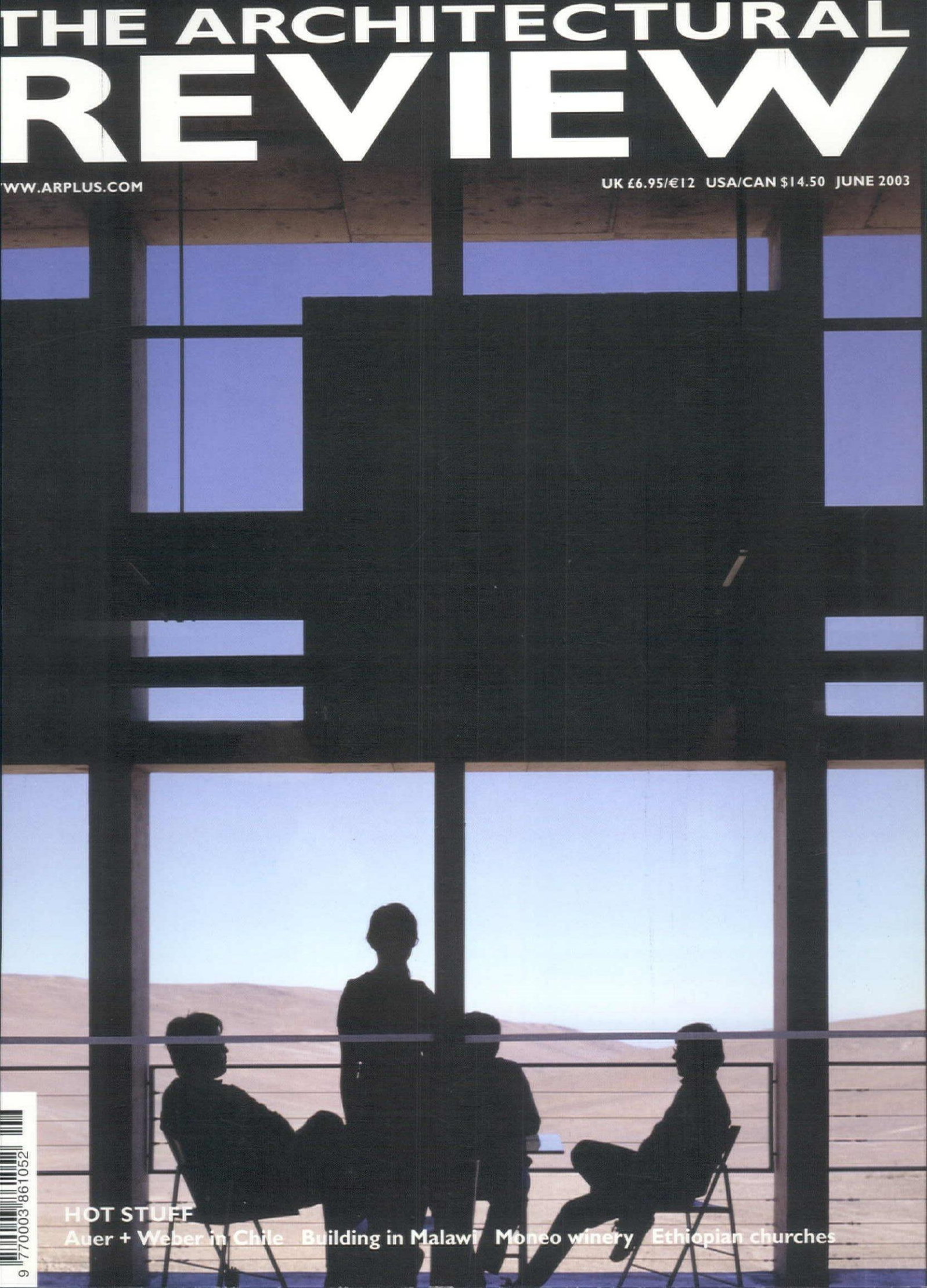
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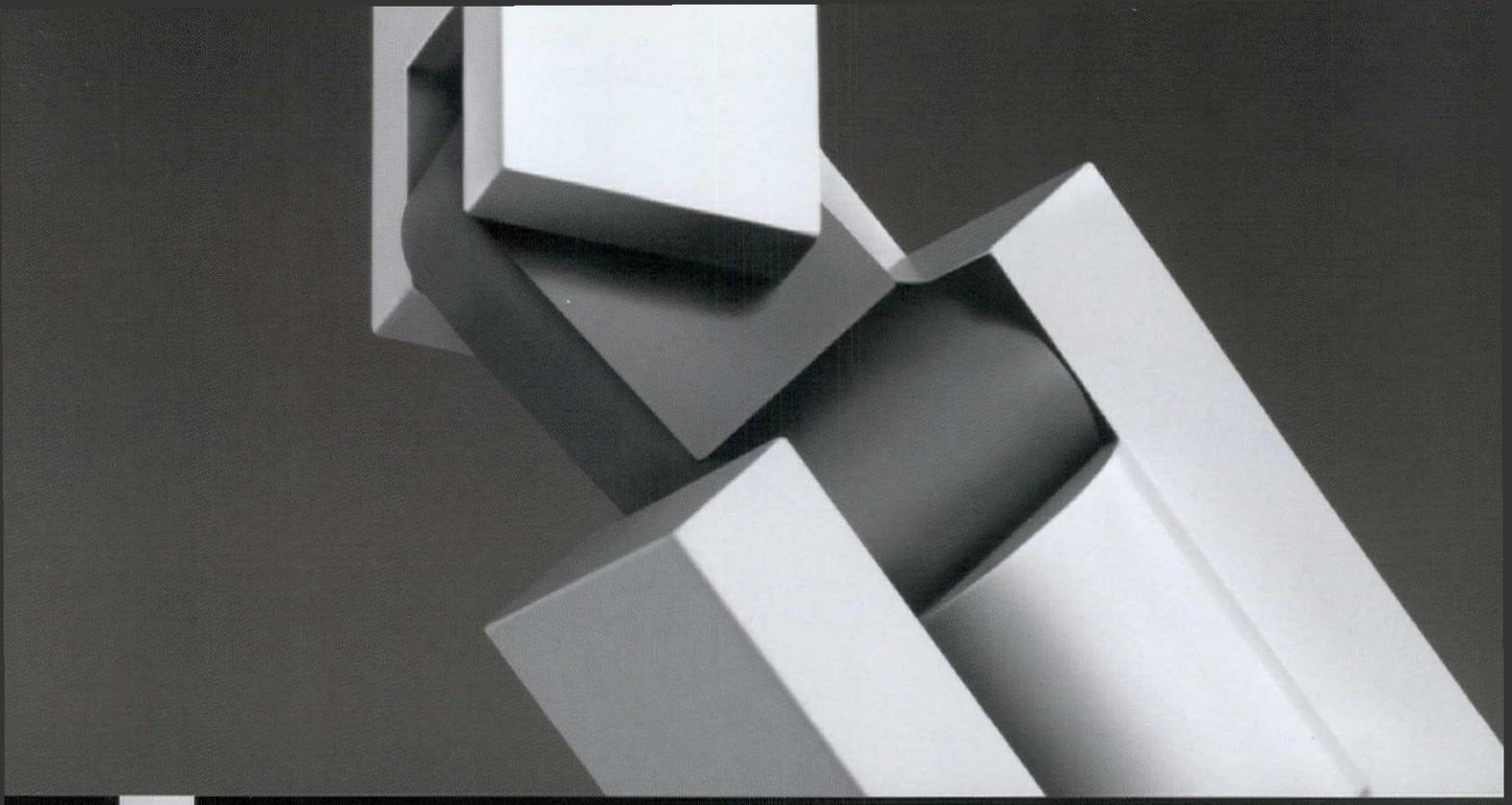
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HOT STUFF

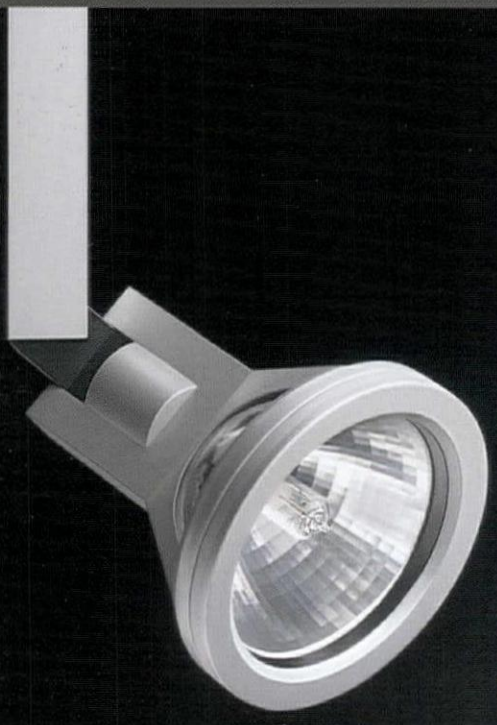
Auer + Weber in Chile Building in Malawi Moneo winery Ethiopian churches

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The last serie of indoor use projectors designed by F.A. Porsche and developed by Antares enlarges the range of lighting sources used by incorporating the last generation of discharge lamps. Made of die-cast aluminium, these projectors have the Control Gear (conventional or electronic) situated apart from the light body in order to assure the correct operation of the projectors under any conditions.

BATTERY SPOT. Design by F.A. Porsche

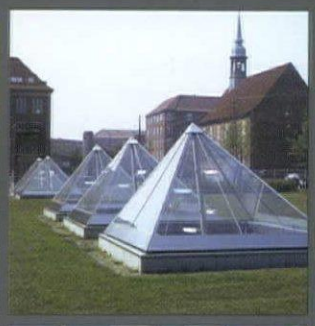


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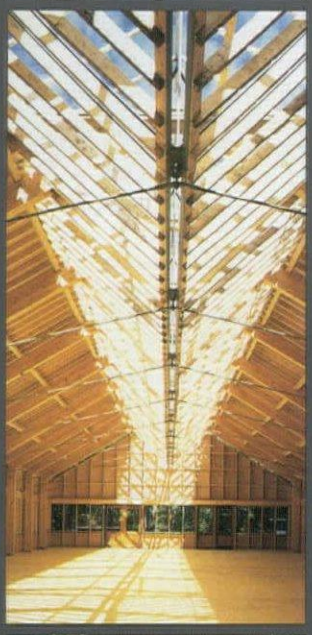
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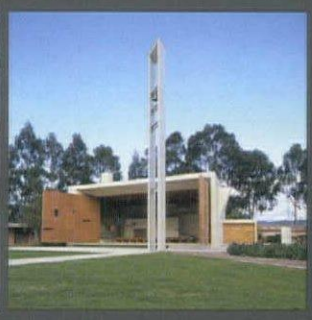




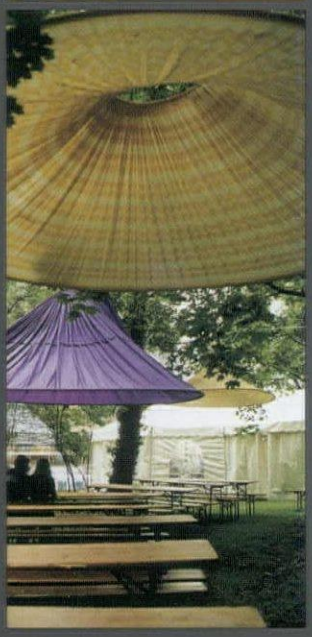












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PETER DAVEY
Editor of The Architectural Review

ELIGIBILITY

1 Who Can Enter

Architects and other design professionals whose qualifications are recognized by their local accreditation organization, provided that they are 45 or younger during the year 2003.

