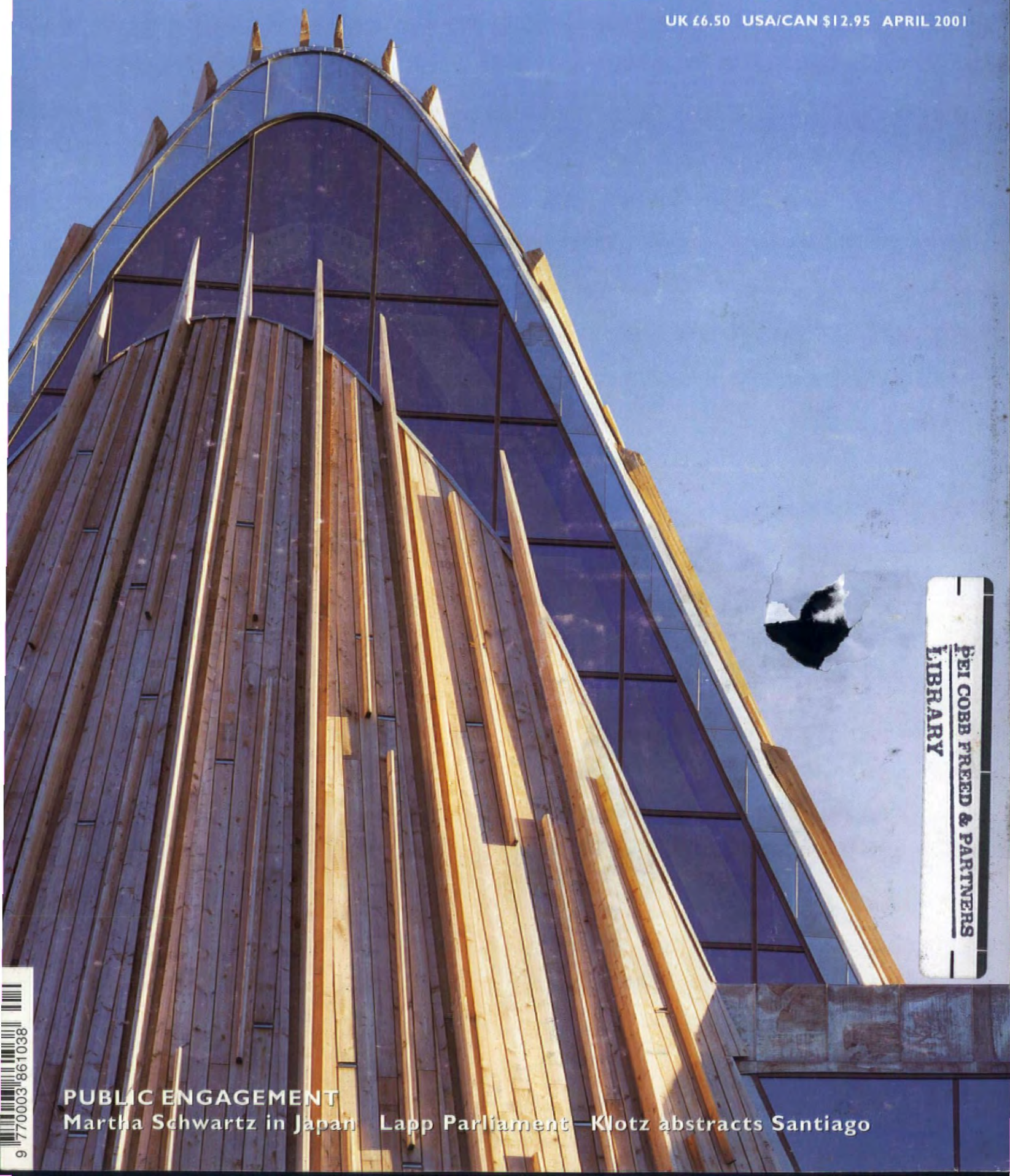


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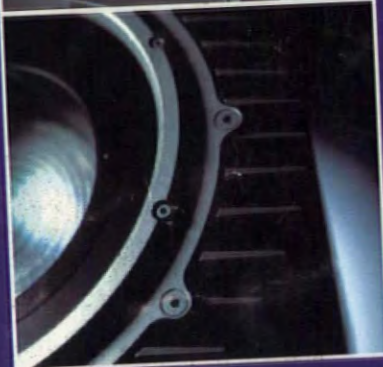


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**ADDING A RING OF ENGRAVED STANDING STONES TO THE NEW ART CENTRE'S SCULPTURE PARK AT ROCHE COURT IN WILTSHIRE, ENGLAND, ADDS MYSTICISM TO THE ABSTRACTION OF THE EARLIER TWENTIETH CENTURY.**

*For words, like Nature, half reveal and half conceal the soul within.*

Alfred Lord Tennyson

The gallery, designed by Munkenbeck & Marshall (AR February 1999), adjoins the main house stepping up the slope of the garden to an orangery. Aligned in this way, partly backed up against the old wall of the kitchen garden, the buildings look south over a lawn and rolling parkland, and down a great valley. With the gallery reserved for paintings and smaller sculptures, the grounds are set with larger pieces (by renowned artists such as Barbara Hepworth, Hubert Dalwood, Bryan Kneale and others) sometimes singly, sometimes in groups, appearing almost as natural outcrops of topography and summoning up a subliminal sense of the prehistoric. Your subconscious is anyway already primed with the knowledge that Stonehenge is only seven miles away.

Lately that sense has been made less subliminal by the addition to the park of a ring of 10 standing stones by Richard Kindersley, one of

Britain's most distinguished letter cutters. Created to mark the millennium, each stone represents 200 years of the 2000 years since the birth of Christ and is inscribed with a text taken from a writer prominent in that period: St John, St Augustine, Boethius, Erigena, St Anselm, St Thomas Aquinas, Shakespeare, St Francis of Sales, Goethe, T. S. Eliot. The texts are timeless in their explanation of man's condition; some are familiar, others less so, but each in turn 'encourages the human spirit to look further than the immediate experience of passing time'.

Timelessness finds another metaphor in the material chosen by Kindersley – Caithness flagstone, traditionally used in Scotland for paving. Now extracted from one of only a handful of working quarries, the stone lying flat and level on the quarry bed is estimated to be roughly 240 million years old. P. M.

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shadow-world of French 'rationalism', or look upon Auguste as a halfway house to Corb. Even the fine preface by Abram, which quite rightly asserts the pre-eminence of architecture in the Perret firm's priorities, is an old piece of work, rehashing an essay that appeared for English readers in *Construction History* for 1987. Against this, there is a harvest of fresh information to be gleaned, if the reader has patience with the volume's rigidities. ANDREW SAINT

## DIVERSE MODERNISM

### THE MODERN MOVEMENT IN ARCHITECTURE: SELECTIONS FROM THE DOCOMOMO REGISTERS

Edited by Dennis Sharp & Catherine Cooke.  
Rotterdam: OIO Publishers. 2001. £25

DOCOMOMO was founded in 1988, at the School of Architecture in Eindhoven. Inspired by the fate of Jan Duiker's abandoned Zonnestraal sanatorium, its aim, explicitly enshrined in its acronym, was to DOCUMENT and to CONserve significant buildings of the MODern MOVement. Twelve years later the present book represents the first product of that effort. It presents selective registers of representative buildings drawn up by 32 national and regional groups of DOCOMOMO International, amounting to a total of over six hundred buildings from Europe, north and south America, Australasia, Israel and Japan.

The book is clearly organized with introductory essays by Hubert-Jan Henket, Maristella Casciato and Dennis Sharp. The register consists of selections of up to twenty buildings from each national or regional group, each of which is introduced by a short essay outlining the local history of the Modern Movement and the criteria by which the buildings have been chosen. One or more images and a brief text describe each project. There is a selected bibliography for each country and the book concludes with a useful general bibliography of books and periodicals compiled by Catherine Cooke.

The editors acknowledge that this is 'work in progress', a beginning not an end to their aims. For example, there are no entries for the whole of Africa, China or India, or for significant regions of central and south America. It, nonetheless, supports the claim that this is a significant document of the architectural achievements of the Modern Movement. Most importantly, the register demonstrates how the founding principles of the new architecture were transmitted, diffused and reinterpreted as they took root across the globe. Among many familiar monuments by the great masters we find numerous little known designs, particularly from the newly independent countries of the former Eastern Bloc, such as Latvia and

Estonia. I particularly enjoyed a brief, but fascinating view into the development of architecture in relation to the transformation of the economy and culture of Iceland during the twentieth century.

It is frustrating that greater consistency has not been achieved in the documentation of the projects. In many cases only a single photograph is provided, which is barely adequate documentation in any rigorous definition. Ideally these should be supplemented by a plan and, if possible, by specific reference to other published sources. It would also be helpful, in every case, to provide a statement of the present state of the building. This would greatly enhance the value of the book as a resource for scholars.

But this is an important publication. In her essay, Maristella Casciato writes that the register, '... is a tool which primarily aims to advance modern architectural historiography, freeing it from worn-out art-historical itineraries and creating a methodology of knowledge and procedures for working on the modern heritage'. The act of locating the acknowledged masters and their works in this broader geographical and, hence, more diverse cultural context offers the prospect of just such an advance. We should give thanks to all of those whose efforts continue to provide the data for this enterprise and look forward to future DOCOMOMO publications. DEAN HAWKES

## CONSTRUCTION'S BABEL

### COMMUNICATION IN THE DESIGN PROCESS

By Stephen A. Brown. London: E & FN Spon. 2000. £24.99

*Communication in the Design Process* provides an exhaustive overview of the issues, problems and models for solving what has been an ages old problem. Designers, builders, users and clients speak different languages, have different ideas about projects, and different, even competing, expectations. This makes communication and co-operation between these groups problematic, at best often resulting in dissatisfaction with the process and the project on the part of one or another participant in the design and production of a building.

Stephen Brown examines the nature and reasons for the divide between the various actors in the process of realizing buildings. He also provides an overview of various older and newer suggestions for overcoming the gap between expectations and project realization. There is much in the work that is already known but much of which it is also useful to be reminded. Notably, the discussion of the differences within a category of actors, for example developers, owing to levels of experience, and

the way they go about building their teams should be of great interest to architects attempting to find ways to work in a more expeditious and cooperative manner with clients. There is also some that is new like the critical discussion of various innovative methods for opening communication or bridging the gaps between expectation and realization.

It is disappointing, though, that a book dedicated to communication reads like a report, is tediously written and is replete with diagrams and charts that do little to illuminate the issues under discussion. EDWARD ROBBINS

## ARCHITECTURAL RESPONSIBILITIES

### DESIGN PROFESSIONALS AND THE BUILT ENVIRONMENT: AN INTRODUCTION

Edited by Paul Knox and Peter Ozolins.  
Chichester: John Wiley. 2000. £24.95

This is a very useful compilation of texts addressing every conceivable aspect of the architect's responsibility in society, from global issues to local politics, from handling information technology to understanding basic concepts of perception, from identifying security risks deriving from building layout to grasping the significance of art in public places – and quite a bit more. The essays, largely by American academics, are in most cases concise and clear; among the best are a piece by Sanjoy Mazumdar on people's use of space, Birgit Cold's contribution on aesthetics, and an overview on design and planning by Donald P. Grant. Oddly, the editors' own contribution on architectural history is sometimes trite in comparison to most of the rest (their Le Corbusier is a 'totalitarian egomaniac'); that aside, the only serious disappointment is a silly and hysterical attack on Modernist planning by someone called Rattner, who seems to be a neo-Classicist. There's a bit of hectoring here and there, but by and large the book will be of great value to students. Every chapter has a bibliography and reading list and there are conclusions and case studies.

This is the second American book that I've seen recently that addresses architects' public responsibilities. It's time a British editor put together something similar, because many issues of planning and public or semi-public housing are quite different in Britain, and this book, for example, is occasionally compromised by trying to address too many different political, economic or statutory systems at once. TIMOTHY BRITAIN-CATLIN

Book reviews from this and recent issues of *The Architectural Review* can now be seen on our website at [www.arplus.com](http://www.arplus.com) and the books can be ordered online, many at special discount.



## MOMENTS FOR THE EVERYDAY

### GÜNTER BEHNISCH

By Peter Blundell Jones. Basel: Birkhäuser, 2000. SFr42. DM48

An architect who manages to make moments for the everyday must be just in time. More so if he, like Günter Behnisch, has been able to do it for a long time over a wide range of tasks, from schools for local communities in the '60s, over prestigious projects like the Munich Olympics and the Bonn Parliament, to '90s projects in Berlin and abroad. A condensed and informative overview of the career of this outstanding German master is given by Peter Blundell Jones in this paperback monograph. It is a book where everything is in proper order: good black and white photos, legible drawings with north always up and lots of catalogue information.

A short introduction points at some characteristics. According to Blundell Jones there is no Behnisch style, while at the same time he claims Behnisch to be the leading heir of Häring and Scharoun's organic direction. The interest in designing social situations rather than technical objects is part of that tradition, but Behnisch goes well beyond Scharoun in material mastery, giving 'substance to space'. The background is a '60s interest in systems, which during the '70s gave way to a sensibility for the situation. 'Buildings belong to life, they become part of a place and the site of human activities' as Blundell Jones puts it. This shows in the different kind of building tasks that the book is organized round a social architecture built for meetings and not for the rich. But it also shows in something less visible: the organization of work at the Behnisch office. Freedom is given to the collaborators and the master himself doesn't design but works as a critic and inspirator. Inspiring indeed! CLAES CALDENBY

## CITY SLICKERS

### METROPOLIS NOW! URBAN CULTURES IN GLOBAL CITIES

Edited by Ramesh Kumar Biswas. Vienna: Springer, 2000. ÖS398

In this absorbing collection of impressionistic personal accounts, the choice of cities is intriguing. They are Shanghai, Tokyo, Bombay, London, Hong Kong, Las Vegas, Marseilles, Kuala Lumpur, Istanbul, Soweto, Berlin, Sao Paulo, Moscow, Singapore and Vienna. The editor explains that he plans a subsequent volume to explore the cities that occurred to the rest of us, but that meanwhile, he's just fascinated by the new hybrid urban cultures that envelop us all, and is most impressed by cities with enormous problems

which 'grab their own pigtailed and attempt to pull themselves out of the mire'.

Jean-Claude Guillebaud explains Istanbul in a wonderfully revealing account of its current function as the marketplace for the Central Asian republics of the former USSR, and Marseilles is presented by Michel Peraldi as the city where the population rotates in a cycle with every established immigrant generation passing on its place to the next. Mike Davis presents a different aspect of Las Vegas to that drawn by Robert Venturi. He sees it as a city that hijacks other people's water, 'aggressively turning its profligacy into environmental terrorism against its neighbours'. In a striking essay Henning Rasmuss explains the origins of Soweto, one of the dormitory cities for the workers who created the wealth of Johannesburg. With the collapse of the Apartheid ideology and the retreat of the rich to private fortresses, he notes how the residents of Soweto are making it livable, while 'public transport in the affluent suburbs is less regular or convenient than in Soweto. And one begins to wonder whether if, after all, Soweto does not carry in itself more hope for a better environment than other places, such as these gated communities'.

This book conveys a whole series of unexpected urban insights. COLIN WARD

## PRAGMATIC PERRETS

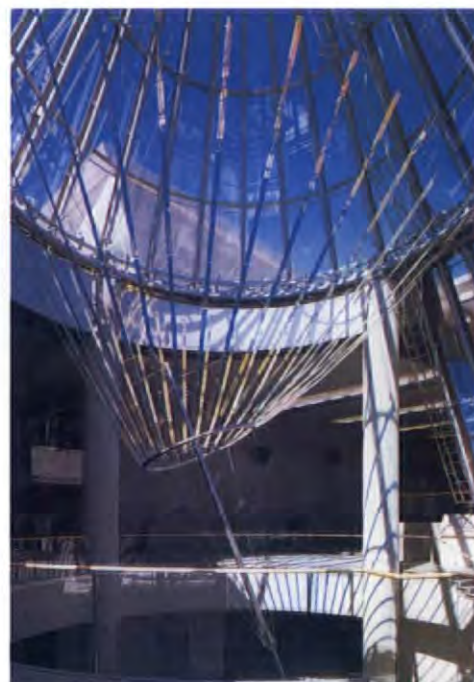
### LES FRÈRES PERRET: L'OEUVRE COMPLÈTE

Josef Abram and others for Institut Français d'Architecture. Paris: Editions Norma. 2000. FF495

During the first half of the twentieth century, Auguste Perret's architecture was even more prestigious in France than Le Corbusier's. Most English-speakers know about him and his brothers from Peter Collins's *Concrete, The Vision of A New Architecture*. That encomium came out in 1959, the year in which Auguste's widow gave the firm's archive over into public hands. For long it was inaccessible, and only since it came into the hands of IFA in the 1990s has it been properly addressed and inventorized. The result has been 40 years of little better than lip-service to the Perrets by almost everyone except Josef Abram of Nancy.

Now things are changing; a big exhibition is in prospect and monographs loom. But first comes the *oeuvre complète* – a useful, beautiful but frustrating book. It might have been better to have saved it until the forthcoming brouhaha has been and gone.

The point about the three Perrets (photographs of Gustave, Claude and the great Auguste larking about as young men inject some levity into an otherwise ponderous tome) is that they were not just architects but a



Ed Carpenter is an American artist who specializes in large-scale abstract public works that play with light using strips and sheets of glass (often dichroic), metal and programmed artificial illumination. This is his sculpture for the main entry of the Hokkaido Sports Centre in Sapporo, Japan one of the more than 20 imaginative schemes lavishly illustrated in *Ed Carpenter, Breath of Light* (preface by Michael McCulloch), L'Arca Edizioni, Milan, 2000, Euros 21.50, US\$25.00. For once, an artist who works with buildings rather than against them.

design-and/or-build firm. They put up buildings to other people's designs and did not always construct their own. This causes havoc to the catalogue-based model of the *oeuvre complète*. The pragmatism of most of the Perret drawings and dossiers is at odds with the format, so the editors have had to be very selective. They have however managed to indicate, for instance, the breadth of Auguste's correspondence, and the existence of an unfinished essay of 1940 in homage to Mussolini bâtisseur.

The book reveals how much of the Perrets' work does not fit the image of it that Auguste promoted and controlled. Things like their contribution to Ballu's Oran Cathedral, or the banal exterior of the famous Ateliers Esders workshop, correct the old, too orderly picture of their inexorable reformulation of French classicism in terms of a language of trabeated concrete. Yet the show and the books to come seem unlikely to unseat any of the well-known icons of the Perret oeuvre from their positions of prominence, or promote many of the new discoveries. In that sense, Auguste knew what he was about. Nor does the tone of the catalogue entries intimate, as yet, much new thinking. These too often take refuge in the tired old

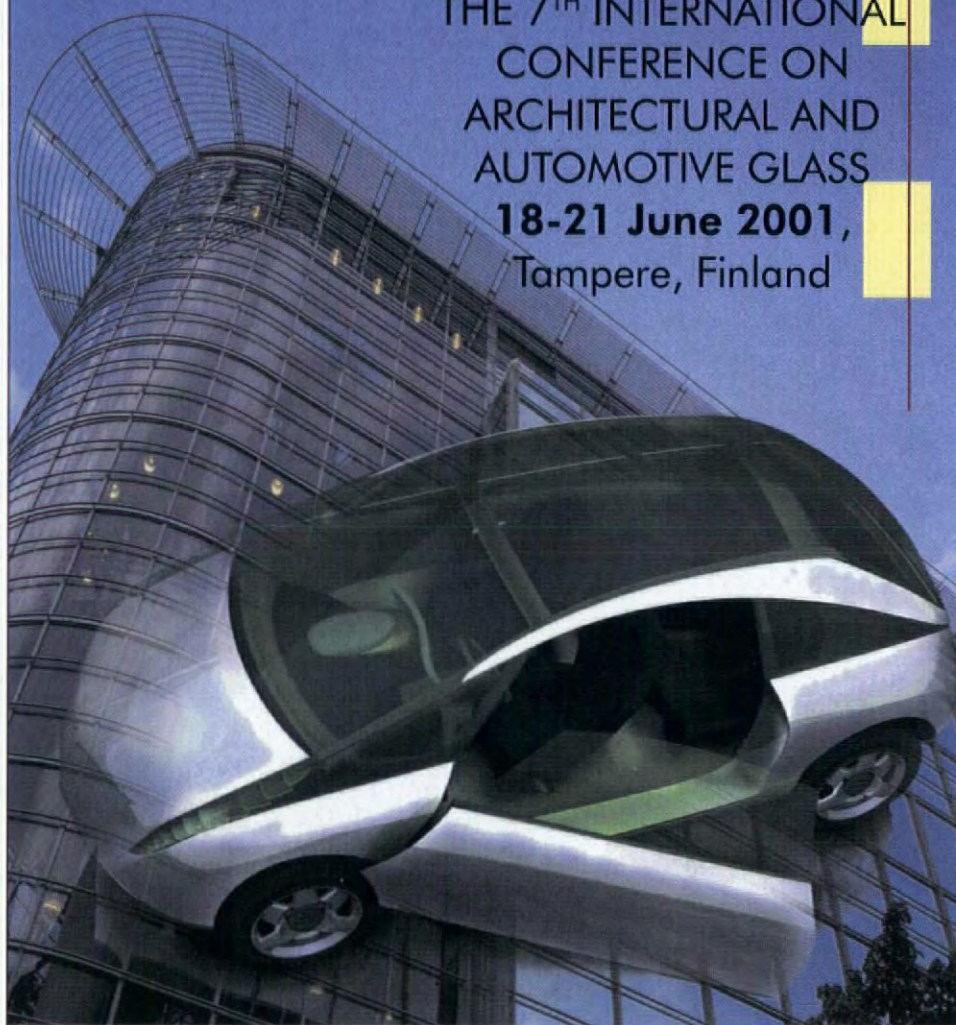


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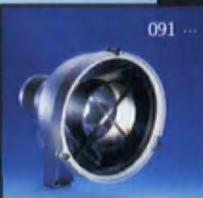
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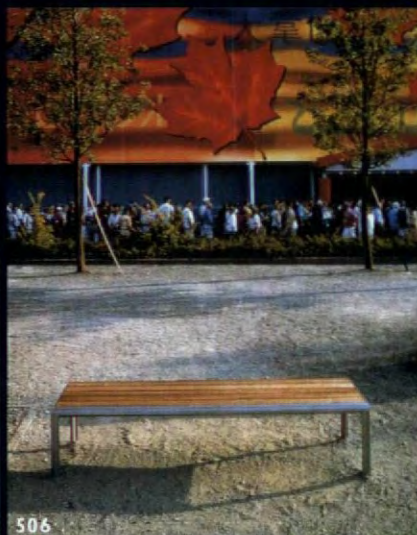




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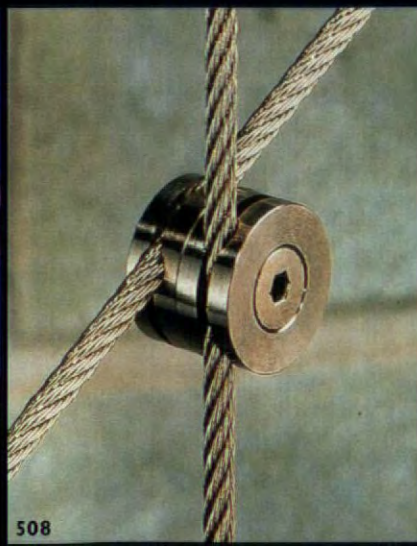
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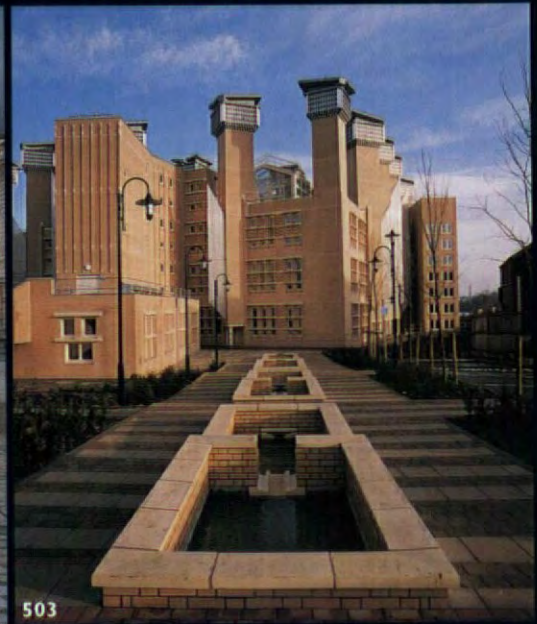
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The Great Court at Somerset House, London, formerly a car park, has been transformed into an impressive urban space by the use of new granite paving, inset at its centre by a 55-jet fountain which bursts out of the ground. The architect, Donald Insall Associates, specified Marshalls granite sett paving in pink, charcoal, buff and silver grey, produced by hand to match the original Victorian setts.

**503**

Coventry University Library and Resource Centre, designed by Short & Associates, has been awarded Building of the Year in the Brick Awards. The external landscape incorporates a wide variety of paving materials including Tegula setts and Saxon pavers.

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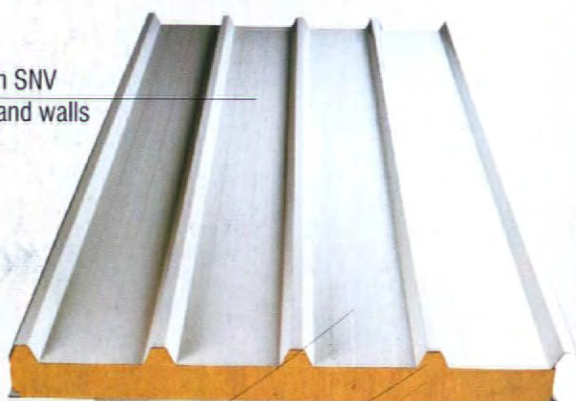
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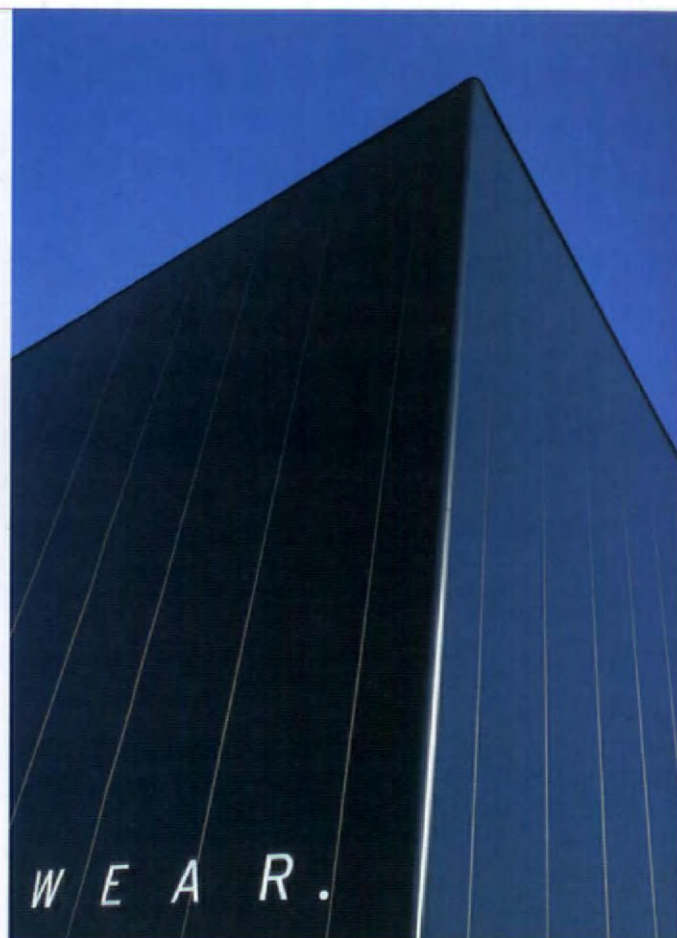
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7250 surf.chair and the 7280 surf.rack: two new pieces of office furniture by Udo Feldotto. He had been responsible for the firm's comfortable and adjustable 7200 Care chair for elderly and disabled people. Comfortably upholstered, the Care chair incorporated a well-balanced mechanism which worked without electricity or hydraulics and allowed you to adjust seat, back, arms and footrest by simple pressure of the body.

In designing the new office chair, Feldotto has used the same technology but styled up appearance and, instead of an invalid tray, added a detachable surf.board for laptop, keyboard, or cup of coffee. Like reclining seats on first class flights, the chair can be tilted, so the occupant can take a rest, or go to sleep. surf.rack consists of a swivelling boom cantilevered from a column. It supports equipment such as a conventional monitor and flat screen unit, shelving and storage unit. Mounted on castors, surf.rack is mobile and the boom can be pulled towards you or pushed away; and you can, should you want to, work lying-down. The VDU can be fixed in place by a couple of clamps and positioned to the right or left of the vertical support. surf.rack can also be hooked up to conventional tables quite separately, or else be collapsed and easily stored away.

