or two quadrants, when thought about more deeply have correlates in all. Thus a primary UR quadrant purpose is security. But as well as by robust construction and locks (UR), this is also ensured by social equity and stability as well as overlooking by neighbours (LL), and also by still-intact cultural taboos and customs (LL) that result in psychologically mature individuals (UL). And particularly with architecture, but generally too, it is sometimes difficult to separate the concerns of the upper right (the realm of individual behaviour and form) quadrant from those of the lower right (the realm of systems including social behaviour).

Upper Right quadrant

As already mentioned, purposes that clearly belong to the upper right are shelter, security and accommodating function. Modern architecture emphasised the last of these and at its best was sensitively attentive to function (as well as to ergonomics), which it accommodated in a wide range of ways, from being tightly tailored to (and so also constraining) optimal use, to abstractly gridded 'universal' space that provided flexibility by minimally constraining use. Functional purpose, as is reflected in the best plans of modern buildings (which will be discussed next month) was recognised to go beyond accommodating independent functions but also to relate them to each other and circulation patterns to promote the desired forms of interaction between these activities and prevent unwanted intrusions (hence attention to flow diagrams). It is further fulfilled by spaces of appropriate size and shape, orientation and aspect, acoustics and levels of light and ventilation. So the modulation of comfort conditions and external microclimates is also a prime purpose, which for energy efficiency is best served by passive means such as operable windows, adjustable shading devices, light shelves and so on. These purposes and the devices to achieve them are all obvious enough. But concentrating on them predominantly, as much modern architecture did, results in an aridly utilitarian architecture to which people do not relate at any depth. Even such obvious purposes as providing some richness of choice, most easily achieved by designing in contrasts – in size, light levels, accessibility, outlook, acoustics and so on – are often overlooked.

Lower Right quadrant

In the lower right quadrant, modern architecture recognises its purpose in serving social needs but tends to do so in a mechanically quantitative manner, still sometimes with monofunctional freestanding building types, and with little thought given to using and getting to and from these. Hence schools of differing size for different age groups might to be deployed within the appropriate maximum walking distance for their age group from the housing they serve, and a range of open spaces from small playgrounds to large playing fields would be similarly distributed. This is mechanistic modern rationality at its most reductive where purpose is reduced to quantitative allocation with minimal thought for anything else. Anybody who thinks this an exaggeration should look at a town-planning textbook from the 1950s.

Of the architectural purposes relevant to this quadrant, the most flagrantly neglected by modern architecture are the creation of satisfactory urban fabric and shaping the public realm. It seems almost incomprehensible that modern architecture failed to recognise as a fundamental purpose that buildings should aggregate into good urban fabric, and shape and shelter the public realm of streets, squares and other public space. Another purpose is animating this public realm by the way movement is channelled through it, the activities located adjacent and the articulation given by such things as the entrances and windows of the buildings lining the public realm. Modern architecture's slippery-sleek glazed facades promise transparency but instead sever relationships with the street, so that they neither arrest the flow of space nor create a sense of place. Besides framing public space, further architectural/urban design purposes are to create variety and hierarchy in the public realm so bringing experiential richness and legibility, and creating within its network locations that are functionally and symbolically appropriate to the different uses and institutions that make up the city (note that although the means are right quadrant many of the benefits are left quadrant).

Other LR systems that shape architecture are economics and ecology. Thus a common architectural purpose is to make money, whether blatantly in speculative developments or less so in treating houses as investments as much as homes. Purposes relevant to ecology would be to regenerate where necessary, and otherwise respect, local ecological and hydrological systems as well as harness ambient renewable energies, modulate microclimates, create wildlife corridors and so on. As with the upper right quadrant, this is all stuff architects are becoming increasingly good at and needs no further discussion here.

Lower Left quadrant

The lower left quadrant is where modernity and modern architecture have been particularly weak by devaluing culture and its shared meanings, often conveyed in myths and symbols that can be slippery with the ambiguities modernity distrusts. Modern architecture deliberately rejected the rhetorical devices and iconography of previous periods as irrelevant – as was entirely consistent with the larger paradigm of modernity. In the human sciences, the LR is the field of sociology, a relatively objective study of society – although the best sociologists draw also on such UR fields as psychology. The LL is that of anthropology, which, besides recording customs and so on, is concerned with inner worlds of mythic historic narratives, the subjective beliefs these inform, and how all these shape relationships with the community, place and the rest of creation. Culture's role is to locate us in a much expanded realm of space and time and it is modernity's undervaluing of culture that allows us to be so destructive towards the planet and our inherited manmade legacy.

Thus a prime architectural purpose that needs to be recovered is to be a metaphorical bridge across time and space. Architecture should root us in the past while looking confidently to the future, recognisably evoking tradition while also transforming its legacy and innovating

'The shaping of the public realm and the modulation of the transitions between public and private are important in encouraging social interaction'

to meet the demands of a very different future, while also cementing visual connections with its setting to draw the world around into relationship with it. This does not imply resurrecting the rhetorical motifs and iconography of the past. But it might imply that we need to evolve new rhetorical forms that resonate with the grand narratives emerging from our many sciences, helping us to find our place in an ever-evolving world and within rich webs of ecological and community relationships.

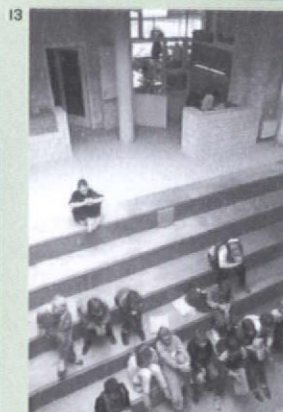
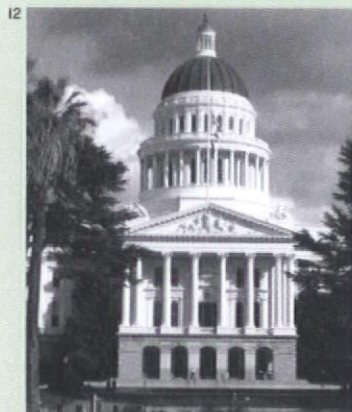
Somewhat related as a purpose is to invest buildings and urban fabric with distinct identities intrinsic to the local cultures, against or within which we may shape our personal identities. In less elevated terms, another architectural purpose is to help confer status on the institution it houses. Examples of how this could be easily done without recourse to obvious iconography are through such things as size, particularly the height of the building and ceiling heights within it; enlarged external openings (doors and windows) and pronounced frames around these; raising the main level so that it is approached by broad external stairs; and by location, siting the building on the top of a hill or terminating an axis of some sort. Such devices are not strictly functional, but they are abstract enough to be embraced even by modern architects. But to regenerate a vibrant culture we will need to go further and embrace some form of narrative and symbolism.

If the upper left realm is that of personal experience and individual psychology, the lower left is where much of this subjectivity is shaped, both by culture and in community interactions, and where these come together in such things as religious worship and more secular festivals rooted in local culture. It is within these interactions that character and self-knowledge are forged. So another key purpose of architecture is to set the stage for the slow formation of new communities and the preservation of existing ones. Here the shaping of the public realm and the modulation of the transitions between public and private are important in encouraging and defining apt forms of social interaction. For instance, the networks of both paved and green open spaces can be elaborated to suit a wide variety of uses and interwoven with each other in such a way as provides opportunities for casual meeting and spontaneous interaction, as well as places for more formalised forms of community engagement. In the past we depended on each other more, and met daily in places such as the street market and at the village well, so community was inevitable. Today we only have the supermarket and Starbucks, but the longing for and recognition of the benefits of community grows, demanding creative design interventions that might help stimulate its formation.

12. State Capitol, Sacramento, California displays rhetorical motifs – dome, pediment and sculpture, colonnaded portico – to convey its civic importance

13. Herman Hertzberger's Apollo schools in Amsterdam suggest multiple ways in which pupils may interact with and use them

14. The arcade and aedicular windows interlock the interior and exterior space, helping to create a sense of place



Upper Left quadrant

By creating a placeless world of thin, sleek abstract forms, much modern architecture is alienatingly difficult to relate to and impoverished in terms of the quality of experience it offers. These are major failings within the UL quadrant: the realm of personal experience, individual psychology, intentionality and direct aesthetic experience as unmediated by culture. But for all modernity's failings in this quadrant, it was always given some attention, if only at the level of trying to please the eye with elegant proportions, harmonious colours and now, in desperate fashion, with sleek curving forms (often clumsily executed) and jazzy syncopated rhythms. Mid-20th-century attempts to 'humanise' buildings with 'warm', 'natural' materials such as brick and wood also evidence UL concerns. Architects' discovery of phenomenology, starting with the writings of Gaston Bachelard and Martin Heidegger through to the current writings of Juhani Pallasmaa, show an increasing awareness of the importance of this quadrant and of modernity's failures in relation to it.

Obvious UL architectural purposes are thus to provide aesthetic pleasure and create beauty, and to assert order, coherence and legibility, all of which help us to relate to the built environment. Equally important, if less obvious, purposes are to create a sense of calm, stillness (or repose as it is often referred to) and even silence (and not only acoustic) as well as the sense (rather than physical actuality of) safety and security. Bachelard reminds us that a purpose of architecture is to provoke reverie, or at least to provide a setting that encourages it, while an architect like Herman Hertzberger sees a purpose

of architecture as to provoke exploration by and creative interaction with us, discovering novel ways of using and responding to the building and so also provoking discovery and development of aspects of ourselves.

My discussion earlier in this essay about how architecture helps us to create ourselves, by compartmentalising experiences and setting these in calculated relationship to each other (so intensifying and adding meaning to them), and also to feel at home in the world, are clearly prime purposes belonging to this quadrant. So obvious related purposes are to provide as rich a range of experiences as is relevant, which is most easily achieved by designing many forms of contrast, and to intensify these experiences – for instance by the ways spaces are shaped and lit, located within a choreographed circulation system, choice of materials and colours, and even by the acoustic characteristics. Further related purposes are to create or intensify a sense of place and an architectural vocabulary that elicits empathic relationships in us. These are subjects that we will discuss in more detail in future essays, so for now let a few examples of how to realise these suffice.

Achieving a sense of place in the public realm is helped by: containing positively shaped spaces, both in plan and in section (hence the importance of the cornice) that do not 'leak' unduly (for instance, at the corners of public squares); using building materials of evident weight and palpable texture, so helping to anchor the building in place and slow the flow of space about it; and creating smaller spaces between interior and exterior that interlock the two, such as recessed ground level arcades and aedicular windows as are found on classical buildings.

Buildings can elicit relationships with us in many ways. One that is very familiar to us from historic buildings is the forms that suggest the presence of the erect human body, such as vertical windows, or are even surrogates for it to which we relate empathically, such as columns with visible entasis. Anthropomorphic resonances in plans and other forms can serve similar purposes. In huge buildings today structure may play an important intermediary role between the scale of the vast space and the human body, asserting a legible order that helps orientation, being a companionable presence to which you can relate both because of its size and its structural purpose.

The degree to which modern architecture neglected this quadrant is summarised in a short essay by the great depth psychologist James Hillman. He explains that in the psyche and dreams, the zone above our heads is that of spiritual aspiration, which is why in traditional buildings it is celebrated in domes, vaults and painted ceilings. To instead put pipes and ducts just above our heads and screen them with the tackiest suspended ceiling tiles is thus the ultimate insult to our fundamental humanity, the starkest sign of how far modern civilisation has lost sight of what should be its ennobling purposes.