Entries are encouraged from individuals, groups, partnerships, and those working for larger practices. Those working for larger practices must provide written evidence from their principal in the employing office guaranteeing that the work is that of the entrant(s).

2 Completed Work

ar+d emerging architecture celebrates excellence in completed work. Entries can be made for any building, interior, landscape, urban or product design.

3 Categories

Categories will not be decided beforehand, but decided on by the Jury. Entries to previous awards represented some of the following areas:

- Buildings – new build and refurbishment: offices, shops, schools, houses, housing, industrial, transport, restaurants, recreational, cultural, municipal and religious
- Interiors – new build and refurbishment: similar to building category, in particular restaurants, shops, houses, clubs and galleries
- Urban design
- Product design – light fittings, architectural design, furniture, cladding, and structural systems
- Street Furniture – lights, bus stops, bollards, post boxes, signs
- Landscape – soft and hard
- Bridges
- Temporary or portable structures – exhibition stands
- Theatre works

4 Age Restriction

The age limit of 45 has been chosen on the basis that many emerging architects are unable to realize designs or develop an original vision before that time, either because of the long education and training period, or because of lack of opportunity.

WINNING ENTRIES

5 Prizes

The total prize money is £10 000 sterling. The Jury may choose a number of winners and highly commended entries (there were three winners in 2000 with 12 highly commended entries; eight winners in 2001 with 18 highly commended entries; and five winners and 21 highly commended entries in 2002).

6 Publication

Winners and those highly commended by the Jury will be published in December 2003 issue of The Architectural Review and on the site www.arplusd.com.

7 Prize Giving Ceremony

The **ar+d** prize giving will be held in London in late autumn. The winner(s) will receive a trophy, and will be invited by The Architectural Review, **d line**™ *international as* and Buro Happold to the event.

8 Lecture Series

In spring 2004, winners will be invited to give talks on their work at the Royal Institute of British Architects in London as part of the RIBA's Spring Lecture Series (schedule to be confirmed). The programme of talks will be accompanied by an exhibition of winning entries at the RIBA.

9 Worldwide Exhibition

Winning and other highly commended entries will be exhibited at the prize giving, and subsequent exhibitions in major cities worldwide (schedule to be confirmed). Winning boards may be reproduced to protect originals.

10 Other Media

The **ar+d** team will provide information on all winning entries to other architectural magazines, newspapers and relevant media worldwide. Please help us by choosing your preferred local media on the entry form.

11 Providing Additional Materials for Publishing

Additional photography, drawings and other information from winning entrants will be urgently requested for the December publication during the week beginning 29 September. Entry will acknowledge that The Architectural Review and **d line**™ *international as* have the right to reproduce materials in whole or part without payment of copyright (where we are made aware of their names, photographers will be acknowledged).

ENTRY REQUIREMENTS

12 Entries

The maximum number of entries from any individual, group, partnership or larger practice is three – with each entry showing only ONE scheme. As there is a new Jury, work entered for the previous awards may be re-submitted on new boards. Incomplete work, unrealized schemes, projects, CD–ROMS, videos, transparencies, models, prototypes and multiple schemes entered on one board will NOT be accepted.

13 No Entry Fees

There are no entry fees to the **ar+d** award to encourage the widest possible selection of entries from around the world.

14 Boards

Each entry should be mounted on two A2 sized boards, and must include photography (in either colour or black and white), drawings, and if appropriate a brief written description in English. The identity and location of the submission is helpful to the Jury. Maximum board size is 420mm x 594mm or approximately 16.5in x 23.4in – preferably lightweight art board or equivalent.

15 Anonymity

To ensure anonymity in judging, no names of entrants or collaborating parties may appear on any part of the board. On receipt, each board and entry form will be allocated a number allowing identification – for extra security please include your international telephone number on the back of the board. Only after the Jury has made its decisions, will the identity of the winners be revealed.

16 Entry Forms

Each submission must have a separate entry form. All entrants must be named in the submission. Please copy the entry form where necessary. Complete the form clearly and enclose in a sealed envelope attached to one board.

17 Entry Deadline

Deadline for receipt of entries is Tuesday 16 September. To ensure timely receipt, we recommend using a carrier that guarantees delivery. All entries received will be acknowledged on our website at www.arplusd.com/received.htm as soon as possible after the deadline.

DELIVERY AND COURIER

18 Send to:

Entries should be properly packaged and clearly marked '**ar+d**' on the outside. They should be sent to:
The Architectural Review,
151 Rosebery Avenue, London EC1R 4GB, United Kingdom.

19 Documentation

Please ensure that entries are delivered by the closing date. Entries posted on the closing date will be accepted but must be received before 19 September.
IMPORTANT:
Your entry must be marked as **NCV** (no commercial value) on any courier documentation. The **ar+d** emerging architecture award will NOT accept any courier charges or taxes resulting from delivery. Personal deliveries to the AR editorial offices are accepted during normal working hours.

20 Return of Entries

Entries will not be returned. The **ar+d** emerging architecture award assumes no liability for loss or damage of entries.

www.arplus.com

ENTRY FORM

Deadline: 16 September 2003

Please complete this entry form as clearly as possible. Photocopies of this form may be used. Complete in capital letters.

FIRM/PRACTICE

ADDRESS

CITY/TOWN

POST/ZIP CODE

COUNTRY

TELEPHONE NUMBER

FAX NUMBER

EMAIL ADDRESS

CONTACT NAME FOR ENTRY

NAMES OF THE DESIGN TEAM

1

2

3

4

5

PROJECT NAME

CITY

The **ar+d** team will be sending information about all the winning entries to media worldwide. Please let us have your preferred choices of your local relevant media:

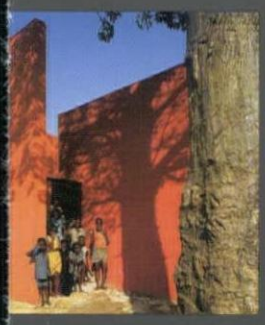
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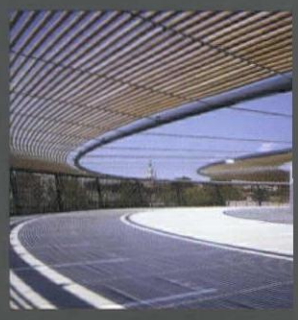
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Work submitted ranged from small domestic conversions to large public buildings, light fittings to landscapes.

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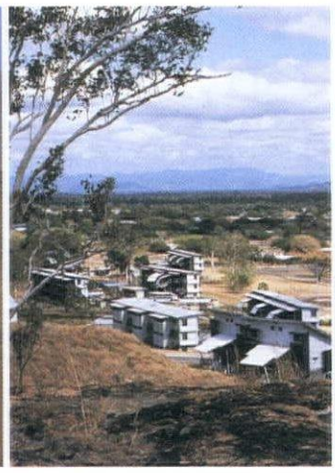
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Hotel in Chile by Auer + Weber (p42)



Barracks, Bligh Voller Nield & Troppo (p48)



Winery in Navarre by Rafael Moneo (p58)

HOT STUFF

VIEW
22 Asian Art Museum, San Francisco, reopens; Peter Smithson obituary; Chipperfield in Berlin

VIEW FROM BARCELONA
34 By Christina Fagerström

DESIGN REVIEW
36 Artificial island, Graz, Austria ACCONCI STUDIO

COMMENT
40 Hot issues: the search for climate responsive architecture

THEME: HOT STUFF
42 ESO Hotel, Cerro Paranal, Chile AUER + WEBER
48 Barracks, Townsville, Queensland, Australia BLIGH VOLLER NIELD/TROPPO ARCHITECTS
54 Housing, Singapore MOK WEI WEI OF WILLIAM LIM ASSOCIATES
58 Winery, Navarre, Spain RAFAEL MONEO
64 Buddhist retreat, Desert Hot Springs, USA PREDOCK_FRANE ARCHITECTS

PROCESS
67 Prototypical collaborative building system, Malawi

PLACE
72 Exploring influence of Christianity in Ethiopia

INTERIOR DESIGN
78 Refurbishment of university library, Barcelona, Spain CLOTET PARICIO I ASSOCIATS
82 Offices, Cadiz, Spain TOMAS CARRANZA

HOUSE
84 House, Tucson, Arizona, USA RICK JOY

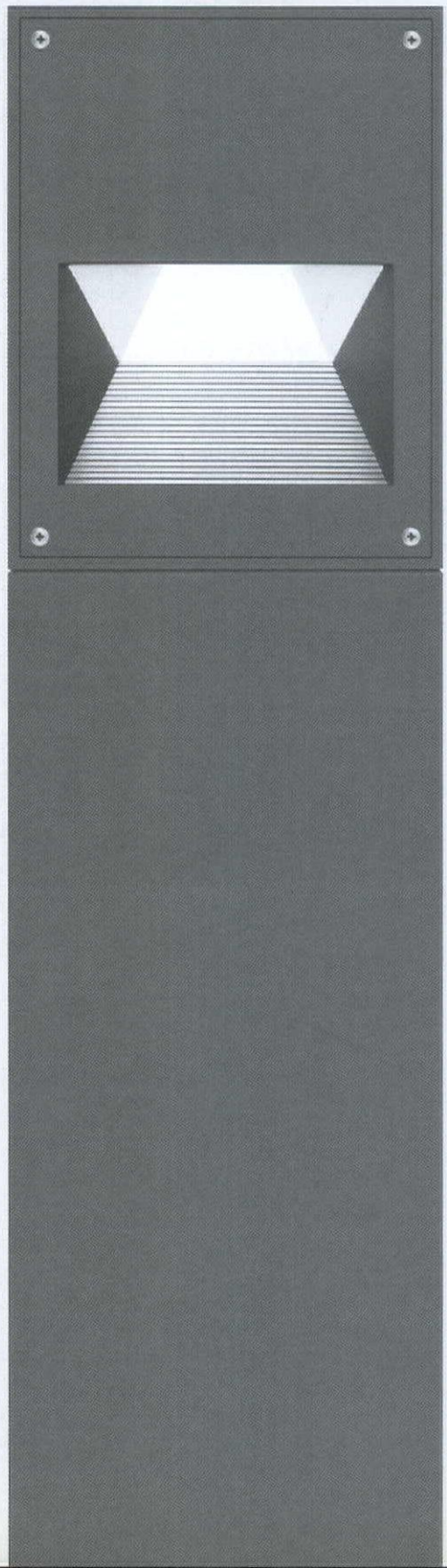
PRODUCT REVIEW
89 Milan Furniture Fair

BOOKS
96 Geoffrey Bawa, evolution of American urban design; Walt Disney and community; school builders