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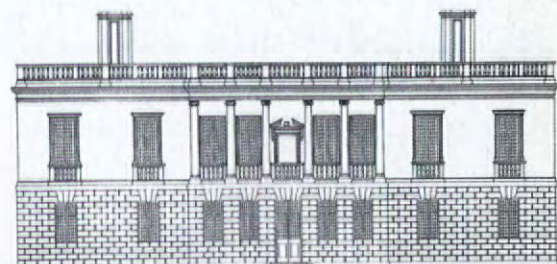
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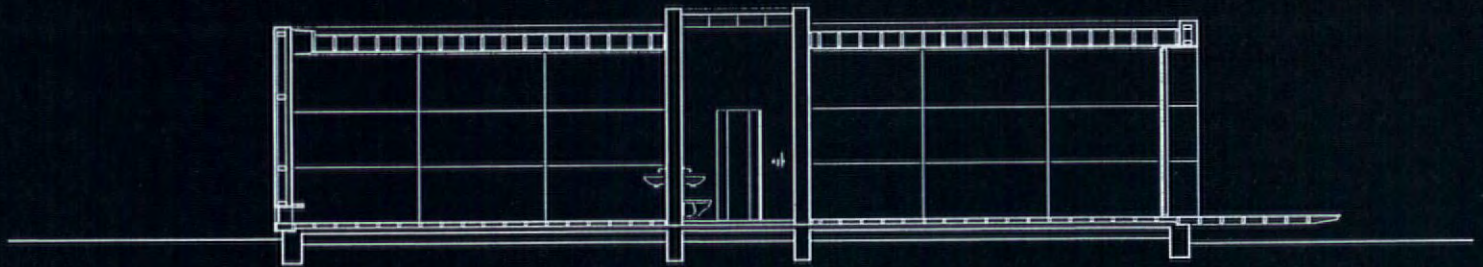
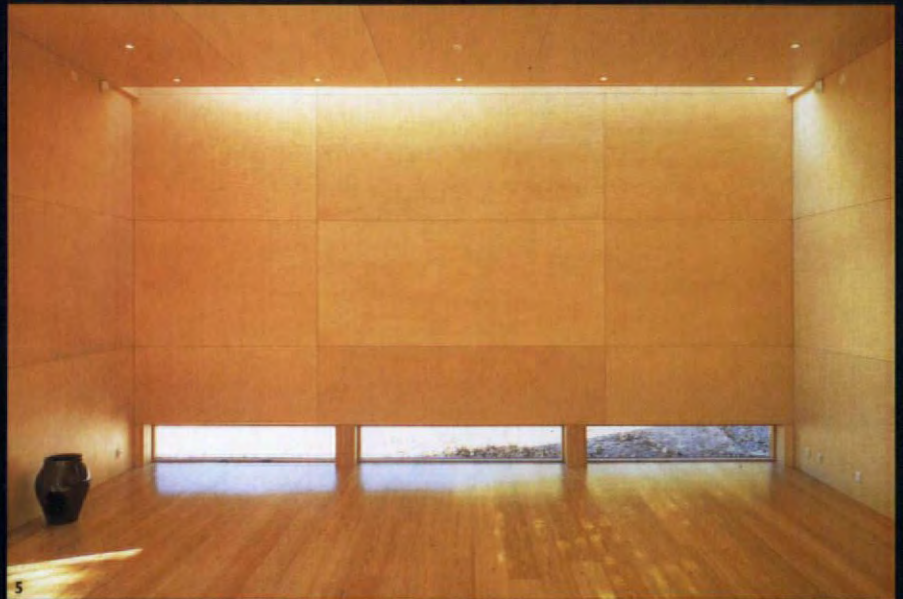
architectural traditions, and the upside-down clerestorey (the strip of windows lining the floor) in the north wall of the studio has a Middle Eastern cast. By this device, soft low light reflected off the floor is directed upwards. As the larch covering weathers down, the building will turn silvery grey, in harmony with indigenous birch and with the carpet of blue cornflowers which, in season, surround it.

**Architect**

Henning Larsen Tegnestue, Copenhagen

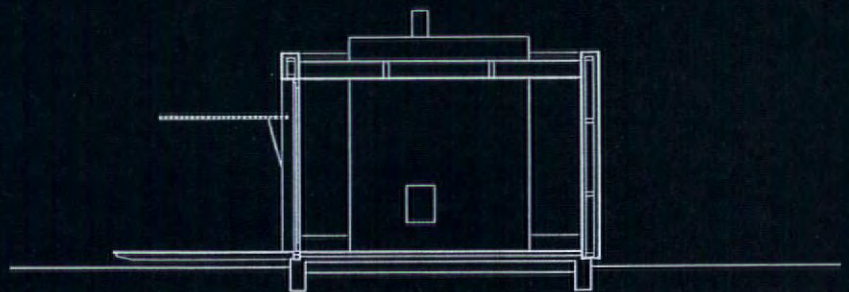
**Photographs**

Jens Lindhe

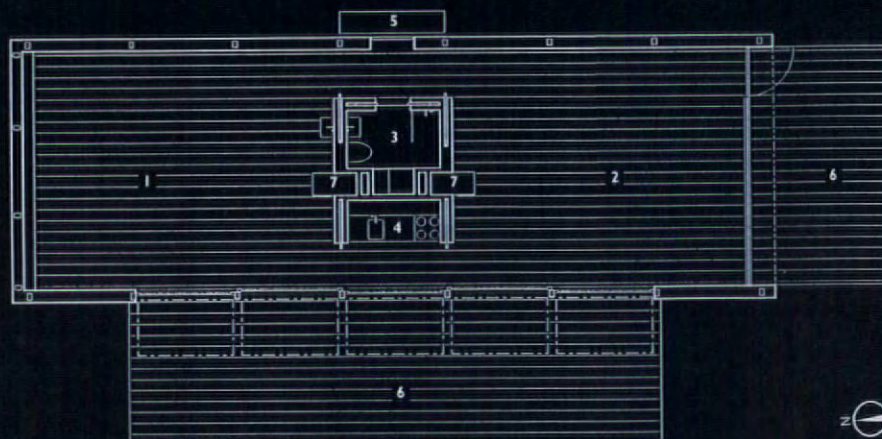


north-south long section

- 1 studio
- 2 living room
- 3 washroom/lavatory
- 4 kitchen
- 5 main entrance
- 6 terrace
- 7 fireplace



west-east cross section



**HOUSE, ZEALAND, DENMARK**

ARCHITECT

**HENNING LARSEN**

5  
Studio lined with birch ply panels, upside down clerestorey and illuminated north wall.





- 1 West face with louvered glass wall.
- 2 South glazed face, living room and terrace.
- 3 West entrance to building and terrace shaded by louvered awning.
- 4 Passage on west from living room to studio, past kitchen on right.



HOUSE, ZEALAND, DENMARK

ARCHITECT

HENNING LARSEN



## ARTISTS' RETREAT

The restrained elegance of an artists' summer retreat and studio in Vejby, on the northern coast of Denmark, responds materially to its sylvan setting and invites both contemplation and quiet creativity.

Set down among ferns and newly planted birch trees, on the north Zealand coast, the building is a summer retreat for artists needing a break from routine or time and space in which to work. In addition to living quarters, the client – who is a beneficent gallery owner – asked for a 40m<sup>2</sup> studio which he thought could be part of, or separated from, the main house.

Taking the tranquil beauty of the setting as his cue, Henning Larsen has contrived a building of such poetic simplicity as must do much to encourage the more contemplative branches of creativity (it looks too perfect for the messier kinds). In essence, it is a rectangular shed that opens onto terraces on south and west through glass walls. Inside, a single volume

spreads either side of a central service core providing a kitchen and bathroom, and a fireplace on east and west. By means of sliding doors, the space can be divided into a big north studio, and south-facing living room.

Structure is wooden, reinforced and given stability by steel frames and brick service core. Externally, the building's horizontality is emphasized and

given texture by a covering of narrow larch slats and by louvres over glass doors on the west. The interior's simple high-ceilinged volumes, wood-floored and lined with birch ply panels, are full of gold luminance, the wooden planes striped by shadows cast by the slatted screens. Having spent some time working in the Middle East, Larsen is acquainted with its



west elevation





1 Well engineered mirror glass planes  
revolve ...

2 ... to become reflective table.

3 A sweep of diaphanous white space  
in which clothes appear to float in  
translucent tanks.

components, in pivoting surfaces and objects  
barely suspended.

All these are present in design of a new  
clothing store, TNT, in Hazelton Lanes,  
Toronto's smart shopping centre in Yorkville  
Avenue. It consists of three interlinked  
departments – men, women and underwear  
– each with their own identity but  
aesthetically part of the same family. TNT  
Women, fitted into a triangular plan, is the  
largest of them, and the store's flagship.

The hypotenuse arm of the triangle gives  
onto the centre's mall. In the shop  
windows that line it, screens of frosted  
glass provide a backdrop for mannequins.  
Inside, you are confronted by what seems

to be a gallery; a sweep of diaphanous  
white space 10ft high and divided along one  
inner edge into translucent glass alcoves. In  
them, clothes are displayed on stainless-  
steel rails and cantilevered adjustable  
shelves. Floating off the surface of one  
frosted glass wall of each alcove,  
apparently barely attached, is a pivoting  
plane of mirror glass, counter-balanced and  
spring tensioned, and invisibly fixed to a  
square column on the other side of the  
glass. A refined piece of engineering (and  
development of a moving table and wall at  
Archive), the plane of glass is a mirror  
when upright and a reflective table when  
swung into a horizontal position. V.G.

**Architect**  
Johnson Chou Design  
**Photographs**  
Volker Seding

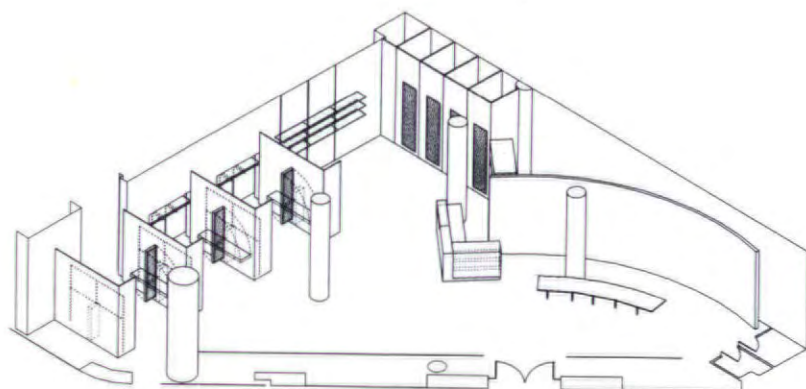


# Chinese puzzle

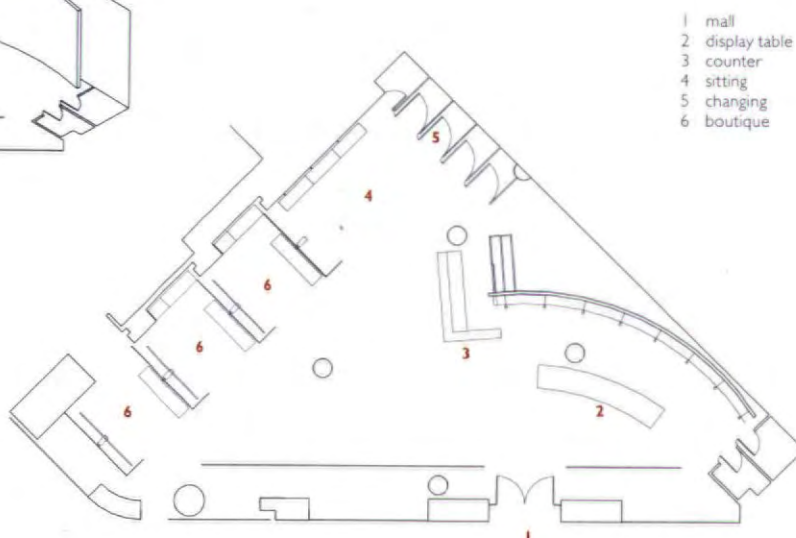
Minimal, magical, mysterious, this new shop for an adventurous clothing company in Toronto uses understatement to entice.

In 1996, Johnson Chou set up and designed an art gallery and library called Archive. Representing over 500 artists from Toronto and Montreal, the organization exhibited their works and established a database for prospective buyers. The inventive elegance of the place and its popular success brought in commissions and, in 1999, Chou established his own practice. Since then, the practice has embarked on graphic and product design as well as (largely interior) architecture.

Chou's schemes are characterized by abstraction and graceful manipulation of space. His work is informed by an appreciation of traditional Chinese gardens – the layering employed by their designers, their use of metaphor and creation of narrative through movement. Influences from another direction, from Russian Constructivism, can be detected in moving



axonometric



- 1 mall
- 2 display table
- 3 counter
- 4 sitting
- 5 changing
- 6 boutique

**CLOTHES SHOP, TORONTO,  
CANADA**  
DESIGNER  
**JOHNSON CHOU DESIGN**

plan (scale 1:150)







5

5  
Standard office with desks and  
bookshelf by the architect.

6  
Boardroom.

The hollow south wall of the corridor, 400mm in depth, accommodates boardroom bookshelves, archives and pantry cupboards. The opposite side has been treated quite differently. To capture and introduce natural luminance into the centre of the building, it has been made into a continuous louvred screen. Made of oak slats, it protects the offices' privacy, while throwing a changing pattern of lucent gold

coloured stripes across the interior. Campo Baeza describes the process as 'combing the light'. V. G.

**Architect**

Tomás Carranza, Cádiz

**Project architects**

Tomás Carranza, J. Manuel Jurado

**Quantity surveyor**

C. Torres

**Technical engineer**

J. Gómez

**Construction**

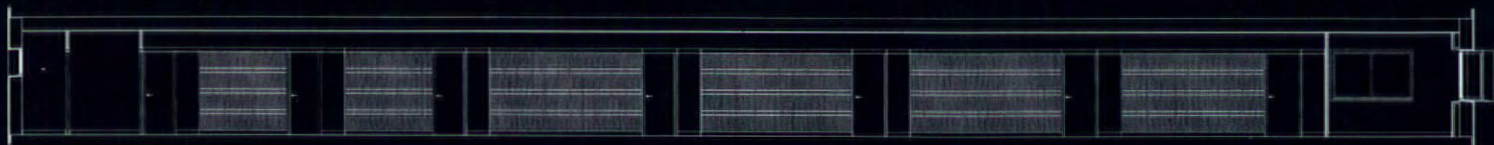
Construcciones El Hacho

**Photographs**

Hisao Suzuki







west-east long section

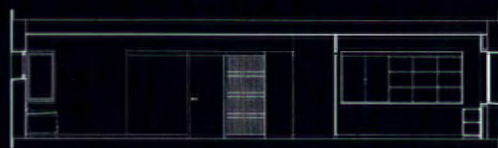


west-east long section

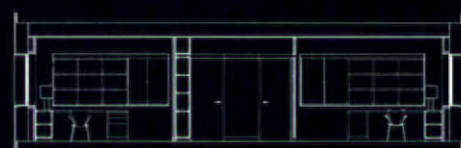


west-east long section

**OFFICES, CADIZ, SPAIN**  
ARCHITECT  
**TOMAS CARRANZA**

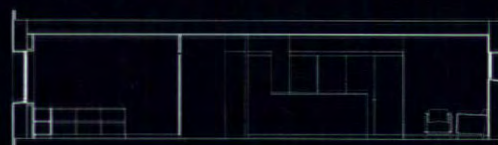


south-north cross section: waiting room – corridor– office



south-north cross section: office – corridor– office

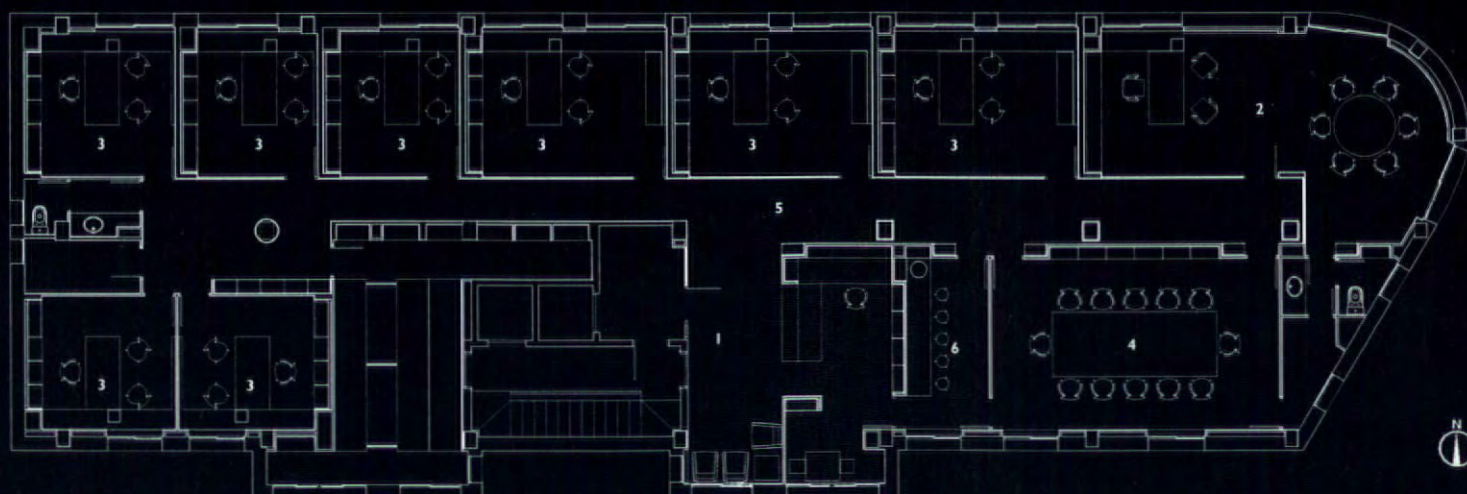
- 1 entrance/reception
- 2 main office
- 3 private office
- 4 boardroom
- 5 corridor
- 6 kitchen



north-south cross section: office – corridor– waiting area



south-north cross section: kitchen – corridor– office





The city of Cádiz is said to have been founded in the eleventh century BC by the Phoenicians. An ancient maritime port and naval base, strategically placed to the north of the Straits of Gibraltar, it has inevitably had a turbulent history; but with fine streets and squares it has long been considered one of the country's most beautiful cities. Built upon a small peninsula on the south side of the Bay of Cádiz, and drenched in Atlantic luminance, it is called the city of light.

In designing new offices for a firm of lawyers in the city's Bahía Blanca district, the young Cádiz architect, Tomás Carranza, began with the idea of

trapping and manipulating this extraordinary light, so that it becomes both a physical source of pleasure and metaphor for enlightenment. His approach, which weaves pure form, a few materials and light into poetic symphony, suggests affinity with another compatriot, Alberto Campo Baeza.

Inserted into the first floor of a residential block, the offices were originally two apartments which were separated by the building's service core. Though of different sizes, they were arranged in broadly similar fashion with a maze of intersecting rooms either side of a corridor. When knocked together the space became

an uneven rectangle running from west to east and measuring approximately 35m long and 11m wide. The long axis is marked by a row of loadbearing columns.

The brief asked for a main office and meeting room, eight private offices, clients' waiting room and reception, boardroom, library, kitchen and lavatories. Since it was not possible to alter the existing rhythm of windows in perimeter walls, Carranza had to work within it, altering the pattern of dividing walls and establishing one central corridor down the long axis. In general, rooms get smaller as you move west, away from the

great curving corner with its big windows on the north-east. Offices on the north side overlook the street, on the south, an inner courtyard. A new entrance opposite the lift leads to a waiting room and reception.

Such a description gives no clue to the elegant sobriety with which this scheme has been executed. Wood is the principal unifying material, with oak being used for Carranza's range of restrained office furniture (desks, bookcases), floors, panelling and internal window frames. The richness of the material is underscored by use of pale travertine marble and white plaster on walls.

## Spanish guile

The design of new offices for a firm of lawyers in the southern Spanish city of Cádiz proclaims the virtues of elegant restraint, use of few materials, and manipulation of marvellous south light.







## OFFICES, CADIZ, SPAIN

ARCHITECT

**TOMAS CARRANZA**

- 1 Central corridor with north wall of wooden oak slats.
- 2 Visitors' waiting area and reception.
- 3 Length of corridor with wooden floor, shelving and screens.
- 4 Central corridor to left, standard office with oak furniture (by the architect) and window frames.



horizon. It housed the Dragon Throne, which was used for special celebrations marking the life of the Empire, such as coronations and the New Year receptions. In front of the Hall, 18 incense burners symbolized the number of provinces of the Empire. Its 24 columns supported a magnificent roof with a double curve and glazed yellow tiles. Decorated in gold, the Hall of Supreme Harmony was the largest and most sumptuous in the Forbidden City. Each of the five colours (as specified by philosophers) was introduced in the design of the building: the white terrace, almost black paving of the courtyard, red columns, with yellow roofs, on a sky blue background.

In the Square Hall that followed the Hall of Supreme Harmony, the Emperor prepared himself for the glittering ceremonies. The last of this remarkable succession of buildings was the Hall of Protected Harmony, where lavish receptions were held. A specially constructed roof allowed the middle row of columns to be omitted, leaving a space large enough for banquets.

The central axis continued through a wall to the Gate of Heavenly Purity, giving access to the imperial living quarters, separating the official part of the palace from the private one. The progression continued across the northern moat enclosing the Forbidden City, up into Coal Hill and down again and on to the Drum Tower and the Bell Tower, where it ended before the north city wall was reached. The rectangular moat enclosing the Forbidden City was a means of separating the rest of Beijing from the home of the Emperor. It also reflected the rich colours of the surrounding red walls and yellow roofed pavilions in the vicinity.

Below, the Emperor Yung-lo created the Forbidden City (between 1404 and 1420), with his three architects Hsu Tai, Yuan An and Feng Chiao.



### Beijing today

In October 1925, the Forbidden City was officially transformed into a museum. Since that time, all who stroll freely in fascination through its courtyards can appreciate the splendour of this unique city. But now, the Forbidden City, its opulence immaculately preserved, is surrounded by a hotchpotch of post-modernist buildings. Today, the focus of Beijing is a vast perimeter separating the Gate of Heavenly Peace, known as Tianan Men Square, where the familiar giant portrait of Chairman Mao dominates the south entrance. Tianan Men Square, the very heart of Socialist China, has been enlarged to 40ha to hold a million people. Today, the north-south axis through the multiple cities has little relevance. Now, the city's ceremonial boulevard is Chang'an Jie, running from east to west, some 5km long and 40m wide, coinciding with Tianan Men Square.

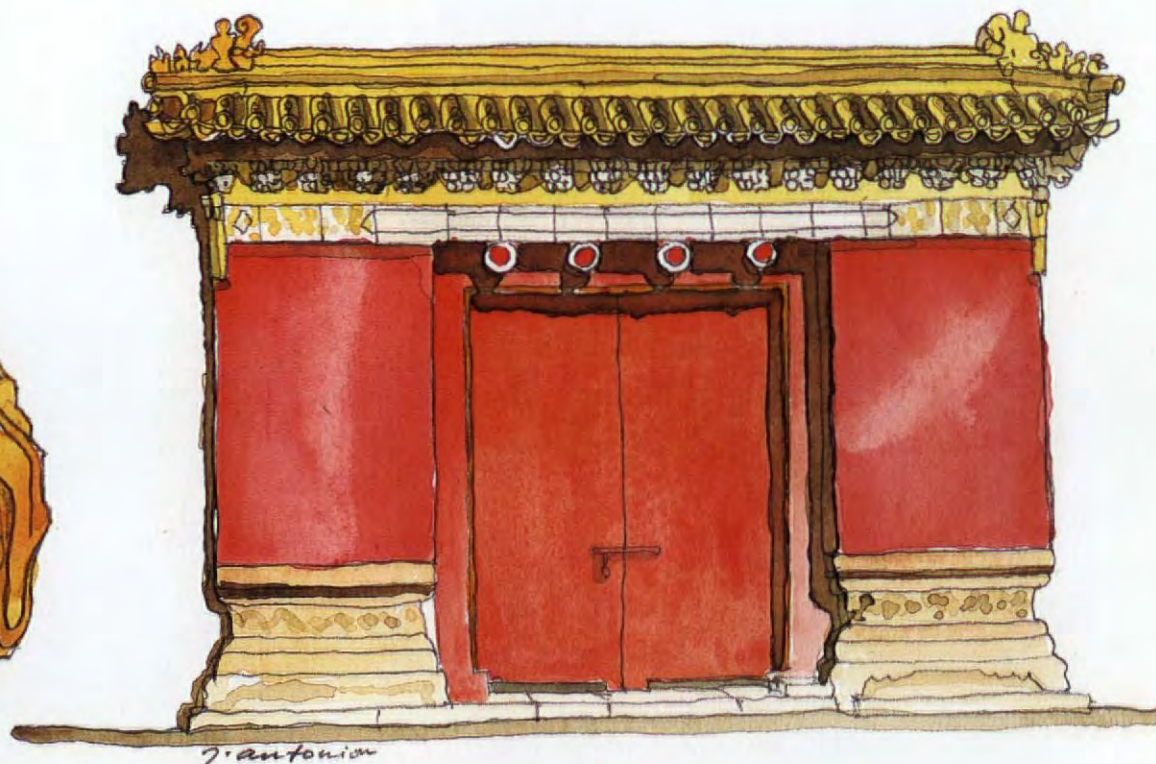
### Lessons for urban design

One of the greatest works ever undertaken, the Forbidden City abounds in rich ideas for urban design. Other monuments that strive to express imperial majesty often reduce their occupants to mere miniatures. The Forbidden City, while expressing monumentality, retains its sense of human scale and is able to provide splendid buildings on multiple platforms, skilful perspectives through a succession of opening and closing spaces and colourful reflections in infinite pools, all experienced through a sequence of sensations.

JIM ANTONIOU

Jim Antoniou recently visited the Forbidden City in Beijing and wrote and illustrated this article on its urban design qualities

Below right, an unending variety of imposing gates and gateways are located in the Forbidden City, reinforcing the principal of progression along an axis.





City. Bells were struck softly as the Emperor passed through the central portal. From here, ramparts, 10m high, combined with drainage ditches 50m wide, isolated the palace from the rest of the city. The distance from the south entrance of the Chinese City to the Meridian Gate, leading to the Forbidden City, was about 5km (equivalent to the length from Marble Arch to Holborn Station in London).

### Entering the Forbidden City

A pavilion nine bays wide, where the Emperor promoted the new calendar every year and presided over military parades, surmounted the central part of the Meridian Gate. The facade of the Gate had three vaulted passages and each of the wings had a wide entrance. The central passage was reserved for the Emperor himself and for the Empress's entry on the day of her marriage. Imperial processions were vast, with drummers, trumpeters, attendants carrying torches and many more. On other occasions, the processional way outside the Gate was lined with elephants.

From the Meridian Gate, officials had to descend from their horses and entered the Forbidden City on foot. Across the curving canal in a marble channel at the outer court still stands the River of Golden Water. The five bridges symbolized the cardinal virtues of Confucianism: humanity, justice, education, trustworthiness and refinement. The Emperor was carried on his opulent palanquin across the centre bridge along the north-south axis on his journey through his city.

From here, the City was divided into two parts: the outer

courtyard, where official functions were held and, to the north, the inner courtyard, accommodating the living quarters of the Emperor, his family and his concubines. The symmetrical and spacious arrangements of the front halls were in sharp contrast to the crowded and labyrinthine plan of the inner palaces, reserved for the Emperor's private life. At the end of the eighteenth century, some 9000 people were estimated to reside in the Forbidden City.

Beyond the five bridges lies a broad courtyard, overlooking the Gate of Supreme Harmony (Taihe Men). Here, the Emperor sat and listened to the advice of his ministers and made decisions. This Gate led into the largest courtyard in the whole palace (at least twice the size of Trafalgar Square in London). A triple white marble terrace, 7m high, formed a large rectangle. The space in which the platform was located was divided into three areas by walls which cut across the raised platform. A balustrade emphasized by gargoyles encircled each of the three steps. Two grand staircases frame the 50m long ramp, sumptuously sculpted with coiled dragons, marking the imperial emblem. It was on this magnificent platform that the three front halls, the most splendid buildings in the Forbidden City, were placed. These were the Hall of Supreme Harmony (to the south), the Hall of Protected Harmony (to the north) and in between, the Square Hall (set in an 'H' shaped mound and built in three tiers, each with its own balustrade of white marble). The layout of these pavilions has hardly changed in 500 years, despite continuous renovations.

The Hall of Supreme Harmony was made visible only from the vast central courtyard, making a dramatic appearance on the

In the Hall of Middle Harmony, or Square Hall, with its pyramidal roof, the Emperor prepared himself for glittering ceremonies.





punctuated the skyline seemingly at random. The rigid discipline of the Chinese system along an axis also allowed asymmetrical elements to be introduced, such as the natural release of trees, lakes and canals. The mysterious art of feng-shui (wind-water) was used as an attempt to harmonize buildings, with natural forces.

### In harmony with nature

The Chinese philosophy of Taoism looked inward, seeking harmony with nature. Sustainability with nature was introduced into the city. Internal planning of houses mirrored the external rectangular layout of a city. Important rooms were lined on the north side, facing a central courtyard to the south. The courtyard was the focus of family life where each house had a well.

Pollution of waterways by human waste was forbidden. The night soil was transported to the countryside for fertilizer. Bathrooms were rare. Baths were taken in tubs and emptied after use on shrubs in the courtyard. Heating in houses was by means of bowls of glowing charcoal prepared in the courtyard and brought into rooms. In the harsh winter, people kept warm with padded quilt gowns and thick felt shoes. So Chinese cities remained healthy and enjoyed clean air without piped water and sewerage disposal.

### Sequence of approach

The principal approach to the Forbidden City was the central movement system, through an elaborate series of courtyards and gardens, neatly laid out. This sequence made use of multiple platforms and curving roof shapes. From the south, across the

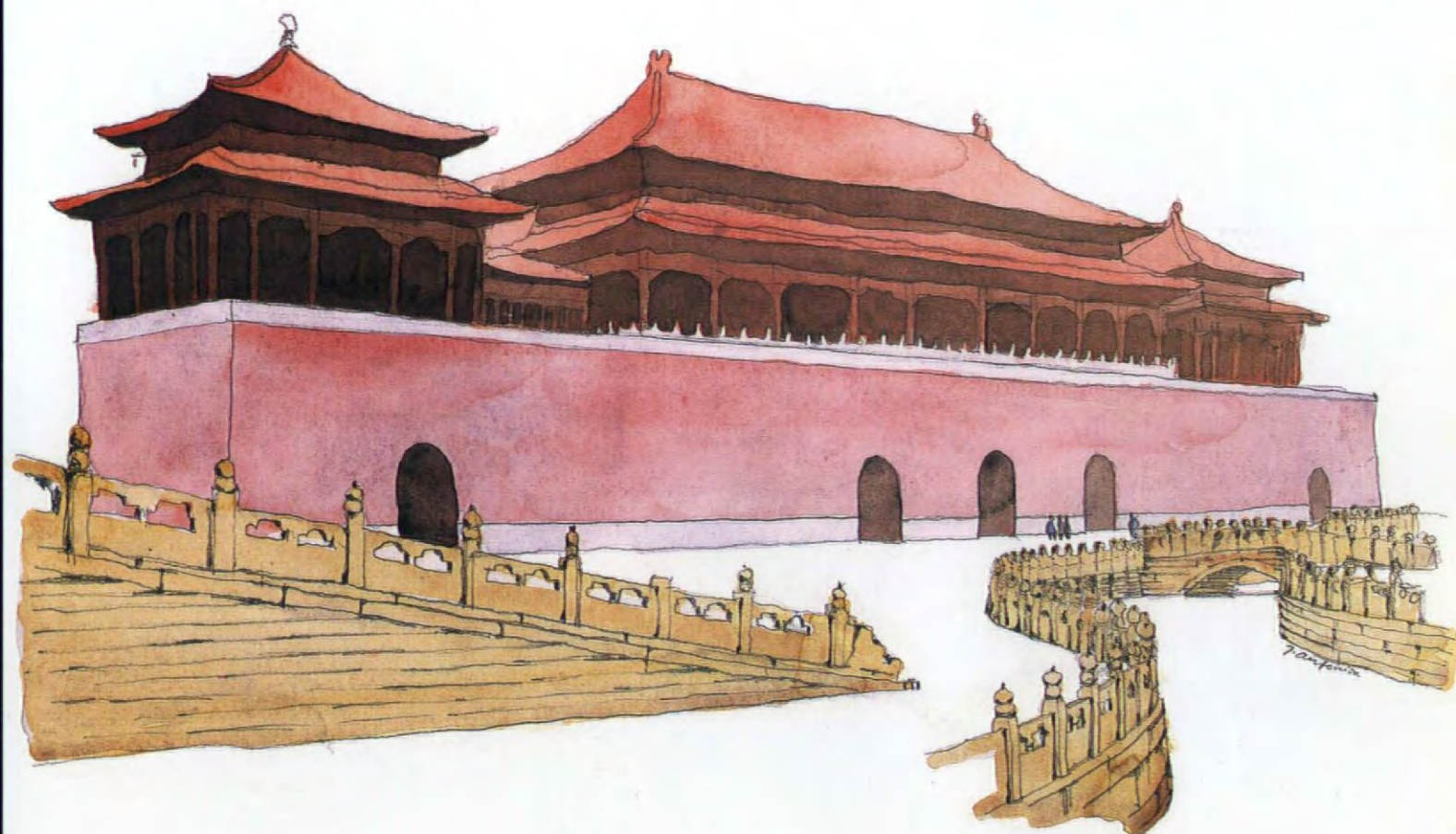
interlinked cities, the main axis led to the central gateways in the massive wall, which opened upon the paved way, between the Temple of Agriculture on the west side and the Temple of Heaven on the east, the most sacred place in China, representing the transitional stage between heaven and earth.