1. See chapter 3 in Thomas Friedman, *Hot, Flat and Crowded*, Farrar, Straus & Giroux, 2008.

2. Thomas Berry, *The Great Work: Our Way Into the Future*, Bell Tower, 1999.

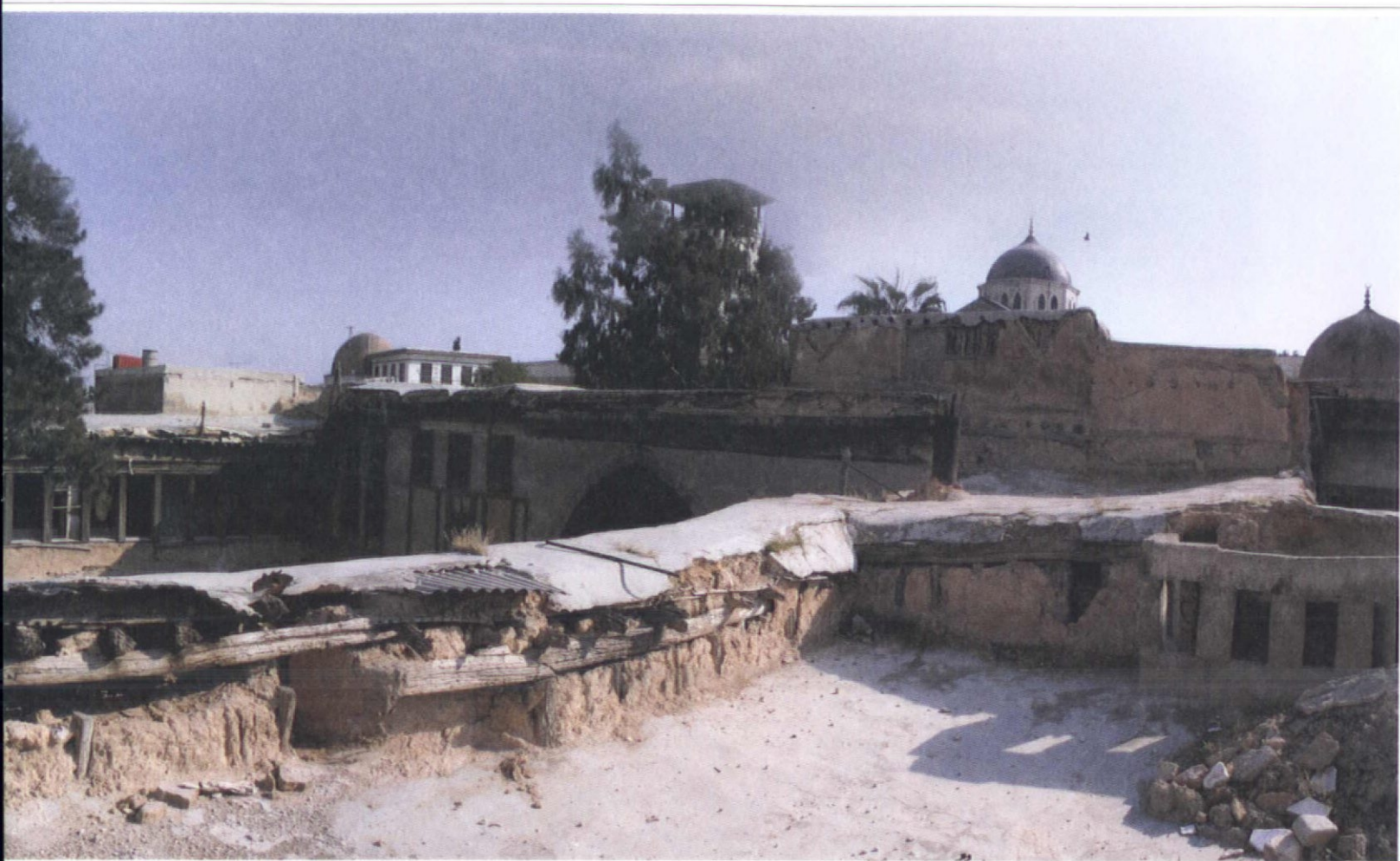


DAMASCENE DERELICTION

An architectural study trip to Syria shortly before the Arab Spring took hold revealed the Old Town of Damascus to be long-abandoned and lamentably neglected.

A year on, this precious heritage continues to deteriorate unregarded amid escalating violence and crisis

GEORGINA WARD & NIALL MCLAUGHLIN



It is said that the Prophet Mohammad refused to enter the gates of Damascus. He ascended the mountain track which led all travellers to the city, but when the view emerged of the glistening, lush oasis of Damascus he continued past, proclaiming 'man should only enter Paradise once'. The mythical status of Damascus as the oldest continually inhabited city has persisted through its existence; as described by Mark Twain, 'she measures time not by days, months and years, but by the empires she has seen rise and prosper and crumble to ruin. She is a type of immortality.' Visiting Damascus in January 2011, only weeks before the Arab Spring spread to Syria, this sense of the passage of time within the old city walls was tangible. The scattered columns of the Temple

of Jupiter, which can now be spotted as lintels along the route of the ruined *peribolos*, and the reinstated Roman arch, found when excavating Straight Street, are two examples of Damascene history that illustrate this layered narrative in the urban fabric of the city.

Despite the mixed historic fabric, the domestic architecture of the Old Town is dominated by the period of Ottoman rule. From occupation in 1516 until the time of the French Mandate in the early 20th century, Damascus grew vastly. The city became the entrepôt of the Hajj to Mecca, bringing copious trade and concomitant wealth. Building spread particularly along the caravan route of the pilgrims and clustered close to the religious centre of the Umayyad Mosque. With this wealth there was

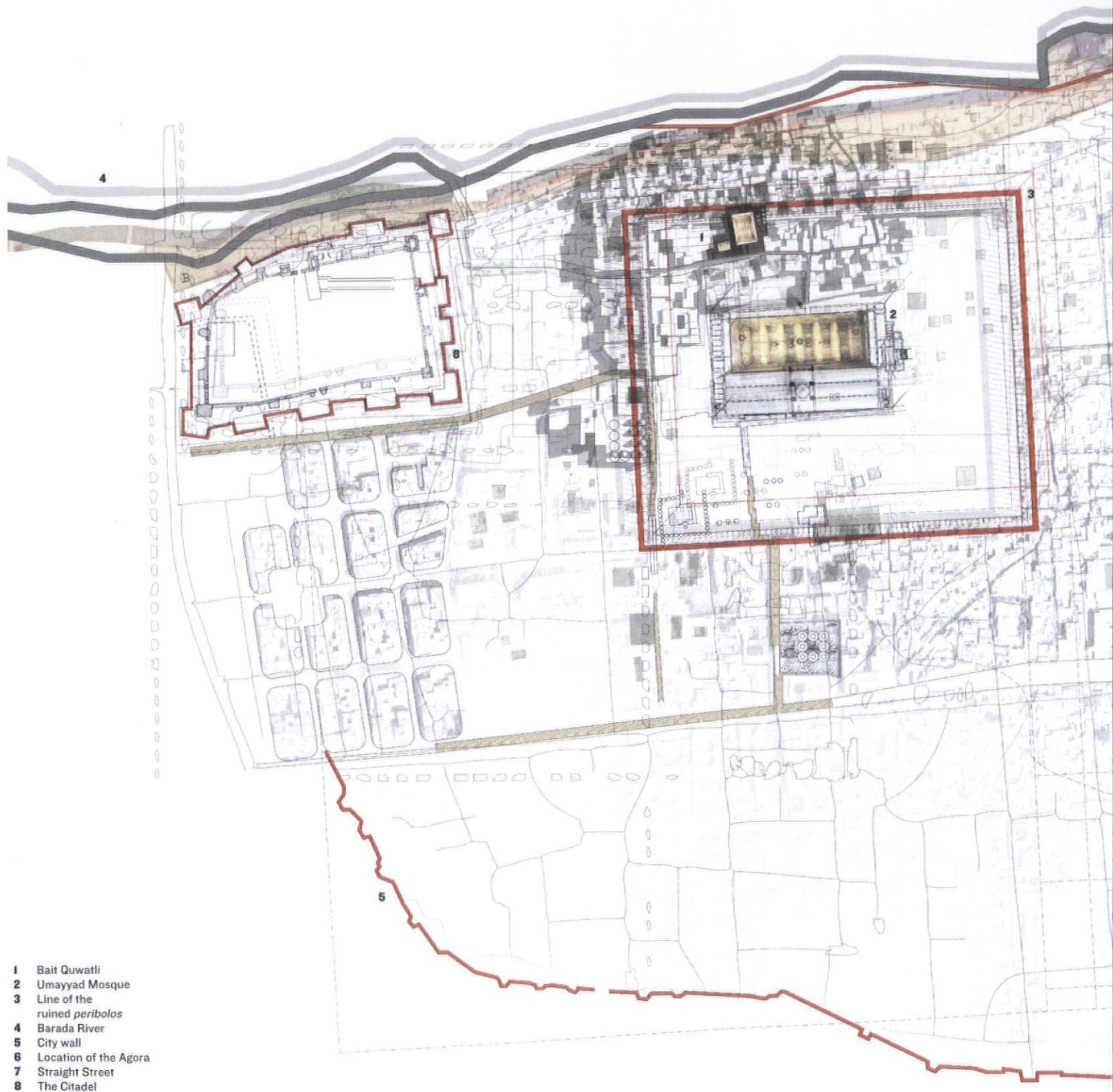
competition to construct *bait*s (lavish courtyard homes) as symbols of power.

Some 16,000 homes ranging from small houses to extravagant palaces were recorded at the end of the empire in the Ottoman yearbook of 1900. More than half of these houses no longer exist. Of the ones that remain, several have had their delicate decoration hastily covered with a sad attempt at reproduction; others have been painstakingly revived; more still have been abandoned to crumble and ruin.

The reason for the Ottoman home's demise is conveyed in the plan of the Old Town. Open public space is limited; instead the city fabric is inverted within the home into the private space of the inner courtyards. Dense and cramped, the restricted network of alleyways and inward looking

homes are unsuitable for modern demands. In the 1960s, a new generation of Damascene children were looking for independence from traditional inter-generational living. This coincided with a desire for space and the convenience of being able to drive a car to your door. En masse people moved to new high-rise apartments in the suburbs, thus emptying the Old Town of residential life. After this exodus, the elite of Damascus grew to regard the Old Town as a slum. Most of the houses have never been reoccupied because of the stigma attached to the area.

Bait Quwatli is one such house, whose simple walls conceal a richly interwoven inner world. Unlike the majority of the Ottoman courtyard homes, whose families rose through religious or military power, the name of



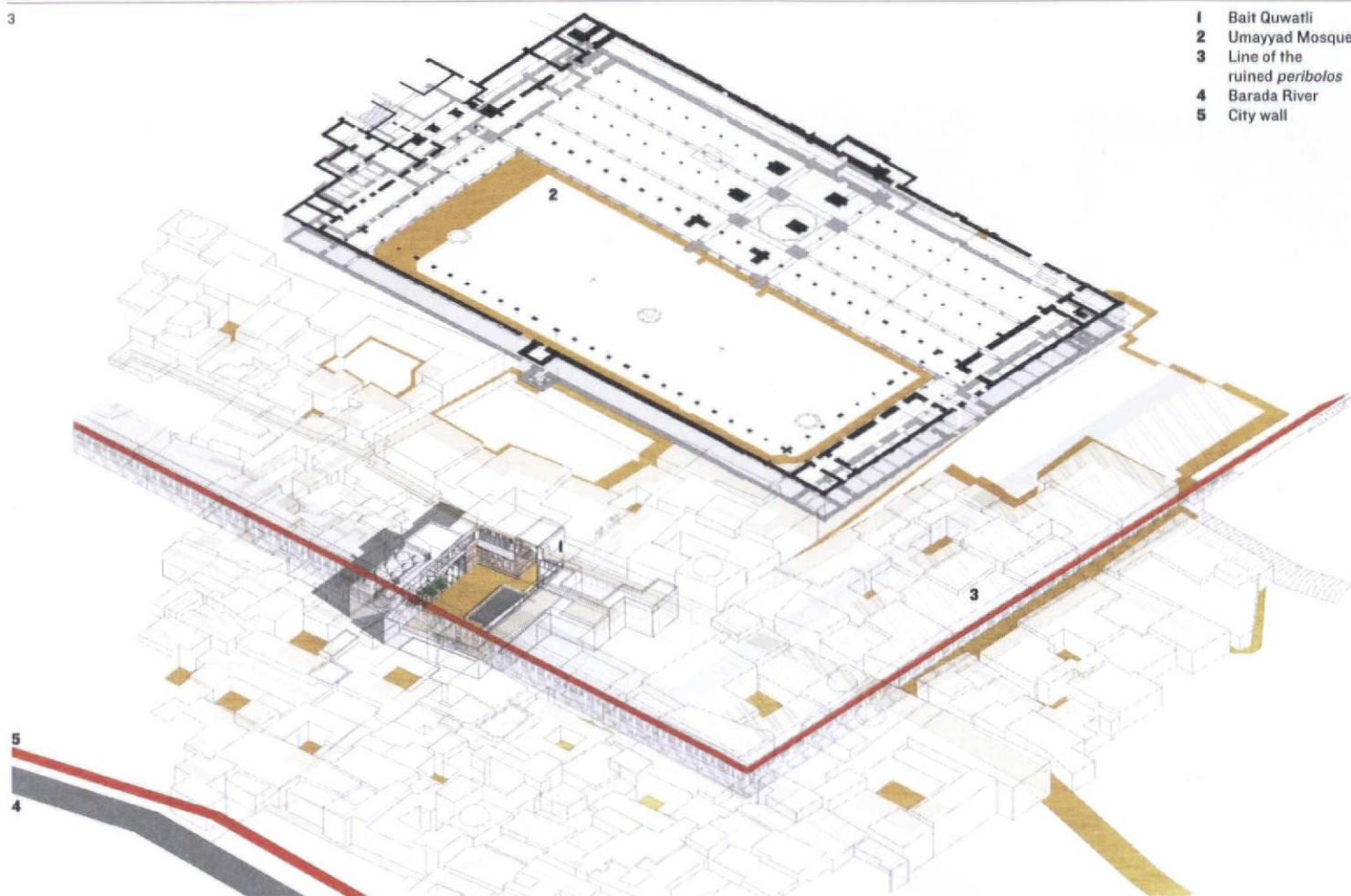


Quwatli ascended through trade. Ultimately there were four homes that bore the name of Quwatli within the city walls, but this was the largest. Thought to have been built nearly 200 years ago at the height of Ottoman rule in Damascus, the *bait* once housed the first British Consulate, but is now empty. Bait Quwatli is a prime example of the need to safeguard the city's historic architectural wealth.