DELIGHT
98 Glass-walled waterfall for Lake Ontario garden, Canada JOHN THOMPSON and SWON

COVER
42 ESO Hotel, Cerro Paranal, Chile AUER + WEBER Photograph by Roland Halbe

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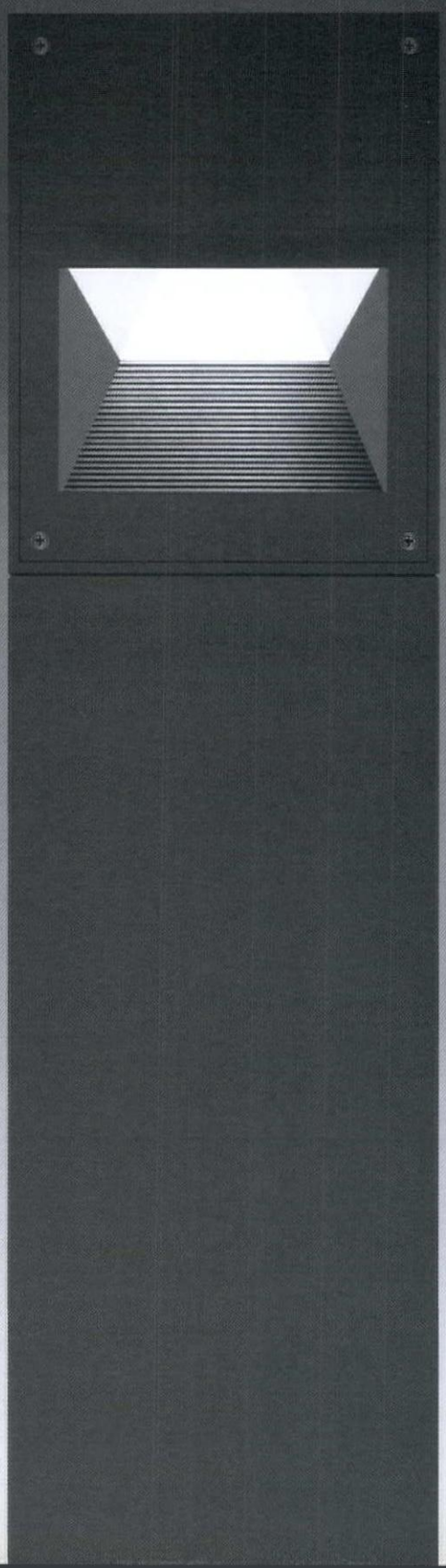


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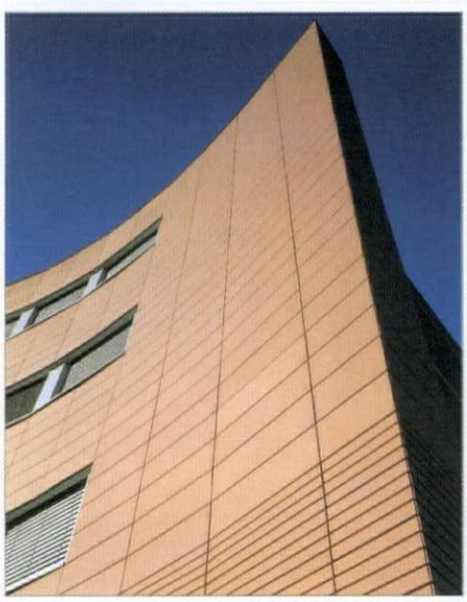
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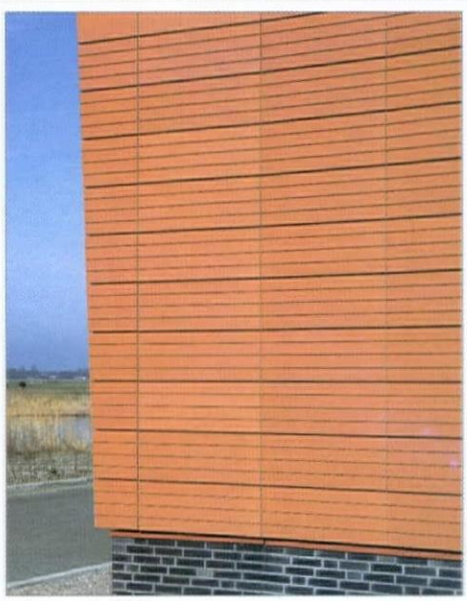


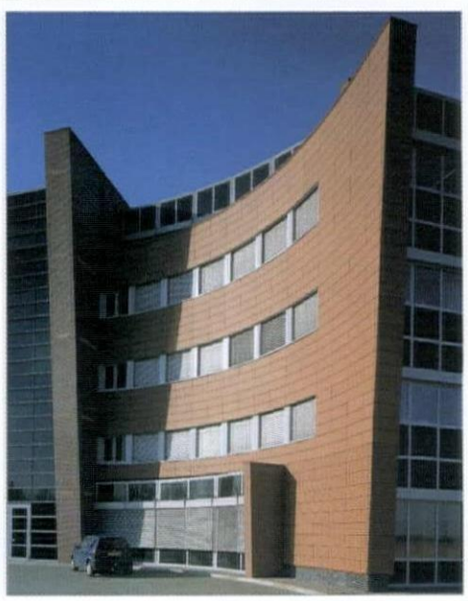
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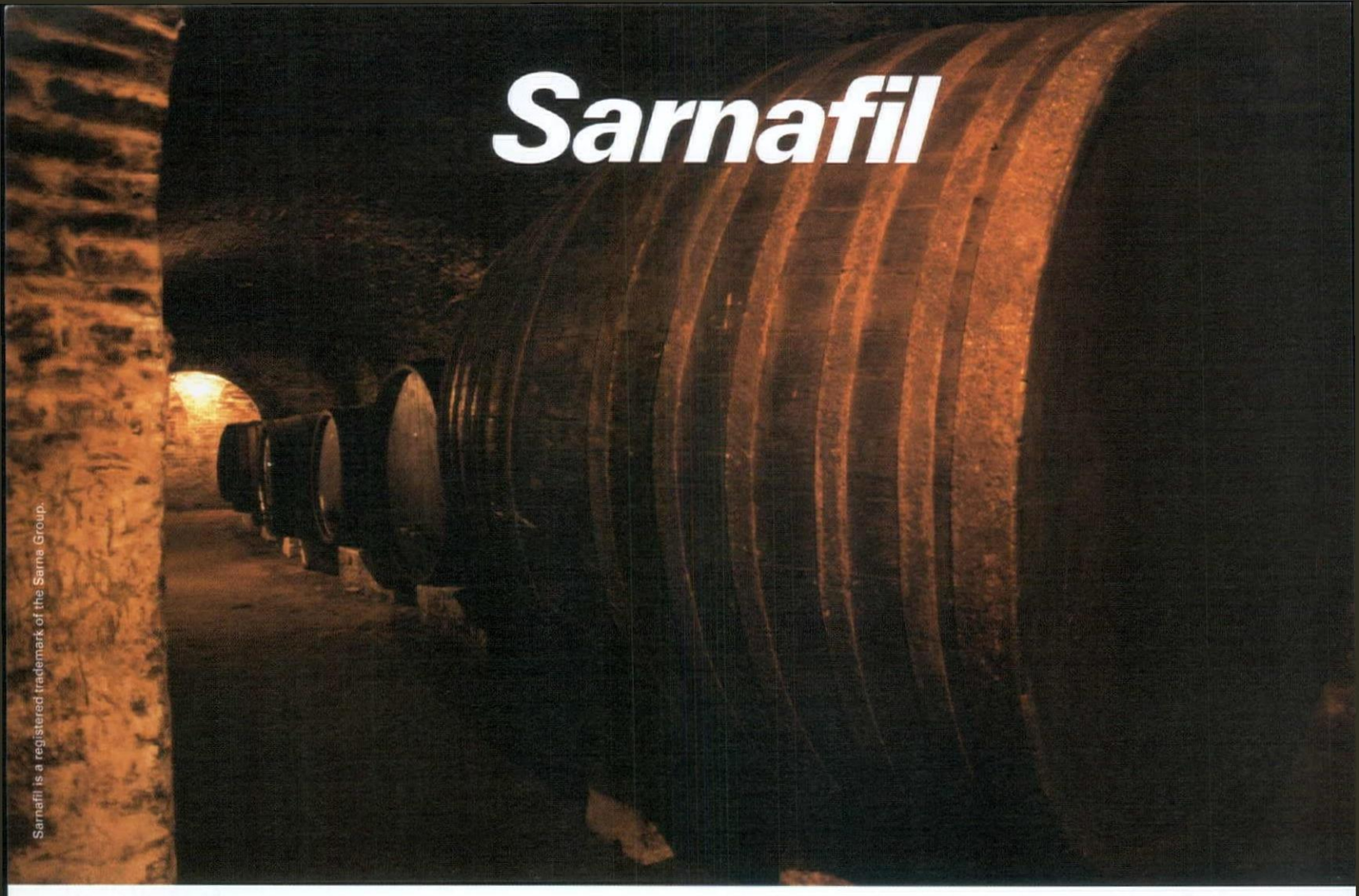