Within the vast enclosure of the Altar to the God of Agriculture, the Emperor ploughed the first annual furrow to bless the earth and preserve its fertility. He also determined the cycle of the seasons to ensure good harvests.

The sacredness of the Altar of Heaven was extenuated by a free-standing gateway along the line of movement. The Altar of Heaven itself was shrouded in symbolism and consisted of three cylindrical tiers, defined by a series of ascending balustrades open to the sky. This was where the Emperor knelt and read from the scrolls of his prayers. The paper was subsequently burnt and the prayers were carried up to heaven by smoke.

The monumental progression continued through the various cities, each with its own character; first across the south rectangle of the Outer City, with its enclosed walls. Then, after penetrating the wall at the Chien Men, the main gate, the Inner City was entered, with its brilliant red and bluish-purple red tile roofs and ornaments in gold. A vast space separates the Gate of Heavenly Peace, or Tianan Men, from the entrance to the Forbidden City (during Imperial times, ministerial buildings overlooked a much smaller square, thronging with people).

The entrance to the Imperial City continued to Wu Men, or the Meridian Gate, a massive horseshoe shape, revealing the Forbidden





### Planning principles

Chinese architecture developed early its own special characteristics, with a high level of systematic forms, and continued in a more or less unbroken tradition. The ancient imperial culture was based on monumentality and on simple city planning principles.

The Forbidden City was constructed in accordance with ancient rules of spatial design, first used during the Han dynasty in building the city of Chang-an, between 206 BC and AD 220 (modern Xian). Among other things, these rules specified that the principal buildings had to be aligned along a straight axis, from north to south, flanked by a symmetrical arrangement of minor structures on parallel axes. This architectural convention was favourable with Yung-lo's claim that his city had symbolic importance. He believed that a centralized configuration of buildings would also serve as an emblem of the ordered heavens. Beijing emerged as a series of cities on a north-south axis, comprising of a sequence of monumental climaxes. Boulevards, between 20m and 45m wide, linked opposite gates, symmetrically placed in the length of the walls.

The chilling north was regarded as a harmful direction. Because all invasions of China originated from the north, it came to represent evil spirits, cold winds and the wicked warriors from the steppes. Hence, the buildings in the Forbidden City face south, the direction of holiness, giving protection from cold winds and also permitting subtle decoration based on catching infinite variations of light. In fact, the only pavilions facing north were for the Emperor's rejected concubines.

The enclosing wall (being synonymous with the word for city in

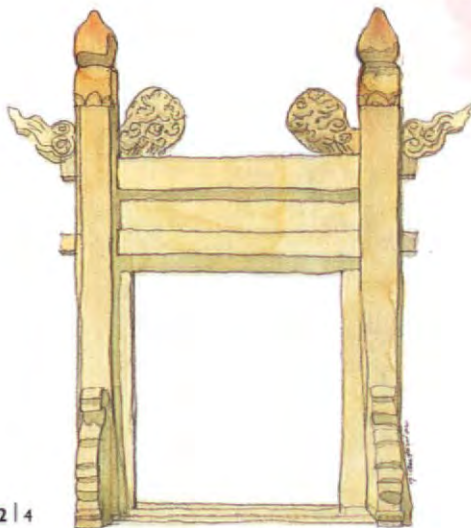
China) was a major component in city planning, with huge forts over the gates and at the corners. Such gates were more than just entrances. Their massive towers were designed to house garrisons, customs and city officials and command a view of the boulevards. Once built for defence, such gates became administrative centres for law and order. Gateways were massive constructions, some 25m high, with an equal depth through the city walls.

Unlike the rigid construction of the triangulated truss developed in the West, which inhibits expansion, the Chinese developed the beam frame system, capable of considerable extension, virtually in all directions. Timber columns of some length and girth were elaborately carved and rested on a stone base. Columns were held in both directions by beams, separated by short vertical members. Roof purlins were placed on these members, so avoiding straight lines. A cantilever bracket called *tou-kung* was used to carry the eaves overhang as far as possible, beyond the outermost columns.

Major buildings had their long sides facing south, with subsidiary ones, often lower, on the east and west sides. The proportion and dimension of buildings increased with additional bays, without the need to introduce exaggerated forms of architectural mass as in traditional Western palaces. Large groups of buildings were composed of separate walled enclosures. Order to the plethora of graceful buildings was provided by the regularity of their arrangement and conformity of style.

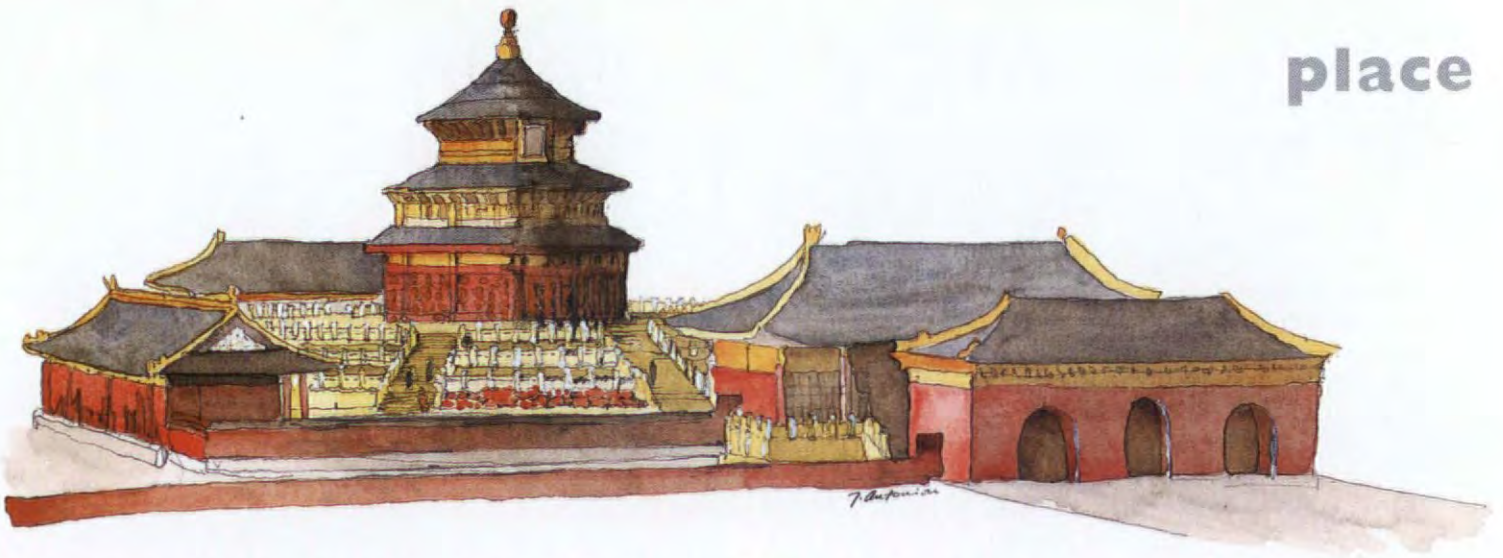
Progression in depth along the main axis introduced elements of ascent and descent by multiple platforms and the pure forms of concave and convex, through roofs and columns. Temples and palaces

Below, the free-standing gateway, punctuating the entrance to the Altar of Heaven.



Above, Tianan Men, the Gate of Heavenly Peace, now decorated with the gigantic portrait of Chairman Mao, in front of a vast square for ordered parades. In older times, this was a chaotic place, where diverse peoples of a large empire would converge on the capital. Opposite, Wu Men, the Massive Meridian Gate, the entrance to the Forbidden City, with the curving canal in the outer court, the River of Golden Water. Progression in depth along the main axis introduced elements of ascent and descent, creating a unique sense of space.





The magnificent Hall of Good Harvests in the Temple of Heaven located in the Outer City, south-east of the Forbidden City.

### Beginnings

A city where Beijing now stands was an important commercial centre since the ninth century BC. Once the seat of the principality of Yan, it later became the capital of the Liao and subsequently of the Jin. The Tartars from the north built a city near this location as early as the tenth century.

When Marco Polo visited the site, he described it as the city of Khan (1267), with uplifted roofs punctuating the green foliage of mulberry trees. Beijing of today is some 500 years old, with many of its famous buildings completely rebuilt. When Yung-lo established Beijing as his permanent Chinese capital, between 1404 and 1420, he employed some 200 000 workers to build the imperial city. His three architects, Hsu Tai, Yuan An and Feng Chiao were given the brief to build a large, rich and mysterious palace to serve as the Emperor's metropolis to the world. The Emperor's role was a complex one. Audience halls were needed for receiving delegations, together with temples for ritual purification and processional ways. He also required large domestic quarters with gardens for himself and his family as well as administrative accommodation.

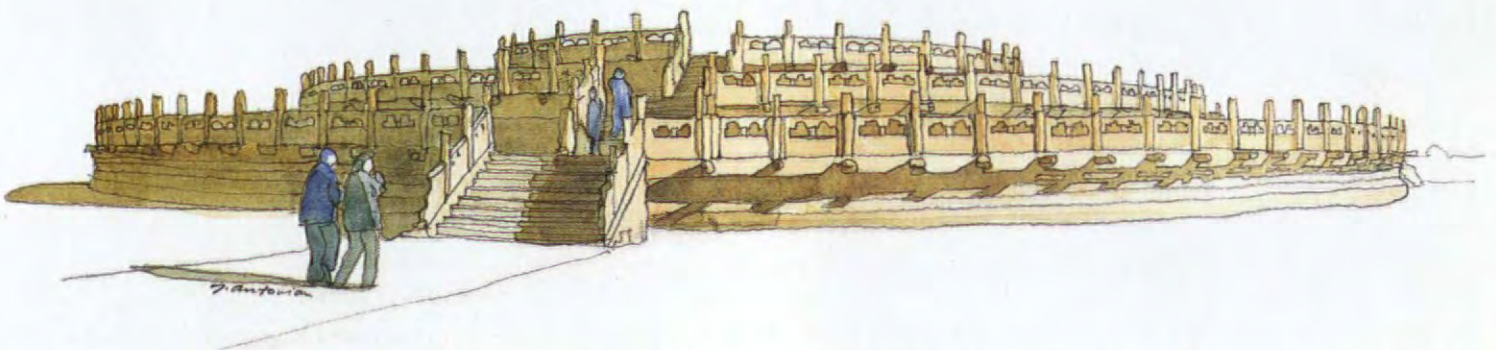
The city of Beijing consisted of three concentric and rectangular walled areas (with a fourth area developed to the south, known as the Outer City, or the Chinese City, eventually enclosed for strategic reasons and to protect the ceremonial complexes in that area). The outermost of Beijing's concentric rectangles housed the lower ranking civil servants and was known as the Inner City, or Tartar City (all Chinese inhabitants were driven out into the Outer City in the seventeenth century). Within these walls (alas, no longer existing) was the Imperial City, restricted for the use of high-

ranking officials. The Forbidden City was embedded at the centre, reserved for the Emperor, his family and court attendants (most of whom by tradition were eunuchs). This compound, about 950m long from north to south and some 750m wide (the size of Bloomsbury in London), lay behind high, heavily guarded walls, surrounded by a moat. Here, the Emperor resided from November to February every year, the busiest period for official ceremonies.

### Symbolic significance

The City was enmeshed in ritualistic and religious concepts. Legend has it that the very structure of the Forbidden City was conceived in a dream by Yung-lo's tutor, a visionary monk. He imagined an extraterrestrial city, where the Lord of Heaven resided in a purple enclosure (believed to be a constellation formed by 15 heavenly bodies turning round the polestar). According to Chinese cosmology, the colour purple was a symbol of joy and happiness and also that of the polestar. So the Emperor established himself as the Son of Heaven, with the mandate to maintain harmony between the human and natural world, balancing the vastness of nature with a uniform modular system of rectangular courtyards and buildings. He and his city became linked to the divine forces of the universe. Therefore, the domicile of the Emperor was a purple city at the centre of the temporal world.

Yung-lo's residence became known as Tzu Chin Ch'eng, meaning 'The Purple City (Ch'eng), of the polestar (Tzu), where one cannot enter (Chin)'. The literal meaning of China (Chung-hua) is 'the country at the centre', leading to the idea of the Forbidden City being at the very centre of the world.

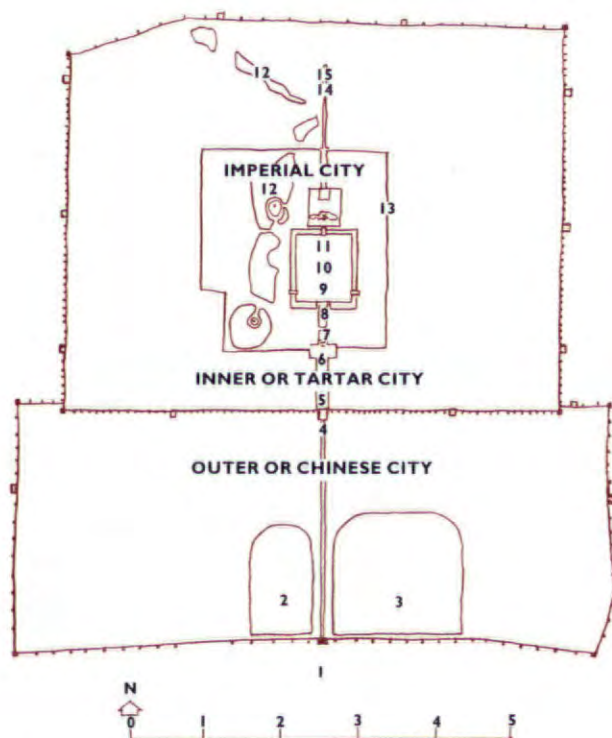


The Altar of Heaven, in the Outer City, consisting of three concentric terraces open to the sky, with steps at the cardinal points. Here, the Emperor knelt and read from scrolls, subsequently burning the paper to carry his prayers to heaven by smoke.

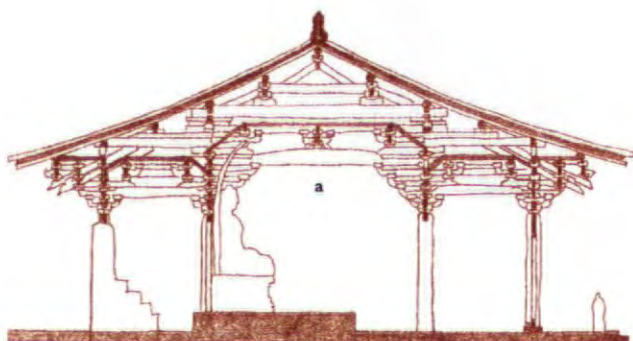


# THE FORBIDDEN CITY IN BEIJING: CHINA'S HIDDEN HEART

At the beginning of the fifteenth century AD, the third Ming Emperor, Yung-lo created one of the most dazzling architectural masterpieces in the world. The Forbidden City, encrusted in the centre of China's capital Beijing, displays an extraordinarily harmonious balance between buildings and open space within a symmetrical layout. It contains immense courtyards, terraces and stairways, and buildings decorated with golden roofs, vermilion columns and green, red and yellow facings. The Forbidden City conveys a strong image of wealth and earthly power and surpasses Versailles in its majesty, without abandoning a sense of human scale. JIM ANTONIOU



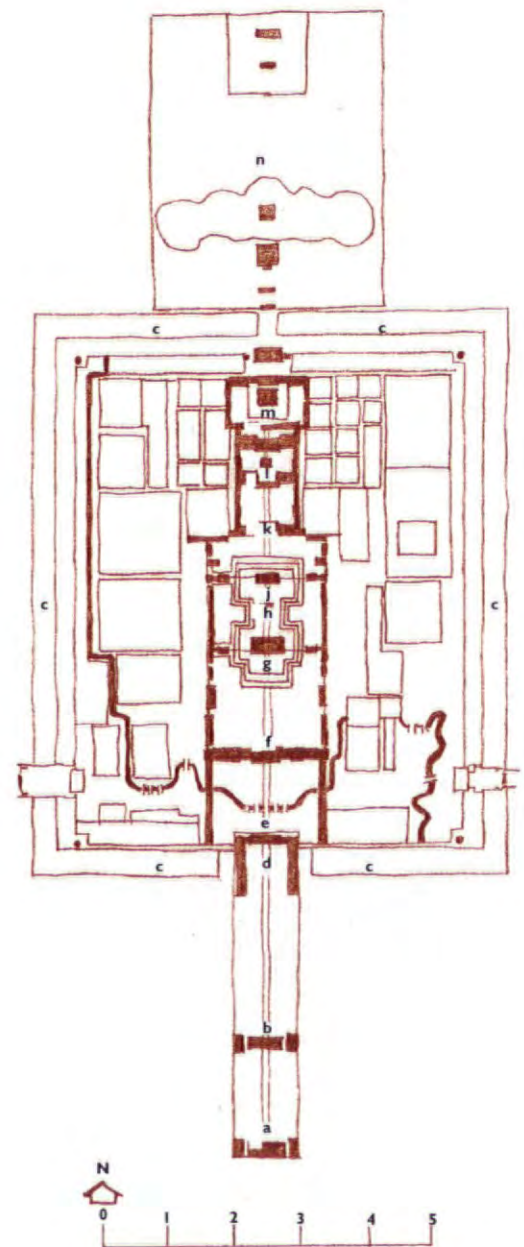
The four historic cities of Beijing, linked by a strong north-south axis and a series of impressive gates: the Outer (or Chinese) City to the south, with the Inner (or Tartar) City, containing the Imperial City and the Forbidden City embedded in the centre.



The Chinese elaborate beam frame system (a) was expandable in all directions, compared with the rigid construction of the Western triangular truss (b). A cantilever bracket called tou-kung (c) was used to carry the eaves overhang.

- 1 Yung Ting Men
- 2 Temple of Agriculture
- 3 Temple of Heaven
- 4 Chien Men
- 5 Chung Hua Men
- 6 Tianan Men
- 7 Tuan Men
- 8 Wu Men (Meridian Gate)
- 9 Gate of Supreme Harmony
- 10 moat
- 11 Forbidden City
- 12 lakes
- 13 Coal Hill
- 14 Drum Tower
- 15 Bell Tower

- a Tianan Men
- b Tuan Men
- c moat
- d Meridian Gate
- e golden river
- f Gate of Supreme Harmony
- g Hall of Supreme Harmony
- h Square Hall
- j Hall of Protected Harmony
- k Gate of Heavenly Purity
- l Palace of Heavenly Purity
- m Imperial Garden
- n Coal Hill



The Forbidden City, reserved for the Emperor, his family and court attendants lay behind high, heavily guarded walls, surrounded by a moat. The symmetrical and spacious plan of the front halls on graceful platforms was in sharp contrast to the crowded inner palaces reserved for the Emperor's private life.



sense of enclosure and intimacy, protecting the central south-facing green space from over-exposure to the Excel, and the members of its family which will doubtless rise in the west.

Canopies are supported on steel cantilevers from monolithic black concrete piers, so from river to warehouse (south-north), the structure seems almost solid. Looked at on the east-west axis, however, the composition is much more physically and visually permeable and open.

Moving inland (north) from the dock between the canopies and their pavements, the composition is layered: water, hard and soft, hard and water. First, there is a hard strip on which the grey dock cranes are preserved as gigantic sculptures; then the soft green lawn; then another hard strip where stone paving is magically enlivened with fountains and fibre-optic wands which wave gently in the wind and light up pink at night; beyond is the moat in front of the brick and glass warehouse.

To the east is a grove of beeches newly planted, but tall, which give promise that when they thicken into huge hedges, they will offer some protection from the numbing banality of Excel, the west front of which debauches down stairs toward Warehouse W, its moat and the surrounding hard landscape. There could be no more dramatic contrast between the giant behemoth and the new green square. To the east, all is numbingly corporate, anonymous and physically unwelcoming. In the little park, every detail is particular, every texture and material has been carefully considered. You want to touch them, feel them through the soles of your shoes. The place is an oasis of calm human values in an unremitting desert of anomie. P.D.

**Architect**  
Patel Taylor, London  
**Landscape architect**  
EDAW  
**Structural engineer**  
Aspen Burrow Crocker  
**Quantity surveyor**  
Tweeds  
**Photographs**  
Martin Charles







## URBAN SQUARE, DOCKLANDS, LONDON

ARCHITECT

PATEL TAYLOR

1  
The square is an oasis of calm amid the anomie of Docklands.

2  
Dock cranes line the edge of the new square like gigantic industrial sculptures. A grove of beech trees adds organic animation.

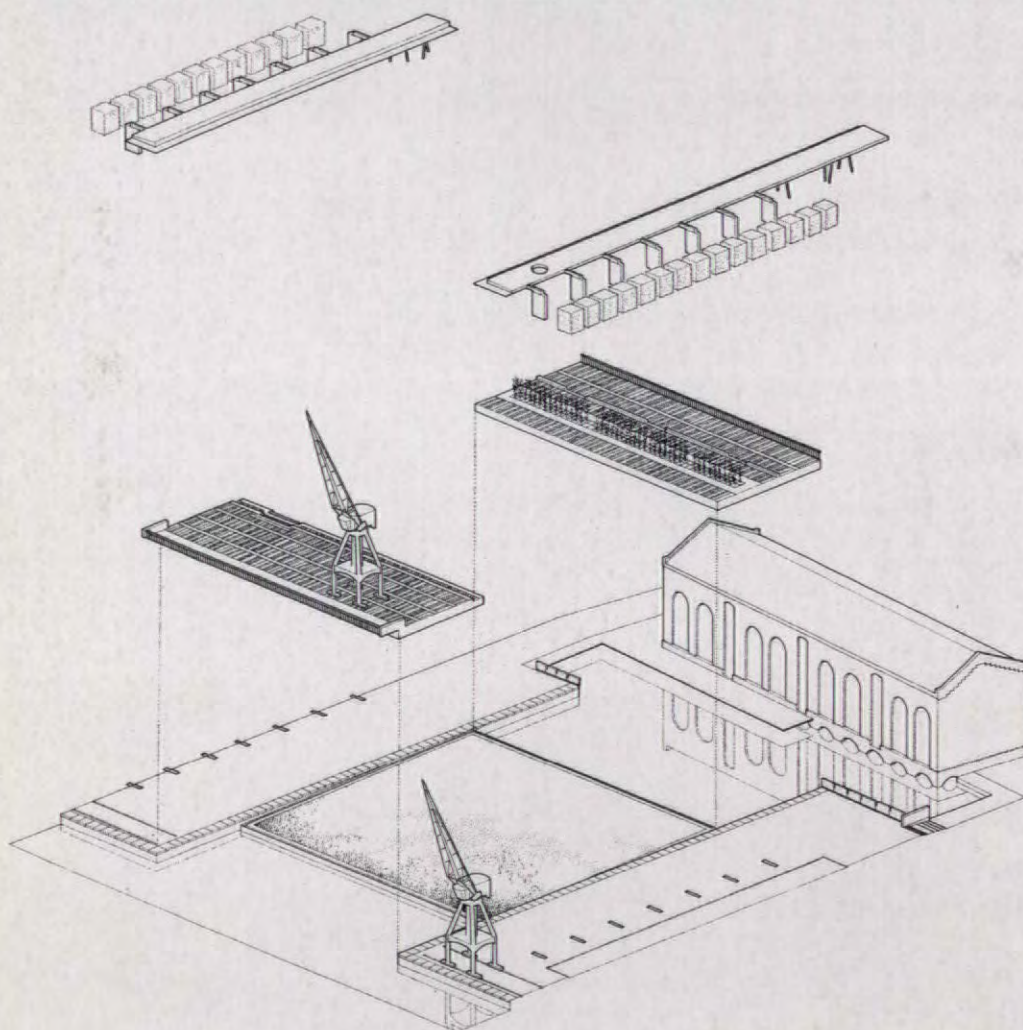
3  
Detailing reflects the tough yet dignified industrial functionalism of the existing warehouse relics.

4  
Cantilevered canopies provide shade and shelter.

After the sea terminals moved down river in the '70s, London's Royal Docks were deserted. They still contain some of the largest tracts of undeveloped urban land in the world, though they are beginning to fill up with miscellaneous, often lumpen developments, usually ill related to each other. But between these new hulks, there are much more finely honed elements like the University of East London campus by Edward Cullinan Architects (AR March 2001) and, now, Royal Victoria Square by Patel Taylor with landscape architect EDAW.

Set on the north side of the dock, the square is intended to be a focus in a string of public spaces linked by a pedestrian bridge over the dock and one over the main spine road to the new bigger park (by the same designers) on the banks of the river itself. The aims of Royal Victoria Square were to provide a centre of calm in an area of very mixed development, to celebrate the preserved nineteenth-century brick warehouses, and to act as a sort of open-air anteroom for the huge new exhibition complex: the Excel, a dull and scaleless hulk of world class proportions located to the east of the site.

A difficult and potentially contradictory brief has been resolved with directness and sensitivity. Originally, the big brick Warehouse W was on the waterside. Then, when the Royal Victoria was built in 1855, it was connected to the new major piece of water by two finger docks. These were filled in (though water was reintroduced round the warehouse in a previous landscaping scheme). Now, the memory of the finger docks is retained in two long generous white canopies. They frame the view of Warehouse W from the riverside and create a

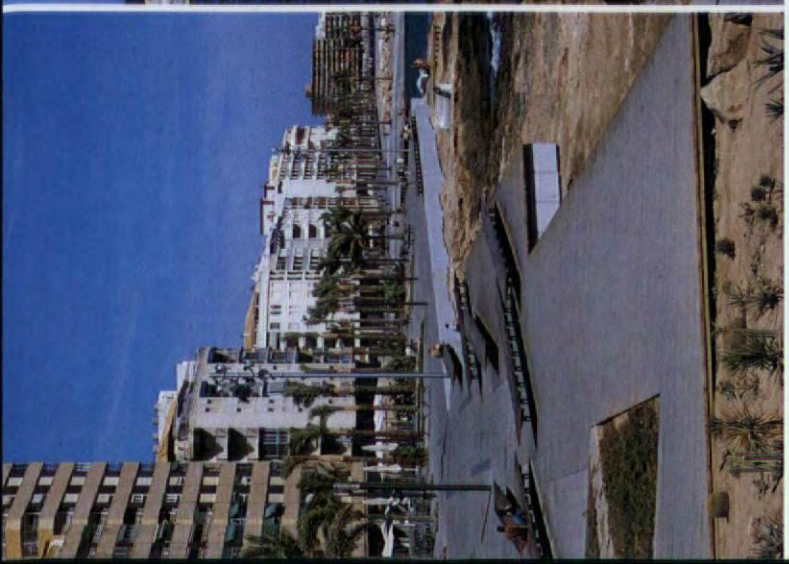
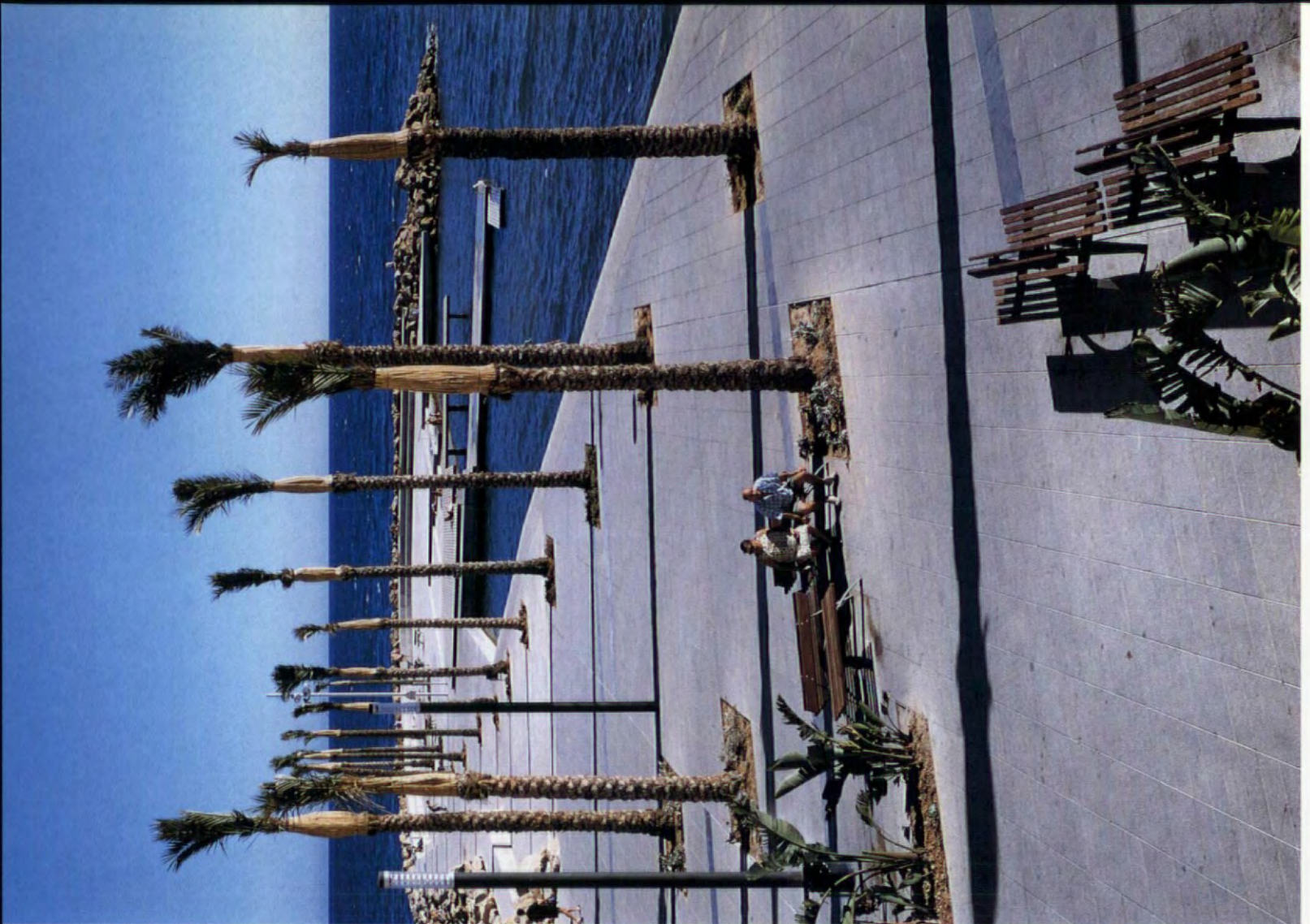


exploded isometric projection of site

# ROYAL REGENERATION

This modest but sensitively executed new square in London's Docklands is an oasis of tranquillity and a reminder of the importance of human values amid the bald excess and anomie of the area's recent commercial development.