To be close to the religious centre and the city's major trading points, Quwatli built his family home just to the north of the great Umayyad Mosque; sandwiched between where the Roman *peribolos* to the south and the city wall to the north once stood. Like most Damascene courtyard homes which articulate a culture of external modesty and internal display, the house has little outward expression. Instead the austere, windowless facade blends in with its surroundings. It is impossible not only to recognise the status of the house within, but also to distinguish the boundary between this house and its neighbours. However, once entering the front door and crossing a blank white hall into

1. (Previous page) view to the east across the crumbling roof and courtyard of Bait Quwatli
2. Plan of the Old Town of Damascus. Bait Quwatli sits immediately to the north of the Umayyad Mosque, along the line where the Roman *peribolos* once stood

3



the main courtyard, you are enveloped in texture.

The house and courtyard are enormous, more akin to a palace than a house, with every surface covered in pattern and colour. Stripes of orange, cream and basalt black work their way up the facade, detailed with gypsum ornamentation that shrouds doorways and windows. Much of the decoration is coloured plasterwork, where tinted pastes replicate geometric patterned mosaic.

The spatial form of the courtyard homes catered for the extremes in the Syrian climate. During the winter months, life was played out on the upper floors, the lush reams of carpet and richly decorated wooden panelling insulated from the cold. During the hot summer months, the courtyard became

'It is a struggle to marry an almost naively romantic impression of a fleeting visit to these palaces last January with the stark reality of the shaky hand camera footage of the city today.'

an extension of the home, where the shady ground floor rooms opened up to the exterior. Central to this courtyard sits a fountain, where in the arid climes of Syria an abundance of water is synonymous with wealth. As with all palace courtyards, the fountain at Bait Quwatli is positioned in line with the great arched *liwan*, a double-height room which is fully exposed to the exterior.

Leading off the *liwan* through an inconspicuous door is the main reception room for public use. The room holds the most astonishing mix of decoration in the house. Spreading down from the patterned poplar beams, which slump and crack, moments from collapse, are murals depicting fashionable landscapes of the Ottoman Empire. Split into two spaces by an archway, the

walls of the room are punctured by high circular windows, which on the facade are curiously disguised within rectangular frames. Beneath the paintings and oculi, elaborate panelling of gypsum and lacquerwork in gold and now muted pinks, blues and greens create texture and ornate niches that mimic the form of mosque mihrabs, adding further depth to the walls. The floor is thick with dust that was once plasterwork and ornament.

One cause of the extent and speed of ruination can be found in the construction techniques. The ground floors and cellars were commonly built of striped basalt and limestone, a method known as *ablaq*, brought to Syria from Cairo after the construction of the Mosque of al-Zahir Baybars, also known as the Qasr Abraq Palace, during the 12th century.



3. Isometric view from the Old Town wall towards the Umayyad Mosque. The city fabric is inverted within the home into the private space of the inner courtyards

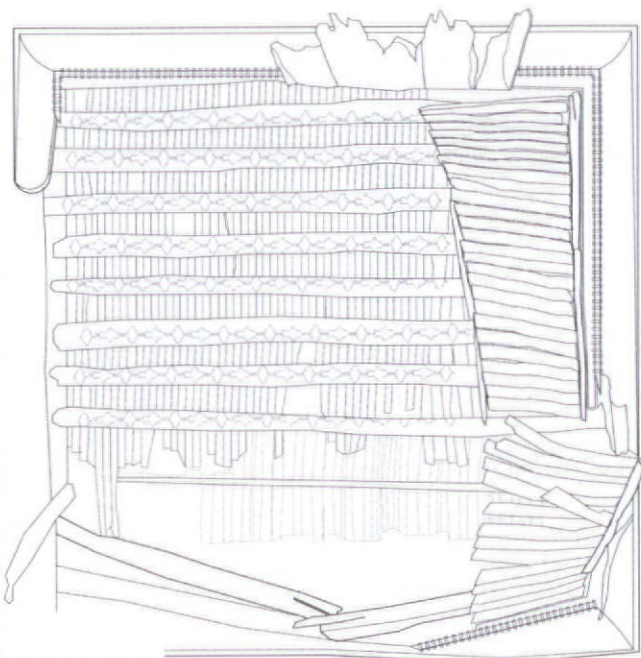
4. Stripes of orange, cream and basalt black work their way up the facade, detailed with gypsum ornamentation that shrouds doorways and windows

5. The arched *liwan* provides a shaded exterior room off the courtyard for escape from the searing heat

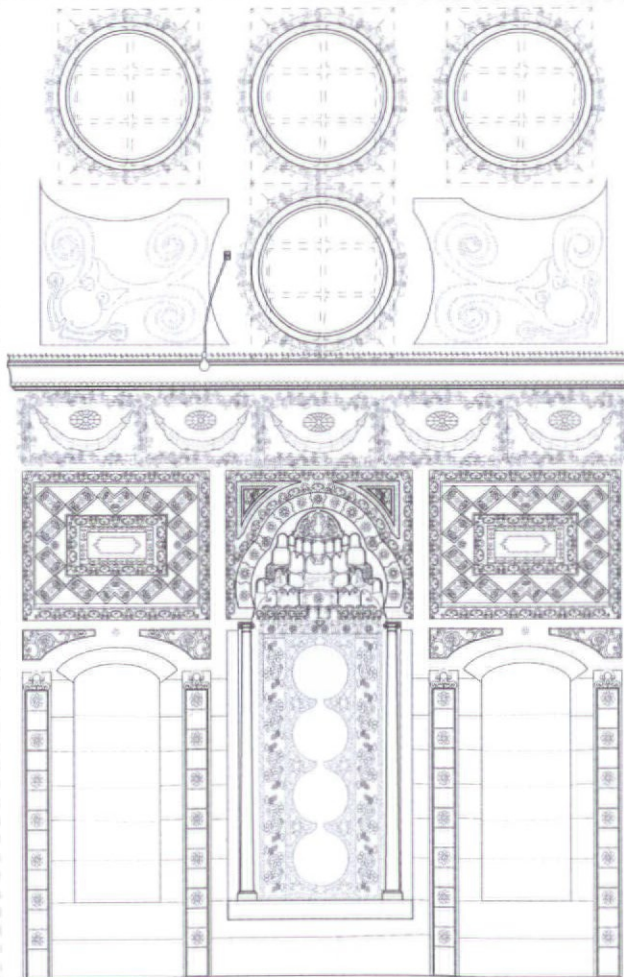
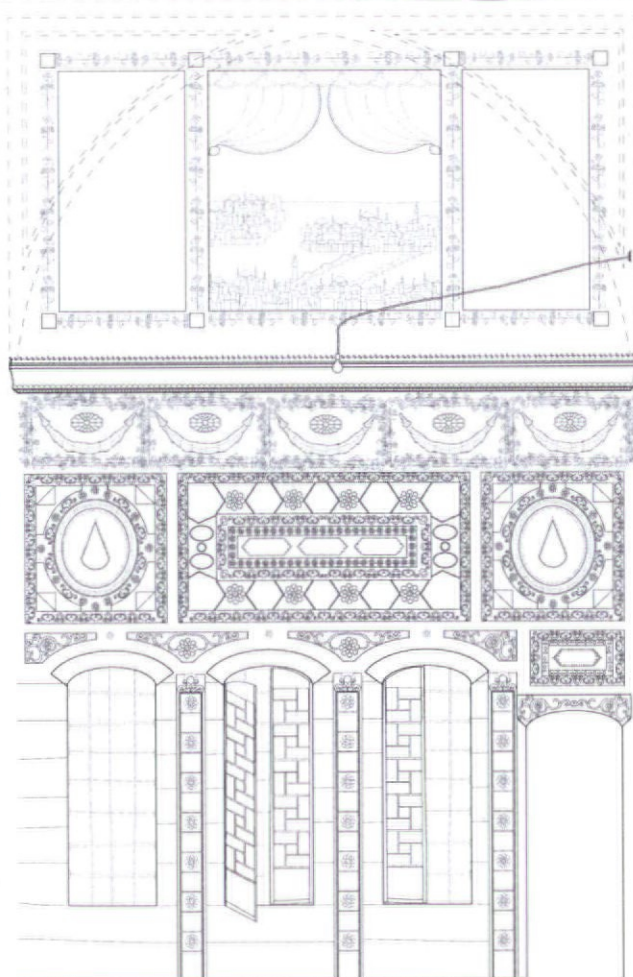
6. *Liwan* courtyard elevation. Rectangular window frames conceal the circular form of the oculi within



7



8



Picture credits
 1, 2, 3, 4, 5, 6 & 7,
 Georgina Ward
 8, Matthew Leung
 9, Paul Sidebottom
 10, Rie Wood



7. Interior elevations and ceiling plan of the public reception room
8. Detail of the faded decorative panelling
9. The deterioration of the roof is causing the ceilings to slump and crack into the room below, revealing the layers of construction and exposing the fragile interior ornamentation to the elements
10. Poplar beams are finely painted in muted greens and pinks



However, the upper floors and roofs were constructed of layers of poplar, dried mud and straw bricks, packed in with more mud and a final skim of lime plaster. The fast, but temporary building materials created an adaptable living space; the home could easily grow or shrink to accommodate the size of family or changing styles. Over their years in use, many of the house footprints remained the same, but the layout above might change with each occupant.

This temporary nature required constant maintenance to prevent decomposition. Decades without a steady owner's care have left the mud and poplar walls and ceilings vulnerable to decay. This is particularly apparent in the roof of Bait Quwatli where an undulating wave dips and swells along the

roofline as the water drenched mud roofs sag into the rooms beneath. The progressive exterior deterioration has led many of the ceilings to collapse, destroying the finely painted poplar beams and exposing the fragile interior ornamentation to the elements.

There appear to be two opposing attitudes to the restoration of the Ottoman palaces in the Old Town. The approach found in many of the boutique hotels in Damascus is to pick one period in the *bait's* history, and to renovate and strip back the building to that point. This leads, however, to a somewhat flat, lifeless experience.

Inspiration can instead be taken from the recent revival of Bait al-Aqqad, as the Danish Institute in Damascus. The highly sympathetic restoration

has taken account of different periods, thus revealing history, story and decay in the building fabric. The delight of these palaces is conjured in the imagination, evoking narrative and an abstract memory of the house. Vital to the experience of Bait Quwatli is a child-like excitement of being 'the intrepid explorer'; you feel as though you are the first to encounter its decayed state. There at just the right moment, teetering before collapse – between its life and end.