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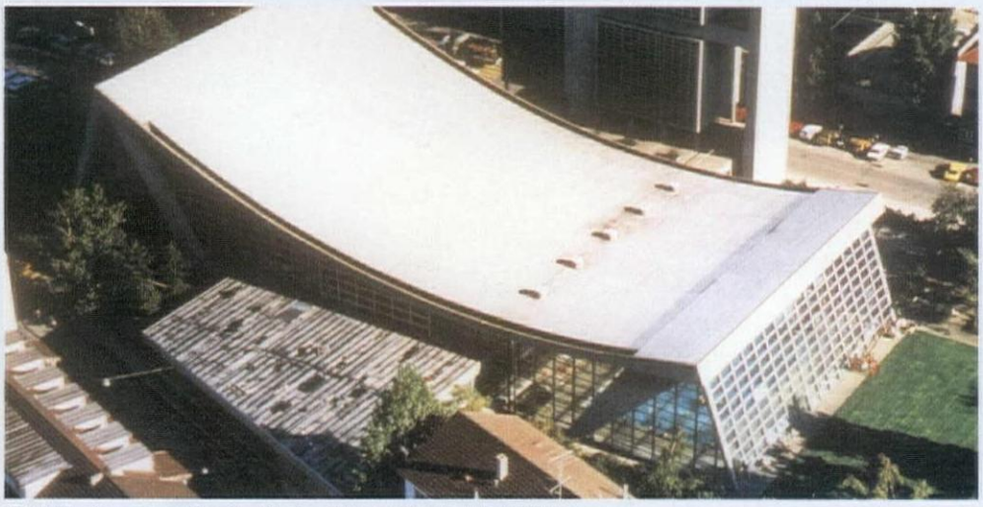


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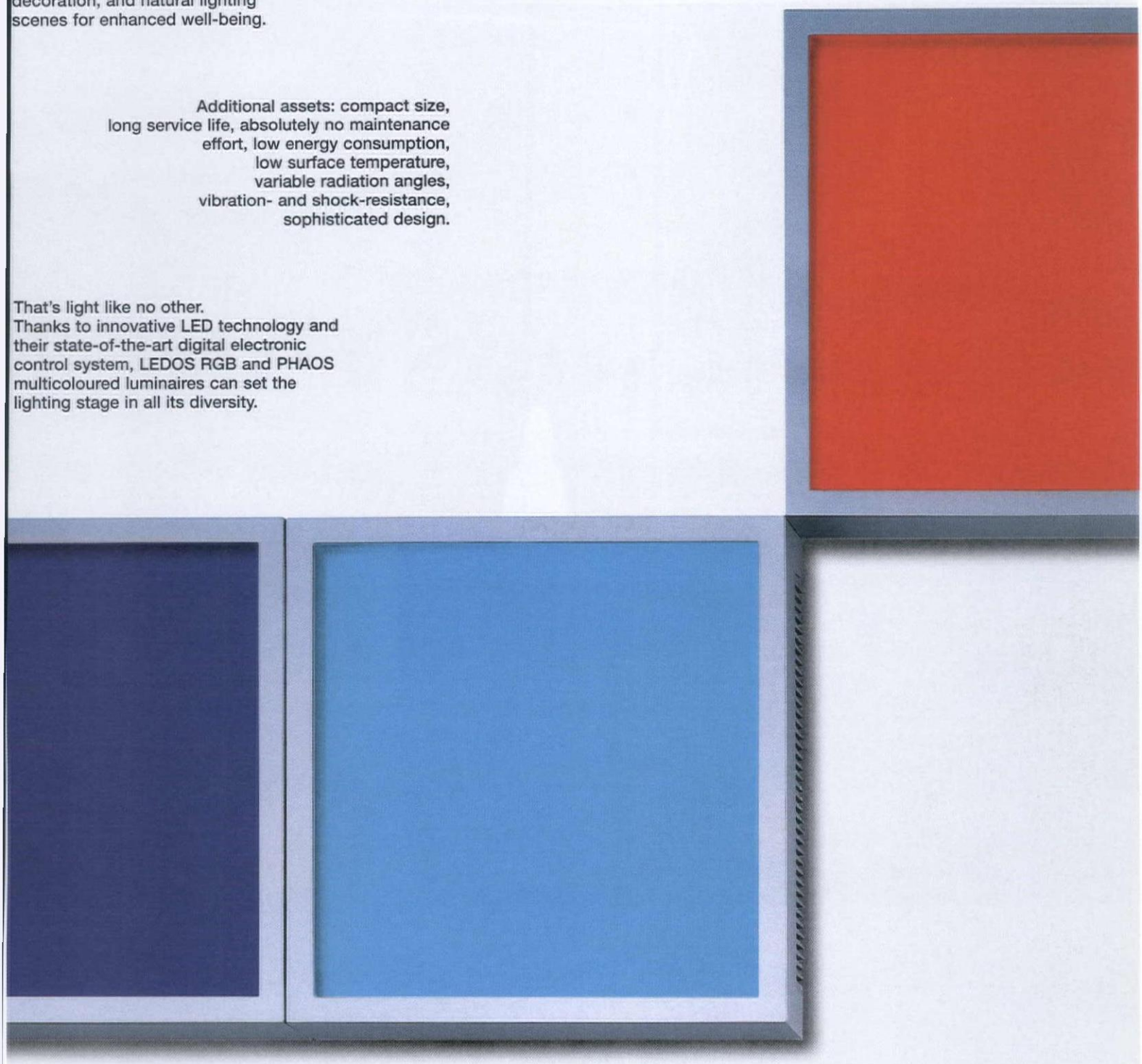
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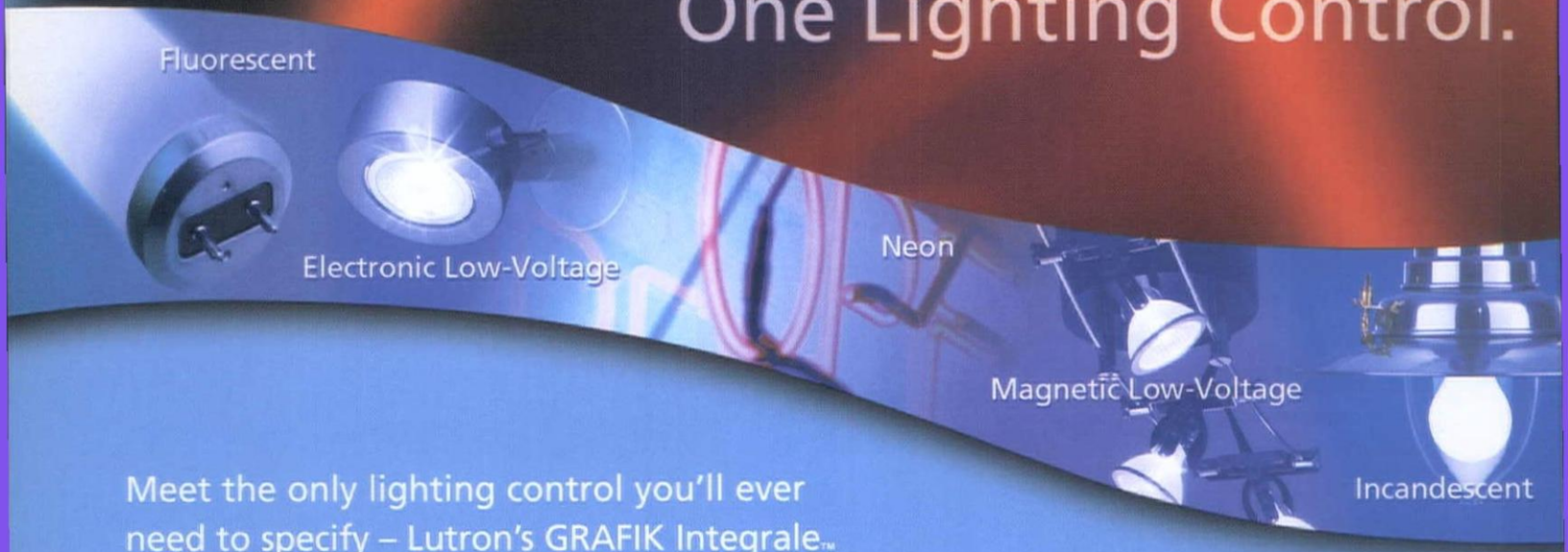
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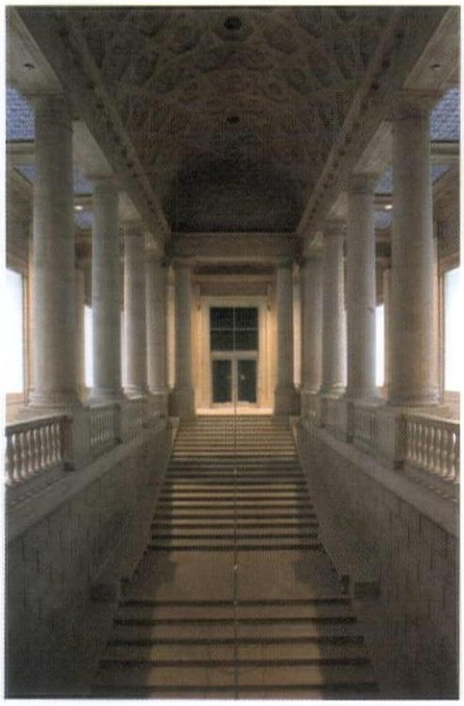
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view

THE ASIAN ART MUSEUM IN SAN FRANCISCO REOPENS WITH A BANG; PETER SMITHSON: TRIBUTE TO ONE OF THE MOST INFLUENTIAL AND INSPIRING PARTNERSHIPS OF THE TWENTIETH CENTURY; DAVID CHIPPERFIELD'S COMPETITION-WINNING DESIGN FOR GALLERY IN BERLIN; BROWSER; VIEW FROM BARCELONA; JENCKS' NEW PARADIGM STIRS IT UP.



The central loggia, featuring the top two flights of the grand stair leading to Samsung Hall.



Gae Aulenti's new two-storey escalator takes visitors to the galleries on the second and third floors.

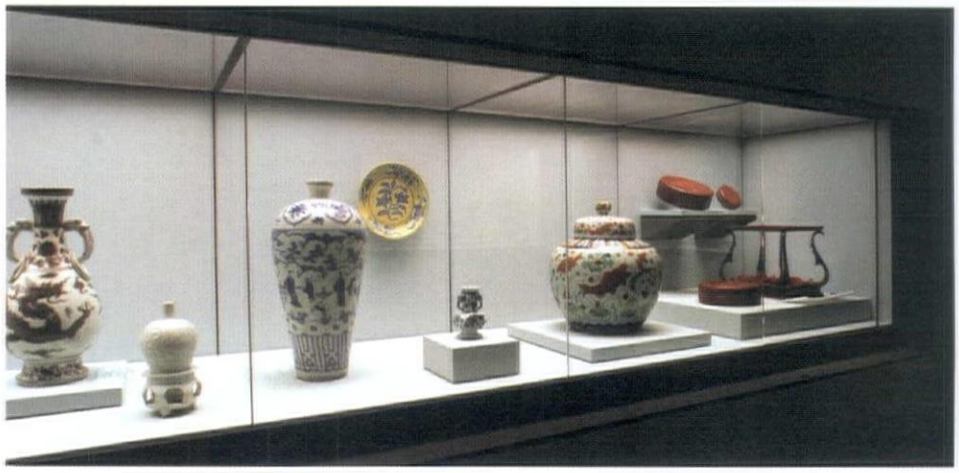
THE ASIAN ART MUSEUM

Gaetana Aulenti and George Sexton's contributions have helped to make San Francisco's newly-reopened Asian Art Museum more than simply a museum of art and artefacts.