# ON THE WATERFRONT

Torrevieja's narrow waterfront has been transformed by a landscaped promenade in the form of a coastal garden which creates a series of spaces for recreation and contemplation.



Lying midway between Alicante and Cartagena, the town of Torrevieja has fallen prey to indiscriminate and uncontrolled development typical of the Spain's south-west coastal strip. It had expanded to the edge of the sea, leaving little room for a public promenade or bathing. Carme Pinós was asked to remodel a thin strip of waterside space to create places for recreation, swimming, strolling and sitting. As with an earlier civic landscaping scheme for a suburb of Alicante

(AR October 1999), Pinós transforms an uninspiring context through skilful deployment of simple, robust materials and an instinctive awareness of the human and social dimension of public space. Swimming was difficult and dangerous due to the heavy waves and jagged rocks, so Pinós adapted existing breakwater structures to enclose two new bays for protected bathing. Timber decks, like boardwalks, lead down to the beach areas and the concrete block

structure of the breakwaters merges into the hard landscaped surface of the promenade. On the land side, the promenade winds in a leisurely, irregular fashion along the waterfront, providing a pleasant route for daytime *flâneurs* and the evening *passeggiata*, the ritual Mediterranean stroll. Diagonally arranged concrete tiles with lozenge-shaped gaps for a grid of palm trees impart a graphic, dynamic quality to the promenade. Benches and pedestals for rest and

contemplation are scattered at random through the regular grid; made of slatted timber these combine sturdiness and elegance in equal measure. When the palms are fully grown, they will form a lush green canopy, providing shade and softening the waterfront edge, screening the undistinguished scrum of buildings behind.

Modest in scale, yet executed with great resourcefulness and sensitivity, Pinós' promenade is an adroit exercise in the gentle art of

placemaking and shows what can be achieved in unexceptional circumstances. Pinós herself describes it as a 'coastal garden' that will flourish and evolve over time, exerting a civilizing influence over the public realm.

CARLA BERTOLUCCI

## Architect

Carme Pinós, Barcelona, Spain

## Project team

Carme Pinós, Juan Antonio Andreu,

Javier Oliver, Patricia Juncosa

## Photographs

Duccio Malagamba

## WATERFRONT PROMENADE, TORREVIEJA, SPAIN ARCHITECT CARME PINÓS

- 1 Buildings push up hard against the edge of Torrevieja's waterfront.
- 2, 3 Boardwalks lead down to protected areas for bathing.
- 4 Slatted timber benches provide spots for rest and contemplation along the waterfront route.
- 5 Grids of fledgling palm trees will eventually form a lush green canopy.



site plan of waterfront







# MUSEUM RENEWAL, UTRECHT, THE NETHERLANDS

ARCHITECT

HUBERT-JAN HENKET

ARCHITECTEN

Here, an elegant new wood and steel canopy heralds the main entrance, partly covers the new café, and moderates the bluntness of the 1974 brick back of the eighteenth-century house on Nieuwegracht. The 1974 interior is much altered, opened out and filled with light from the new café, and from a new tall window which illuminates the stairwell (and lift lobby) that lead visitors to the upper floors of the house or down to the tunnel. At the tunnel's other end in the cloister is a new glass-enclosed lift and stair, which replaces a 1970s one (and re-uses its oak). The glass lift in its vertical

transparent shaft provides an overview of the whole structure of the museum, from basement to attic, the approach routes and the courts. What had been a very complicated and confusing building has become much more clear (though no-one would actually call it simple, because it does of course reflect the densely woven historic texture and grain of old Utrecht).

Undoubtedly, the most controversial element in the new composition is the glass bridge across the cloister, which runs hard up against the Gothic wall of the cathedral and makes no concessions to it (apart from

5  
In glass bridge: untouched south wall of cathedral, right.

6  
Transparent lift relates all cloister spaces and new routes.

7  
New café with entrance beyond and terrace to right.

transparency – the luminosity of the great church is scarcely affected). It is hard to imagine a country other than the Netherlands which would allow such an intrusion into a medieval court. (Imagine, for instance, what a dreadful piece of smarmy pastiche would have emerged in Britain, even if the idea had been countenanced in the first place.) In fact, the architects have been no more radical than their predecessors five hundred years ago. Then, they were not afraid to transform and enhance the existing using the most up-to-date techniques. That is what has been done now, and the texture

of the fabric and life of the city has been enhanced. And, after all, if tastes change in future, the finely honed glass, steel and wood structures can be removed with ease, for they touch the old buildings lightly. P.D.

## Architect

Hubert-Jan Henket Architecten, Esch, the Netherlands

## Project team

Hubert-Jan Henket, Sjoekie de Bijl Nachenius, Bernhard Frodl, Stephan Kentie, Henk van Laarhoven, Rob Schoutsen, Sylvia Wirtz

## Structural engineer

ABT

## Services engineer

Raadgevend Ingenieursbureau Nederland

## Photographs

Sybolt Voeten











## MUSEUM RENEWAL, UTRECHT, THE NETHERLANDS

ARCHITECT

HUBERT-JAN HENKET ARCHITECTEN

# ROUTE MASTER

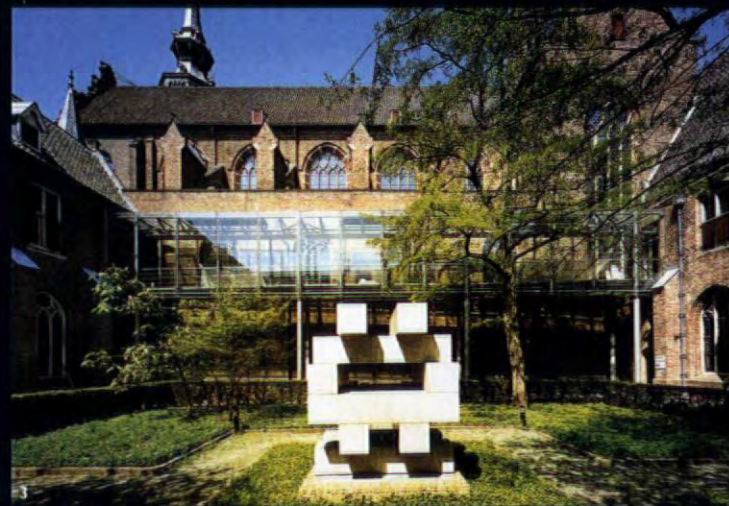
The public realm is not only composed of grand piazzas and boulevards. Small streets, courts and alleys are vital parts of the texture of the city, as this bold and sensitive Utrecht scheme shows.

During 1995, in an attempt to make their city even more attractive to tourists, the burghers of Utrecht decided to make a museum quarter in the medieval centre of the city. Starting at the Central Museum for art, it stretches along Lange Nieuwstraat (now one of the oldest thoroughfares in the city) to terminate in the new university museum. Some way down, on the east side of the street is the thirteenth-century St Catherine's Cathedral and the Catharijneconvent, two hundred years younger.

The convent is part of the Museum of Religious Art, the other element of which is a grand eighteenth-century house on the Nieuwegracht on the other side of the block. Here was the entrance to the museum. When they were renovated in 1974, house and cloister were linked by a tunnel under the back garden. The decision to create the new museum quarter meant that access to the museum had to be from Lange Nieuwstraat, in effect turning the house round, and making a new access route through the cloister (created in

the fifteenth century by making a U-shaped figure against the south wall of the cathedral).

Hubert-Jan Henket and his team have led a public route from Lange Nieuwstraat through the cloister, into an inner court on the site of the old back garden, past the new entrance to the museum in the back of the eighteenth-century house, then along its side out to Nieuwegracht. One of the principal problems in generating the new route was to keep members of the public who simply want to get from one side of the block to the other apart from the secure and tranquil spaces of the museum. (Previously, the cloister was self-contained, with no through traffic, so there was no conflict.) Henket solved the problem with one bold basic move: creating a glass and metal bridge at first floor level along the north side of the cloister. It connects the two ends of the first floor of the convent, making the whole space more legible. And at the same time, it provides a covered way, giving direction and protection to the route to the inner court.



1 New fine-honed timber and glass canopy modifies bluntness of eighteenth-century house's 1974 back, and ...

2 ... offers welcome, with entrance and café. Cathedral apse left.

3 Boldest stroke is first floor glass bridge across north side of cloister, which connects museum galleries, and ...

4 ... provides covered way from new entrance to interior of complex.





6

the town-hall and a church spire, both slightly to the north. To give some sense of focus to the double square and make it visible from afar, Bolles+Wilson have added a kind of campanile in the form of a modern clock-tower standing exactly on the boundary between new square and old. It has a large digital clock at the top and a glazed kiosk at the bottom to be used as an information and display point. This rhetorical element is partnered by a similar horizontal one: a cigar-like canopy suspended over the pedestrian arcade propped up on skewed legs and advertising 'De Brink', the name of the development. It shelters the arcade and draws attention to it, while the strong form makes

a clear sign both from the station and from the square. It certainly works to draw people through, and the offer of real shops on a truly public route makes a nice change from the increasingly ubiquitous interior world of the mall.

Bolles+Wilson have undoubtedly given Hengelo a much stronger sense of place, and the development has worked commercially, even to the extent of sucking life out of other areas of the town. The new architecture sits well with what was there before, and the character of the '60s block has even been enhanced by its new context. Bolles+Wilson's responsive and improvisatory approach has found a convincing new order in the

existing, but it also remains open-ended, promising to accommodate new and varied neighbours in the future.

Budgets and design control were obviously more limited than with their earlier more prestigious projects, for they had no control over the conventional interiors of the shops and department store. Perhaps this is as it should be, for a town in a democracy must surely not be subordinated to a single vision. But it does also reflect a general tendency these days to separate interior design from what must now be called 'exterior design', a matter of facades and styling. This prevents the sort of spatial interactions which were so effectively deployed at the

Münster library. The stylistic gestures of campanile and canopy attract attention in just the right sort of way to do their visual work efficiently, but they do seem somewhat theatrical and may date quickly. It will be fascinating to see what happens to this place over the next twenty years, and whether hints given by Bolles+Wilson serve as a catalyst to develop the sense of place further as the people of Hengelo make it their own.

PETER BLUNDELL JONES

**Architect**  
Bolles+Wilson, Münster  
**Project architect**  
Axel Kempers  
**Associate architect**  
Bureau Bouwkunde  
**Photographs**  
Christian Richters





## URBAN RECONSTRUCTION, HENGELO, THE NETHERLANDS

ARCHITECT  
**BOLLES+WILSON**

5  
Canopy penetrates square and links  
to station. New housing over shops  
behind.

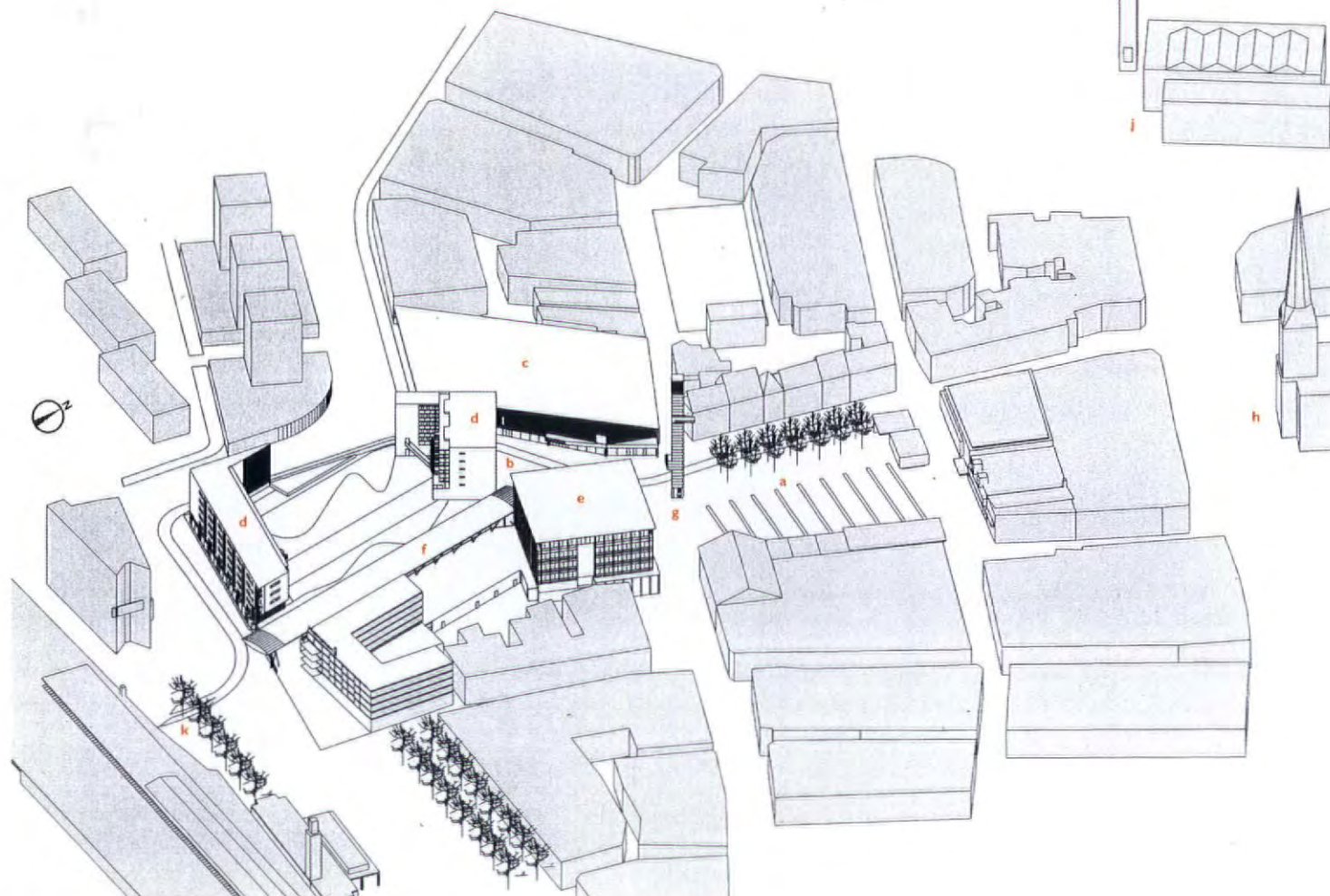
6  
Arcade of shops which stretches  
south from new square to station.

This offered its main facades to north and west, and if it was to remain it needed to be left some breathing space, suggesting a prolongation of the market place to the south-west. The answer was to create a smaller square with one side open to the larger – an urban arrangement compared by Peter Wilson to St Mark's Square in Venice. Opposite the existing block was placed the department store, a deliberately shed-like large-scale building with horizontal facade and big overhanging roof. This makes the west side of the new square. The south side takes the form of a seven-storey block of shops and flats, modest in scale and fenestration to partner its neighbour to the east. Between this and the existing 1960s block,

the southernmost corner of the double square opens into a new pedestrian shopping arcade which leads to the station, Bolles+Wilson's main idea. To the outer south and west side of the development, a road had to be accommodated to connect the centre of town with an existing underpass beneath the railway. Lined with conventional street facades, it has shops at ground level (apart from the west which is a back) and apartments on top. The new block between the western road and the arcade has a ground floor given over to shops, with access to upper apartments at each end by open gallery.

The fabric of the town is relatively horizontal, the roofscape punctuated only by

- |                      |                      |
|----------------------|----------------------|
| a old square         | f arcade             |
| b new square         | g campanile          |
| c department store   | h church             |
| d housing over shops | j existing town hall |
| e '60s building      | k station            |





URBAN RECONSTRUCTION,  
HENGELO, THE NETHERLANDS  
ARCHITECT  
BOLLES-WILSON







- 1 Looking into old market square from west, with back of department store right.
- 2 New campanile is exactly at junction of new and old squares.
- 3 Looking from new square to old, now cleansed of its cars by huge underground car park. Building to right (east) is existing, from '60s.
- 4 Department store makes up west side of new square.



Hengelo is a small Dutch town near the German border, and was just a village at a crossroads until the railway came through in the nineteenth century. It then grew as a seat of industry: a mass of factory sheds, tall chimney-stacks and workers' housing, with little to relieve the daily grind. Badly damaged in the Second World War, it was rebuilt on a grid plan mostly at two storeys, with a handful of medium-rise office and apartment blocks dropped in here and there. Like much of Holland, the landscape is flat, and the main feature visible from the air is the broad east-west main railway-line between Germany and Holland. The weak town centre tried to focus on a market place, but by the 1990s this had been given over mostly to use as a car park.

Opportunity for change came with the liberation of the site between market place and railway station due to the demolition of one of Hengelo's largest and oldest factories. At first, the loss made things worse by opening a gaping hole in the urban fabric, but it prompted action. In 1995 a competition was held to repair and retrieve the town centre, and was won by Bolles+Wilson. The brief demanded that this be done mainly with commercial elements, including a large department store, shops, offices and some housing. It was not a matter of integrating a new building carefully into a valued historic setting as with their famous library in the centre of Münster (AR February 1994) for the town

never had much sense of place or much fabric of value. Rather there was a need to give heart to an increasingly incoherent and low density town, to make sure that when you get off the train at Hengelo there's some there there.

One starting point was the huge underground car park required beneath most of the site, which both provides for customers to the new shops and replaces lost parking in the reclaimed market place. On economic and rational principles this needed to be made with a regular column grid set at 7.8m, which set up a structural module for the whole thing. Unlike '60s architects who would have let the module dominate the forms while ignoring the edges, Bolles+Wilson have played off the site shapes against the grid, often using the diagonal in ingenious ways. The result is a truly late twentieth-century expression of plan libre, with basement and ground so different that at first it is hard to see how they fit together. In fact the whole car-parking grid is orientated to Bolles+Wilson's new pedestrian arcade linking the market place to the station, which lies directly above the easternmost lane of the car park. All the rest plays against this grid, for the ground level composes itself around quite another set of rules.

At the start of the project, the market place tapered towards its southern end, its south-east corner being terminated by a square six-storey building built in the 1960s with an exposed frame and recessed top floor.

## SYMBIOTIC SQUARES

A small and heavily industrialized town in the Netherlands has received a renewed heart in a comprehensive but economical programme, which provides urban spaces and invigorates the existing fabric with new functions.



# SCHOOL, SANTIAGO, CHILE

ARCHITECT

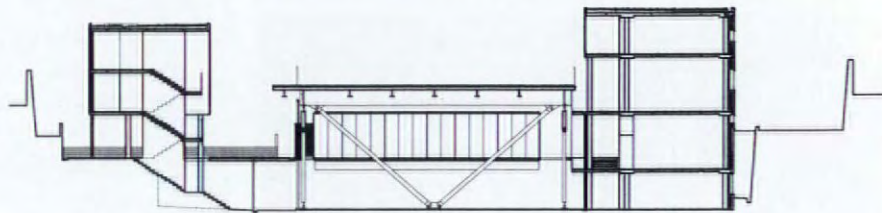
MATHIAS KLOTZ

5

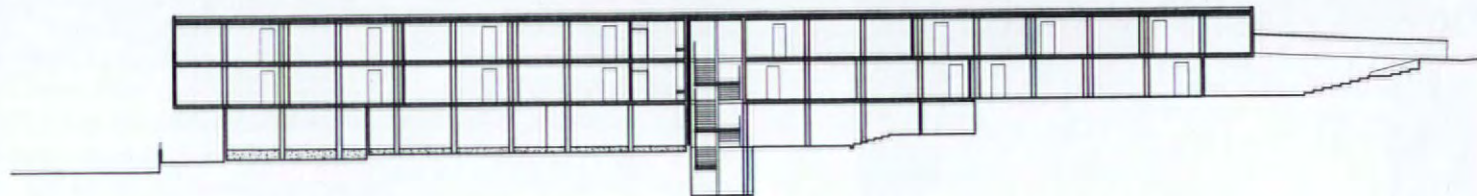
The building is bisected by through routes, like scaled-down streets.

6

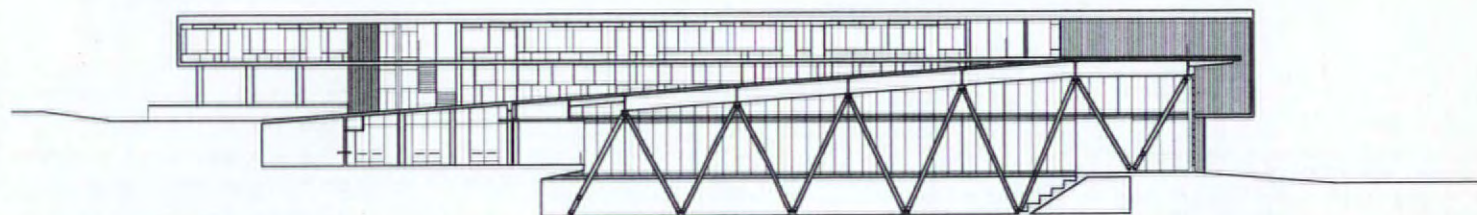
The great cavern of the subterranean sports hall, which can also be used by the public.



cross section



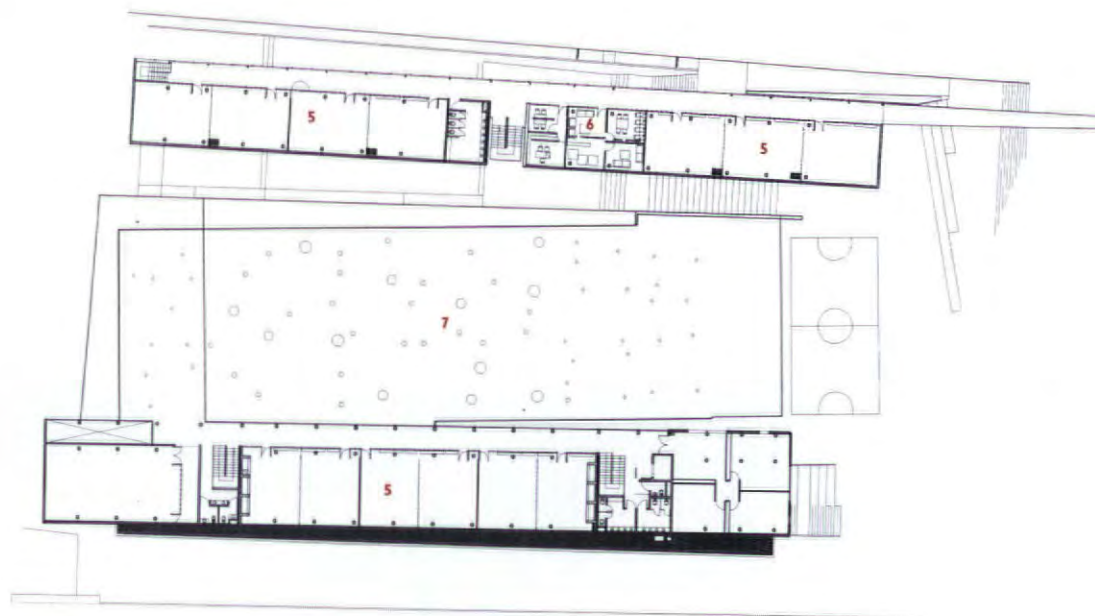
longitudinal section through classroom block



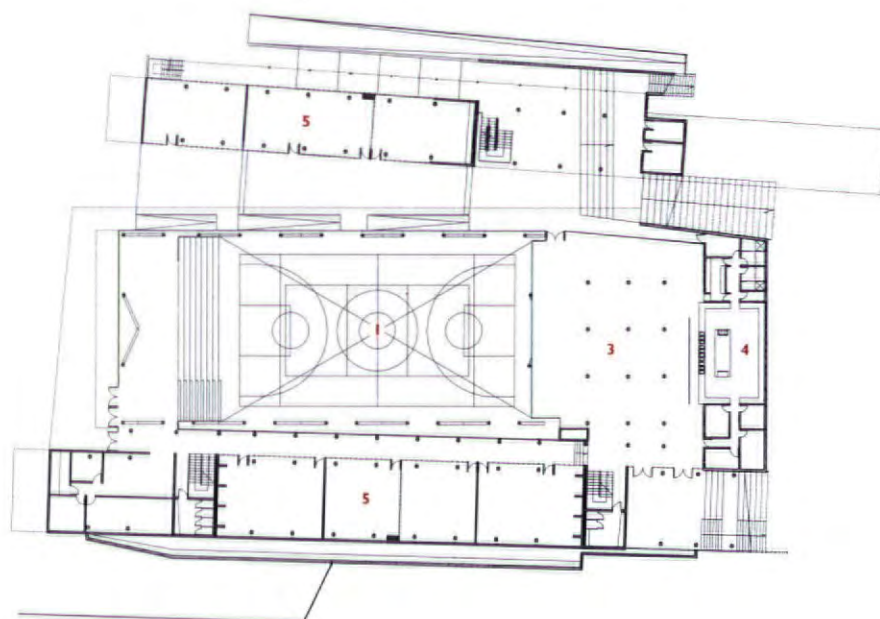
longitudinal section through sports hall



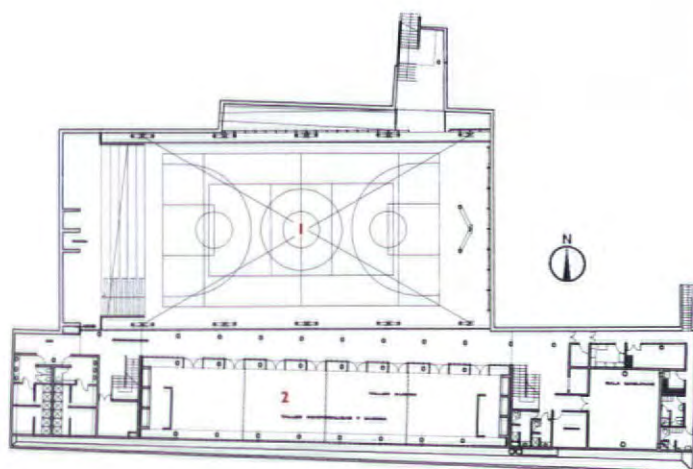




first floor plan



ground floor plan (scale approx 1:750)



- 1 sports hall
- 2 music workshop
- 3 cafeteria
- 4 kitchen
- 5 classrooms
- 6 staff rooms
- 7 playground

Both the sports hall and its adjoining cafeteria are open to the public, so its treatment as an almost self-contained element, separated from the classrooms is entirely logical. In fact, with its mixture of public and private uses, the building is more like a fragment of city, bisected by a maze of through routes, and climaxed by the great sloping hulk of the runway/playground. Long colonnades run along the edges of the classroom blocks, formed by pulling back the lower floors from the building line, so that zones of shade and circulation are created underneath the overhanging upper floors. Responding to Santiago's intensely hot and dry climate, these informal indoor/outdoor spaces adapt archetypal Mediterranean practice of mediating between interior and exterior domains, through shaded colonnades and patio courtyards.

Threaded along a spinal corridor that runs along the edge of each block, classrooms are simple cellular spaces, with views either out over the central courtyard, or to the surrounding rolling hills beyond. With its monumental ramp, cavernous sports hall and cleft-like alleys and colonnades, the school also seems like an abstraction of terrain, topography tamed and refined, but still endowed with an elemental presence. In particular, the sports hall, is like a great mysterious cave, illuminated by tall glazed walls and the sprinkling of circular rooflights. But it is also practical; its single flexible volume can be adapted for a range of sports and community uses. Klotz's animated and inventive composition of different spaces, materials and functions is ultimately very humanly scaled and responsive to social need, serving both the intimate collective of the school and the wider demands of the local community. C. S.

#### Architect

Mathias Klotz, Santiago

#### Project team

Carolina del Campo, Pilar Claderón, Elodie Fulton, Rodrigo Duque

#### Structural engineer

Enzo Valladares

#### Photographs

Nick Hufton/VIEW





Structured around a series of modest private houses, Mathias Klotz's career draws on the lineage of South American Modernism (particularly the Chilean school that flourished briefly during the 1950s), and the extreme geography of his native country. Informed by abstraction and the presence of nature, his work is characterized by simple geometry, rational use of materials and a wider connection with landscape and place, underpinned by a Corbusian preoccupation with the *promenade architecturale*. The roof is always an expressive element, forming a fifth

elevation, accessible and open to the sky, a place from which to contemplate nature, as, for instance, in the Casa Müller (AR September 1999).

Klotz's latest project is a secondary school for 1400 pupils in the suburbs of Santiago. Framed by mountains, the site is a rectangular plot with a gentle incline along its length. Klotz's response is to incorporate the slope into the parti, so that the building becomes, in effect, an extension of the landscape. Two linear bars containing cellular classrooms and offices are placed along the edges of the site, enclosing a large sloping central

space. This modern version of a traditional patio forms an external courtyard open to mountains and sky, which functions as the school's playground. Studded with small circular rooflights set flush with the concrete surface, the sloping plane also forms the roof of the sports hall below, which is partially dug into the site to mitigate its large volume. The roof is supported on a post and beam arrangement of deep steel beams and inclined tubular columns that generate a zigzag rhythm along the perimeter of the sports hall. The glazed end of the sports hall faces the street,

its lightness and transparency making a welcome gesture of engagement with the public realm, compared with the more hermetic and private side blocks. These are faced in a mixture of vertical strips of pale pine at the upper level and vivid kaleidoscopic cladding panels below, engendering a simple yet expressive textural contrast. The short ends of the blocks are left bare, exposing the raw surface of the concrete structure below. Born of necessity, the entire scheme has a robust materiality, intended to withstand the ravages of rigorous daily use by pupils and the public.