It is a struggle to marry an almost naively romantic impression of a fleeting visit to these palaces last January with the stark reality of the shaky hand camera footage of the city today. The streets of Damascus have witnessed intense violence

and oppression and in this moment, the plight of these houses seems remote from the fight for survival and freedom of the Syrian people.

Seamus Heaney in *The Government of the Tongue*, when reflecting on the arts during times of crisis, found it difficult to avoid the 'feeling that song constituted a betrayal of suffering'. Despite these reservations, Heaney maintained the necessity for poetry in a society that is collapsing around you; there is still a place to speak out for beauty, in defence of this built poetry. Amid the violence, the old courtyard homes still stand, but their condition is precarious. Many of these fragile Ottoman wonders are teetering on the brink of complete ruin.

For further insight visit
architectural-review.com/Damascus

REVIEWS

Starchitectural reviews

BRIAN HATTON

Starchitecture: Scenes, Actors and Spectacles in Contemporary Cities Davide Ponzini and Michele Nastasi, Allemandi & Co, £25

Although it nowhere uses the word, this book is all about 'procurement'. It examines how, in a range of costly projects in Bilbao, Abu Dhabi, Paris, New York and the Vitra 'campus', buildings were envisioned, commissioned and produced – 'produced' in the Hollywood sense of financial, industrial and distributive accomplishment. More important than 'starchitects', the author shows, are the procurement agents and the procedures that engage them, procedures that frequently result in banal, dysfunctional and paradoxical consequences as cities try to distinguish themselves by commissioning 'icons' from 'archistars' to 'brand' projects that are often either misconceived or merely generic. Moreover, some of these delusions have gone viral, replicating in a global trail of grotesque 'mis-icons'. Chief among them is the supposed 'Bilbao effect', a notion that some fantastic attraction will 'lever' extra investment into an otherwise unlikely place or scheme, which can somehow be concentrated into a single built (but eminently reproducible) image.

However, Ponzini also shows how rational thought informed some projects, and how, though selected from the same elite designers, their procurement arose through varying processes in differing contexts. Likewise, a virtue in Michele Nastasi's photographs of these works is to convey, as well as their abstract and rootless beauty, their complex and sometimes strange contexts. The cover shows an Antonioniesque night scene in Abu Dhabi: an empty lot, a



taxi, no passenger to be seen, a dark building site beyond; and looming up in the background, like a vertical flying-saucer, a headquarters building by MZ Architects, whose website declares: 'Our work relates to spatial concepts, form and structure ... driven by the specificity of context.' Except that here, there is no context; only, as Ponzini says, 'a 27-square-kilometre development ... 20 kilometres of coastline with a 28-billion-dollar investment', which is projected to quadruple Abu Dhabi's population to over three million. You might well ask: why would they want to do that? Why not just create an enduringly good place for Abu Dhabi's existing citizens? But the ur-imperative of bigness is unfathomable, at least in a short study such as this.

To pursue such an enquiry you would have to follow Ponzini's many references, which will recommend this book to anyone asking the important question: how do major architectural works get commissioned and procured? And how come they turn out to be not just so poor, but *abysmally* so? Part of the answer, Ponzini suggests, may be that certain works of 'starchitecture' seem to be successful enough to justify (just) their hype; but in the rush to imitate, the real reasons for

their success are frequently overlooked. Thus, would-be emulators of the 'Bilbao-effect' tend to miss its vital context: that, while Bilbao was 'rust-belt', it was also still host to the headquarters of a major bank, is on the 'Euroside' of Spain (like Turin and Milan in Italy) and that it benefited from the Basque lands' near-autonomy within Spain's federal system. Ponzini points out that the Basque government provided €100 million as well as land for the Guggenheim, while 'in a decade the Spanish Ministry of Development coordinated more than €100 billion and the Ministry of Environment another €19 billion'. Furthermore, EU Objective 2 programmes for structural and depollution measures invested another €4.5 billion from 1994 to 2006. These enabled tramways, Calatrava's new airport, and Foster's Abando railway station and Metro. In a London-obsessed UK, such sums and investments can only be dreamt of by parallels such as Swansea, Belfast or Newcastle; and they make nonsense of any notion that Bilbao's revival stemmed entirely from Gehry's museum.

Likewise, in the 'flat city' of Abu Dhabi, cultural 'icons' commissioned from Gehry and Hadid (among others) were dropped like cherries onto a vast cake of business-engineering. Because of Abu Dhabi's oil, they are better underwritten than Dubai's speculations, and maybe such cultural flywheels, despite their utterly artificial concoction, may see it through oil's decline. But if Iran, Iraq and Egypt stabilise and liberalise, then the Gulf boomtowns, no matter how well air-conditioned, will likely lose out to older centres; so that their current dilation, rife with the febrile glitz of 'too big to fail', could end up as history's biggest Klondike: global husks, abandoned to the sands.

More familiar are Ponzini's next cases, the *Grands Travaux* of Paris and New York's 'Plural Architectural

Above: Gehry's Bilbao Guggenheim was not quite the architectural *deus ex machina* of iconophilic imaginings. The city's revival was the result of a concerted programme of investment and reconstruction

Profiles'. If they are also more credible, it may be because their confidence and (relatively) sophisticated procurement procedures have enabled these centres to avoid the icon-neediness of more provincial cities; and when 'iconic' needs were voiced in the case of Ground Zero, Libeskind's 'Freedom Tower' was displaced by pragmatic demands. Yet even in (especially in) these metropolises, spectacular commissions recurrently go to 'stars' in an apparently self-validating system of prestige clients and 'signature' architects, much like the gallery world of collectors and big-name artists. Indeed, Ponzoni's last case study is Vitra's 'collection' of buildings by Gehry, Hadid, Herzog & de Meuron et al at its plant near Basel. These works, it is clear, were not casually bought up, but commissioned and assembled with practical as well as curatorial care. Yet, as Ponzini titles his chapter, 'The Vitra Campus is not a City', and any lessons it offers to civic culture are very limited.

Ponzini concludes in pessimistic reflection on 'the homogeneity of spectacular architecture in totally different contexts with respect to their cultural, economic, institutional, urban and aesthetic features'. Like Kenneth Frampton's *Studies in Tectonic Culture*, he notes that many 'icons' amount to little but facile scenography – image-veneer + 'value-engineering' – no different from the 'Potemkin City' of Vienna's Ringstrasse that incited Adolf Loos' sarcasm. And yet, Ponzini observes, resorting to spectacular 'starchitecture' is an effect, not a cause, of the current malaise; for the 'icons' conceal a deeper inability to originate procurement in rational understanding and informed civic discussion. Starchitects are not to blame alone, but also their commissioners' cupidity and stupidity. Doubtless patrons were always greedy, doubtless procurement in today's pluralities

will always be a complex negotiation; but if we are to avoid dooming our cities to being arid dumbscapes, we are going to have to clever up and do a damn sight better in our commissioning than reaching for a branded 'starchitect' like a teenager buying his first alcopop. A century ago, as the Wiener Werkstätte made aesthetic fetishes of furniture, Karl Kraus remarked sardonically 'What times we live in! It takes a genius to make a table!' Today, Kraus might put it somewhat differently: 'The 21st century! It takes a genius to commission an architect!'

A evening with the Mayne man

SAM LUBELL

2012 Raimund Abraham Lecture
by Thom Mayne, *What's Next?*
SCI-Arc lecture, Los Angeles

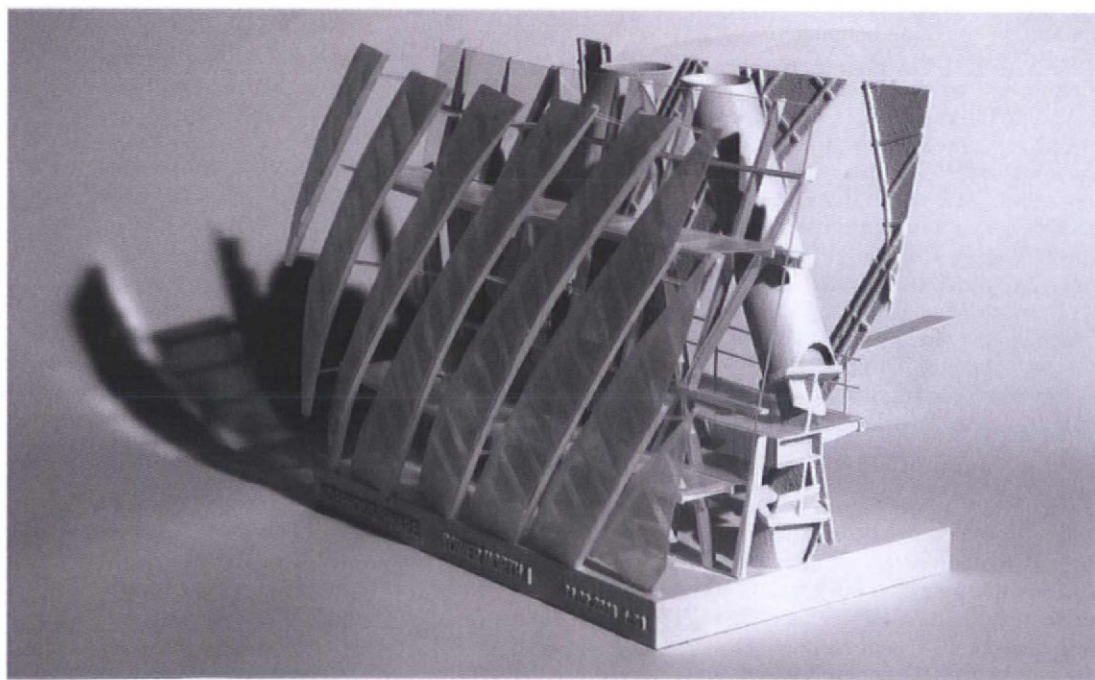
On 14 March Morphosis principal Thom Mayne delivered SCI-Arc's second annual Raimund Abraham Lecture, dedicated to the late

Below: The intricate skin of Morphosis' Phare Tower, Paris, took a dedicated team over two years to create — an example of the kind of collective approach Mayne advocated in his lecture

architect, who died just after speaking at SCI-Arc in 2010. For someone who himself admits to having trouble thinking linearly (and has often proven this), Mayne's talk was a well-organised round-up of his work and his architectural philosophy.

The lecture was as much a commentary on our time as it was on Mayne's work. The themes that kept recurring: the importance of collective thinking and working (as opposed to the myth of the Great Architectural Creators); of increasing complexity (which necessitates such collective work); and the importance of grounding architecture in social, economic and political reality, which he was sure to point out many architects these days shy away from.

'If you were born when I was, it would be impossible not to see architecture in the political realm,' pointed out Mayne. Which isn't to say that Mayne likes to toe the party line. In fact he reminisced fondly about his bad-boy roots, portraying architecture as a constant struggle against those who want to stop it



from happening, limit it, or just don't care about it. One of his first slides contained a notable phrase: 'Fuck You'. But he and friend Eric Owen Moss, who introduced Mayne, both chafed at the designers who claim that architecture can be created in a vacuum, above the fray of everyday existence.

Perhaps to drive home his points about complexity, collectivity and contextual relevance, Mayne focused his lecture on his large-scale projects, which by their nature constantly get mixed up with all of these factors. He described the first project he showed, Diamond Ranch High School (1999), as an example of 'connecting an aesthetic project with a social project'. His firm's village-like composition of jagged, masculine structures was an early example of working with collective clients (as opposed to individual homeowners or business owners), heroic scale, intricacy and, thanks to advances in digital technology, a radical shift in the immediate translation of ideas into form and engineering.

Mayne went on to discuss the Hypo Center in Austria (2002), in which he began experimenting with the fusion of landscape and architecture; the 'tectonic' University of Toronto Graduate House (2000); the Caltrans District 7 Headquarters in Los Angeles (2005), with its 'fragments of incompleteness' and infrastructural inspiration; the Eugene, Oregon Federal Courthouse (2006), balancing radical tectonic forms with very traditional courtroom elements; the University of Cincinnati Campus Recreation Center (2005), with its organic growth, 'drama' and 'spatial complexity'; and the Cooper Union Academic Building (2009), which he considered a piece of 'connective tissue' shaped by its strict urban constraints, and whose interior, he said, 'oozes out into the street'. The final project, Giant Pharmaceuticals (2010; AR May 2011) near Shanghai, was a triumphant combination of all these lessons, combining earthwork and architecture, complicating the boundary between inside and outside, and 'navigating the territory between wilfulness and chance'.