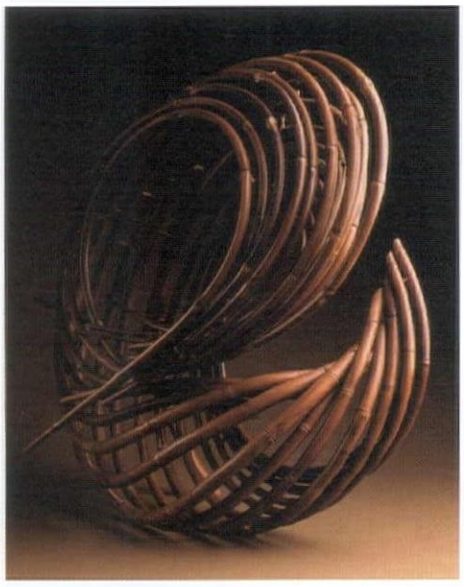
When San Francisco's Asian Art Museum reopened this spring in its new home, the collections completed an odyssey that began in 1932 when its original donor, the Chicago industrialist Avery Brundage, fell in love with Chinese art at a Burlington House exhibition in London. Subsequently, he acquired over 7000 artworks from China as well as Japan, Korea and South-East Asia; and, in 1959, he donated them to San Francisco where he felt they could best serve as a study collection for its ever-increasing population of Pacific Rim cultures. Since 1966, this comprehensive collection, more than doubled by other donations and acquisitions, has been housed in a wing of the M. H. de Young Memorial Museum in Golden Gate Park. Outside Washington, downtown San Francisco boasts the largest concentration of Beaux-Arts buildings in an American city. Anchored by the City Hall at one end, Civic Center Plaza is one of those monumental urban spaces that seeks to preserve the ideals of antiquity in its architecture, which in this case includes a Civic Auditorium, Opera House and Symphony Hall. In 1987, after the Main Library, across from City Hall, was decommissioned in favour of a brand new (but less ideal) library across the street, the then mayor handed over the old Main Library to the Asian Art Museum in lieu of expanding in Golden Gate Park.

Designed in 1917 by George W. Kelham, the library's facades with colonnaded gallery and high-arched windows concealed a drab E-shaped internal structure with gloomy though functional wells that spread light into the reading rooms. An even more difficult problem for its conversion was to transform sedentary spaces into an active procession of galleries. And although the building was not listed, there was a sense of grandeur to be preserved in a central stairwell that led to an ornate catalogue room and interior loggia. The difficult job of retrofitting the historic library for adaptive reuse as a museum went to Gaetana Aulenti of Milan.

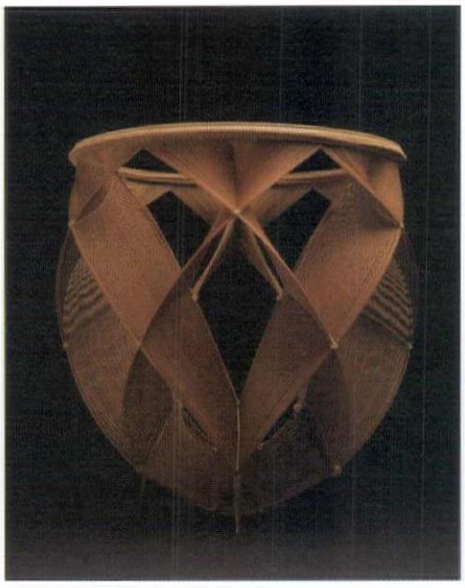
While Aulenti's Musée d'Orsay in Paris still feels and sounds like a railway station, in San Francisco she has succeeded in making a cohesive museum building. First, she solidified the structure by creating light and airy enclosed spaces out of the former dingy wells, and second, the new circulation patterns evolve into a journey that practically obliterates the memory of the library (though the great catalogue room with its decorative ceiling and Palladian windows has become a new



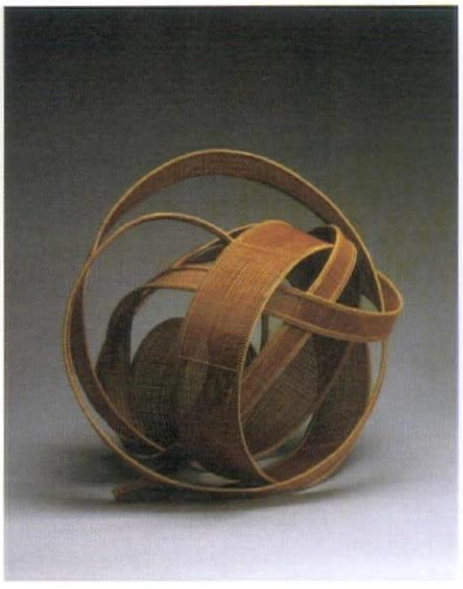
George Sexton's 'art wall' displays pieces from China's Song and Qing dynasties (960-1911).



From recently acquired Lloyd Cotsen Japanese Basket Collection: Homma Kazuaki's Flowering Brightness 1974 ...



... The Shimmering of Heated Air, 1958 by Shôno Shôunsai (1904-74) ...



... Wave Crest, 1998 by Yako Hodo (b1940) ...

ceremonial hall for San Francisco). The massiveness of the former library supports Aulenti's drapery folds of V-shaped skylights set into sky-blue trusses. She calls the new open ground floor of the enclosures in the north and south court a piazza. The former exterior windows, now covered with sycamore lattice screens, look down on the comings and goings and an attractive series, in this case, of museum store windows.

No sooner do visitors come through the main entrance than they are barricaded from moving up the grand staircase by the long museum front desk and instead veer to the right to the far end of the piazza and a two-storey escalator (or glass-enclosed lifts) leading directly to the top-floor gallery spaces. This is a moment of divide: a glass-enclosed balcony overlooking San Francisco on one side and on the other, at the gallery entrance, a stone Ganesha, the elephant-headed Hindu God of literature and pleasure. Another mood and the hand of another architect prevail in the galleries, that of George Sexton, the Washington DC museum installation and lighting designer known for his open-storage study centres at both the Sainsbury Centre for the Visual Arts and the Metropolitan Museum of Art.

With more than 2500 objects on view from seven different cultural areas over a period of 6000 years, the challenge was how to display each work so that it remains memorable in its own space. Also, despite the museum's all-encompassing name, Emily Sano, the museum director, reminds visitors in the opening panel that '"Asia" is a term invented by the Greeks and Romans ... to indicate the land mass east of the Ural Mountains'. The actual commonality she prefers to highlight among the cultures is Buddhism, and the galleries have been arranged to follow its path, beginning with India and ending with Japan in an identical floor of galleries just below. (The high-ceilinged reading room was divided into two floors.)



... and Tanioka Shigeo's bamboo tray, Flight Upward, 1998 (b1949).

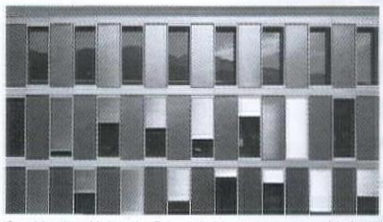
Sexton has created what he calls 'an art wall', a box, as it were, within the box of the museum's own walls, with all the intimacy implied by that image of a treasure trove preserved in individual nooks and crannies. Yet, there is never a sense of clutter, for like the open shelves and pedestals, every showcase, whether recessed, projecting or free-standing, is cleanly aligned as a custom-made platform for each artifact. (All galleries were laid out in scale models even before drawings.) In one display wall for Japanese netsuke, for example, the configuration of individual slotted shelves drew its inspiration from the linear flow of a landscape scroll painting. The overall installation gains additional drama from the colour palette of walls and cases, beginning in India with a subtle grey-green that blends with the sculptures and moving through a rich red for the Himalayas and to a cool celadon for China. With the exception of general wall panels, display labels are placed horizontally on the cases and pedestals rather than vertically so that viewers will absorb the art before the information.

Sexton is a true magician of light; the source is always mysterious but effective. The glow that appears to emanate from each object may even be in the display shelf itself as in the luminous jade gallery. And in a masterful stroke, a Japanese tea house, designed by Osamu Sato and fabricated by Nakamura Yoshiaki from an old Kyoto family firm of carpenters, has been installed as both a glass-fronted showcase to display the tea utensils and traditional scroll within and as a genuine place for tea ceremonies when the glass wall slides away. More than simply a museum of art and artifacts, the Asian Art Museum succeeds as a memorable voyage through space and time.

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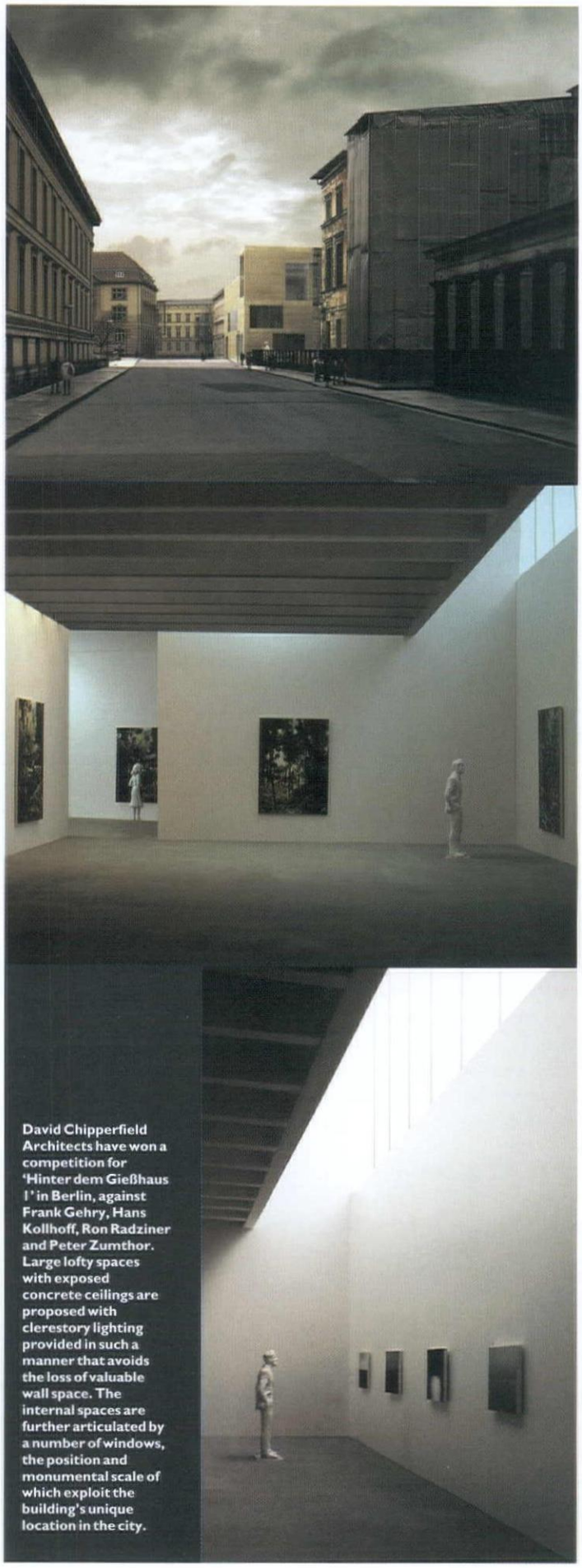
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David Chipperfield Architects have won a competition for 'Hinter dem Gießhaus I' in Berlin, against Frank Gehry, Hans Kollhoff, Ron Radziner and Peter Zumthor. Large lofty spaces with exposed concrete ceilings are proposed with clerestory lighting provided in such a manner that avoids the loss of valuable wall space. The internal spaces are further articulated by a number of windows, the position and monumental scale of which exploit the building's unique location in the city.