## SCHOOL, SANTIAGO, CHILE

ARCHITECT

MATHIAS KLOTZ

1  
Glazed volume of the subterranean sports hall is flanked by two long classroom blocks.

2  
The ramped roof of the sports hall forms the school playground.

3  
The great ramp echoes the surrounding terrain, like a distilled landscape.

4  
Colonnades along edge of ramp create shade. Timber, glazing, metal mesh and coloured cladding panels add textural diversity.

# SOCIAL STUDY

This new school in the suburbs of Santiago is an expressive abstraction of the surrounding topography, providing a series of private and public spaces for both the school and the wider community.







6

anteroom which contains stairs up to the public gallery and down to the underground lecture theatre. Both sides of the slash through the Euclidean figure are glass, filling the two volumes with sky light (in summer). There are no other windows in the cone.

From the outside, the whole complex is reserved, unwelcoming almost, with austerity relieved and given scale only by the rather delicate solar shades over the windows. The curved outer edge is battered (slopes inwards), and clad in irregular strata of horizontal wooden strips, not unlike those used in the upward sense on the cone. A simple porch with an awning almost like a raised tent flap is the only sign of entrance and welcome. Once inside, everything opens out. You look along and across the library to the restaurant, then beyond to the cone and its ice dagger. The architects wanted to make an abstraction of the experience of entering a *lavvo*, when the outside is impassive, but then you go in through the membrane and everything is clear and displayed.

A long double-height gallery links ground and first floor spaces (offices and

conference rooms on the outside of the curve), defines the inside of the arc and connects the whole complex. At the entrance, its power is somewhat muted because the library opens immediately in front and falls in a couple of terraces down to the level of the green court. But as you go round towards the chamber, the gallery's power becomes more clear, for it is the ligament which unites all parts of the place, physically, visually and socially. Its dimensions, and its section, in which first floor circulation becomes a continuous balcony, make it into a generous space in its own right, not just a corridor, but a place for informal meetings, sauntering and contemplation of the cold wastes from the brightly lit cosy warmth of the interior.

The chamber is of course the climactic space. Lined with wood, in a more ordered and joiner-like version of the rough external cladding, the tall space has both intimacy and symbolic dignity (enhanced by Hilde Schanke's fine abstract mural). The tall conical section ensures that the public and press gallery is almost in the middle of the

volume, rather than being thrust to the back as is usual. Each member's desk is carefully designed and detailed (the architects working with Beate Ellingsen) to make a personal place within the big volume – a metaphor of the whole affair, in which individual is continually put in counterpoint with communal, public with semi-private, artefact with nature.

Much money and effort have been expended in trying to make a symbolic place appropriate for a very particular culture in transition. Whether it will work or not depends mainly on what the Sami decide to be. It will be the place in which they make their decisions. H.M.

#### Architect

Stein Halvorsen and Christian Sundby, Oslo

#### Project team

Beate Ellingsen, Stein Halvorsen, Erling Mørk, Magne Rynning Tonnesen, Helge Saatvedt, Christian Sundby, Elisabeth Tromborg

#### Interior design

Rannveig Getz, Trine Hjelte, Annetin Hurum

#### Landscape architect

Grindaker AS/Lars Flugsrud

#### Photographs

Jaro Hollan



**PARLIAMENT BUILDING, KARASJOK, NORWAY**  
 ARCHITECT  
**STEIN HALVORSEN AND CHRISTIAN A. SUNDBY**



**3** Main entrance, almost like the raised flap of a lavvo.

**4** Curving double-height gallery connects all parts and contains court; widens near chamber and library to encourage informal discussion.

**5** Library, with cafeteria beyond. Reading carrels under gallery left and a more social terrace with fireplace at upper level, right.

**6** Chamber: intimate, yet sufficiently formal for serious debate.



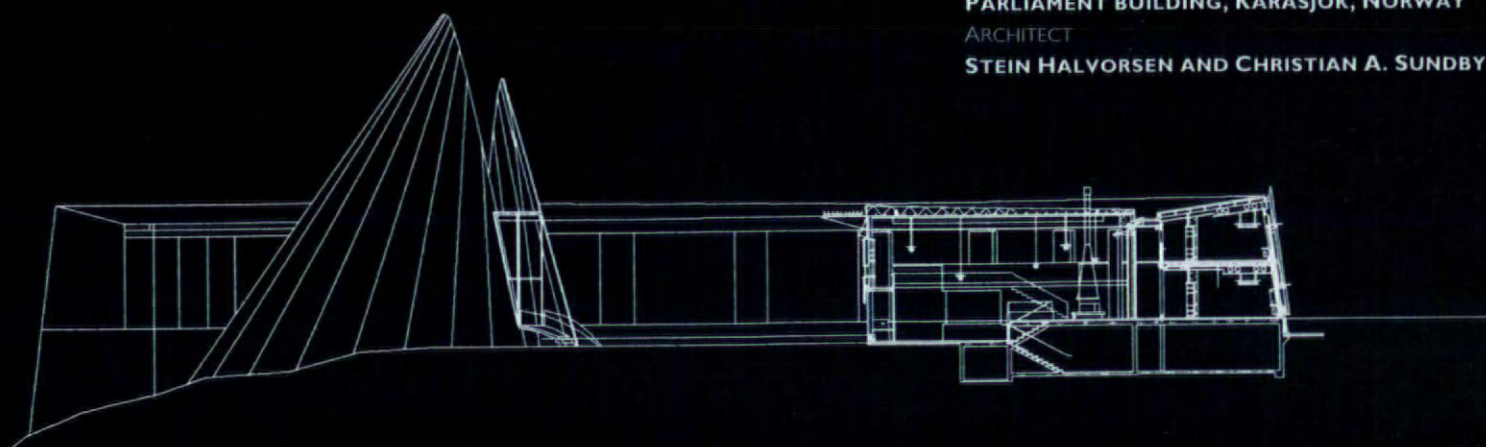
the 39 members, proper facilities for visitors, press and parliamentary officers, as well as a good library and a restaurant for the public. These differing elements are put together in a figure of great power. A two-storey semi-circular arc of accommodation embraces a green public space which looks south-eastwards over the river to the endless landscape. On the west side of this new public forum, is a tall cone covered in rough timber strips; this is the chamber itself, made as a landmark in the wilderness and based on the traditional Lapp tent, the *lavvo*.

Often, taking a vernacular form and blowing it up to monumental size results in the ridiculous as, for instance, some of the worst American-designed hotels in South-East Asia demonstrate with assiduous vulgarity. But, at Karasjok, the form is so simple and handled with such careful abstraction that there is no question of kitsch. Abstraction is further emphasized by the thin wedge-shaped glass bridge that skewers through the cone, dividing it into the chamber itself and a triple-height



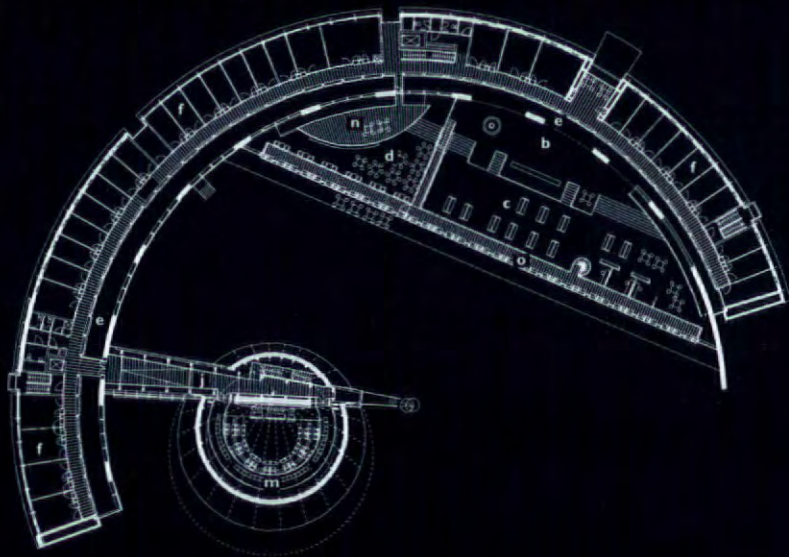


PARLIAMENT BUILDING, KARASJOK, NORWAY  
ARCHITECT  
STEIN HALVORSEN AND CHRISTIAN A. SUNDBY

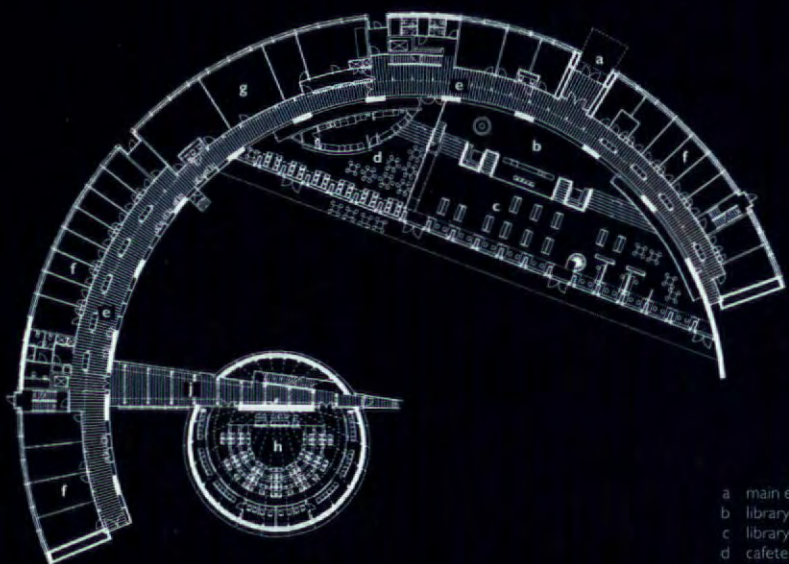


south-north section through court and library

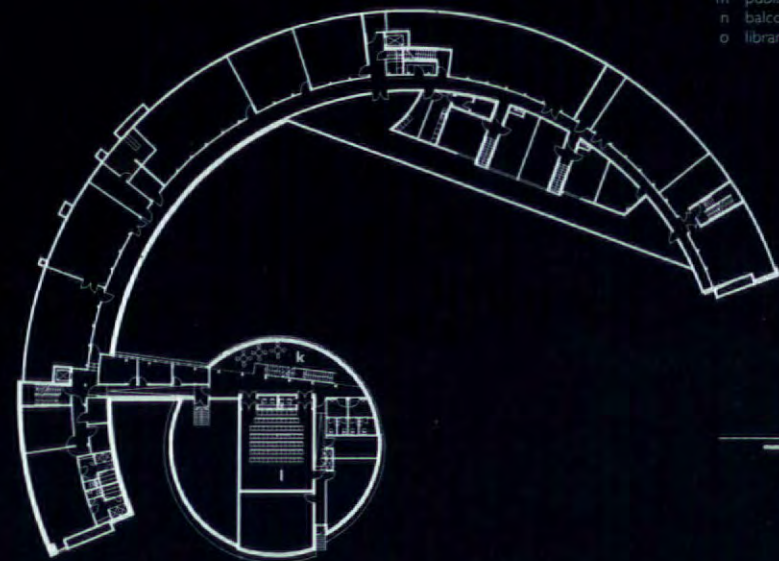




first floor

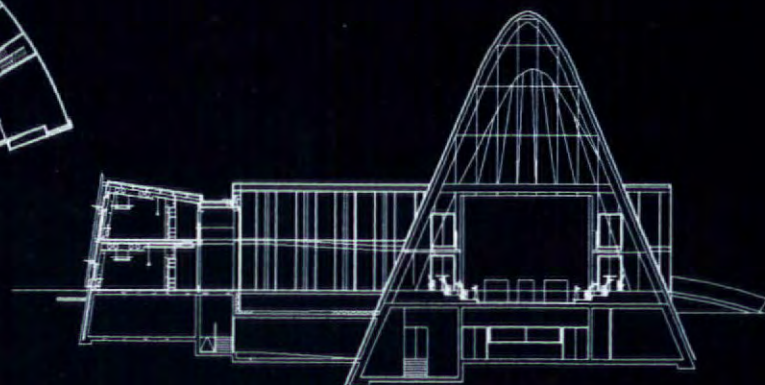


ground floor



basement (scale approx 1:830)

- a main entrance
- b library upper level
- c library lower level
- d cafeteria
- e gallery
- f offices
- g committee rooms
- h chamber
- j glass bridge
- k anteroom
- l lecture theatre
- m public gallery
- n balcony
- o library gallery



west-east section through chamber

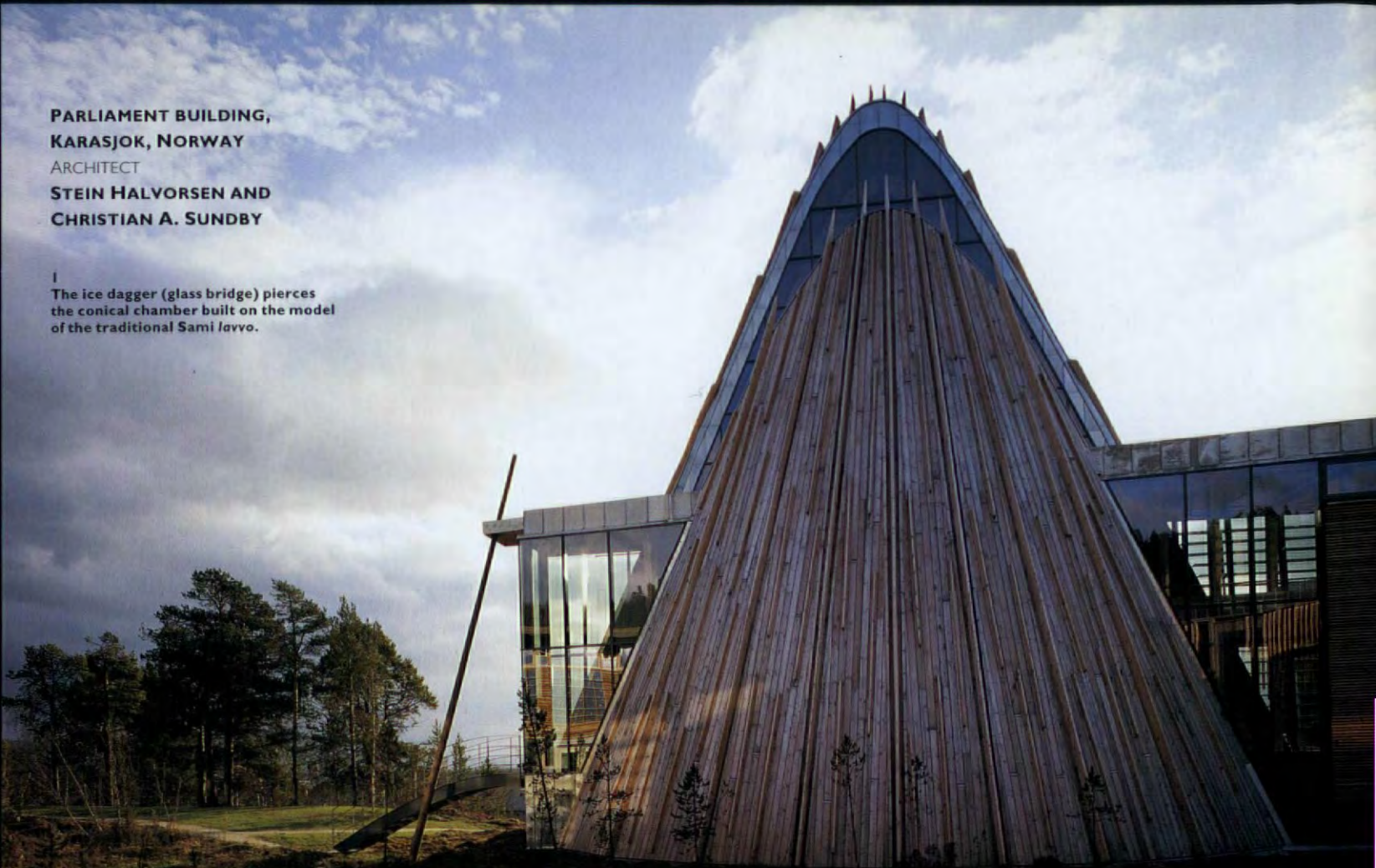


2 Accommodation protects south-east-facing court, one of the very few urban spaces in Karasjok.



PARLIAMENT BUILDING,  
KARASJOK, NORWAY  
ARCHITECT  
STEIN HALVORSEN AND  
CHRISTIAN A. SUNDBY

1  
The ice dagger (glass bridge) pierces  
the conical chamber built on the model  
of the traditional Sami lavvo.



## PARLIAMENTARY PRESCIENCE

A parliament building for the Lapps (Sami) offers an elegant and powerful figure, redolent with the materials and myths of the North, while technologically appropriate for this century.



location plan

Right at the top of Europe, Norway drifts east to meet Russia round the top of Sweden and Finland. This is the country of the Sami, the Lapps, who still pursue their nomadic way of life across the borders of the Scandinavian countries and even into Russia. A low rolling plateau is covered with sparse fir and birch forest; wide rivers flow north to the Barents Sea. In winter, there is no light at all for two months and the temperature can go down to minus 40°C; in summer, the thermometer can rise to 20, and the sun never sets. The Sami are partly settled now, particularly in winter, and the Norwegian ones have a capital, Karasjok, just west of the Finnish border, and some 100 miles below the North Cape, the most boreal point on the European mainland. The town is largely made up of prefabricated buildings scattered among the trees of the river bank with no urban coherence, apart from the Samelandssenter, a social and tourist focus by Bjerk & Bjørge (AR August 1996).

That complex had a small hall for the Sami Parliament (Sameting), the democratically elected body (founded in 1989) which looks after Lapp affairs. Now, it has been given over entirely to tourism, and there is a much more elaborate building for the Sameting. It has a fine debating chamber for





## SPA, BAD ELSTER, GERMANY

ARCHITECT

**GÜNTER BEHNISCH &  
MANFRED SABATKE**

7

Bathing hall (right) has water gate, through which swimmers can go into open pool.

8

Reception pavilion.

9

Layered collage unites old and new.



8



9

outside court, so it feels as if the pools were set within the court then lightly enclosed. The deliberate continuity of inside and outside pools, achieved physically through a watergate at the south-east corner which enables bathers to progress from one to the other, strengthens this impression.

The other new pavilions are variations on a theme. Though smallest of the three, the reception pavilion is the most prominently placed. The thinnest possible roof-slab on thin steel and concrete columns, again irregularly placed, oversails the glass walls for shade. Irregularly placed circular rooflights complement the eccentric circular desk. The third of the new pavilions, though largest in area, is least prominent, since it forms part of the perimeter of the large court and therefore reads as a flat background element rather than a free-standing piece. The reticence is appropriate, for the medical consultations carried on inside require privacy. Long and low with a very plain glass wall and slightly projecting roof, it has a central waiting area that is brightly lit.

A further visually important element of the collage is the landscape treatment of the courts. Most of the area is paved in concrete slabs on a square grid, but the pattern is broken by curving swathes of hedge which make it visually less rigid, limit pedestrian movement, and provide some privacy at ground level. The use of wooden bridges to provide crossing points for these hedge-bands makes them seem like meandering brooks.

Behnisch's collage-like layering of elements successfully disguises the fragmented nature of the back court that has been taken over. The choice of glass and steel pavilions, at first sight so completely at odds with the loadbearing old structures, ends up complementing them brilliantly. We are forcibly reminded once again that designing 'in keeping' is far from being the only answer for historically delicate interventions, if it is any answer at all.<sup>4</sup>

The glass links and adjuncts allow connections to be made and privacies preserved without breaking visual continuity, and start a new game of solid and void unthinkable a century earlier. The unexpectedly strong use of colour, not only in the bathing hall but throughout the new works and even in the linking parts, is one of the hallmarks of Günter Behnisch's latest work and has received much attention within the Behnisch office.<sup>5</sup> So successful is it here that it is hard to imagine the place without, or to contemplate publishing it in black and white. Why have we been so afraid of colour, one wonders, why did we neglect it for so long?

PETER BLUNDELL JONES

1 Previous Behnisch works with Wiesner included the schools at Öhringen and Dresden.

2 An idea memorably explored by W. R. Lethaby in his book *Architecture Mysticism and Myth* (1891), which appeared revised under the title *Architecture Nature and Magic* (1956).

3 After early experience of the rigours of prefabrication, Behnisch reacted against the idea that structural and constructive disciplines should be allowed to dominate a building. Typical of this reaction is the deliberate omission of a column in a regular series from the main entrance hall of the Bonn Parliament (AR March 1993), simply because it got in the way. The converse of this is the example of Mies's New National Gallery in Berlin, where the structure stands on eight and only eight perimeter columns although permanent vertical ducts near the centre of the plan could easily have concealed further columns to reduce the span. For Mies this was of course ideologically unthinkable.

4 It still seems to be widely assumed that sympathy to historic settings should simply provoke new work in imitation of an existing style. I challenged this notion in AR more than ten years ago and have had no reason to change position since. For a critical view of Richmond Riverside as fake history see AR November 1988, pp86-90. For a positive view of a conversion by Schattner of an old building which leaves visible three historical layers see the same issue pp51-62.

5 See Behnisch's book *Über das Farbliche/On colour*, Anglo-German text, Hatje 1993.

### Architect

Günter Behnisch & Manfred Sabatke, Stuttgart

### Project architect

Christof Jantzen

### Project team

Richard Beßler, Nicole Stümper, Michael Blank, Dieter Rehm, Thorsten Kraft

### Landscape

Luz & Partner

### Colours

Erich Wiesner

### Photographs

Peter Blundell Jones





6

rooms for the main bathing pools. Continuing through, a sidestep to right is prompted by the control desk, then the route passes through a glazed link to the reception pavilion with its circular desk. The route carries on along the same line, making another sidestep to right before terminating in the rear entrance. This occupies a small but self-important turret-like pavilion in the east side. Treatment rooms for massage and mud baths run around the east edge of the complex and the new pavilion at the south-east corner houses the doctors and their consulting rooms.

The most remarkable space is the new bathing hall, a square glazed enclosure with a glass roof and white tiled floors which seems bright and cheerful even

on a dull day, and makes accurate photographs look contrived. In both wall and roof, glass is double layered with a large buffer space to serve for insulation and for passive climatic control. The inner ceiling layer is made of variable glass louvres, the upper side coated to be partially reflective, the underside printed with spots of colour in reds, blues, greens and yellows according to a scheme devised by artist Erich Wiesner.<sup>1</sup> This gives a new interpretation to the ancient idea of the sky ceiling,<sup>2</sup> for the blue parts suggest a cloudy sky, the yellow parts sunlight. Whatever the real grey of the clouds beyond, one is taken in by the sheer brightness, persuaded into cheerfulness despite knowing it to be artificial.

Technically it is clever, for in winter and at night the louvres are closed to increase insulation, while in high summer their upper surface reflects solar glare while the buffer space is ventilated. At other times the louvres can be opened and adjusted to suit available light. The metre-wide buffer between the glass walls contributes to this control system. With insulating glass on the outside and single glass within, it provides a high standard of insulation. Critical for the comfort of the semi-naked clients is that, with freezing external conditions, cold air does not fall off the walls across the surface of the pools, as it would with a simpler glass wall. Although the bathing pavilion is precisely square with a regular supporting structural

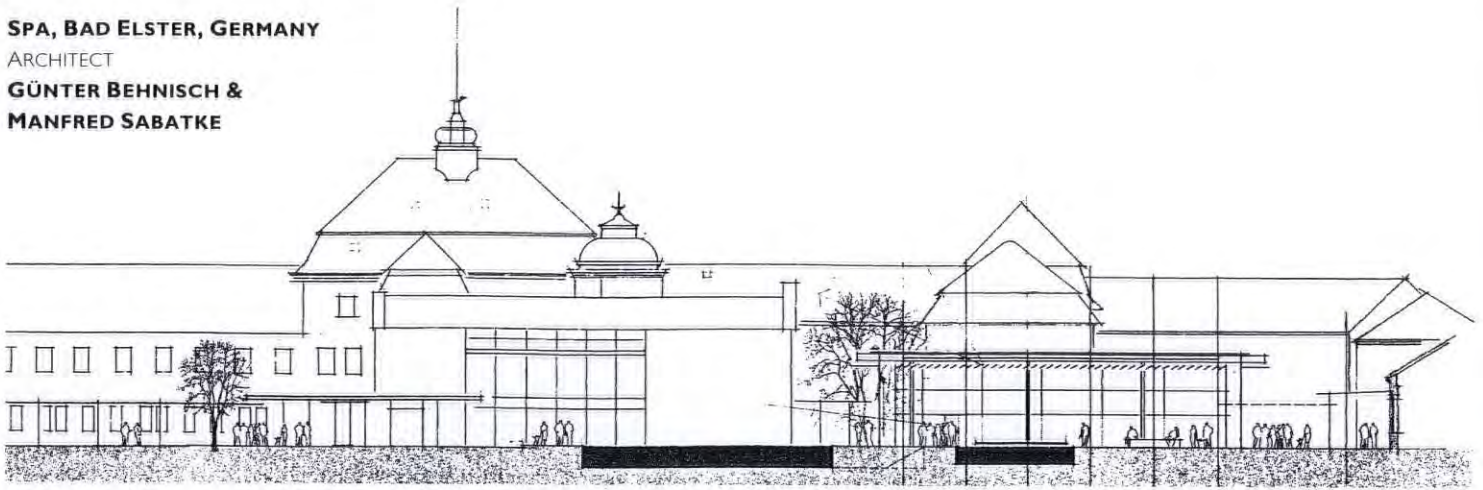
grid in the roof, the pools with their various depths and water movements are round and kidney-shaped, so the main supporting steel columns are irregularly distributed to accommodate them. With slightly heftier structure these columns could presumably have been restricted to the perimeter, but Behnisch welcomed their irregularity as another layer of his collage.<sup>3</sup> It means that the regulating geometry is not overplayed; that there is no classical homotopia in the Miesian sense. This weakens the sense of the pavilion as a structural entity and as a square platonic body in favour of the pools within it. The high transparency of the walls all around also means that the final visual boundary is more the



# SPA, BAD ELSTER, GERMANY

ARCHITECT

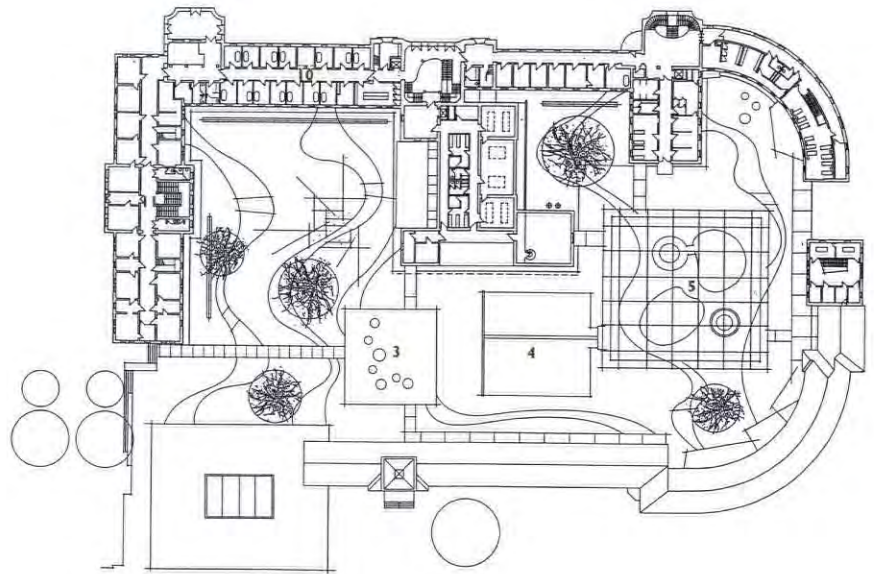
GÜNTER BEHNISCH &  
MANFRED SABATKE



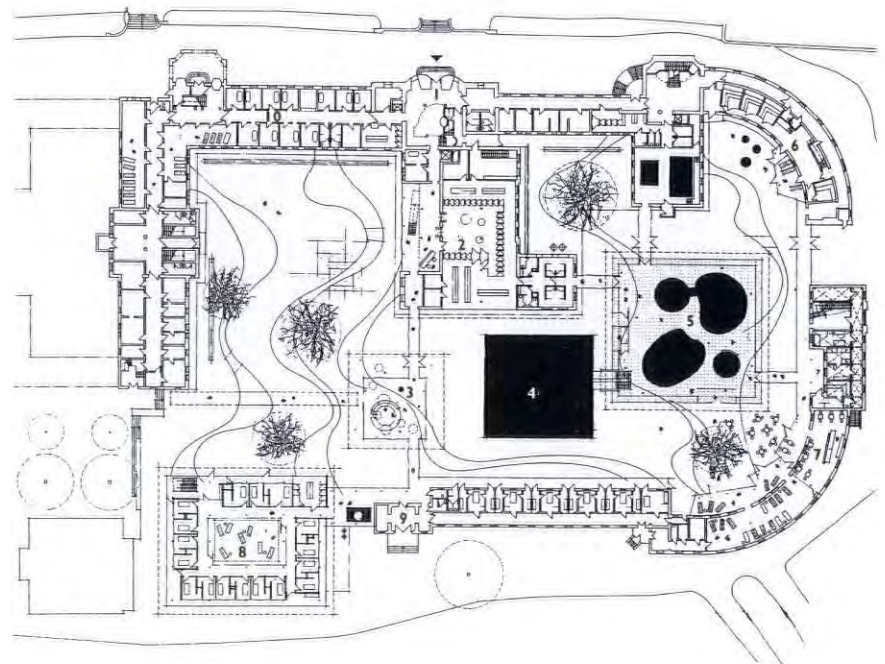
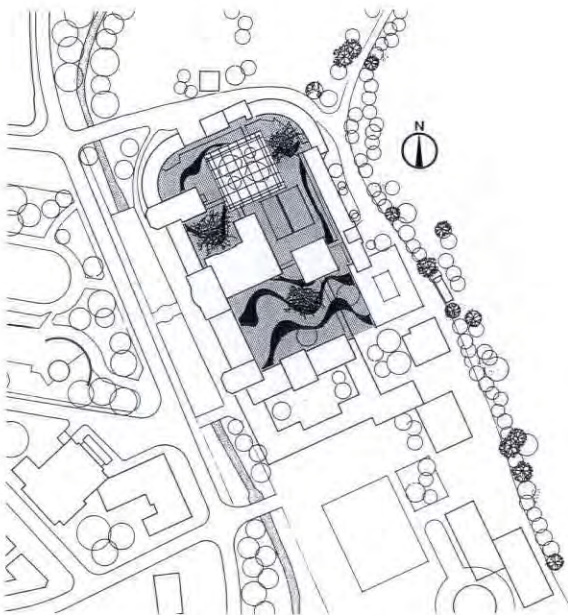
south-north section through courtyards and bathing hall

6  
New bathing hall, which is in effect both outside and in. Elaborate double glass walls allow space to be visually part of existing courtyard.