All of these works exhibited a progression in scale and complexity through the years coinciding with a shift in digital methodology and hierarchy. 'Building, designing and inventing are all becoming the same,' he pointed out. 'We don't make

Below: A sketch of Giant Pharmaceuticals' campus in Shanghai shows the sweeping organic topography of the site and the asymmetric disposition of structural elements — both contribute to the village-like atmosphere of the project



drawings anymore. We make virtual buildings,' said Mayne of the digital processes that have radically transformed the profession in recent years. The digital tools, he added, allow for 'infinite differentiation', and open up 'opportunities for a collaborative self'. That collaborative spirit, he added, dispels the notion that we are waiting for the next architectural 'messiah', and would be a function of increased specialisation, like the small Morphosis team working solely on the skin of the firm's Phare Tower in Paris for over two years.

All this emphasis on collectivity seemed a bit shocking from someone who has risen to prominence in a time of starchitects. But it was evidently a practical response to what Mayne called the 'limitations of the formal'. Through collaboration and specialisation, he noted, we can move beyond architecture's possible 'dead end', and 'radically expand the nature of tasks that we can undertake'.

At the same time the progression of projects he showed from over the last decade or so displayed Mayne's maturation as he developed an ability to negotiate with clients and to develop forms directly from programmatic needs, not formal ones. Moreover the amazing round-up of work in the lecture reminded this author of the firm's outlandish accomplishments since the new millennium. For a firm so decidedly uncorporate to have conquered bureaucracies and institutions alike is something of a miracle that never would have happened 20 years ago.

Yet the bad-boy spirit was still there. In discussing his San Francisco Federal Building (2007), Mayne complained about the 'immensely hostile climate' of San Francisco, where residents 'who wanted the stuff that they like' dismissed his firm as 'those radical architects'. And Mayne boasted that his social housing project in Madrid attacked the institutional nature of housing by allowing inhabitants to take control of their own property.

And a stark example of the insular culture of architecture reared its head when several upper level SCI-Arc staff asked circular, extremely obtuse questions, by which Mayne often seemed perplexed, but did not dismiss (they are his friends after all). Mayne himself revealed some architectural exceptionalism (perhaps not entirely off base) when

he complained about architects being much more advanced than most people in their perception of the world, but only getting to build a tiny fraction of the structures that fill it.

But overall it was refreshing to see a prime example of architecture's star system at least preaching the importance of the collective, of the city, of planning, of (gasp) clients and neighbours, and even of pushing Modernism forward by letting go of some of its utopianism and paying attention to reality. Of course that doesn't mean reducing expectations. Never one to shy away from a fight, or from ambition, he noted that our culture needs to again embrace big thinking and big ideas: 'We can't continue along this line of infantile thinking. This has got to change.'

Nurturing nature

ROBERTO BOTTAZZI

Living Architecture: How Synthetic Biology Can Remake Our Cities and Reshape our Lives, Rachel Armstrong, TED e-book, £1.96

Architecture has had a long-standing and deeply intricate relationship with nature. Since the Vitruvian man, architects have looked at the natural environment not only as a source of inspiration but also as the ultimate term of reference to position themselves within the cosmos. More recently, the wave of digitally-driven designs has continued to turn to nature for inspiration, resulting in extravagant biomorphic buildings. The latest instalment of this long discourse takes the conversation to what is perhaps its logical next step: in *Living Architecture* Rachel Armstrong calls for an unmediated connection between the two fields, one in which architecture literally behaves like nature; that is, in which buildings will be able to grow, adapt and mutate just like plants do.

Of Armstrong's long-term research into this topic, *Living Architecture* represents the most recent and perhaps most popularising outcome. With Neil Spiller, she has been leading the AVATAR group, as well as having edited and contributed to a wealth of publications in which this theme has been tackled from a more specialist and complex point of view. By taking into account urgent problems such



as climate change and recent environmental disasters – like the earthquake in Japan, to which the first and last chapters are dedicated – *Living Architecture* contextualises an otherwise technical issue to encompass the social and ethical relevance of living structures as well re-assessing our current definitions of urbanism and architecture.

The argument hinges on recent developments in nanotechnology and molecular design that promise to revolutionise the very notion of materials and, consequently, effect how the construction industry operates. Protocells – as these new technologies are called – are ‘nongenetic molecules capable of chemical self-organisation through a spontaneous phenomenon called “emergence”, where new features arise from the interaction of simpler systems at the molecular level’. They are synthetic biological particles that can be programmed to react to external factors in the surrounding environment and that can be embedded in other elements to be scaled up and become actual construction materials.

Although we may be unused to thinking about the built environment in these terms, such nanotechnology – which Armstrong reminds us has actually been around for half a century – could have tremendous implications for how architects operate and, most importantly, could finally give rise to a truly ecological

mode of practice. Rather than the cosmetic approach taken by what is today largely understood as sustainable architecture, protocells could change the very DNA of architecture by altering its materiality and thus turning it into a sentient and reactive matter. This book would perhaps have sat well in Bruce Mau’s exhibition *Massive Change* in which the Canadian designer argued through a number of case studies that the meaning of the word ‘design’ needed to be radically rethought. Design was no longer to be understood as the external, final layer to add to products once all economic and cultural decisions about it had been taken, but rather it was going to mutate into a more fundamental and holistic discipline concerned with products’ very essence: the design of their DNA, both in literal and metaphorical terms.

It is thus unsurprising that *Living Architecture* has been released in the form of an e-book by the prestigious TED organisation. Its subject not only sits well with TED’s own challenge to ask speakers ‘to give the talk of their lives’ but it also uses this more agile medium to directly communicate in an economical and potentially viral manner.

As I was reading the book on my Kindle, one of the screensavers that kept randomly popping up showed plans and elevations of Palladio’s Villa Rotonda. What initially appeared as a strange coincidence

slowly became a contrapuntal rhythm to Armstrong’s rhetoric; the symmetrical plans of Palladio’s villas for Venetian merchants created a contrasting argument to the book’s. In *Living Architecture*, the author feels the need and urgency to explain in great detail what living matter is and how it will affect the built environment; architecture, on the other hand, is used as a term of reference whose meaning has somehow been stabilised by its own longevity and thus can be assumed without further specification. You can sense that much of the battle Armstrong has been engaging in over the past years has to do with convincing various audiences that her ideas will not only improve our lives but also that they will soon be feasible. This preoccupation slowly takes over the main narrative of the book, unleashing a wide range of precise and accessible definitions, examples and references to establish a robust conceptual armature around the notion of living matter.

As a result, the vocabulary used to describe the science behind bio-synthetic structures is surgical and convincing, whereas descriptions of their application to the built environment lack equal clarity, casually interchanging distinct terms such as architecture, structure and building.

It emerges that the main issue with the notion of living architecture is not so much with the former but rather the latter term: architecture in fact differs from structure or simply construction as it is often defined as ‘built thought’; that is, architecture has always been able to digest external inputs – such as new technologies – to eventually imagine and construct new architectural languages and modes of inhabitation. On the other hand, *Living Architecture* too often resembles a catalogue of sophisticated materials and pioneering solutions to implement, without developing a parallel design culture or methodology to grasp how these technologies would change our definition of architecture. Though built of soft, responsive, growing materials, the tenets of biologically-driven architecture are still reminiscent of the ones underpinning current buildings: we are still talking about a rather conventional architectural vocabulary made up of walls, stairs and rooms, within which our life would be rather similar to the one we are currently leading.

Above: Philip Beesley's installation *Hylozoic Ground* at the 2010 Venice Biennale created a responsive environment from microprocessors, minute acrylic links and proximity sensors – a taste, perhaps, of the organic-architectural hybridity to come

The challenge of a truly ecological construction and material culture has definitely been pushed forward by *Living Architecture*; what is now perhaps needed is an operating manual for it, a sort of Palladio's *Four Books of Architecture* able to alter the way we will design and inhabit living structures.

Guerrilla gardening

ALAN POWERS

From Garden City to Green City, Garden Museum, London, until 1 April

'Garden centres are the Jacobin Clubs of the new revolution' wrote Ian Hamilton Finlay in the 1980s. If this metaphor startles by its sheer improbability, what might be considered the political purpose of a Garden Museum housed in a deconsecrated church next to Lambeth Palace and within sight of the Palace of Westminster, a location that might bring to mind the Dominican convent in the rue Saint-Jacques that housed the sea-green incorruptible? Since the relaunch of the museum three years ago, with its new plywood mezzanine designed by London architects Dow Jones, it has taken a more radically campaigning direction, showing that gardening remains one of the most socially unifying activities available.

The Garden Museum's exhibition *From Garden City to Green City* shows that the revolutionary purposes of nature are not forgotten. The cultivation of nature may seem to belong to the Establishment and the upper class, and by implication to the spaces beyond the city, but the idea that city and country can be separated as functioning ecologies, lifestyles or economies is long past. Movements for transforming cities through nature are still fragmentary and a considerable effort of persuasion is needed to get planners, politicians, journalists and even architects to see the actuality and potential of urban nature. The exhibition is a step in this direction, and part of a campaign of engagement by the Garden Museum on several fronts.

The exhibition began with local history, showing maps, drawings and photographs of Lambeth to stimulate awareness of the 'fields beneath': the concept that stirs town



Above: Wieland Payer's lithograph *Temple I* (2011) — Ballard meets Friedrich in a romantic landscape of post-apocalyptic verdure. From the exhibition *From Garden City to Green City*

dwellers from time to time to imagine alternative futures as well as pasts. It got its teeth into the Garden City story, still worth taking back to its radical origins, as a self-help project with anarchist leanings. It was a desperate remedy for London, an admission that the heart of the city was too dark to be cleansed other than by a new beginning. According to some versions, it was a wrong turn — away from European high-density apartment living and towards sprawl and fake rurality — with disastrous consequences. Culturally, we seem still to be pitting its comedy un-coolness against the cappuccino stereotype, but as the exhibition moved rapidly towards the present, different pictures of possible resolution began to emerge.

Either you push the city into the country, or you bring the country into the city. The designer's skill is to choose a rhetoric that makes the solution meaningful and acceptable, and the exhibition showed a number of models from recent years that, if reasonably well known among architects and cognate professionals, are probably still new for the audience the Garden Museum attracts.

One method is to find leftover spaces for greening, as achieved by a combination of money, politics and

apt design with the High Line in New York. Guerrilla gardening is a small-scale version of the same thing, now becoming almost normal. The ambitions of the Transition movement to bring food growing back to London may soon achieve a similar visibility. What may be lost are things of quality that exist unregarded. A film draws attention to the 'forest' in the Heygate Estate at Elephant and Castle, London, a varied stand of mature trees in the midst of a derided and shortly-to-be-scraped housing development, whose future is also in doubt. Fuzzy but passionate argument has raged over the pros and cons of the city's Robin Hood Gardens, but the beauty of its mounded landscape in relation to the housing seldom gets a mention, and this is due to be flattened as a form of 'improvement' when the housing is demolished. The landscape at Alexandra Road, London, designed by Janet Jack, was lucky enough to be listed when the climate was more favourable for such things, and is undergoing a careful 'conservation' refurbishment.

In the new versions of green, we get living walls in by Édouard François, one of whose early projects withered when the client turned off the water supply as a cost saving measure. To avoid similar occurrences (reliance on piped water being an uncertain matter), François has changed tactic, and his Eden Bio project in the 20th arrondissement has steep-gabled traditional-looking houses that are seeded for various forms of growth.

Stefano Boeri's Bosco Verticale in Milan shows residential towers with bushy trees (already part of a roof garden tradition in the city). This is a new version of the old cliché of the vertical garden city, which somehow brought the worst of both worlds, but with sufficient management funds to maintain the greenery it may avoid Ballardian decline. MVRDV's multi-storey pig farms in Holland are eye-catching when seen for the first time. They set out to solve the problem of having more pigs than people in the country, without suggesting the non-architectural solution of eating less pork. The Torre Huerta apartments in Valencia by the same firm will have balconies big enough for orange trees, and are apparently irony-free. The LTL project for Greenwich South (New York) is a glass box at the end of the Brooklyn Battery

Tunnel designed to cleanse its pollution while doubling as a park and a centre for cyclists – what a nice neighbour one of these might make for poor old Robin Hood Gardens.