Obituary

Peter Smithson died earlier this year. Peter Salter contributes a personal memoir on one of the most influential and inspiring partnerships of the second half of the twentieth century.



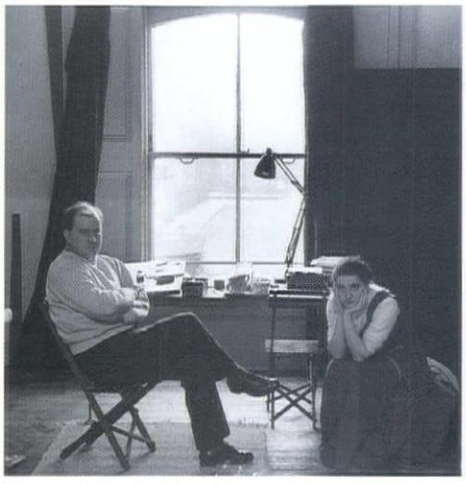
Robin Hood Gardens (1970), Poplar, London, responding to toughest of contexts for social housing.

To know Peter Smithson, indeed the Smithsons, is to know them through their work. As a student and as an assistant in their office between 1980-1983, I have pieced together some personal reflections, fragments of their extraordinary talent and commitment to architecture.

Embedded in the two major publications of the Smithsons, *Ordinariness and Light* and the later book *Without Rhetoric*, is the idea that architecture should exist with explicit qualities and appropriateness and also with a reticence and quietness that can accommodate the different wishes and desires of its inhabitants. It is not an architecture that is functionally over prescribed or used with any sense of protocol. That is to say, it is an architecture in which the functional requirements are underpinned by qualities of space that come from a reading of the context, scale and possible materials that set a poetic and a clarity to the space which offers ease of use. Such judgements of appropriateness are often disarming. To read the context is to read the strategy of the building. The context is both a physical and a cultural understanding of the place.

The Smithsons were perhaps our greatest modern readers of context. As raconteurs their architectural reading is stratified by insightful anecdote. This is used not in any sentimental way but as a circumstance within which a strategy is formed. A tough context demands a strong idea. Robin Hood Gardens (1970) is perhaps the toughest of contexts for social housing. Situated at the entrance to the Blackwall Tunnel, the environment is like the turbulence associated with some medieval earth working. The buildings sit like a sheltering battlement, a running bastion enclosing green space created from the earth mounds of excavated material. Sightlines across cranked walkways are at the scale of the site; sightlines between kitchen and playdeck are at a domestic scale. The making of strategy from the context is often very disarming in its clarity of intent. The strategy of the Alexandrina Library (1989) is derived from a site situated on the shores of the Mediterranean. The consequences of high ground water levels make basement book storage undesirable. The strategy was to store books in the driest places above the ground water datum.

The interfolding of strategy with detail – where one scale of reading enriches the other – offers an architecture that is distinct and clear in its qualities. The Second Arts Building at Bath University (1980) occupies what some might call a back lot development. For the Smithsons the deck access promenade of the overall strategic plan was understood as some capacious carpet, in which their building forms a tassle at the extremity. The building looks like a tassle in plan but it is not – it forms a generous end to a route through buildings, measuring distance from the centre of the public promenade. The building's triangular form on the north side of the campus opens out from its narrow neck connection, to allow south-east and south-west sunshine. The notion of layering that can be read in the strategy is found in the detail. The building of in-situ concrete is grooved with construction joints and weathering channels. Rainwater staining and Bath soot are encouraged in some places and suppressed in others. It is the staining that can be expected of a building conceived as an outpost. The interior of the in-situ concrete work is lined with beech-faced plywood, while externally the concrete is layered with a beech hedge that in winter exposes the spandrils to the splash-back of the orange soils. The building has a running cornice that traces every angle in a visual displacement and juxtaposition, acting like a peaked cap that protects the eyes and allows distances to be perceived across the rolling down land of Claverton. Such details offer places of shelter for climbing plants. They identify the top edge of the building, carrying echoes of the scalloped parapets of Bath buildings stepping down steep streets of the Georgian city.



Peter and Alison Smithson in their prime at their amazing house in the Boltons, Kensington, London.

Bath Walks records a series of meanderings around the City of Bath, identifying architectural details and revealing new relationships between the patches of buildings and its streets. The walks reveal another theme in the Smithsons' work, the necessity to understand distances as a physical measure and as a pace and scaling device. The running cornices and banding courses that accompany the visitor up the stepped entrance ramp of the university and

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Robin Hood Gardens: strategy from context – buildings are like sheltering bastion enclosing green space.

Classical mask for Bath University as locational device.

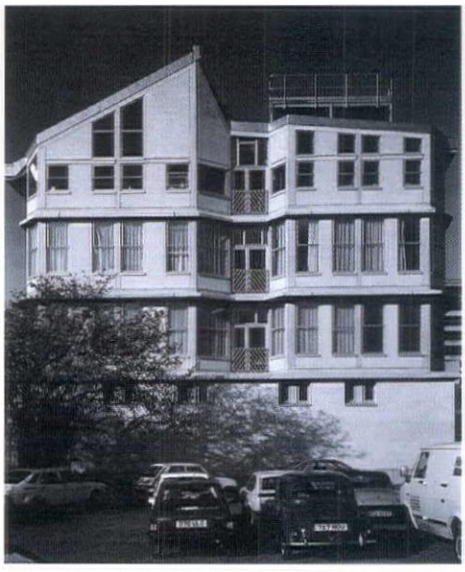


past the Architecture School at Bath (1988), register not only heights but also distances.

The attention paid to the tops of their buildings as a registration of the sky through cornice details and eaves lines can be seen in the Smithsons' last commission for the reorientation and extension of the Tecta furniture factory (1990) with a new furniture museum in Germany, The internal arrangement of the factory has been reorientated to face the landscape. A new room in stainless steel at the parapet level of the factory registers the large sky of the agricultural landscape. In its material and its faceting, the room catches hold of the sky in much the same manner as the tree-lined horizon beyond.

Registers and measures are the Smithsons' tools to formulate and test strategies. Peter Smithson said that certain ideas are revisited in each project. As preoccupations they become refined and act on the strategy enabling it to become critical. In making the design, strategy drawings at a diagrammatic scale of 1:200 would be worked together with part plans and sections at 1:25 and sometimes at full size. It was the folding together of strategy and detail that enabled the consistency of idea to be read throughout the building. The 1:25 scale drawings were always interesting as they carried not only construction information but also measuring devices and emblems, in order to explore the scale and context of work. The sections had a quality of exploration, of looking round the project for anchors and ideas. These sections carried a microcosm of the detail of the building.

Such exploration in drawing was also evident in lectures to students. Peter spoke as though finding his way. Site information was folded into things that he had read or experienced in the same way that strategic information was layered with detail. In a lecture about the house at Ansty Plum, Peter spoke of climbing the path and determining a place to pause, sitting with Alison to take in a view before proceeding up to the house. The subject of the lecture, Ansty Plum was folded into a memory of climbing the path to Delphi paced by classical remains and views across the open valley. The formal quality of that walk among the carved stones of antiquity was matched by the formal hat worn by Alison at Ansty Plum. Figures in the drawings and figures in photographs were always important means of 'connecting' the design.



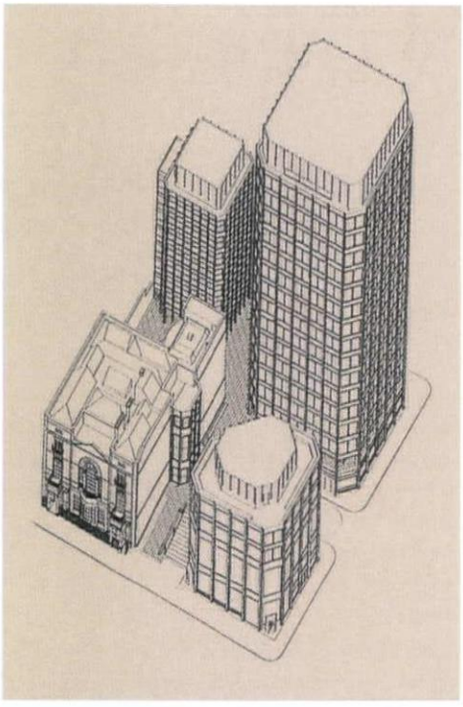
Bath University: layering in detail reflects overall strategy – staining and soot sometimes encouraged.

The notion of making an architecture for others to inhabit, in which they could find their own accommodation, is not an abdication of responsibility, it is generosity. Every project demonstrated this need in the strategy of the building and its spaces.

The Smithsons' favourite picture of the Economist Buildings (1964) shows a solitary figure in a bowler hat crossing the plaza. It reinforces the urban quality but also registers the scale of the buildings. The Economist towers offer three different scales of fenestration. The smallest bank tower offers the largest scale to the St James's Street. The more discreet tower at the back of the site is an apartment building of domestic scale. The office tower on the side street is the scale mediator. This fenestration of mullions forms an arcading at plaza level. The series of scales become part of a sequence of spaces critical to the reading of the architecture of the plaza and its thresholds.

The way in which people might occupy the spaces was critically important to the Smithsons. Even with the minimum of prescription, the spaces still had to work, and their qualities had to be effective for those who occupied the building.