- 1 traditional main entrance
- 2 changing/showers
- 3 reception
- 4 open air pool
- 5 bathing hall
- 6 sauna suite
- 7 cafeteria
- 8 mud therapy
- 9 traditional secondary entrance
- 10 mineral water therapy
- 11 administration



first floor



ground floor (scale approx 1:1400)



Bad Elster is a small spa town on the fringe of Germany in mountainous country close to the Czech border. Springs were found a couple of centuries ago containing beneficial chemicals which could be ingested, absorbed by immersion or even applied as mud baths. As a place of cure and fashion, it developed rapidly in the late nineteenth century following approval by the Saxon kings. Various buildings for treatment and entertainment were erected, including a theatre. This building boom culminated in a huge symmetrical bath complex built just after the turn of the century on the east end of town, sandwiched between the small river Elster and the steep slope of the Brunnenberg. The baths stagnated under communism, requiring both refurbishment and reinvigoration to develop a role in the reunited Germany.

An architectural competition was held in 1994, won by Behnisch & Partners. Various new facilities were needed, particularly a new bathing hall, but above all the image of the place had to be transformed to attract new customers from the capitalist world. Spas have always been as much about recreation and socializing as about medical cure – think of Bath. Even within the realm of medicine, the psychological is as important as the physical, and the placebo effect not to be sniffed at. The Jugendstil buildings in sandstone were not by nationally famous architects but are locally valued, and the main facade is a key monument reflecting the pride of Bad Elster's grandest years. This was obviously not to be touched, nor did the formally treated ends lend themselves to alteration, but behind the great show of the front wing was a dismal courtyard. Long treated as a back, it was full of coal stores and junk, and cluttered with a sprawl of buildings added piecemeal over the years.

Short of wholesale demolition and reconstruction, there was no way to produce the kind of symmetrical grandeur suggested by the overblown front, and

even the back faces of the front block were formally inconsistent. So rather than trying to re-idealize the complex around an imaginary Baroque plan, Behnisch and his team decided to accept the better accretions within an asymmetrical collage-like composition. Three new buildings were added in a modern vocabulary to contrast starkly with the old. Square, glass-walled and flat-roofed, they were conceived as free-standing pavilions. To provide weather-tight connections to the older buildings, glass-sided corridors were added, and glazed galleries were tacked onto existing facades. To understand the formal and spatial arrangements from plans and views is not easy, but, on the spot, ambiguities are enriching and do not confuse, for spaces and routes are clear.

The two larger Behnisch additions are the square bathhouse at the centre of the northern court and the rectangular treatment pavilion at the south-east corner. A third smaller but spatially powerful new element is the reception pavilion set near the centre of the plan. Along with its glazed links, this square of glass with a slab roof both sets the boundary between the two main courts and marks the crossing point of the two principal routes. Approaching from the south end, you slip informally past the east of an existing facade to discover the larger of the two courts, which has been left open to the public. A pergola guides the path towards the entrance at the reception pavilion. Through glazed links tying this pavilion to the rest of the complex you see, but cannot enter, the bathing court beyond.

The primary entrance to the whole complex, however, is still the centre of the old west front, whose axis has been pulled on through. Entering the old doors, you pass through the lavishly decorated stair-hall to discover a new galleried foyer behind. Double-height glazing allows a view to the large court to right, while to left, set within an existing building, are changing





**SPA, BAD ELSTER, GERMANY**

ARCHITECT

**GÜNTER BEHNISCH &  
MANFRED SABATKE**

- 1  
Inner court, Looking south with new  
bathing hall right, existing (refurbished)  
open air pool and reception pavilion.  
2  
Formal Jugendstil front.  
3  
Pergola guides path to ...  
4  
... reception pavilion.  
5  
Main court, with glazed links  
connecting old and new.



# WATER SPIRIT

Reworking a hundred year old spa complex in Bad Elster, Germany, Behnisch and Sabatke relate new and old, interior and exterior, private and public spaces in a complicated weave.



**COMMUNAL GARDENS, SOCIAL HOUSING,  
KITAGATA, JAPAN**

LANDSCAPE ARCHITECT  
**MARTHA SCHWARTZ**

11

The entire linear spine of the garden is raised by one storey, recalling the topography of the rice paddies that used to occupy the site.

12

Sunken children's play area.

13, 14

Details of the Iris Canal, a long boat-shaped garden with wire sculptures and planted pots.

15, 16, 17

Inside the Four Seasons gardens. Each has a very different character.

16



15



17



blocks enclose and define an irregularly-shaped central garden space. This space is used by many different kinds of residents, reflecting the social mixture of the housing blocks, from young families to the elderly. Before its present incarnation as housing, the site was used for rice production, its landscape characterized by a network of sunken fields, raised terraces and dykes to contain the flooded rice paddies. The strong geometric figure of these enclosures provides a metaphor for the creation of a series of sunken garden rooms or enclaves. The entire linear spine of the garden is raised by the height of one storey (around 2.5m), lifting the garden off the ground plane and giving apartments at first floor level a direct visual connection to the landscape. (There is no living accommodation at ground level, as all

the blocks sit on pilotis, with space for car parking in between.)

Through the use of diverse landscaping, texture, colour and water, the various enclaves provide opportunities for passive contemplation or more active recreation. Willow Court is a sunken flooded area with willow trees and wetland vegetation, traversed and enclosed by a boardwalk. Four Seasons is a series of miniature gardens that express the spirit of each season, enclosed by vividly coloured translucent walls, like stained glass sculptures. In the Stone Garden, squat pink stones interspersed with spitting fountains form a circular play pool for children. Slender shoots of bamboo are planted at intervals in a long, wedge-like garden, with a coruscating orange ground plane. A boat shaped area contains a row of pots with shrubs and

delicate wire sculptures. Throughout the scheme, tiers of steps leading into the sunken areas provide informal seating and car parking is screened by hedges of dark cypresses.

Designed to be legible from above, as the garden is overlooked by the apartment blocks, the strong geometry of the hard landscaping articulates the various elements. The use of predominantly hard surfaces is also intended to reduce maintenance. With its layers of inventive materiality, the garden is like a multi-dimensional stage set for the modest human dramas of the residents' lives. It also connects with place and culture, uplifting and enriching Kitagata's public realm. PHOEBE CHOW

**Landscape Architect**  
Martha Schwartz, Cambridge, USA  
**Photographs**  
Martha Schwartz



central part of Japan. Initiated by Arata Isozaki, the prototypical project aims to address the problems of public space and housing in a multi-layered way, and provide politicians, developers and architects with possible paradigms for future development. The initiative was supported by the governor of Gifu Prefecture, Taju Kajiware, who originally trained as an engineer and has a strong interest in architecture.

An all-woman group of architects and designers was invited to participate, comprising Akiko Takahashi and Kazuyo Sejima from Japan, Christine Hawley from England, and Elizabeth Diller from the USA. Each was commissioned to design an apartment block and the American landscape architect Martha Schwartz was asked to produce proposals for the surrounding

public spaces. Isozaki acted as overall masterplanner for the scheme.

The task was straightforward but far from simple: to design a set of apartments that could serve as an alternative to the reductivist postwar system blocks common to most towns and cities. There was also a twist: the blocks had to be designed without reference to a specific plot, even though the site was known.

Reflecting their diverse cultural backgrounds, each of the four architects proposed very different sorts of solutions. Inspired by the transformation of New York loft spaces into residential apartments, Elizabeth Diller employs flexible room dividers to demarcate and open up space. Christine Hawley's block of duplex apartments creates a sense of volume and

continuity, despite the inherently tight specifications of the brief. The proposals of the two Japanese architects are each based on typical vernacular dwellings in common use before the postwar standardization of housing. Akiko Takahashi explores the form of a subdivided square, found in Japanese farmhouses. Kazuyo Sejima's plan is based on a linear sequence of rooms along a corridor, resembling an *iniwa*, the garden passage elaborated in traditional town houses. These intriguing individual buildings will be discussed in more detail in a future issue.

Here, the focus is on the exterior public space element of the project, which unites and consummates the disparate quartet of blocks. Schwartz provides, in effect, a fifth building, a huge, habitable, outdoor room studded with incident and diversity. The



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13

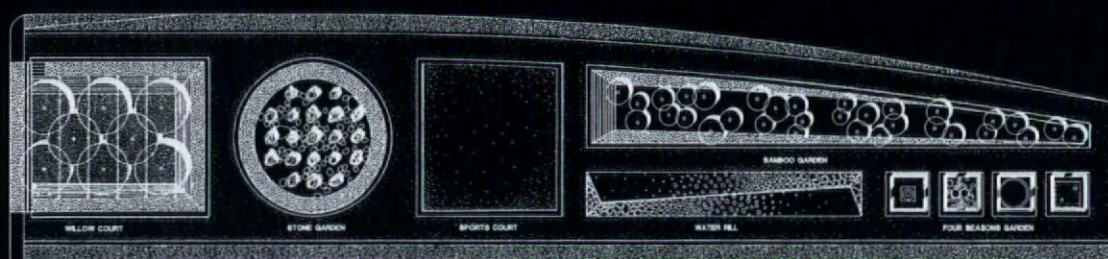


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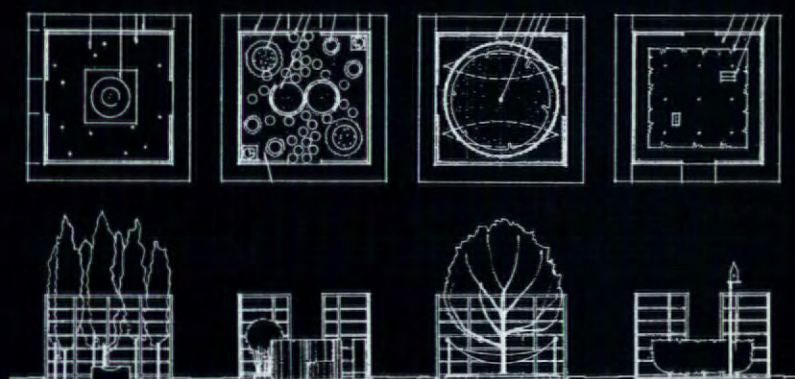
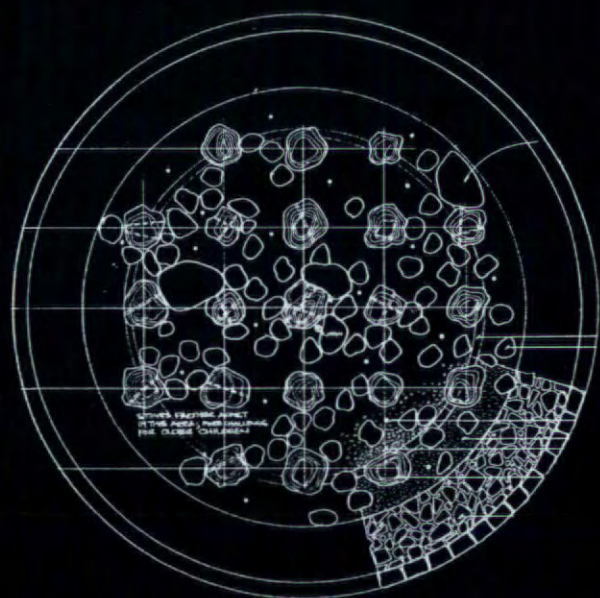


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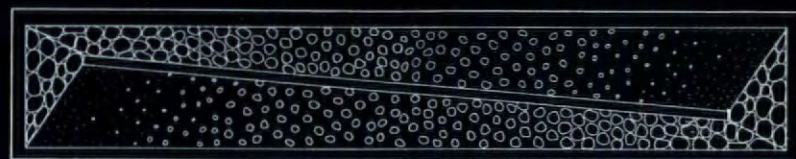




detailed plan of east end



plan and section of Four Seasons Garden

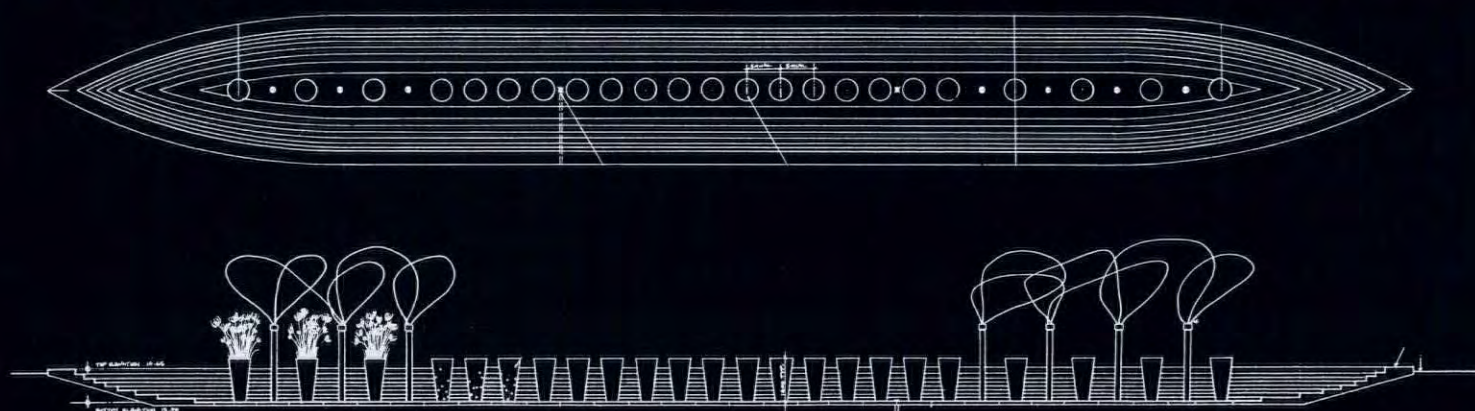


plan and section of Stone Garden



plan and section of Water Rill

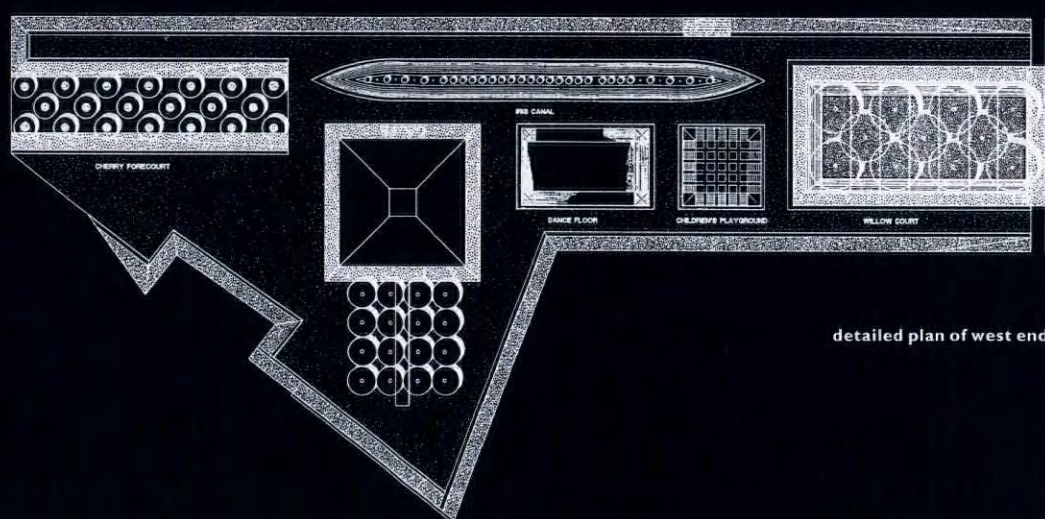




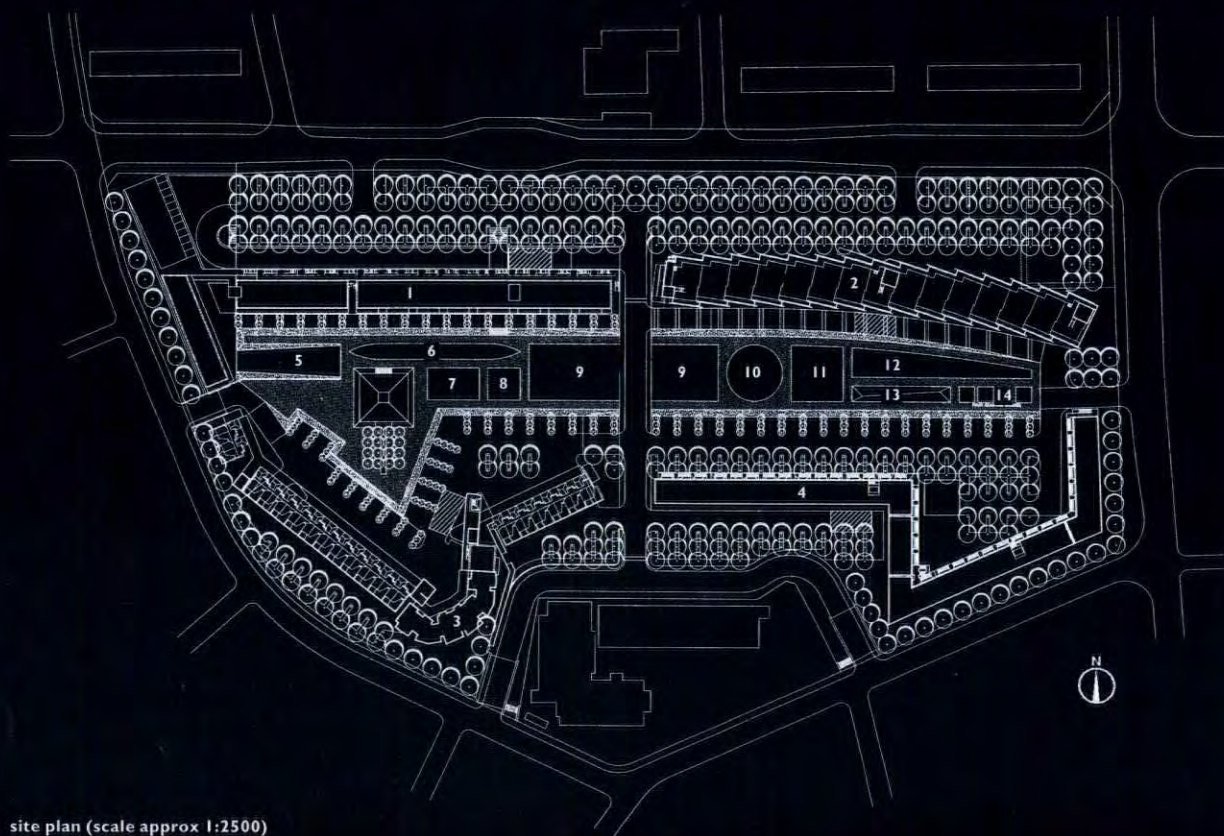
plan and section of Iris Canal

**COMMUNAL GARDENS,  
SOCIAL HOUSING,  
KITAGATA, JAPAN**  
LANDSCAPE ARCHITECT  
**MARTHA SCHWARTZ**

8  
Gently curved housing block by  
Elizabeth Diller overlooks the Willow  
Court and Stone Garden.  
9, 10  
Details of Stone Garden, with its rocks  
and fountains, which also acts as a  
children's play pool.



detailed plan of west end



- 1 Takahashi housing block
- 2 Diller housing block
- 3 Hawley housing block
- 4 Sejima housing block
- 5 Cherry Forecourt
- 6 Iris Canal
- 7 dance floor
- 8 children's playground
- 9 Willow Court
- 10 Stone Garden
- 11 sports court
- 12 Bamboo Garden
- 13 Water Rill
- 14 Four Seasons Garden





2 5



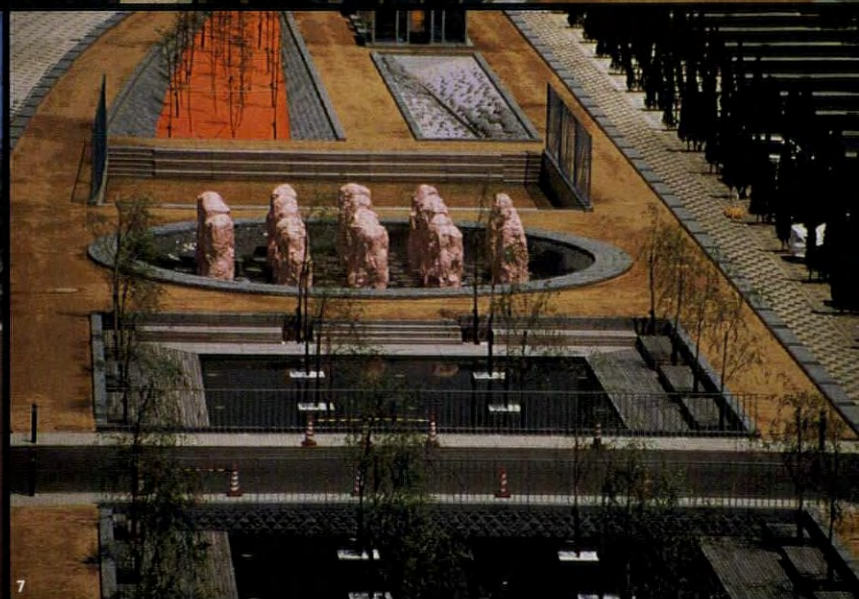
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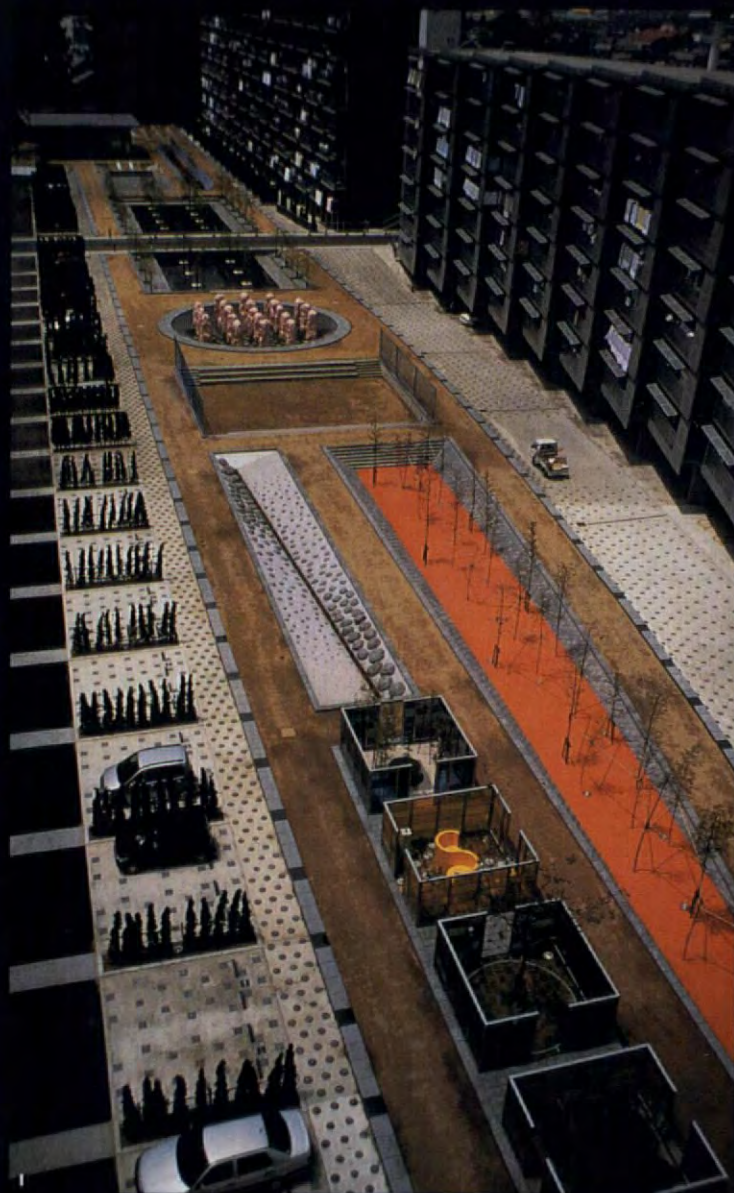


4



7





Historically, social housing in Japan has languished far behind that of its closest economic rivals, a source of much national chagrin and soul-searching. In the postwar period, when Japan's cities were being rebuilt, the most pressing task was the provision of basic housing in enormous quantities. Successive governments have largely been concerned with the number, rather than the quality of dwellings built, as this was regarded as an index of the success of economic policies. For many years, this kind of housing was referred to as 'rabbit hutches' for obvious reasons. Site planning was based on the configuration of rows of middle-rise slabs, designed to provide a bare minimum of sunlight to each unit. The exorbitant cost of land in urban areas only exacerbated the problem, with land often more costly than the buildings occupying it.

Today, social housing in Japan must address the major challenge of evolving new types of economic and planning policies that break with the dismal cycle of the past. Moreover, ways must be found to create communal urban space capable of mitigating the drabness and dreariness of most public housing developments. Soaring land values have ensured that the kind of public space common in Western cities simply does not exist and in view of this consistent and wilful neglect of the public realm, apparently modest gestures assume an increased resonance and importance.

One recent exemplary scheme that brings together and explores these issues is the Kitagata Public Housing Project in Gifu Prefecture, just north of Nagoya in the

## KITAGATA GARDEN CITY

This ambitious development is intended to suggest new paradigms for Japanese social housing. At its heart is a generous and animated public space that unifies the various housing blocks and enriches the quality of life.

COMMUNAL GARDENS, SOCIAL HOUSING, KITAGATA, JAPAN

LANDSCAPE ARCHITECT

MARTHA SCHWARTZ

1

The space between the quartet of housing blocks is treated as a great outdoor room that unites the disparate buildings.

2, 4, 5

Details of the Four Seasons Garden, a series of enclosed gardens planted to reflect the changing spirit of the seasons.

3

Bamboo Garden, with its spindly shoots of bamboo rising from a vivid orange ground plane.

6

Coloured translucent walls enclose the quartet of Four Seasons gardens.

7

The strong geometry of the hard landscape is intended to be read from above.





Canaletto's evocative depiction of the diversity and animation of eighteenth-century Venetian life as captured in his painting *The Clocktower in the Piazza San Marco* c1730, Nelson-Atkins Museum, Kansas City, USA. The public space forms the backdrop to public life; without these architectural and urban frameworks, society is impoverished.

lated by a global community of real users, indulging in all kinds of activity – shopping, browsing, chatting, studying, being entertained, stimulated and informed. Unlike Piazza San Marco, it is spatially infinite and phenomenologically abstract, untouched by the effects of climate, time, seasons, geography or physical humanity.

Cyber fiction writer William Gibson is a prominent speculator on the consequences of such advancements. 'For millennia, architects have been concerned with the skin-bounded body and its immediate sensory environment – with providing shelter, warmth and safety, with casting light on the surfaces that surround it, with creating conditions for conversation and music, with orchestrating the touch of hard and soft and rough and smooth materials, and with breezes and scents. Now they must contemplate electronically augmented, reconfigurable, virtual bodies that can sense and act at a distance, but that also remain partially anchored in their immediate surroundings,' he proclaims.<sup>1</sup> Gibson's vision is seductively articulated, but his new virtual order is yet some way off and its potentially depopulating and negative effects on public space have broadly been resisted.

The relationship of public life to public space is dynamic and reciprocal and made up of many strands. The task of architects and urban designers is to weave these diverse elements into a sustainable, integrated fabric that takes account of the spatial, social and technical sys-

tems that constitute the private and public life of the city. The notion of the architect as weaver is a particularly useful and apposite metaphor, as Judith Kinnard describes: 'In rejecting collage in favour of weaving, one discovers a potential therapeutic metaphor that prescribes no specific or formal strategies beyond the notion of the city as a connected structure – a man-made network of individual threads that gains strength through their interconnection, which encourages the expression of their visual and tactile qualities. Such a conceptual model might encourage the development of analytical methods and urban design sensibilities promoting the creation of a city structure that is not rigid and brittle, but has the supple strength of woven fabric. The architect and urbanist might then be conceived not as the autocratic surgeon or artist, but instead a skilled craftsperson – a weaver carefully contexturing the fabric of the city.'<sup>2</sup>

Underpinning this thoughtful approach should be a recognition that the city is part of nature, balanced by a concern for social equality and a resolve to keep private initiatives under public control. Only then will it be possible to devise new and poetic public spaces capable of sustaining our pluralistic urban life. CATHERINE SLESSOR

1 'Cyborg Civics', William Gibson, *Harvard Architecture Review*, vol 10, 1998, p173.

2 'Contexturing the City', Judith Kinnard, *ibid*, p22.



In around 1730 Canaletto painted the Piazza San Marco in Venice. His picture is an intricately detailed portrait of the activities of daily Venetian life: clusters of people engaged in conversation, others crossing the piazza, some observing activity, children running about and playing, dogs stretched out in the sun, vendors and hawkers along the edges. The space is filled with energy and a palpable sense of the enjoyment to be derived from spending time in such a lively public setting. In Canaletto's painting, everyone seems to have a place, with ample opportunity to engage in the various activities depicted by the artist. The minutiae of public life enrich and animate the scene. Over two hundred years later, the piazza still looks much as it did in Canaletto's day and is still the backdrop to the same sorts of activities.

The existence of public life is a prerequisite to the development of public space. Public space is the stage upon which the drama of communal life unfolds. The streets, squares, parks and public buildings of towns and cities give form to the ebb and flow of human exchange. Such spaces are an essential counterpart to the more settled, private places and routines of work and domestic life, providing channels for movement, communication and common spaces for recreation and contemplation. In all communal life there is a shifting balance between public and private activities. Within this equilibrium, different cultures place a different degree of emphasis on public space. In Mediterranean cultures, civic and religious power is manifest in palaces, town halls and churches that face main streets and squares. In Muslim North Africa, public space is limited – apart from markets and shopping streets – yet the private domains of the home, mosque and Koranic school are rich in form and expression.