These projects shoot off in different directions – sustainable, political, cool and cute, and miles removed from the type of development we have come to expect in London. Instead of charting a single track, they indicate a sense of fun and urgency. Although compressed in scale beneath the Museum's mezzanine, the display is ingenious in its presentation and choice of material. The museum director Christopher Woodward is keen that it should be a rallying call for landscape architects in Britain to become more assertive against the pressure of development that still treats landscape as a token infill. Hardly the equivalent of Jacobinism as yet, but this is an organisation to keep an eye on.

Coates of many colours

JONATHAN GLANCEY

Narrative Architecture, Nigel Coates, Architectural Design Primer series, Wiley, £27.99

Take any letter of the alphabet in the index of *Narrative Architecture* and read down the list of entries. A, for example, offers – in no particular order – Arte Povera, Archizoom, American Gigolo, Architectural Association and Angry Birds. S gives us Saarinen, Satnav, Seditionaries, Starbucks and Sex, while N stands for Next (high street store), Nieuwenhuys, Nostalgia and NATO (*Narrative Architecture Today*). And, from such a reading, you might know without even seeing the cover or leafing through the body of the book that N also spells Nigel, loud and enjoyably clear.

Nigel Coates has a lively, enquiring and all-absorbing mind. Nothing is wasted on this architect, designer, teacher and writer: whether the latest cult Hollywood film, lifestyle fad or enjoyably mindless computer game. Small wonder that Coates has been a much loved professor of architecture at the Royal College of Art, and a cult tutor before that at the AA. His ability to draw from so many strands of contemporary life and to weave these into provocative new ideas about

architecture, design and the city infused and mapped with a genuine love and understanding of architectural history, make Coates an undeniably attractive personality, a provocateur and activist shot through with irrepressible energy and a genuine sense of fun, along with that of the eye-catching and the absurd. Architecture is an inherently serious business and Coates has over the years often seemed to play the clown to those for whom humour and playfulness – not to mention sex [‘changing attitudes to’, p136, ‘commodified’, p137, ‘as narrative driver’, p137] – are not proper professional concerns for architects.

For Coates, though, ‘We live in an age of blurred boundaries. The distinction between architecture, art, and urban and cultural theory grows ever more fluid ... architects are no longer the sole protagonists in the creation of the built environment or of what is perceived of as “architecture”’. No: today the Coatesian architect should be – although nothing, no tenet laid down in this book is any way posited as mandatory – a novel fusion of thinker, designer, writer, editor, curator, director and novelist. The architect is a narrator, a kind of latter-day Pepys or Boswell, who engages with, or knowingly observes, the sheer eclectic, multi-layered experience of the contemporary world (synonymous, on the whole, with the city) and works this, in a multiplicity of ways into the realm of architecture, whether through films, exhibitions, books, buildings or ideas for the future of the city.

Narrative Architecture, says Coates, is not meant to be the last word on the subject, but ‘a primer’ that ‘will encourage others to add to or contradict the interpretation of narrative that I arrived at through my experience as a designer, academic and curious onlooker’. He begins with a spirited spin through history, encompassing Hadrian’s ‘consciously narrative disposition of buildings, spaces and landscapes that freely represent faraway spaces’ at the Roman emperor’s expansive villa in Tivoli; and stops off in William Kent’s 18th-century English landscape garden at Rousham – ‘a highly tuned spatial instrument for bodily and perceptual awareness that would be hard to match in the confusing and overloaded context of the city’; at Gaudí’s Parc Güell, where



Above: ‘Chambers of seduction’ by Carlo Mollino
Below: Ettore Sottsass’ Temple of Erotic Dances (1972-3) looks back to Claude Nicolas Ledoux’s concupiscent Oikema for its pudendal and phallic forms

‘relationships are free to coalesce’; the Alhambra-like 1930s roof garden designed by Ralph Hancock on top of the Derry & Toms department store in Kensington High Street; and on through the Casa Malaparte; and Casa Devalle, one of the curious Carlo Mollino’s Turinese ‘chambers of seduction’; to a Study for a Temple for Erotic Dances, 1972-3, by Ettore Sottsass.

Nigel’s narrative becomes more complex as he goes on to explore New Babylon – ‘a physical environment ... for a culturally, sexually and politically liberated society’ – envisaged in the early 1970s by the Situationist Constant Nieuwenhuys, along with provocations and modern eye-catchers by, among others, Hans Hollein, Archizoom, Superstudio and Rem Koolhaas. Mix these with Coates’s experience of punk, new wave clubs, graffiti and ‘street culture’ from the mid-1970s, and his own distinctive aesthetic and take on architecture and urbanism emerges at the heart of this engaging book.

NATO – or Nigel And The Others, as this lively group of students and tutors was fondly known – was Coates’s attempt to make Narrative Architecture work, on paper, in models and in a spirited magazine, of which just three issues were published, through his Diploma Unit 10 and the AA. The results were not, as Coates reminds us, appreciated by external examiners, including James





Stirling and Ed Jones who declared that the anarchic, punky drawings they were presented with were 'unassessable', which – lacking proper plans, sections, elevations and perspectives (worm's eye or otherwise) – they were, at least in conventional terms.

And yet Coates got to build – with Doug Branson and others – from the mid-1980s, at first in Tokyo and then in London and elsewhere in the world, as a new generation of clients, especially in the world of fashion, revelled in his practice's ability to build wild 'narrative' designs that had seemed until then to belong on paper only, or else tricked-up in papier-mâché (or biscuits, dried fruit and sweets) for exhibitions.

A characteristically generous section of the book – this is not a self-regarding monograph – celebrates the work of other architects who, in their different ways have, in Coates's view, sought to build 'narrative'. So, here are scintillating designs by Herzog & de Meuron, Diller & Scofidio, Enric Miralles, FAT, Rem Koolhaas (again), Ugo La Pietra and AL_A.

'My ever-increasing engagement with narrative in architecture', says Coates, 'has involved turning for inspiration to sources from archaeology to anthropomorphism, and from film to flight. By providing associative triggers to enhance the visitor's experience, I have tried to create hybrid environments where identity can be experimented with and ideas stirred up.' Coates likes Andrea Branzi's consideration of the city as a 'factory of life, a place of genome exchanges, sexual experiences, development of one's own gene', and believes that the free-thinking of writers – 'none of whom was an architect' – with a truly free and creative imagination,

like Italo Calvino and JG Ballard, offers insights that often exceed those of architects themselves.

Coates, though – for all his freedom of thought and intriguing and enjoyable associations – is very much an architect. As the book draws to a close, he cannot help summarising a list of 12 true principles of Narrative or Coatesian architecture and, delightfully, and although it's not quite as assertive as Sullivan's 'Form forever follows function', he even works on a memorable dictum: 'architecture needs now more than ever to connect through function and with fiction in equal proportions'. From *Angry Birds* to Zumthor, Peter, *Narrative Architecture* is certainly a good read.

A contemplative Teutonic focus

ANDREW MEAD

Hans-Christian Schink

Edited by Ulrike Bestgen, Hatje Cantz, €49.80

In his book *Terminal Architecture* (1998) the critic Martin Pawley, who so enlivened architectural journalism until his death in 2008, suggested that the image of 21st-century architecture was already clear: its defining building would be the bland big shed.

'These steel- and aluminium-skinned rectangles are the wholesale granaries of consumer society. They combine perfect formal simplicity with a wonderful sophistication – their interiors burst with new technology,' said Pawley, who apparently welcomed their proliferation.

Such sheds feature prominently in this monograph on the German photographer Hans-Christian Schink, in a series of close-ups of their corrugated metal skins. The images are cropped in such a way that all they present is a broad expanse of colour, like a minimalist monochrome painting, except for a strip of ragged grass at the bottom and a glimpse of sky at the top.

This could just be a deft compositional device that saves the photo from complete abstraction, but it also suggests how forgetful these sheds are of their surroundings. Too often they are simply dumped upon the landscape, in the ceaseless triumph of culture over nature. But whether or not these shots are implicitly critical, they show Schink to be meticulous

Left: Aerial perspective of the Pool of London by Nigel Coates, showing a docking battleship and Tower Bridge in the foreground
Below: The new New Objectivity of Schink's photography interrogates architecture with an impassively clinical eye. *Ostbad I* (1988)

and methodical: an impression that the rest of the book confirms.

It sometimes seems as if every well-established German photographer trained in Düsseldorf with Bernd and Hilla Becher, but Schink took a different route. He was born in what was then East Germany and studied at the Academy of Visual Arts in Leipzig from 1986 to '91. Sampling two decades of Schink's work, this book accompanied his recent retrospective at several German venues, and is as worthwhile as any on such Düsseldorf luminaries as Andreas Gursky (AR March 2012) or Thomas Struth.

Given his GDR background, it is no surprise that among Schink's subjects is the effect of German reunification. In the last days of the GDR he photographed a number of indoor swimming pools in Leipzig, whose condition was 'symptomatic of the general neglect'. Soon after reunification it was clear that such neglect had a positive side too, having ensured the survival of buildings that might well have been demolished in the West; and Schink was among the ex-GDR photographers who documented that now-vulnerable heritage – in his case, the industrial architecture of Leipzig, Chemnitz and Dresden.

The change that unification brought is most apparent in Schink's 1993 series *Verkehrsprojekte Deutsche Einheit* (Traffic Projects German Unity), his study of new motorway and railway construction. As one of the book's essayists says: 'Architecture can be very beautiful, but most of the time it is not. The economic constraints under which these structures were built are manifest.' Despite a hint of engineering maestro Robert Maillart in the design of one bridge, they are mostly crude





and imperious – the more so because of Schink's low viewpoint, which makes them loom overhead.

Complementing these infrastructure photos is a project from 1997, in which Schink explored several settlements in the Fläming region of Brandenburg. Here the results of reunification are much less obtrusive: a new roof, a fancy porch, or just a coat of coloured render on a modest facade. This is the low-key incremental way in which life has proceeded, and we might only be looking at a change of owner, not of government and ideology.

In common with Gursky and Struth, Schink has travelled widely as his reputation has spread. Like many photographers of his generation, he is drawn to the periphery of towns and cities, but whether in Los Angeles or in Lima, he seldom lapses into cliché. In the Lima photos, for instance, he

discovers an eroded pyramid (a pre-Incan survival) at the end of a ramshackle street. One atmospheric series features Japanese villages under snow, the idyll somewhat compromised by overhead wires and cables – the kind of visual crassness that the AR has lamented since the 1930s. This tension between nature and culture persists throughout the book, but the two are reconciled in a photograph of the Turkish town of Uchisar: an intimate fusion of building and landscape in cave-hollowed Cappadocia.

While Schink's scenes mostly reflect human intervention, there is nonetheless a sense of powerful natural forces at work, especially in shots of the vast Iguaçu waterfalls on the border of Argentina and Brazil. In his brief polemic *The Eyes of the Skin* (1996), the Finnish architect Juhani Pallasmaa rightly criticises our 'ocularcentric' culture, the

dominance of the eye over other senses, but here is an instance where an image engages not just the sense of sight. Brought to the edge of an abyss in Schink's Iguaçu photos, you almost hear the roar of the water and feel its spray in your face.

In a further series of landscapes, realised in black and white, Schink turns his camera towards the horizon and captures the trajectory of the sun during hour-long exposures: it makes a dark incision in the sky. So at one extreme he photographs the surfaces of sheds, and at the other, the workings of the solar system. Given such disparate subjects, who could say what comes next?

We see so many images each day that we absorb them unthinkingly and miss their significance or merit. Schink's ought to be an exception. Reproduced handsomely in Hatje Cantz's book, they should be contemplated not consumed.

Above: In Schink's rich and varied photographic oeuvre, architectural interiors rub shoulders with experimental seascapes such as this, where the gash torn by the sun's trajectory is a visceral reminder of the photograph's indexical status. The title gives precise information on the shot's location and hour-long exposure time: 2/20/2010 6:53 am - 7:53 am S: 37°40.831' E: 178°32.635'

PEDAGOGY

University of Tokyo, Tokyo, Japan

MATTHEW BARAC

Muffled chatter is everywhere, like the sound of people talking into mobile phones on a bus. Students pace fretfully at the doorway to the studio, a large, tall space transformed into a labyrinth by screens on mobile stands, all covered with drawings; cardboard models and plastic vending-machine bottles litter tables and stools. A young man is presenting his project to a group of distracted critics but his nerves keep getting the better of him and he falters, forgetting where he is in his exposition. The air is hot and thick with the anxious exhaustion of the end-of-semester juries, which are today simultaneously reviewing all of the dozen-odd units that make up

'Studio 4': a design studio which, for the majority of students, takes place during the penultimate semester of the four-year degree.