The emblems inscribed on drawings, whether they were elaborate sun figures, classical masks (1984) for the Bath buildings or peacock feathers for the Tehran Library (1977) accompanied by elaborate domes, each held the idea and became a prompt and sometimes a memorandum towards a measure or a test of the design. The carpet building of the Kuwait City project (1970) carries the emblem of horse riders galloping across an event space lit by flaming torches – used as a cultural touchstone and presumably a need to remember the scale of space that allows a horse to gallop and to stop. The competition project for Millbank (1976) has a formally seated Japanese emperor collaged on a low angled isometric projection – presumably reminding the architect of a bor-



The three scales of the Economist towers respond to different contexts, creating a series of appropriate scales.

rowed landscape view. The emblematic drawing carries the idea of a depiction of events very similar to the postcards sent to the office from Urbino, which showed the awkward perspectival projections of early religious paintings of the Visitation, with the virgin surrounded by fragments of the dwelling.

What is important is a reading of the site, a reading of the drawing or a reading of the building. In their own house the Smithsons inhabited spaces built for a different occupancy. To read this disjuncture, the conversion identified all new work by using plywood as the construction material. This included the blocking of existing door openings and the insertion of new pieces.

Perhaps one of the last lectures given by Peter Smithson was a reflection on the reconstruction of the Barcelona Pavilion. This was discussed many times by Alison referring to pictures of lost components and newspaper cuttings. Peter spoke again of Ruskin's view of the veneers on the facade of the Redentore in Venice, the use of such thin marbles being justified by reference to the transportation difficulties of the time. The marble veneers of the reconstructed Barcelona Pavilion had a different detail and relationship to the roof plane because the original roof was of timber, as a temporary structure, while the reconstructed roof is of concrete.

The Smithsons always worked with both physical and cultural ideas of materials and spaces. They remain an inspiration to generations of architects for their presentation of a way forward for the discipline and for their humanity. PETER SALTER

browser

Sutherland Lyall grabs a liana and swings through the cyber jungle.

A price on his head

Architecture For All is at *www.architectureforall.com*. Actually a bit of it is really Architecture for the Fairly Rich because this RIBA + Victoria and Albert Museum collaboration is offering them the possibility of adopting one of 237 drawings in the collection for donations of between £5000 and £15 000. It's not an immensely original idea – years ago a friend of mine 'adopted' Rosie the Rhino at London Zoo for rather less than the sums mentioned. Er, fifty quid actually. For your five to 15 grand you get a 'High quality framed reproduction' plus a description of the subject by the RIBA curator, Charles Hind, a numbered certificate and, more interestingly for entrepreneurs, the 'right to reproduce the image for a greeting card or other agreed private use.' Poor old Charles, I bet writing notes on 'adopted' drawings and policing copyright wasn't on his original job description. Or the fact that naming his curatorship is also up for grabs for an unspecified sum: 'Hi, I'm the Timothy Fortescue-Smythe III Curator of Royal Institute of British Architects Drawings at the Victoria and Albert Museum'. Or, better, 'Hi, I'm the Pink Rhino Lapdance Curator of' etc... Don't sneer, Hind will carry it off elegantly. According to the site, 'Adoption will begin on the date the gallery opens at the V&A'. So the above may not necessarily come about for some time. Or even ever.

Floreatus architectus laureatus

Among the items in the RIBA's extraordinary and wonderful collection is one of the few Sydney Opera House models Jørn Utzon didn't burn (as legend has it) in that remote fjord all those years ago. Oz and Denmark are battling it out to claim this year's Pritzker prizewinner as their own. According to the *Sydney Morning Herald* (*www.smh.com.au/articles/*) 'the American organizers have said that this year's winner is "almost an Aussie".' The tall-poppy-cutters weren't saying that about him 37 years ago. Although there are more than 11 000 references to him at Google, Utzon doesn't have a site of his own. If you were one of the best known architects in the world, in your mid eighties and living quietly in a Majorcan paradise, why would you? London publishing whizzkid and former journalist, Peter Murray, has just written an account of the Utzon years – based on the prosaic but hard documentary evidence of the Arup files. One pleasure is discovering who, despite all the hints, winks, nudges and allusions we've had from them over the years, wasn't much involved – and who wasn't at all involved in the design of those stupendous roofs. Another is how, even from the one-sided Arup perspective, Utzon still emerges as the hero: Hamlet rather than Henry V, hero nonetheless. *The Saga of Sydney Opera House* is published in September by Spon at *www.sponpress.com* (MacMillan as they're known in Oz).

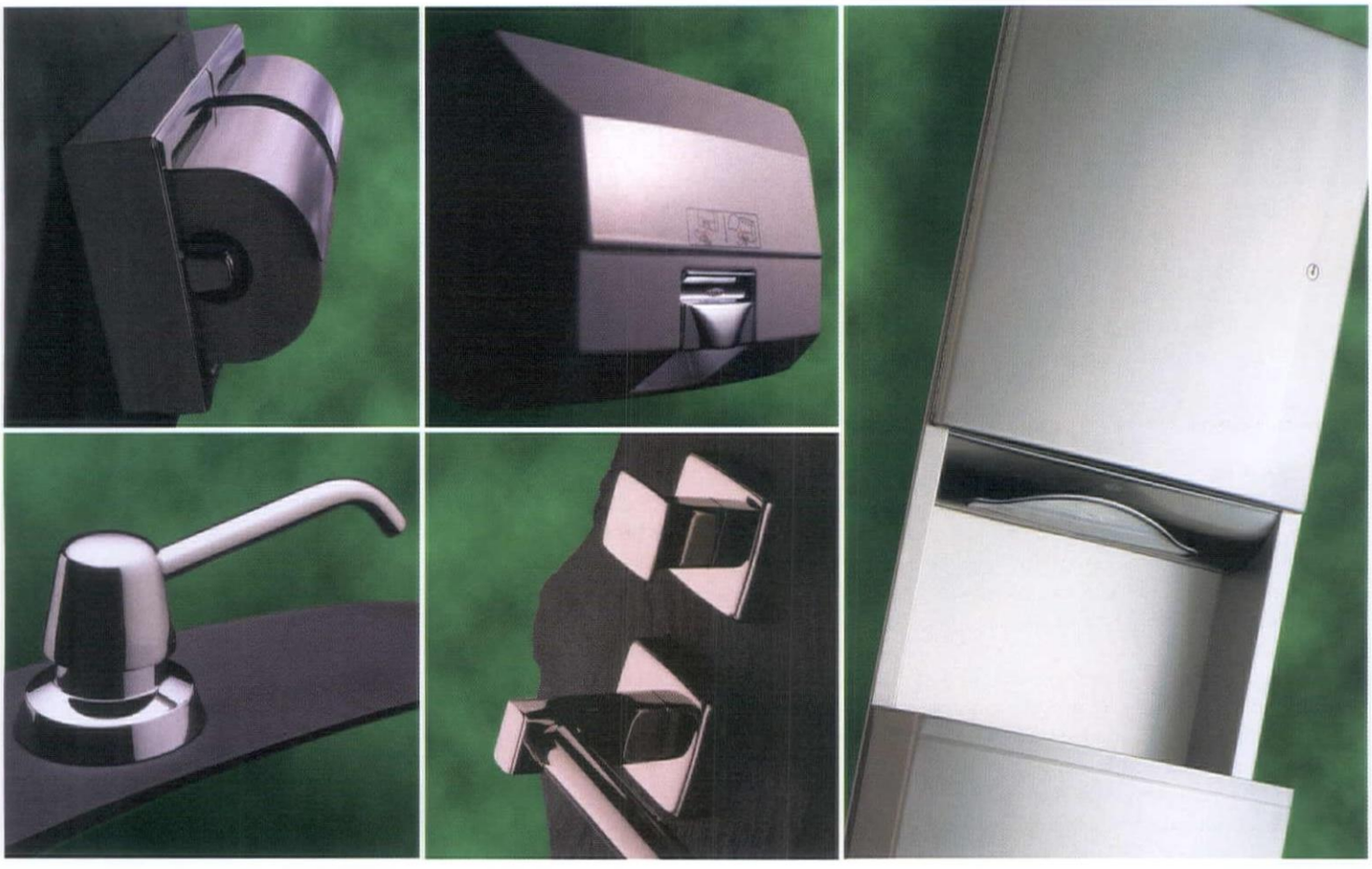
Information underload

For reasons I'd rather not go into I got stuck in the German section of ArchINFORM at *www.archinform.net* and had to check back with Review's site at *www.arplus.com* (click on Directories and then, ahem, Browser). I would say it, wouldn't I, but the AR site is a model of succinct, easily navigated usefulness. (And while I'm in house ad mode let me urge you to take a look at our sister site at *www.ajplus.co.uk* – and maybe divvie up for the very useful subscription service.) Whatever, back in the English language version of ArchINFORM you are, these days, faced with an anti-war message which concludes, 'Please decide:

"Yes, I believe in mankind and agree with this." or "This opinion is old european bullshit!"'

I'm not at all unsympathetic to the sentiments but the have-you-stopped-beating-your-wife obtuseness had me hitting on the latter. I should have known. The link was to the Welcome! Willkommen! etc page of the Old Europe restaurant (Washington DC's Premier German Restaurant, founded 1948). Deciding to believe in mankind after all, you click 'english' instead of 'deutsch' below the image of Breughel's tower of Babel. Please, don't do it, it's not exactly fresh any more. ArchINFORM is based in Berlin, has contributors with specialisms including New Zealand, Belgian gothic and Czech Cubism although the site seems mainly to be about contemporary architecture. You can register new projects on the standard form they provide. Retreating to the 'text search' page I forlornly attempted 'Callicrates' and then didn't bother with 'Ictinus'. The 'locations' page seemed not to respond although a later look revealed that you have to click on one of the very small letters of the alphabet under the main menu. This was an unwelcome side effect of over-minimalism and poor browser eyesight. Clicking on 'persons' was rather easier on the eye: here was a prominent list of people whose birthday it was that day. I looked up French landscape designer, Bernard Lassus, and got 16 pages of useful stuff. Checking out for the presence of Will Alsop I found Alsop & Störmer. Er, still? Maybe the Berlin boys are in chauvinist denial. Especially when you discover the last update

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was 30 March this year. But for all this and for all its sparseness this is a site worth putting in your Favourites file: it claims to have more than 11 000 built and unbuilt projects.

Food for thought at the shallow end

Poor research, mea culpa: the Design Museum site is apparently the work of Deepend, not the Warm Company. It's now being maintained by ex-Deepend people, Recollective, and has a new museum identity designed by Graphic Thought Facility. Sadly, for a design museum, none of this information was readily discoverable.

Game for a change

CAD monkeys at the back of the office will long since have been familiar with *www.shockwave.com* whose collection of games is legendary. The other great plug-in operation is Flash. A truly great Flash developer is Liam O'Donnell at *www.spikything.com*. However, sound is so integral to his work that I would consider buying a miniature earpiece – even if that means abandoning the morning head shave in order to disguise the cord.