### Places, spaces and meaning

From the Greek agora to the contemporary mall, the forms of public space are a direct reflection of society's public and private values. Throughout history, communities have developed public spaces that support their needs – markets for commercial transactions, places for sacred celebrations, or sites for local rituals. Specific places acquire meaning through their functions, further intensifying their role in people's lives. The river used for laundering clothes can be a place for exchanging information. The market has historically played a role in communicating local news, providing a context for political behaviour. Public places are a source of social exchange and also often a ral-

lying place for demanding wider personal and political rights – the fall of Communism in Eastern Europe was precipitated by mass demonstrations in public settings. But the form of public space can also be used to exert authoritarian control. The axes, *allées*, triumphal arches, colonnades, rigidly symmetrical planting and carefully controlled vistas of past landscapes are vivid expressions of domination.

For most people, the various parts of the day are distributed over public and private spheres. Examples of individuals living largely private or anti-social lives are the exception rather than the rule. The balance of public and private life and its effect on space emerges from a complex set of factors – physical, social, political and economic – that have evolved through history. In ancient Rome, all wills had to be opened in a public setting – a basilica or forum – and this had to take place during the day with witnesses in attendance. Conversely, marriage was a completely private activity requiring no public authority. Over time, changes in the nature of family life have significantly affected the public/private balance. By the seventeenth century, the concept of domestic privacy – formerly a luxury of the well-to-do – slowly began to reach the middle and lower classes, stimulated by social and economic changes, notably the separation of the home from the workplace. Privacy has since become a cherished aspect of Western life, assiduously protected by constitutional laws and public policy. At the same time, many of the settings for public life have disappeared. Strategic interventions of capital have violently transformed the public substance of the city into a privatized realm, reconstituted for the few rather than the many. Spaces that were once sites of markets, recreation and social intercourse have been lost or made redundant. This must be a profound source of regret. When public life and public space are lacking or neglected, people become isolated, eroding any sense of communal spirit and cohesion.

### The intimate society

Contemporary social and political systems, especially as they affect cities, tend to encourage privatization as people are drawn inexorably inward by their work and personal lives. The growth of today's intimate society has been fast forwarded by advances in communications technology and the rise of the virtual realm. From its modest beginnings, the World Wide Web has evolved with dizzying rapidity into the ultimate virtual public space, a vast, throbbing cyber agora popu-

# PUBLIC ENGAGEMENT

Throughout history, public space has formed the backdrop to public life, for commercial transactions, social exchange, entertainment, protest and contemplation. Now as Western society becomes more introverted and private, such spaces are under threat, but the need remains for poetic and pragmatic responses to public life.





## Modern urban architecture

CREATIVE  
WEAVE  
GKD  
TECHNOLOGY

The trainstation for the EXPO 2000 in Hannover is suited well to the high demands of modern urban environment. The semitransparent clothing of woven architectural wire mesh allows communication and orientation while giving full shelter. Differing daylight conditions shape it an ever transforming urban installation.

Architects: Despang



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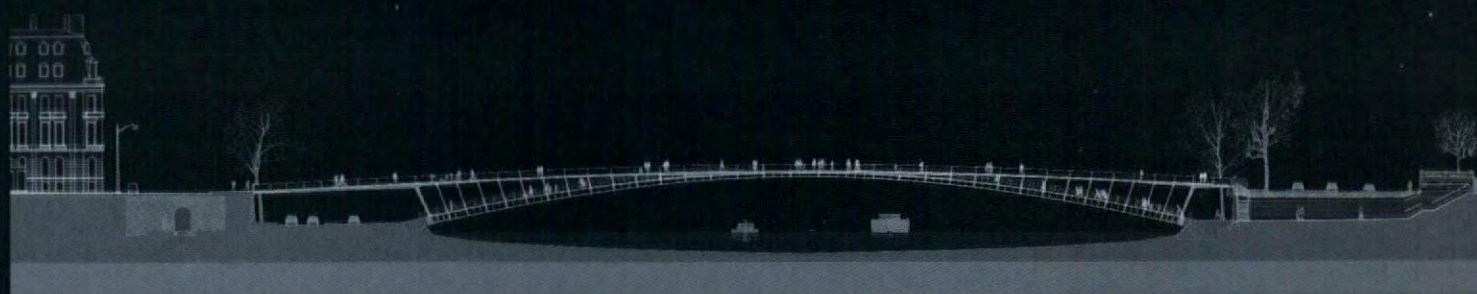
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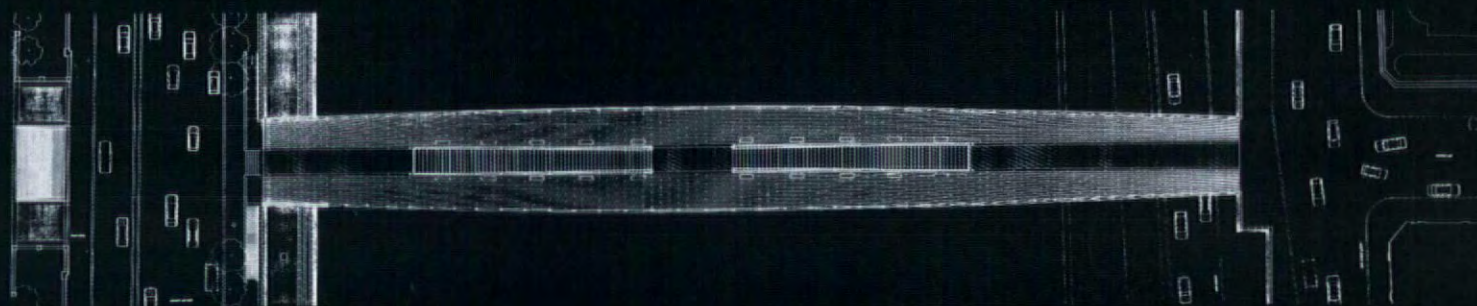
introverted walk through a cage of steel girders, barely suspended above the water and with views contained and framed by the structural elements. The two experiences of crossing the river are entirely different. On the Right Bank, the lower level leads to a subway to the Tuileries, so that the journey from the gardens to the Musée d'Orsay is at last robbed of its more death-defying moments.

The bridge is proving something of a triumph, unlike the Pont Charles de Gaulle by Arretche and Karasinski, which links the Gare de Lyon with the Gare d'Austerlitz and seems to be popularly unloved. Solférino's spare geometrical forms, lightly slung across the water, has added a new and enjoyable dimension to crossing the city on foot. P.M.

**Architect**  
Marc Mimram, Paris  
**Photographs**  
Jean Marie Monthiers



longitudinal section



upper level plan (scale approx 1:1250)



## design review



In Paris, the new double-decker Solférino footbridge, by Marc Mimram, spans the River Seine between the Pont Royal and Pont de la Concorde, near the Musée d'Orsay on the Left Bank, and Rue Castiglione on the Right. The latest addition to the schemes being planned to upgrade Paris' infrastructure, the bridge is a worthy modern companion for the historic ones – Pont Alexandre III, Pont-Neuf and Pont des Arts – that have famously contributed to the city's romance. The structure replaces the bridge of 1859 and its 1961 successor.

The new bridge had to span the river with a single arch, without intermediate columns interrupting the water's flow or passage of river traffic. Its two levels link lower and upper quays on each side.

The span had by definition to be asymmetrical since it had to bridge the busy quayside

expressway on the Left Bank, which in turn makes the link with the lower quay dangerous for pedestrians; and on the Right Bank, the fast route renders the link with the upper quay difficult and blocks off access to the Tuileries. As a footbridge, rather than one carrying traffic, it is not subject to the same engineering constraints and so could explore the idea of structural lightness and transparency, and the relationship of the structure to water, sky and place.

Mimram's filigreed bridge consists of a shallow deck which makes the long span between the upper embankments and a lower arch. Slung underneath and tied to the upper deck at its highest point, the arch links the lower quays and allows pedestrians to move from one level to another. As a result, you can make an elevated journey along the top deck, or descend to the arch, and take an

# French connection

This new Parisian footbridge is a sleek, graceful solution to the practicalities of connecting various quayside levels.

- 1 The bridge elegantly thrusts across the Seine in a single span.
- 2 Riverside quays at lower level are linked with the embankment above.
- 3 A cage of steel girders provides new views along the river.







Bangkok has always had traffic problems: now Skytrain dominates ...

structure change was required, so in 1994 work began on 60km elevated monorail that would link the centre with the airport. This has yet to be completed, but the first phase, consisting of a 23.5km city centre two line route, was opened in December 1999. Averaging a speed of 35kph, the Skytrain gracefully sweeps over the traffic below, which rarely exceeds 14kph. The train is not only faster and cleaner, but with an operating sound output of 0.1dB, is also significantly quieter than buses or the precarious three wheeled tuk-tuks.

The Skytrain is elevated on a prestressed concrete viaduct supported on massive in-situ columns. Erected segment by segment, spans varying from 35m to 60m negotiate diverse site constraints and conditions, which include the structure dipping its feet in the dirty city canals. While a project of this scale is impossible to build without causing huge disruptions to city life, no roads were closed during the six year construction period. Yet inevitably, the monumental viaduct structure had raised issues of scale, massing and proximity to existing buildings. Following the route along two of Bangkok's main roads, Silom and Sukhumvit,

some areas have been transformed into dark oppressive tunnels, but conversely, new elevated public spaces have been created that offer people a spectacular new reading of the city. Viewed from one of the 23 station platforms 12m above the bustling streets, or en-route from inside the generously sized carriages, Bangkok is revealed as a far greener city than is initially apparent. Gardens normally hidden behind perimeter walls are revealed, as are remarkably dynamic roofscapes. The scale and proximity of the city's fabric takes on new dimensions.

The overused Western conservationist phrase 'in-keeping' has no place in Bangkok. Here the city's fabric expresses and reflects the strain that modern life places on the traditional. Composed civic gestures are not part of Bangkok's character. If the sight of brash new buildings or mega-structures next to traditional Buddhist temples is likely to upset you, then wait until you see a saffron-robed monk walking barefoot along the streets with mobile phone and Marlboro Lights in hand.

If architecture is ultimately about creating order for the benefit of the city and its people, then Bangkok's definition of order is very different to that of other Asian centres such as Singapore. While Bangkok seems to resist order, instead drawing its appeal from an insouciant acceptance of city life with all its idiosyncrasies, Singapore has been described as 'the most advanced city state in human civilization ... the future of urban living ... which many countries are lining up to copy'.<sup>5</sup> But Bangkok, with its contradictions, juxtapositions and layers of history surely offers an equally attractive alternative model that somehow fuses the past with the future. ROB GREGORY

1 Hoskin, J. Bangkok - Subways, Skytrains and a City Redefined. Thailand: Curiosa Publications 2000, p.2.

2 Ibid, p.21.

3 Teraviel, B.J. Through Travellers' Eyes: An Approach to Early Nineteenth Century Thai History. Bangkok: Editions Duang Kamol, 1989, p.204.

4 Cummings, J. Bangkok. Australia: Lonely Planet Publications, 1999, p.322.

5 'Soc. Culture, Singapore' by David Turnbull. The Architecture of Fear. Princeton Architectural Press, 1997, p.227.



... a city otherwise served by ferries on the river ...



... and still, of course, overwhelmed by the car.



## may

AR in May continues exploration of the public realm, largely concentrating on the nature of interior space for public use. Nyréns Arkitektkontor have made an exemplary library in Linköping, Sweden, which offers a gentle luminous space in a park for quiet contemplation. Williams and Tsien's swimming pool at Cranbrook in the USA is renowned for its subtlety and thoughtful resolution of both human and tectonic issues. Two religious buildings, Pierre-Louis church at Bercy near Paris and Höger Hare's Catholic Centre in Berlin, show very different approaches to the numinous. Juan Navarro Baldeweg's new Altamira Museum in Spain brings the architect's intense concern with myth and its revelation in construction to bear on reinterpreting one of the most famous prehistoric sites in the world.

Leonhard Lapin contributes a view from Tallinn, Estonia, a country where after a long depression, architectural talent is beginning to flower again. Our monthly house is by Benson + Forsyth - a sympathetic conversion of nineteenth-century cottages on a factory site in north London. And we shall of course have our regular articles like Delight, Design Review and Browser. Get 12 inspirational issues delivered to your door at a discount by using the subscription form. Or use our website, guaranteed secure for monetary transactions:

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Over the last 20 years, buildings with over six storeys have increased from less than 25 to over 1000.

## Letter from Bangkok

**Bangkok accepts city life with all its idiosyncrasies, and the many layers of history fuse past and future.**

Founded in 1782, Bangkok has grown at an astonishing rate. Since 1900, the city's metropolitan area exploded from 13.2sq km to more than 330sq km and its population has swelled from 300 000 to an estimated 10 million. More new buildings have been built over the last 20 years than during the previous two centuries, and the number of buildings with more than six storeys has increased from less than 25 to over a thousand.



Almost carefree acceptance of changing urban life ...

Bangkok's ability to mix and merge the varied layers essential to any authentic city distinguishes it from other Eastern metropolises such as Singapore, where history has been ruthlessly swept away to leave an efficient but sanitized modern metropolis. While this could be a result of the remarkable pace of change, it can also be seen as Bangkok's interpretation of the Buddhist principle of impermanence that places little value on the heritage of the manmade or the unnecessary preservation of the past. The result is a city endowed with an almost carefree acceptance of changing urban life and all its idiosyncrasies. Bangkok has been described as being both chaotic and serene, ancient and modern, sacred and profane, and as a city that panders to nouveau riche greed while embodying traditional values.<sup>1</sup> Despite these contradictions, Bangkok possesses an unmistakable sense of place and unlike other cities, cannot be divorced from its culture. It is both universal and regional.

While some may consider that the city has been ruined during recent decades by the pace of change, there is evidence that the city has always struggled to resolve issues such as the quality of its urban fabric and traffic congestion. These issues are as old as the city itself and not, as some may assume, recent phenomena. The authenticity of the city's architecture and the rationalization of its transport system are issues that can be traced throughout Bangkok's history.

Bangkok exhibited Post-Modernist traits long before the building boom of the 1980s. In his 1936 book, *Bali and Anchor*, Geoffrey Gorer wrote that Thai architecture is 'the same as Cambodian, but with knobs on – lots of knobs. Bangkok is the most hokum place I have ever seen, never having been to California. It is a

triumph of the "imitation" school; nothing is what it looks like; if it is not parodying European buildings it is parodying Khmer ones; failing anything else it will parody itself.'<sup>2</sup>

Similarly, as the following description of one visitor's frustrations demonstrates, criticisms over the state of Bangkok's transport system were evident as early as 1836, more than 160 years ago. 'One of the most annoying and grievous circumstances of any business in this country, is the delay incident in travelling even from one part of Bangkok to the other. When a person wishes to transact any business a mile distant which, at home, would easily be done in an hour, it will ordinarily require three or four here,' observed J.T. Jones.<sup>3</sup> Jones was describing the busy canal boat network that was unable to cope with the demands of the growing number of city commuters. Historically, the city has struggled to find a transport system capable of meeting the increasing demands.

In 1864 one of the biggest changes in Bangkok's transport history occurred when it was transformed from the canal-based Venice of the East to a road-based city that was to become Asia's answer to LA. With the shift made from water to road, horse-drawn trams (introduced in 1888) were replaced by electric trams in 1897. These went on to become the city's primary form of transport for almost 70 years. Eventually, following the postwar introduction of bus routes, the last stretches of track were encased in asphalt in 1965 to make way for cars and buses.

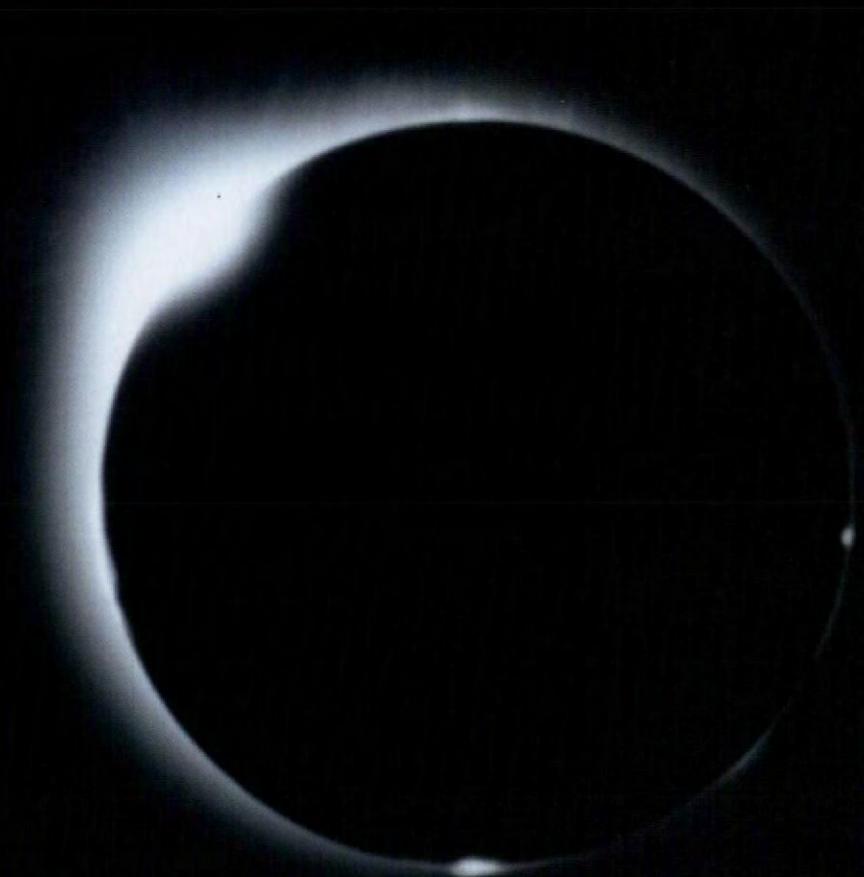
But the city has never had enough roads and gridlock has become another accepted feature of modern metropolitan life. Despite the fact that traffic flow is believed to have reduced by 25 per cent following the recent addition of elevated expressways and the repossession of tens of thousands of cars during the economic crisis of 1997, there is still a huge congestion problem. An estimated 3 million vehicles crawl through the streets, a figure thought to be rising by 1000 per day. Most cities have road surface figures of over 20 per cent of the overall city area, but Bangkok's roads account for a mere 8.5 per cent.<sup>4</sup> Clearly, another significant infra-



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**view**

worsening the problem of climate change. We cannot let this happen.

Yours etc

FERNANDA DE SOUZA SAVIOLO

Rio de Janeiro, Brazil

**RANDY BROWN'S SCHOOLDAYS**

SIR: When I was a student at UCLA in 1991, my professor Frank Israel had one of his projects published in the AR and it made Frank very proud to be on the cover. As a student I dreamed of one day having my project on the cover. Ten years later my dream came true. Thank you for your interest in my work. The AR is the best magazine published today.

Yours etc

RANDY BROWN

Omaha, Nebraska, USA

**CLASSIC V ANTI-CLASSIC**

SIR: In the name of creativity, every architect is producing an individual design and trying to defend it with personal logic. These designs are totally personal and do not flow out of any established architectural design principles. On the contrary, creativity should originate from commonly agreed rational thinking because architecture is not an abstract art form but functional art form. In this kind of present situation, broadly two methods are normally adopted for architectural design of buildings. These are 'Classic' and 'Anti-classic' approaches.

The arguments favouring 'Classic' approach are:

- Architecture is basically an art form. Art is associated with beauty.
- Architecture is not mere science but art also. Modern technology should be integrated but it should not dominate the art of architecture.
- Creativity in architecture should start on some rational and time tested methods. If it is not so, then any new design different from the existing can be defended as creative.

The arguments favouring 'Anti-classic' approach are:

- Creativity should be free without any binding rules. It should generate new ideas every time. Every architectural design should be innovative and creative within the given limitations of the situation.
- Every building should be assessed within a particular time period and location. Buildings of the past cannot be replicated today. We should adopt methods of construction to the changing times and should not stagnate on past prejudices. When we change our construction meth-

ods, we have to change our architectural designs to suit them.

• Architecture is different from other arts because it has to satisfy a particular 'function' for which it has been built.

Both these approaches have created a perplexing situation among the architects in judging the merits and demerits of an architectural design. Despite this confusion, the long history of building construction around the world establishes some undisputed facts:

- We construct buildings to create convenient spaces to perform an activity.
- A particular architectural design is adopted to suit the activity of the building. Any design which cannot accommodate the efficient functioning of the activity can be called bad design.
- History also reveals that each structure is constructed within a social and cultural context and to meet a specific need of its time.

• After the Industrial Revolution, many new building types were constructed to suit the changing life styles of the people. We cannot borrow or draw lessons from history for these new building types.

Based on these historical facts, six rational parameters can be derived for good architectural design. They are:

1 Integration with site and surroundings: every building should be integrated with the natural topography of the site and surrounding built environment.

2 Climate responsive: every building should be designed to suit its climatic conditions. Any building which is not suitable to the prevailing climatic conditions can be called a bad building.

3 Respect for ethnic culture: every building should accept and absorb local culture and architecture, otherwise it may become out of place.

4 Compliance to local building regulations: every building should follow local zoning regulations, building bylaws and so on. There are several instances when inhabitants were killed because of violation of building rules.

5 Application of appropriate building technology: there is a need to develop proper building technology to suit the respective living conditions of the inhabitants.

6 Aesthetically pleasing. The first impression of a building is by its external appearance only. Architects should not ignore the basics of design composition like Mass, Space, Proportion, Symmetry, Balance, Pattern and Contrast.

Buildings should be judged on the above parameters, not on the philosophies of the architect.

Yours etc

M. PRATAPRAO

Hyderabad, India



## letters

### POWER TO MOCKBEE

SIR: Your issue (AR March) on 'More with Less' was useful, showing that architects can make contributions to the welfare of all, not just a privileged class of the rich. But I'm confused about the school in Los Angeles by Morphosis. Clearly it is not for the privileged few, as your reviewer points out, it is a 'complex architecture that is also public'. But surely the sectional moves which generate large cantilevers and (in some cases) apparently meaningless volumes, pleasing to the architects doubtless, but not to many others, must be pretty expensive. Can the school really be no more expensive than 'a conventional building'. All power to Mockbee and his Rural Studio.

Yours etc

JOANNA BROWNLOW  
Ontario, Canada

### BATTLE FOR BRITAIN

SIR: I am a consumer, not a creator, of architecture. Forgive me if I offer a rather different take from John Winter in his review of *Single Family Houses: Concepts, Planning and Construction* in the February AR (p89).

He starts with "Yet another anthology of houses" one groans' before going on to a favourable review of the book, ending on the high of '... some of the houses are really marvellous - I wanted to get on the next plane to Portugal to see the house in Moledo by Eduardo Souto de Moura'.

Well, when I finally got to see the book, so did I. Drawn to the RIBA bookshop by this review I also found other books displaying mouth-watering contemporary houses (but shelved under 'Interior Design' for some reason). While displaying fascinating diversity these houses had one thing in common: virtually none of them were built in Britain.

Flicking through past issues of AR, one has to go back to May 2000 before reaching a review of a house in this country - and that not a complete house but a conversion (John Pawson's house). Since then some 20 foreign houses have been reviewed, plus any number of articles under 'Interior Design' with not a British domestic interior in sight. I wonder, in fact, when was the last time that a whole house for a private client (not an architect) was reviewed?



Irish generosity: local government offices, Dublin by Buchholz McEvoy.

Now, this reflects either shameful neglect or an absence of material. I would like to believe the former, which would at least be a simple matter to correct. But I fear it's the latter. Our acceptance in this country of pastiche junk at the 'quality' end of the housing market can be confirmed by a drive round any suburb or a casual glance at the property section of any Sunday newspaper.

It is obvious to the most casual visitor to one of our European neighbours - the Netherlands for instance - that this need not necessarily be so. The lack of equivalent standards of domestic housing in Britain is, in fact, shameful. It's argued that the public only want 'traditional' (aka pastiche or derivative) houses. But 'the public' have little choice, for reasons that could be the subject of a whole different letter.

'It says much for the creativity of our profession' says Mr Winter 'that there are so many fine houses built that do not make our magazines'. Well, yes, but it says nothing at all about the profession that so few of them are built here - whether recorded in magazines or not. The individual members of the profession may be blameless - they can only build for clients. But the profession as a body stands in the dock - if it's not responsible for creating conditions to enable domestic architecture to flourish, then who is? What is needed is a rage for change - not weary ennui. Shouldn't you be taking a lead?

Yours etc

JOHN HUNTER  
Orpington, Kent, UK



### IRISH INSPIRATION

SIR: Buchholz McEvoy's local government offices near Dublin (AR February) were a real inspiration. This is how government should relate to electors: open, generous, welcoming and clear. If this is what Irish architecture is really like today, more in your pages please.

Yours etc

JOHN FOWLER  
Sydney, Australia

### BRAZIL NUTS

SIR: PLEASE ACT! The Brazilian congress is now voting on a project that will reduce the Amazon forest to 50 per cent of its size. You may have seen that Greenpeace is today boycotting hardwood from the region. The area to be deforested is four times the size of Portugal and would be mainly used for agriculture and pastures for livestock. All the wood is to be sold to international markets in the form of wood chips, by multinational companies.

The truth is that the soil in the Amazon forest is useless without the forest itself. Its quality is very acidic and the region is prone to constant floods. At this time more than 160 000 square kilometres deforested with the same purpose are abandoned and in the process of becoming deserts.

Deforestation (and the subsequent processing of the wood chips) on this scale will also release a huge amount of carbon (which is currently locked up in the wood) back into the atmosphere





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Salonica, built in the early '90s by the late Kyriakos Krokos, as a fine example of what a good public building should be, with impressive handling of space, light and construction. It was, of course, procured by the state before present contractual methods came into force.

The winning buildings and the runners up are on show at the National Research Centre, Athens. Many will be shown in separate issues of the AR in the coming months. P.D.

*1 Professors Nikos Kalogeras (National Technical School, Athens), Savas Condoratos (School of Fine Arts, Athens), Wilfried Wang (Harvard and Berlin) and Editor of the AR, Peter Dawey.*

## SPECTRUM 2001

Spectrum 2001, the annual furniture fair, will be taking place 15-18 May in the Commonwealth Institute on Kensington High Street, London. As in previous years, the AR will be giving an Award for Excellence to the product new to the United Kingdom and judged the most worthy by an eminent panel of judges (Penny McGuire, AR senior editor and chairwoman; Alison Brooks, of Alison Brooks Architects; designer Thomas Heatherwick; and Steven Tompkins of Haworth Tompkins Architects). This year there are 15 new companies, exhibiting alongside firms such as Vitra, Herman Miller, Kvadrat, Ergonom, Knoll International, Kusch, Thonet, Wilkhahn and Fritz Hansen. In addition Material Connexion, the American library for new materials and processes, will be holding an exhibition and there will be the annual Spectrum lecture and flurry of evening receptions.

The exhibition will be from Tuesday 15 May to Thursday 17 May, 10am-9pm, and on Friday 18 May 10am-6pm. Pre-registration can be arranged from now onwards. Tel: 0870 4294420; or [www.spectrumexhibition.co.uk](http://www.spectrumexhibition.co.uk).

For information about special hotel and travel discounts, telephone First Option: +44 (0)207 7454 5005 (quoting Spectrum). Press contact: Danielle Benson, 27 Southover, London N12 7JG: Tel: +44 (0)208 446 9580. Fax: +44 (0)208 373 7677.



Special award: Krokos' Byzantine Museum, Salonica.

## browser

**Sutherland Lyall reviews important architecture websites.**

### Deep to dumb

About Architecture at [www.com/arts/architecture/](http://www.com/arts/architecture/) is a wonderfully indiscriminate site run by Jackie Craven of the big US About network.

Standard sections in the architecture site include advice on finding an architect, feng shui, great buildings, green architecture, house styles, magazines and a lot more on these lines. There's an architectural glossary, chart of the world's tallest buildings, a toolkit for working out how old is your (American) house and discussions on issues such as Does Suburbia Breed Violence? Attached to this discussion is a guide to the best articles and resources on, say urbanism.

So there is a mix of everything from academic to really dumb. Don't let the dumbing-down bits put you off this site: there are some really good sections.

### Green guides

Architects committed to sustainability have their own favourite sites out of the 160 000 or so to be visited using the Google search engine but here, for beginners, are five of the latest most interesting and useful:

[www.sustainableabc.com/](http://www.sustainableabc.com/)  
[www.reddawn.com/](http://www.reddawn.com/)  
[www.caad.ed.ac.uk/units/ESAU/](http://www.caad.ed.ac.uk/units/ESAU/)  
[www.aloha.net/~laumana/](http://www.aloha.net/~laumana/)  
 and [www.lib.berkeley.edu/ENVI/GreenAll.html](http://www.lib.berkeley.edu/ENVI/GreenAll.html).

### Still the best?

Last time we looked at [architext](http://architext) it was late 1999 and the site's url was:

[www.thehub.com.au/~morrisqc/architext](http://www.thehub.com.au/~morrisqc/architext). Lots of room for typing errors there. Now it's at the marginally less finger twisting <http://home.pacific.net.au/~morrisqc/architext> (note the absence of the customary www). Then we described it as 'One of the most comprehensive and useful architectural sites at the moment ... Information is on the whole up-to-date, carefully chosen and edited'. They promptly put that encomium on their home page, along with the Canadian Center for Architecture's 'one of the three best one-stop sites for architecture on the Internet'.

Constructed and maintained by Brisbane, Australia, Anthony Morris QC and architect Alice Hampson, it's awkward, clunky, curiously naïve in design, uses scarily big type and occasionally Roman numerals and is in serious need of a design overhaul. Actually it has probably got too big to contemplate a makeover. But if

you can ignore all that, this is a site you could spend a week roaming around, finding information about nearly everything about architecture.

### Useful in the office

It always happens on a Friday night when the office computer guru has gone home: you're faced with a file whose suffix, extension, type name, whatever you call them locally, you've never seen before and you haven't the faintest idea what application will open it. This is when you check out one of these sites: [whatis.com](http://whatis.techtarget.com) is a general computer encyclopaedic information site including extension explanations at <http://whatis.techtarget.com>.

The more singleminded <http://extsearch.com> has details about more than 1700 file extensions and directs you to the bulletin board of last resort [www.kresch.com/exts/ext.htm](http://www.kresch.com/exts/ext.htm) where you can ask about totally baffling extensions. What these sites can't do is supply you with the application to read the mystery file.

### Googie Woogie

If you don't live on the US west coast you probably haven't heard of Googie architecture. That could mean you have avoided the worst excesses of what, in the words of one admirer, is typified by, 'futuristic outrageous designs ... everything from oversize signs to curved, padded booths in turquoise and salmon shades. It is flagcrete and dingbats and terrazzo ... About the only word that defines Googie is kooky, daddy-o.'