Graduates of the University of Tokyo department of architecture will have focused exclusively on architecture for only five of their eight semesters; the first three offer general studies in the liberal arts. Following completion of the final semester – the 'thesis' studio, assessed on the basis of an individually-guided project – students go out into practice for two years, after which they are eligible to sit the two-stage test that provides for entry into the profession. By this time the end may well be in sight, but the struggle has only just begun. Japan's licensing exams are notoriously difficult, and less than 15 per cent get through the first stage (written paper); of those, half don't pass the second (design exam).

1 & 2. Paper and balsa wood model of Kazuki Horikosi's modular housing project. Thresholds between inside and out are graduated by changing surfaces and levels
3. A card model by Horikosi shows how clusters of low rise dwelling create pockets of communal space in this suburban housing scheme
4. Yoshinobu Saito's project sets out to negotiate between public and private space in a refugee settlement near the tsunami-devastated Kamaishi prefecture

Here, protection of title is taken very seriously indeed.

And yet, according to Kazuhiko Okamoto, an assistant professor at the school, architecture remains a popular subject: 'our students are exceptional when it comes to learning. Some are very shy, but they are not scared of hard work.' A good reason to choose Tokyo over other universities is its renowned faculty of leaders in research and in practice – respected academics, including Kazuhiko Nishide and Toshio Otsuki, and well-known designers such as Kengo Kuma and Sou Fujimoto. This connects the institution to the current scene, but its reputation is also anchored to an auspicious past: the university's roots can be traced back to the Astronomical and Chronological Institute founded in 1684.

The marketplace approach of Studio 4, providing students with a



choice of teaching styles and study themes, underwrites Tokyo University's reputation today. Affording a mix between Masters level and undergraduate students, this format draws on the 'unit system' widely adopted internationally. Topics on offer reflect professors' preoccupations: one emphasises landscape, another the scale of the city. Conceptual themes are also popular; Fujimoto's unit recently explored the notion of 'architecture as a cloud'. This year, four units addressed the architect's role in reconstruction following the 2011 earthquake and tsunami. One of these, steered by Nishide & Otsuki, investigated the problem of temporary housing for those who may have lost not only their homes, but also their loved ones.

As Okamoto explains, the brief that Nishide & Otsuki set their students closely matched disaster-

5. In response to the 2011 tsunami, Sachiko Uranishi developed a modular housing system using local manufacturing. Although not a real project, the student redesigned the scheme when it became clear the region's timber factories had suffered significant earthquake damage. This balsa wood and card model shows the adapted design 6 & 7. Short pilotis hoist these dwellings above the dangers of flash-flooding

response constraints in Japan, including tight deadlines: a two-week design programme for coastal re-housing, using prefabricated homes in tsunami-hit Kamaishi, and eight weeks for refugee resettlement in Tono. To allow for future change, student Sachiko Uranishi initially proposed a scheme based on a modular grid, hoping to make the most of local fabrication capacity. But she found out that key timber product factories in the region had suffered earthquake damage, and so relaxed her design to embrace a range of adaptation options.

Yoshinobu Saito's structural walls of box-shaped shelves articulate the threshold between public and private domains. Although shelter from the weather is paramount, temporary housing must also, according to Okamoto, 'deal not only with physical barrier but also mental barrier. Refugees can easily become

isolated; they might stay in their rooms for 24 hours. We need an architectural solution to take the people out of their houses.' Saito's project, which invites residents to populate its densely detailed interiors, encourages collective occupation of its public spaces.

Through the dynamics of Studio 4, students are able to pursue interests that closely match their own. This emphasis on choice has influenced the school for a decade; its pedagogical ethos follows global trends towards personalisation, and yet it is rooted in a local tradition of social obligations. The effects of the recent earthquake were literally felt across Japan; here at the school in Tokyo, despite competing temptations in the studio's marketplace of ideas, students have been drawn in by a sense of architecture's duty to engage with the pressing matters of the day.



REPUTATIONS

Pancho Guedes

PETER COOK

In 1961, David Greene and I were putting together the first *Archigram* broadsheet. We regularly saw the AR, which delighted in introducing new people from outside the usual European/North American orbit – not merely with an indecipherable picture on an end-paper, and a paragraph, but with good, lusty exposure: the cover and several pages. If some of the earliest *Archigram* enthusiasms were for gadgets, techno-achievement, Bucky Fuller and the space race, there was parallel delight in exotic form and the moulding of buildings. So a giant hoot of admiration rang out when we saw Pancho Guedes' work: fulsome, fearless, a bit Gaudí but more raw, less mannered. It celebrated, of all things, *chimneys* in ways that we in London could only dream of. It was immensely gutsy and came from a weirdly named city, Lourenço Marques, that we had never heard of before (now Maputo).

Fortunately his architect son and film-maker daughter appeared in London around the end of the 1970s, and the mythical father finally arrived in the city: as a lecturer, critic, charismatic talker and enthusiast, stylish and sophisticated. To meet such a person was (as perhaps the old AR piece had intended) a reminder that the power of architectural invention did not just bounce around from London to New York to Tokyo. It was also a reminder of the possibility of an unadulterated flow of creativity that can exist outside the world of intense scrutiny and reputational patronage that can stultify certain talents.

Not that Pancho was uninformed or disconnected. He had been taught at the Witwatersrand University in Johannesburg by a group of people much influenced by Rex Martienssen, the key link between European Modernism and South Africa.

He had assiduously toured Europe and devoured books on painting, sculpting and architecture. He attended the first Team 10 meeting and continued to be a regular member of this highly talented but sometimes viciously critical group that revolved around Bakema, Van Eyck and the Smithsons, who were manneristically far more severe than Pancho, but admiring of his talent and his clarity of thought. I would later enjoy watching him on an AA jury alongside the more trendy and self-conscious – able to outwit them with his fluency and knowledge, but always with immense charm.

In his own words the 'Stiloguedes', 'is my most idiosyncratic style – my royal family, as it were. It is a bizarre and fantastic family of buildings with spikes and fangs, with beams tearing into spaces around them ... full of exaggerations ... they stretch the mysterious relationship between plan, section and facade ...'. He is making this distinction because of his 500 projects there are hundreds actually built. Some are clever shacks, resourceful sheds, some commodious villas, useful city blocks and then there are the icons.

Pancho likes to give them names, just as he names his sculpted objects and the fruit of his voracious output of drawings: everything from 'Ship of Fools' to 'Decadent Temple' or 'Round Faces'. Thus his apartment block 'Prometheus' (1951) can be seen as his statement of 'thinking forward' from the constraints of the conventional five-storey/narrow frontage unit. A give-away drawing suggests a very curvy version: but the built version is inventive enough, with thrusting balconies and big, strong screen walls, articulated – almost fretted components with wild combs jutting out at each end. The 'Smiling Lion' (1958) is a block of six flats, straightforwardly planned but uninhibitedly sculpted. The privacy fins are there, the cars neatly parked bay-by-bay between the columns, but in this case, the interpreted parts go

'He outwitted the trendy with his fluency and knowledge, but always with immense charm'

wild. Those cars might be neatly parked – but between voluptuous, erotic, cavernous columns. There are combs again at the ends of the building, but now part of a virtual smiling face. The built object triggers in my imagination the nearest thing to a built evocation of Carmen Miranda. The 'Santos Marques e Silva' building (1953) could have, if built, become another show-stopper where the primary structure would climb and wriggle, detached from the body as vertical flying buttresses.

Without such exotica, Guedes would have multiple credentials as a significant architect: the 'Pyramidal Kindergarten' (1957) is an essay in componenting and logical planning. His 'Arched Manners' hotel on Mozambique Island is similarly tight and logical. His 'Clandestine School' in Caniço (1968) employs straight thinking and good disposition for a language of simple timber and thatch. He acknowledges his debt to Wright or Corb and surely one can see some Kahn in there. Yet it is always overlaid by his creative wit.

Pancho Guedes can be treated as an eccentric outsider by the mainstream. For some years after he returned to his birthplace, Portugal, a milieu dominated by Siza, Souto de Moura and more recently bewitched by Swiss architecture, clearly regarded him as an anachronism. Whereas some years before, politically forced to flee Mozambique with his family to Johannesburg, his reception was rather different. He was quickly given the Deanship of Architecture at the Witwatersrand and a trickle of commissions.

The recent revival of interest in him and his work exploded, quite surprisingly, out of the Swiss Architecture Museum in Basel. Serious spadework then started to be done by a growing fan base in Lisbon. His tiny 'Eye House' (1972–90), in front of his farmhouse at Eugaria, near Lisbon, continued the 'Stiloguedes' quite unabashed. In 1990 the Museo Coleção Berardo

Pancho Guedes

1925–

Education

University of the Witwatersrand, Johannesburg (1945–49)
Escola Superior de Belas Artes, Porto, Portugal (1953)

Educator

Professor of Architecture, Lusofona University, Lisbon (1995–present)

Key buildings

Smiling Lion apartment building, Lourenço Marques (1956–58)
Salm House, Lourenço Marques (1963–65)
Casal dos Olhos (The Eye House), Eugaria, Sintra, Portugal (1972–90)
City centre square project, Johannesburg (1981)

Quote

'I claim for architects the rights and liberties that painters and poets have held for so long'



BEN NEWMAN

staged a magnificent 2000-item Guedes show, with a comprehensive and revealing catalogue, with most text his own.

Both show and book reinforce the integrity of his drawings, paintings, objects, projects *and* buildings. There is a thread that runs through the paintings where a particular genre of quizzical roundedness, dominated by a naughty eye, reminds you of the man and his ambition to surround you with its progeny.

The orange painting based on a section through the 'Smiling Lion' brings together the quasi-human spirit of the building and its inhabitants (including the crocodile as metaphorical parked vehicle).

I have deliberately left until last a key to his significance: his plans. In an architectural moment when three-dimensional (digital) composition has taken the high ground, there will eventually come a reassessment of the generic significance of plans, of which Pancho Guedes is a master. At the exotic end: that for the projected hotel in San Martinho do Bilene is figurative, inventive, but the fact that it is haunting as an image is a bonus that sometimes oversails the realisation of its fundamental quality. Yet there is the train of compacted squares that characterise the Vale Vazio, Salm and Almiro do Vale houses that 'knit' so well.

There are symmetrical groupings: Schipper House, Agricultural Expert's House and Khovolar Building; or shifted strips: Maternity Extension Hospital or Young Workers' School; as well as innumerable 'twisted logic' plans, mostly for hotels and clubs. They are always closely related to the logic of concrete construction, with sensible spans and no-nonsense columns. The bodies of his figures, and their built cousins, are real *stuff*. He is the most creative person I have ever met. Dreamer Yes ... *No, also Maker.*

Peter Cook's selection of Pancho Guedes' extensive oeuvre is at architectural-review.com/Guedes



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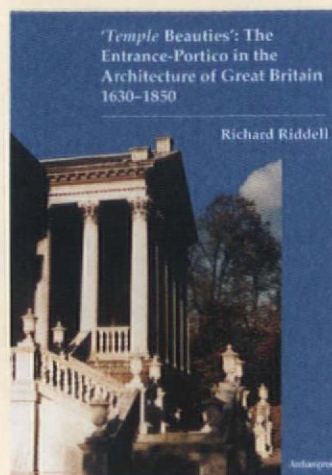
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ISBN 978-1-905739-44-8

This book presents a comprehensive study of entrance porticoes from both domestic and public buildings built in Britain from the seventeenth to nineteenth centuries. It addresses the problem of porticoe definition, suggests what it signified and offers an insight into the lively contemporary debate on the subject. Although there were examples of porticoed domestic buildings in the seventeenth century, the type did not proliferate until the early eighteenth century, largely in the context of country houses. Porticoed public buildings (other than churches), although they made tentative appearances in the late eighteenth century, are largely a nineteenth-century phenomenon. Full reference is made to all these porticoed buildings as and when they appeared, so that the use of porticoes on any of these building types within all or parts of the period covered by this study can be seen in the appropriate section(s) of the relevant chapter(s).

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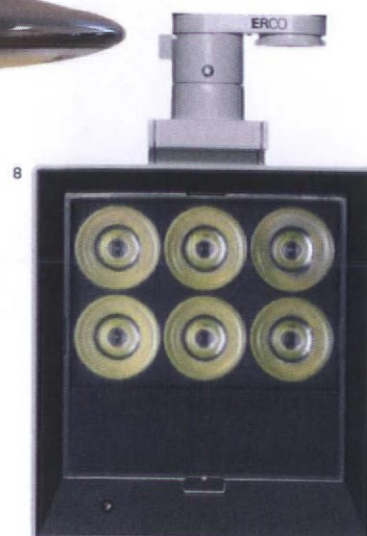
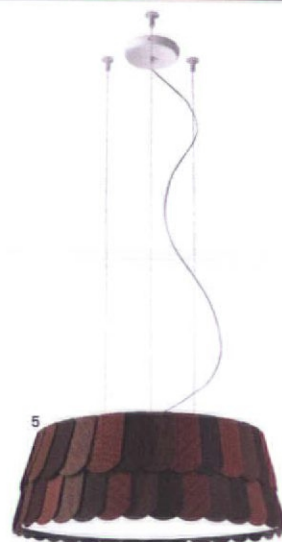
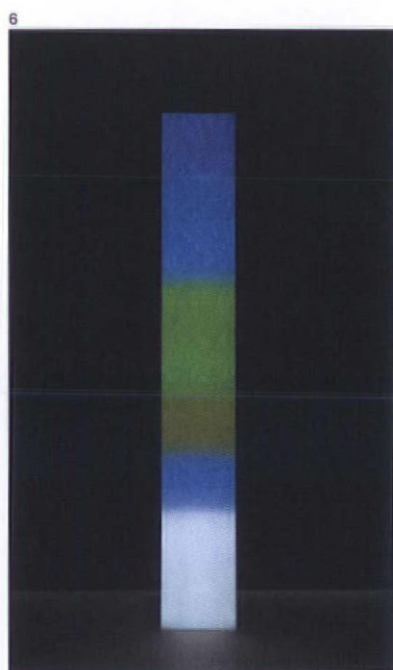
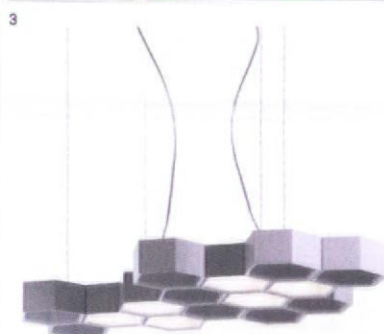
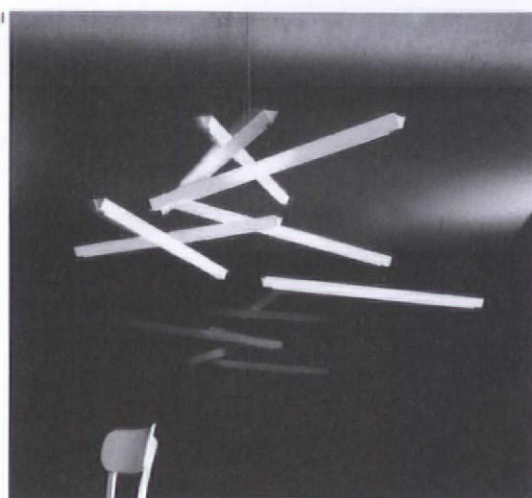
Let there be light

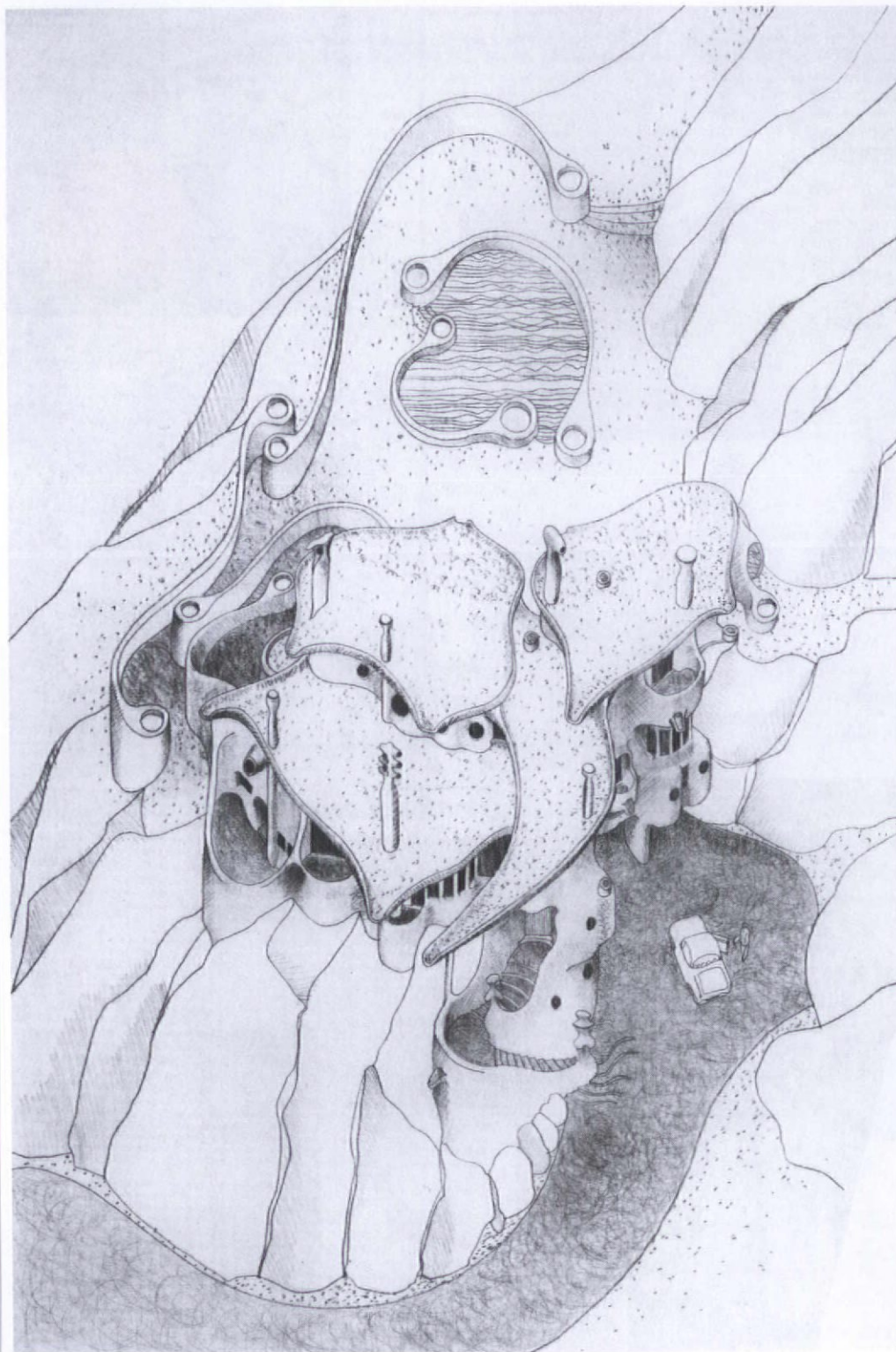
PHINEAS HARPER

Light+Building 2012
Frankfurt Fair and Exhibition
Centre, Germany, 15-20 April

This spring Frankfurt hosts the biennial Light+Building show, an exhibition of thousands of lanterns, lighting and technology from manufacturers around the world. This year an overarching theme of energy efficiency unites the events and lectures at the show. A special series of discussions running in parallel to the main event, hosted by Messe Frankfurt, will consider the role of buildings as micro-power stations in an urban smart grid. Speakers will explore the potential of regenerative energies, showcasing buildings that produce, use and store sustainable energy within a city-wide network. As the world's only trade fair to combine the fields of architecture and technology, Light+Building remains a key source of inspiration and innovation for architectural lighting design. Here is our special preview of key new lighting products. For full programme information visit light-building.messefrankfurt.com

1. ManOMan by Ingo Maurer
ingo-maurer.com
2. Potter LED by Panzeri
panzeri.it
3. Honeycomb by Luceplan
luceplan.com
4. Falling leaf by Tobias Grau
tobias-grau.com
5. Roofer by Benjamin Hubert
for Fabbian
fabbian.com
6. Rothko Terra by
Carlotta de Bevilacqua
for Artemide
artemide.com
7. Floodlight by Bega
bega.de
8. Light Board spotlights
by Erco
erco.com





Pancho Guedes said that colleagues were distressed by his houses, 'because these buildings showed that architecture could be much more than boxes'. In this drawing for an unbuilt project *The Habitable Woman* (1963) you get a sense of the architect's characteristic organic style and eccentric brilliance. However, Guedes also built many of his creations, albeit in a more restrained fashion than shown here.

In this month's *Reputations* (page 102), Peter Cook pays tribute to Guedes as 'the most creative person' he's ever met; and more of Guedes' inspirational oeuvre can be viewed at architectural-review.com/Guedes

Roca London Gallery by Zaha Hadid Architects



The inspiration that flows from water.

Welcome to the new Roca London Gallery, a space designed by Zaha Hadid Architects, where you can enjoy a unique visual and interactive experience with Roca, the leading global bathroom brand.

Inspired by the various phases or states of water, the Roca London Gallery is a new resource for architects and interior designers, hosting exhibitions and events about innovation, design and sustainability on a regular basis as well offering support for bathroom projects.



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Opening times:
Mondays to Fridays from 9 a.m. to 7 p.m.
Saturdays from 11 a.m. to 4 p.m.

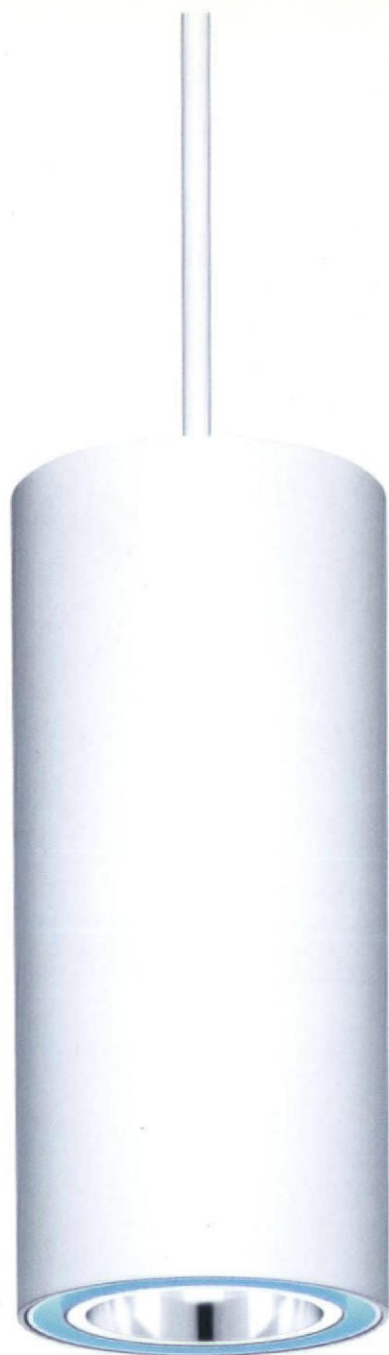
www.rocalondongallery.com

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Roca

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tune the light



Cylinder LED

The launch of the new generation of ERCO's Cylinder – as surface-mounted or pendant luminaires, exclusively with LEDs, the source of the future. The elegant cylindrical housing embodies high technology: high-power LEDs in warm white or neutral white version for luminous flux options of

between 870 and 2700lm with connected loads from just 13 to 34W. Darklight reflectors ensure optimal glare control and the range includes both downlights and wallwashers for efficient vertical illuminance. Electronic control gear, naturally also with optionally available DALI versions for intelligent control

round off the system. The varychrome version with ring adds an additional, individually controllable colour accent to the room: For creative lighting concepts with efficient visual comfort.

www.erco.com/cylinder

ERCO