Googie's was, apparently, a chain of coffee shops in Los Angeles during the '40s and '50s though another theory is that it was named for an outlandish coffee shop on the corner of Sunset Boulevard and Crescent Heights, LA designed by John Lautner. Detractors labelled these structures the Googie School of Architecture. Nevertheless architectural historians in the city of Anaheim (home to Disneyland) are supposedly now recording and archiving Googie (and the related Tiki: no don't ask) for posterity.

Though some Googie sites have disappeared, suggesting a decline in interest, Googie Architecture Online remains the definitive site. It's Chris Jepson's, it's dedicated and comprehensive at: <http://home.fea.net/~cjepson/Googie.htm>. Among other things it lists current campaigns over endangered Googie coffee shops and buildings. The site <http://www.drive-on-in.com/googie.htm> has useful links to related sites including the Southern California Chapter of the Society of Architectural Historians and several articles. And it's worth looking at the related east coast Doo Wop Preservation League at <http://www.doo-wopusa.org/FAQ.html>.



# view

HELLENIC ARCHITECTURE AWARDS HIGHLIGHT UNHAILED TALENT BUT REVEAL PUBLIC SECTOR PROBLEMS. SPECTRUM: AR AWARDS TO CELEBRATE NEW PRODUCT DESIGN. NEWLY REFURBISHED BROWSER COLUMN. VIEW FROM BANGKOK. LETTERS ON BRAZIL'S POTENTIAL FOREST ECO-DISASTER, IRISH CIVIC EXCELLENCE.



Privately funded: office and showroom in Athens by Issaia and Papaioannou: urban model?

## GREEK FIRE

The Hellenic Institute of Architecture's first national awards demonstrated a powerful range of talent, little known to the rest of the world, and even (up to now) often neglected in Greece. The international jury<sup>1</sup> chose from three categories: private houses, buildings privately owned but often open to the public, and buildings funded by the state or other public institutions. Quite clearly, private houses were the strongest sector. Greece has a client group which is prepared to spend money on modern buildings for their own use in a creative way, and a group of architects able to provide imaginative responses to site and programme as ingenious as contemporaries in the US or Australia.

The jury decided that the house on Aegina by George Makris and Yota Kalavrytinou deserved the award. But it was a very close-run affair. Other strong contenders included the house on Mykonos by Michalis Manidakis, a fine and sensitive example of how to create an oasis of calm in bleak and windswept landscape.

At the other end of the economic scale was Lena Mantziou-Venetsanou's little holiday tower house in the mountains at Dorida, built with local labour and materials (and the efforts of the architect's family). The Aegina house was chosen because in topographical, material and human terms, it was exceptionally well thought out. Everything you could touch had meaning and tactile satisfaction; every view and every space was carefully considered in relation to both site and use.

In the privately funded larger buildings category, a small office and showroom building on a rather obscure corner of central Athens designed by Demetrios Issaia and Tassis Papaioannou was chosen as prize winner, because of its modesty and its replicability. Its veiled, layered facades were environmentally appropriate for the climate, and provided a scale that could make a gentle city of great variety and flexibility (unlike most commercial buildings in Athens, or indeed in any other city). It was well but sparsely made in appropriate materials, and planned with precision for its tricky site.

The third category, of publicly funded buildings, was won by Morpho Papanikolaou, Irena Sakellaridou and Anastassios Kotsiopoulos for the new extension to the central library at the Aristotle University of Salonica. It was a most ingenious building, mostly underground, because the campus masterplan required a park on top. A chasm with an almost Aaltoesque undulating brick wall provided entrance to the new element, which could otherwise be approached down a drum in the lawn on top. Internally, though the building was largely buried, it is full of daylight, and when the jury visited, it plainly had the makings of an excellent, calm place for study and research.



Publicly funded: Aristotle University library, Salonica by Papanikolaou, Sakellaridou and Kotsiopoulos.



House in Aegina by Makris and Kalavrytinou: beautifully detailed, responding to site, climate and human need.

But its construction left a great deal to be desired. In Greece, as elsewhere in the EC, there is a very strong move to make the procurement of public buildings cheaper by removing architects from the job as quickly as possible. Hence there is little or no supervision of the construction process, and the quality of the result is usually much marred: at the Aristotle University library, this is only too clear internally, where details essentially well designed by the architects in the first place have been badly botched in execution.

The phenomenon was even more pronounced in the new EC office for professional development in Salonica, by Dimitris Katsourakis, Gregory Tsamperis and Georgia Abatzoglou. It is the first official European Community building in Greece. The brave architects had to face a 100 per cent unprogrammed enlargement of the brief, prohibition of users speaking to the design team, and without supervision of the works. It was an unhappy outcome of multiple messy bureaucratic marriages.

Partly as a result of disappointing present-day public buildings, the jury decided to make a special award to the Byzantine Museum in





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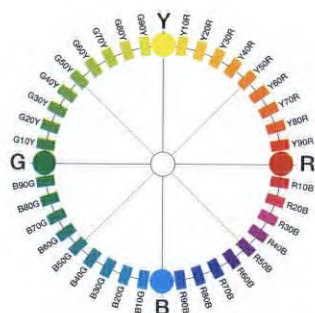
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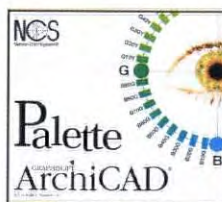


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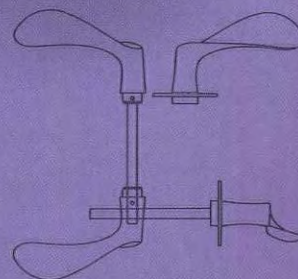
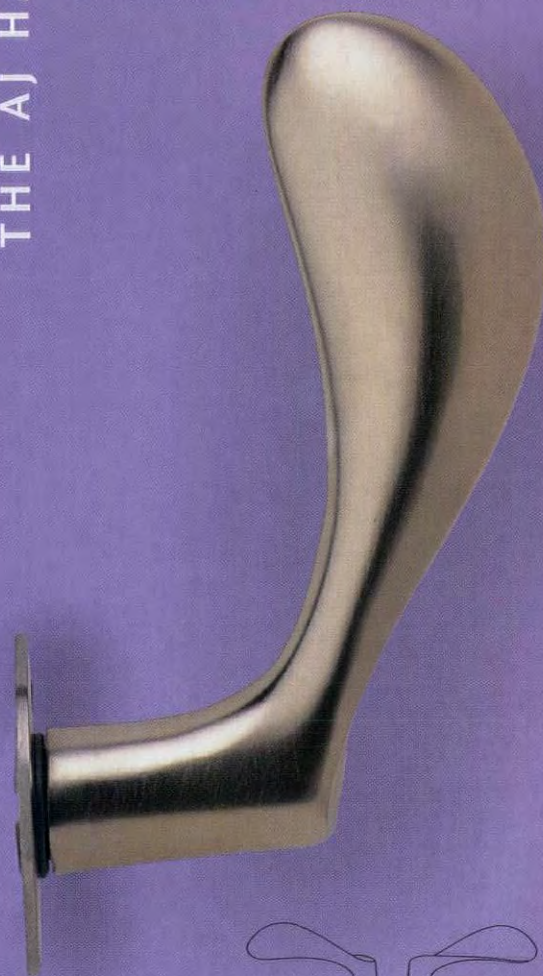
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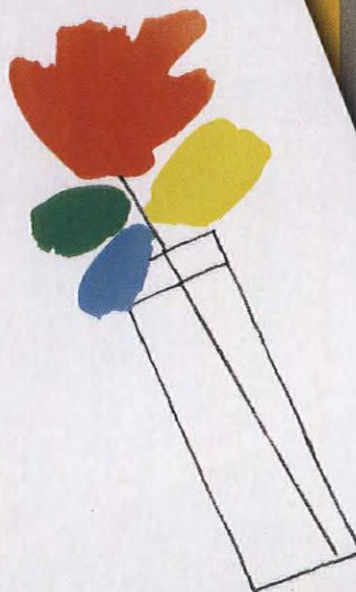
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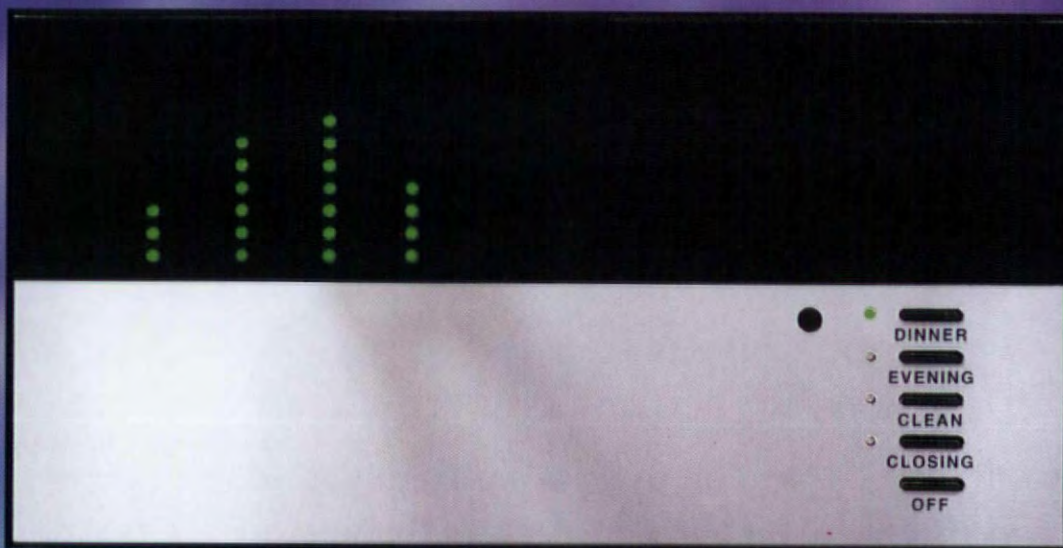




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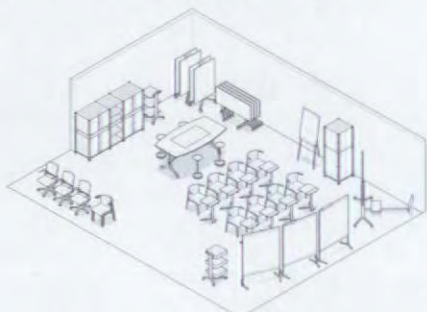
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## 2 pm Presentation

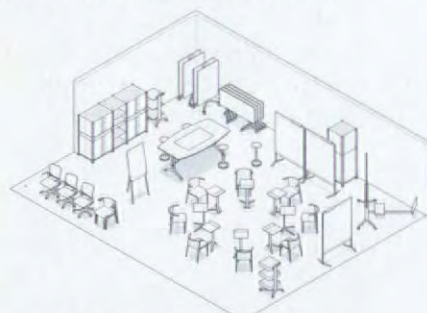
The room has been booked by a project team in order to give customers initial interim results. Plans, graphics and diagrams are clearly positioned on the pin boards, aligned in a curved configuration. The customer is shown a short video on the InterWall® to kick off the session.



After the presentation, agreed modifications are entered directly via a signal operated keyboard, checked on the InterWall® and sent to the customer and project participants by e-mail.

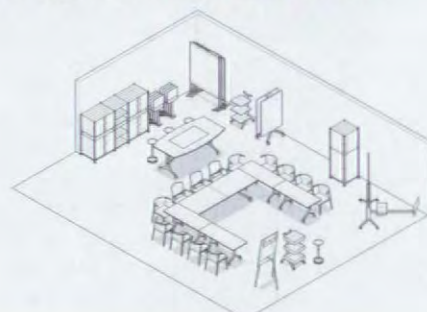
## 4 pm Discussion

As a project team is not functioning well, participants are invited for a frank discussion. Conflicts are dealt with without incorporating tables, which often create unnecessary barriers. The process is steered and regulated by a coach who notes accusations and problems on cards, which he immediately displays on the pinboards. At the end of the period of time fixed for the meeting, the whole group works through the cards constructively.



## 6 pm Training

The company offers its staff a foreign language course free of charge. The language instructor has selected an open, horseshoe table configuration for practising new language patterns in the form of a dialogue between course participants.



Roomware components which are a perfect addition to multi-task environments in terms of design and function. Even the Roomware prototypes won the International Design Prize 2000 of the Design Centre Stuttgart and an award from the Industrie Forum (if) in Hanover, Germany. Digital information can be integrated directly into teamwork by means of the unique InterWall®, a mobile and transparent electronic presentation and interaction display, and the InteracTable®, a high table with an integrated 50" plasma screen. Information can be presented, updated and compiled a new, and then be entered directly into the network again. This saves time, avoids transmission errors and is motivating due to its almost playful mode of operation.

Last, but not least, the innovative character of the working environment, due to



the integration of the real and virtual world during team processes, is a means of committing key players to the company, and of projecting a technological leading edge both internally and externally.

All elements of the Wilkhahn conference workshop (including Roomware components) can be combined as modules. This allows them to be put to versatile use in rooms of varying size, without any constructional modifications being necessary. It is, however, advisable to go through various application scenarios in advance with a view to establishing the most efficient system of electric supply and data ports – this should always go without saying when planning building structures which are fit for the future. Multi-task furnishing and equipment can be used not only in areas of co-operation in office buildings, but also in conference hotels and congress centres. Individual "tools" can also be used as a perfect addition to project and team offices, or even as elegant

and practical furnishing units in a home office.



The standard work "Edition Wilkhahn, conferencing, discussing, learning..., Interior and specifiers' handbook for communication areas", which won an award from the Stiftung Buchkunst, gives a comprehensive summary of the complex interrelations and interaction between communication motives and goals, structure of groups, communication methods, media support, space utilization and interior design, supported by numerous planning examples.

For more details enter 35 on AR enquiry card



Dictates of economic reason and ecological responsibility: Multi-task environment for communication and co-operation processes.

The requirements that office buildings have to meet are being transformed by the rapid technical changes in the office working environment: although individual work is becoming increasingly independent of time and space due to digitalization and miniaturization, processes, such as the creation of a social community, safeguarding corporate identity, innovation and changes in teamwork require environments conducive towards human contact and co-operation. Office buildings of the future will increasingly become places for communication and co-operation processes.

Seminars and training are intended to update and extend the skills and performance ability of "human resources", while workshops and interactive group techniques are used more to further innovation and changes processes. Conferences and meetings are in fact forms of communication that are utilized to project the inner structures of a community and to allow them to be experienced. Each of these types of communication requires specific interior layouts and methods for them to be able to fulfil their purpose in a goal oriented and efficient manner. On the other hand, economic reason and ecological responsibility dictate that there should not be any spaces and facilities which are reserved exclusively for every individual purpose, which are only used temporarily and are empty for most of the time.

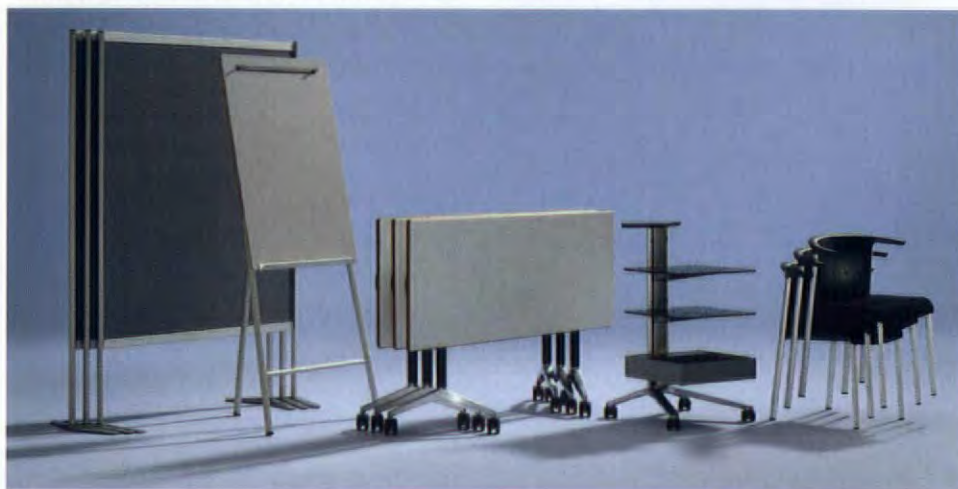
Wilkhahn has developed multifunctional furnishing concepts to meet this need which considerably enhance space utilization: the conference workshop as a multi task environment for communication and co-operation processes. High -quality, coherently designed "conference tools" can be combined as

required as they are modular, mobile and extremely simple for participants to arrange themselves: conference tables, seminar tables and small, mobile desks can be either folded up or down and stored compactly. Lightweight stacking chairs, easy-to-store pinboards, sturdy flipcharts and mobile servers for catering, materials and utensils and technical equipment can be combined with high versatility. The range even includes a mobile, free-standing lectern for lectures and presentations. All these possibilities make a changeover in communication methods an utilization of an interior child's play.

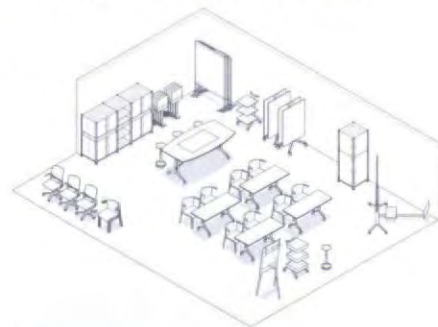
Material and design are also important in addition to pure functional criteria, to ensure that these "communication tools" are accepted and used by both staff, middle and top management. Timeless design, high-quality materials and the ability to be teamed with the general interior design concept are necessary for creating a synthesis of community and individuality, as well as of continuity and change. These "tools" are based on the Confair range, the trailblazing concept that has not only won the innovation prize "Architecture + Office" on the occasion of Oratec 2000. The "tools" also include the mobile, foldable Timetable range, which is intended to be teamed with Confair in terms of design.



In the future, the real environment will also be combined with the world of digital information by means of the unique.



## Examples of application scenarios



### 8 am Seminar

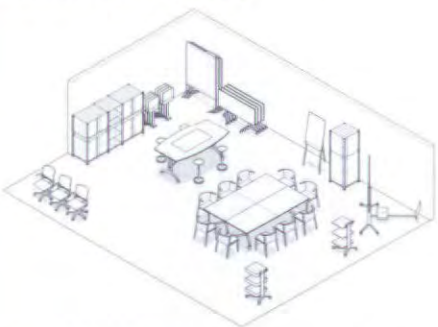
A speaker introduces an eight-strong group to a new subject. He uses the InterWall® with a PowerPoint presentation to display information. Participants are sitting in twos at tables, so that they can converse briefly in between and solve minor questions of comprehension.



### 10 am Teamwork

The group has been divided up and allocated various tasks. The pinboards function both as space dividers and also as displays for collecting ideas and classifying topics.

Finally, the project plan is modified directly on the InterTable®, and is subsequently available to all those responsible and involved via the Intranet.



### 12 am Conference

In the lunch break the room that is not being used at the moment functions a venue for a spontaneous meeting. Even the superior only takes barely three minutes to prepare the two prestigious folding table for the ten-strong session.

The reason for this ad hoc session – an se-mail – is shown in the original on the InterWall® during the meeting, and the joint decision is subsequently made known online.



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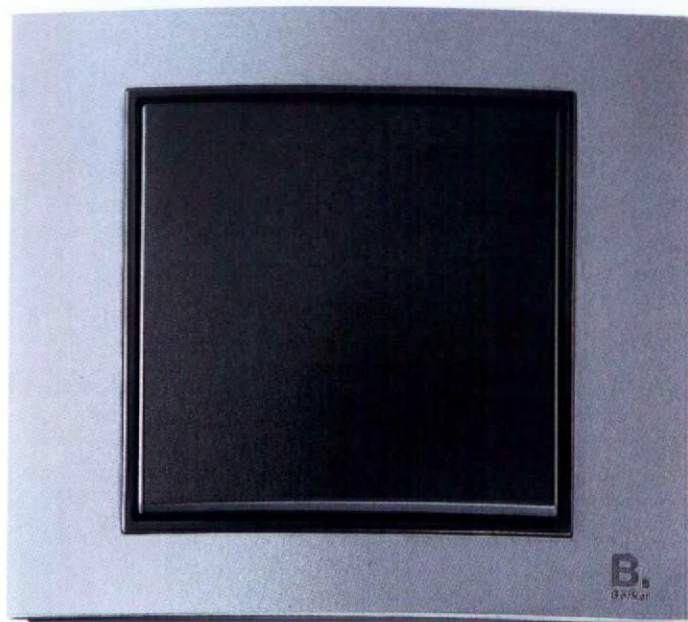
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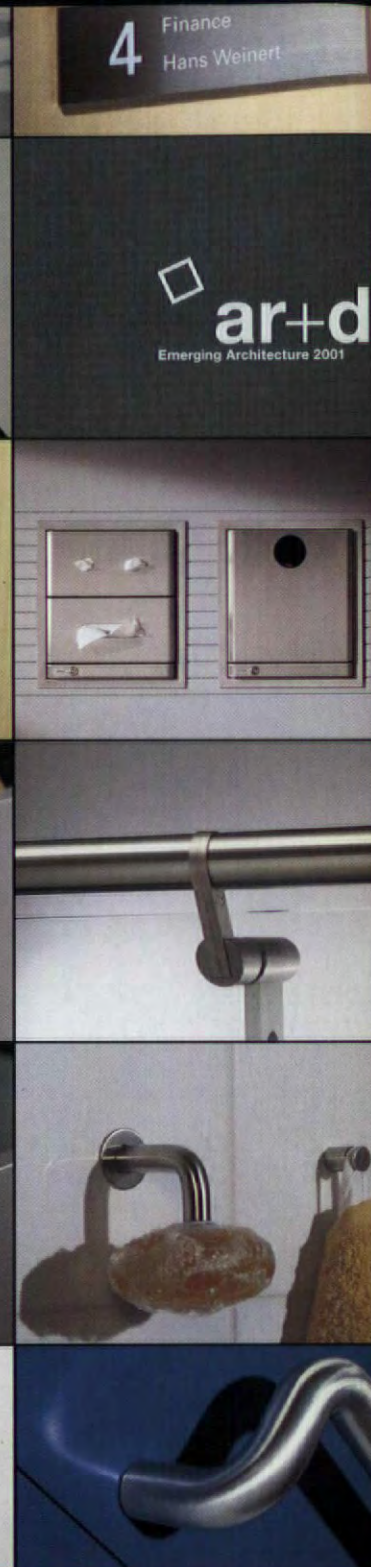
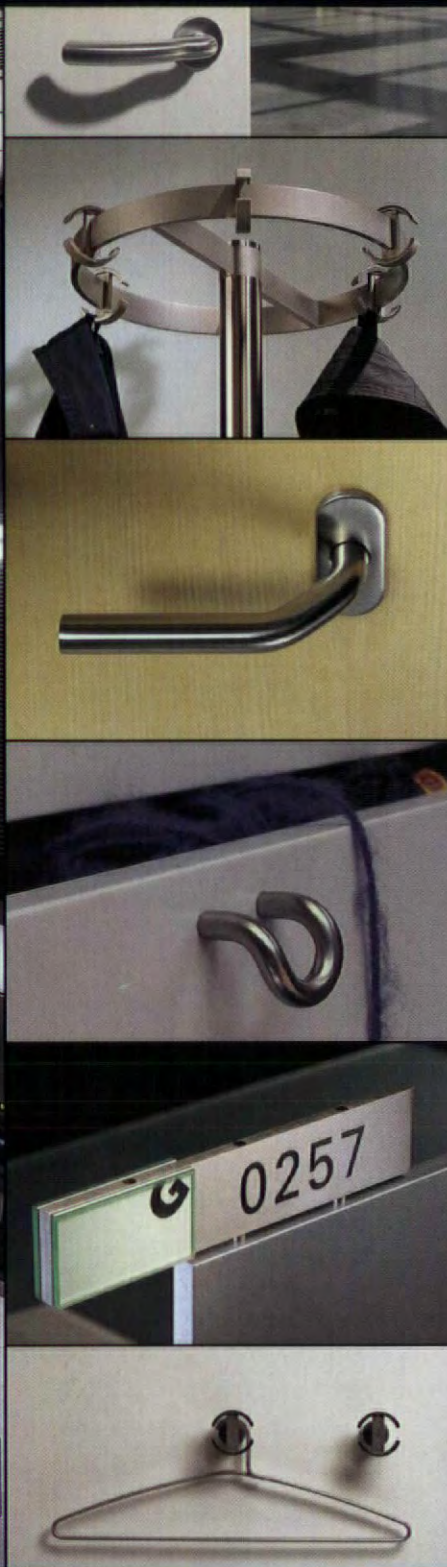
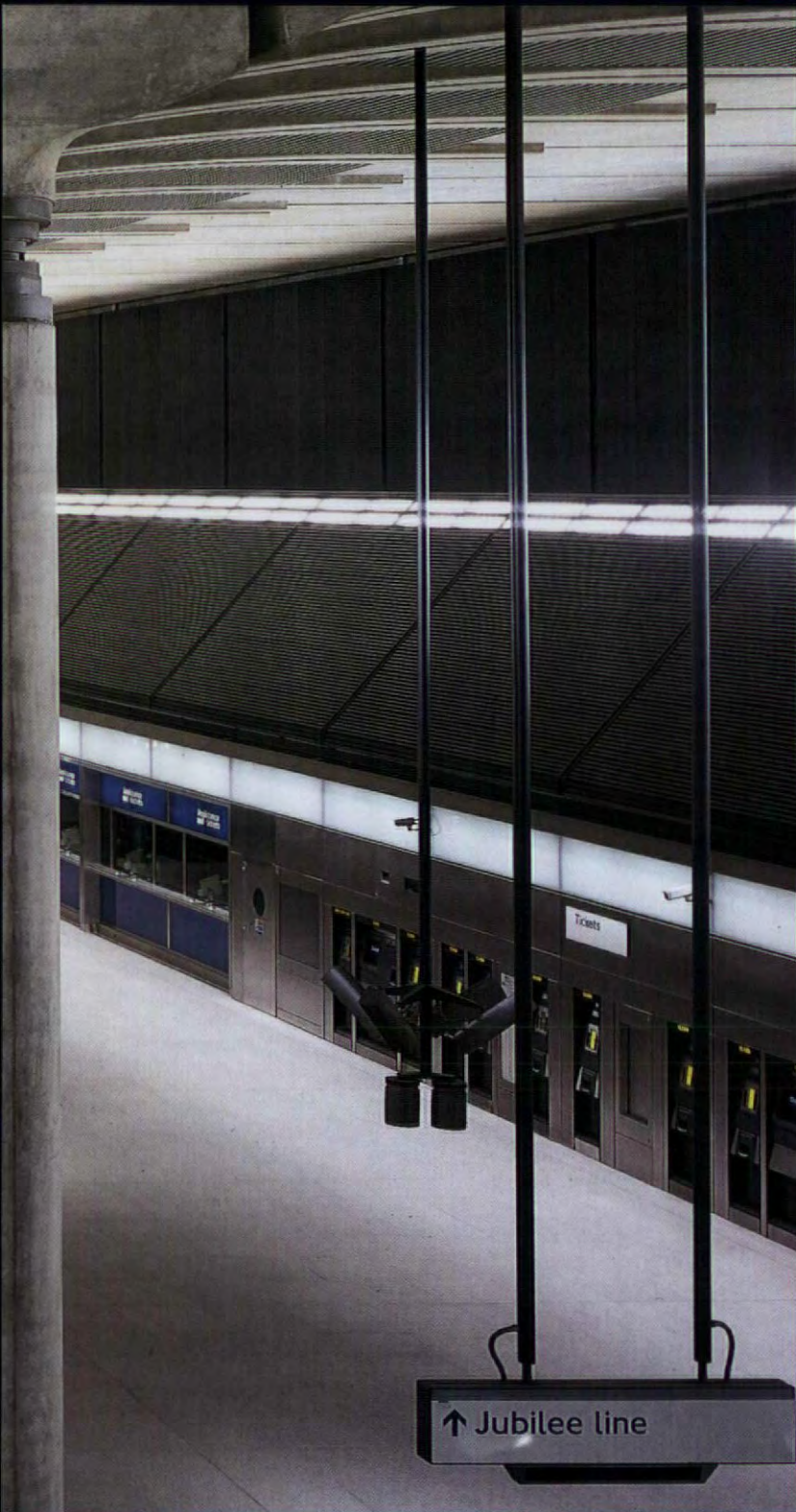
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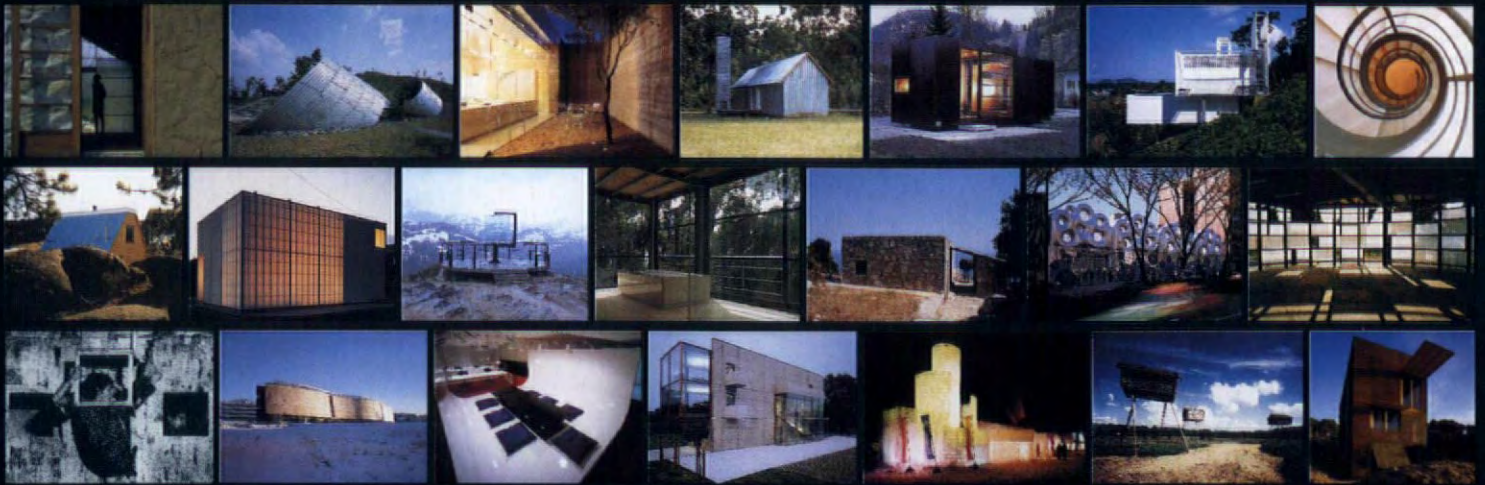
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