Sutherland Lyall is at sutherland.lyall@btinternet.com

letters

THRESHOLD GENERATION

SIR: The problem with Charles Jencks is that he is too old to recognize the new paradigm as anything more than a new opportunity to recount the buildings of his personal favourite architects (AR February 2003).

The paradigm shift he is looking for in the grammar of a handful of landmark buildings will forever elude him: the new paradigm is not formal, it is purely relational.

Mr Jencks had been onto something ever since his *Architecture of a Jumping Universe*, where he brooded over the first effects of the sciences of the twentieth century on architecture. Unfortunately, now as then, he insists on looking for the formalistic applications of the metaphors of say, quantum theory's particle-wave duality, and misses the point totally: when I was researching my own book *Quantum City*, I was excited to discover the title, but immediately disappointed by his insistence that a world made up of quantum waves meant a world made up of wavy stone patterns or wavy metalwork on his garage gate …

In his article 'The New Paradigm in Architecture', he gives us more of the same; there is a new paradigm somewhere, obviously not with the Bush Junta, and there are a series of new buildings that look to him 'different', hence there must be a new paradigm in architecture. Yet he fails to put his finger on it. Why? Because most of the examples he is looking at have nothing to do with a paradigm shift: they merely represent a greater permissiveness of form.

A paradigm shift is a major change in the worldview, and that is historically the result of a shift in the belief system or in the knowledge base of a particular culture, that seems to occur a couple of generations after a major scientific (or philosophical) discovery. It is the time it takes the generations who are taught the new knowledge since their childhood as a matter of fact, to grow up into decision-making positions. They are the generations whose very lives would have been shaped by the culture created by the application of the new knowledge.

The generation that represents the paradigm shift of quantum theory's second age – the practical applications and experiments (lasers, TV, computers, non-locality, the Hubble telescope …) that permitted the development of the genome project, fractals, chaos theory, internet, self-organization, and emergence theory – is not Libeskind's or Eisenman's. It is the 'thumb-generation', the Playstation and text messaging generation.

For that generation, the 'fractal' patterns of Federation Square or the tilted windows of the Jewish Museum are nothing special. They might even think they are boring in their self-consciousness. The video games they play daily subject them to architectures a hundred times more overwhelming to their senses, and I do not know what architecture their generation will end up building.

In the meantime, the current generation of architects in their thirties and forties sits at a threshold between two worlds: one that keeps jumping with excitement at any new building form that doesn't look like a shoe box and another that is born to be jaded by form.

This gives us, the current generation, a difficult responsibility, but an exciting challenge: our role is to see the paradigm shift through, to ease it through, and translate between our precursors and our successors.

I believe the key to this role as an interface lies in recognizing the shift in the knowledge base itself: the new sciences have shifted from a mechanical, Cartesian worldview, to an organic, quantum one. The main difference is in the recognition of the limits of objectivism and the rehabilitation of subjectivism – and subjectivity – even within the realm of the hard sciences. It is a shift from a world of cogs and atoms to one of potentiality waves and interactive randomness: a shift from form to relationship.

The new paradigm will not play itself in architecture building by building. As much as Mr Jencks would like to call the new blobs a shift away from Cartesianism in Mr Foster's repertoire, the Swiss Re remains as Cartesian in its thinking as any Miesian building. The Cartesian paradigm is one of repetition, rationalization, mechanization, and objectivism. Seeing it as a gherkin or a phallus is no different from earlier generations seeing shoeboxes or tombstones in the first parallelepiped skyscrapers.

The new paradigm will show up in urban design, it will emerge at the level of the city, at the level of the interaction between people. After all, the science of emergence, like the science of self-regulation, only works in the presence of a vast multitude of interactive elements. This is why LAB's Federation Square is a success: it is the urban space it generates that expresses the language of the new paradigm, not its mosaicized, whimsical facades. Bilbao wasn't Gehry's first sculptural-waveform building, witness the total pointlessness of his American Centre in Paris. But his Guggenheim is so potent thanks to its relationship to the city, and the extraordinarily eloquent upgrade it did to Bilbao's image.

The relationship between our worldview (our paradigm) and our cities is not a new matter. From Babylon to the Cité Radieuse, our cities have always been the physical translation of our worldviews. What is exciting this time around is that, for the first time in three hundred years, our scientific paradigm itself is organic once again. Yet as practising professionals and theorists we are still using the language and worldview of the old mechanical paradigm.

We should learn, as architects and urbanists of the Threshold generation, to understand, teach and apply the relational language of the quantum paradigm. Only then will our cities take on the form that synchronizes best with the vision of our children. It is our role, it is our responsibility.

Yours etc

AYSSAR ARIDA

London, England

EDITED LOWLIGHTS

SIR: I am a bit behind in my reading, and I just came across Edward Robbins' tirade against the architectural community's response to September 11 in the November 2002 issue (p20). I thought the points he made were singularly ill-tempered and wrong-headed, but what really shocked me was the prose style. Did the piece somehow escape editing? Or did you just throw up your hands in despair at the hopelessness of the task? Sentence after sentence had me wincing in pain. To wit:

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'Architects, with few exceptions, rather than ask questions or undertake good works, began before the ashes of the World Trade Center were even cold to provide answers and to seek work.' How many cumbersome subordinate clauses can one sentence bear? 'Architects, with few exceptions, did not ask questions or undertake good works; rather they began, before the ashes of the World Trade Center were even cold, to provide answers and to seek commissions.'

'Suggestions about the design of buildings to replace the collapsed towers, demands that there needed to be a dramatic response to the tragedy and a sense that architecture was the anodyne to the tragedy dominated the public comments of architects immediately after the events of 11 September (and they still do).' Whatever happened to parallel syntax? 'Demands for a dramatic architectural response, suggestions for the design of replacement buildings, and claims about the anodyne effects of architecture as a response to tragedy dominated the public comments of architects immediately after the events of 11 September. They continue to dominate the discourse to this day.'

'If, as *The Wall Street Journal* argued, Wall Street was still the spiritual heart of the financial district, it was no longer its physical centre, it suggested the possibility of new programmes and new building types for the area.' This is confusion worse confounded: it and its with different antecedents, and then a third it with no antecedent at all. 'If, as *The Wall Street Journal* argued, Wall Street is still the spiritual heart of the financial district, it is no longer the physical centre, a fact which should suggest the possibility of new programmes and new building types for the area.'

'Indeed, these images have now provided work and inserted the architect once again into the process of rethinking, or at least redesigning the World Trade Center site.' This one is beyond help. It conjures up images of images come miraculously to life – the designs published in *The New York Times* all toiling away, busily hiring workers and bodily inserting architects into the voracious maw that is the design process.

What happened? I am all too aware of the sad dearth of competent editors on this side of the Atlantic, but over there you are supposed to know better.

Yours, etc.

GEORGE SULLIVAN

Alexandra, Virginia, USA

KEEP UP THE CRITICISM

SIR: I want to congratulate you on your comments on Federation Square, Melbourne (AR May). I was immensely surprised to find that you published Charles Jencks's article on the New Paradigm earlier this year (AR February). The Jencks thesis appears to promote everything that you have stood against over all the years. He seems to welcome an anti-human architecture based on the proposal that architecture is an autonomous art with its practitioners taking the role of members of an arcane priesthood who alone are in touch with revelation. I thought that the AR stood for architecture based on reason and human tenderness.

So I welcomed your critical approach to the Melbourne piece, and hope that you will continue a campaign against this new fashionable movement as you did a decade ago against PoMo (whatever happened to that?)

Yours etc

EDWARD BLACKLOCK

Toronto, Canada

CONSERVATIVE AND EUROCENTRIC

SIR: Your coverage of the Federation Square in Melbourne (AR May) was reasonably generous 'the new piazza is really excellent' etc but your criticism of the appearance of the place is as usual conservative and Eurocentric. You seem to have little conception of a culture which is altering very rapidly, and in so doing trying to find new dimensions and expressions free of past associations – for better or worse.

You decry the wall treatment as 'simply frightening, unwelcoming and off-putting'. Is this the proper language of architectural criticism? Surely we could expect something a bit more profound and thoughtful from the AR. In fact, the complex has proved immensely popular since it opened, and I'm told it's becoming more so. Not surprising, for the place is really lively and fun as the fractals dance in the sun. But then you wouldn't know anything about such things in gloomy old London.

Yours etc

PETER JONES

Newcastle, NSW, Australia

DIRECTORY

The editorial office receives numerous enquiries about architects' contact details. We would like to point out that most architects and photographers published in the AR since 2000 appear in the Directory on our website www.arplus.com

errata

HOTEL JOSEF CREDITS

Eva Jiricna Architects' project team for Hotel Josef in Prague, featured in our May issue, was: Gabriel Alexander, Mika Burdett, Christine Humphries, Eva Jiricna, Chris Mascall, Georgina Papathanasiou, Duncan Webster, Adrian Welch.

VOLUME NUMBERS

The volume number for the May issue mysteriously changed to CCXIV, this was wrong, it should still be CCXIII. It changes every six months and will become CCXIV with the July issue.



 Fractal festival in Federation Square, Melbourne by LAB and Bates Smart: fun or anti-human?

BERTERO PANTO PHOTO: M. RAMAZZOTTI

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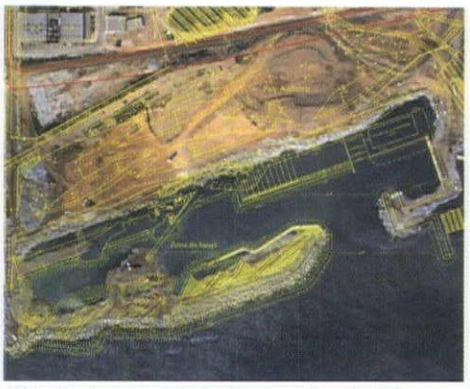
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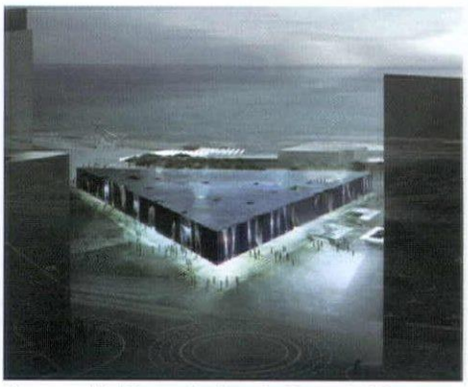
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In preparation for Forum 2004 cultural festival, Barcelona's waterfront is the latest regeneration initiative.



Waterfront proposal, including coastal parks with beaches, marinas, watersports harbour and marine zoo.



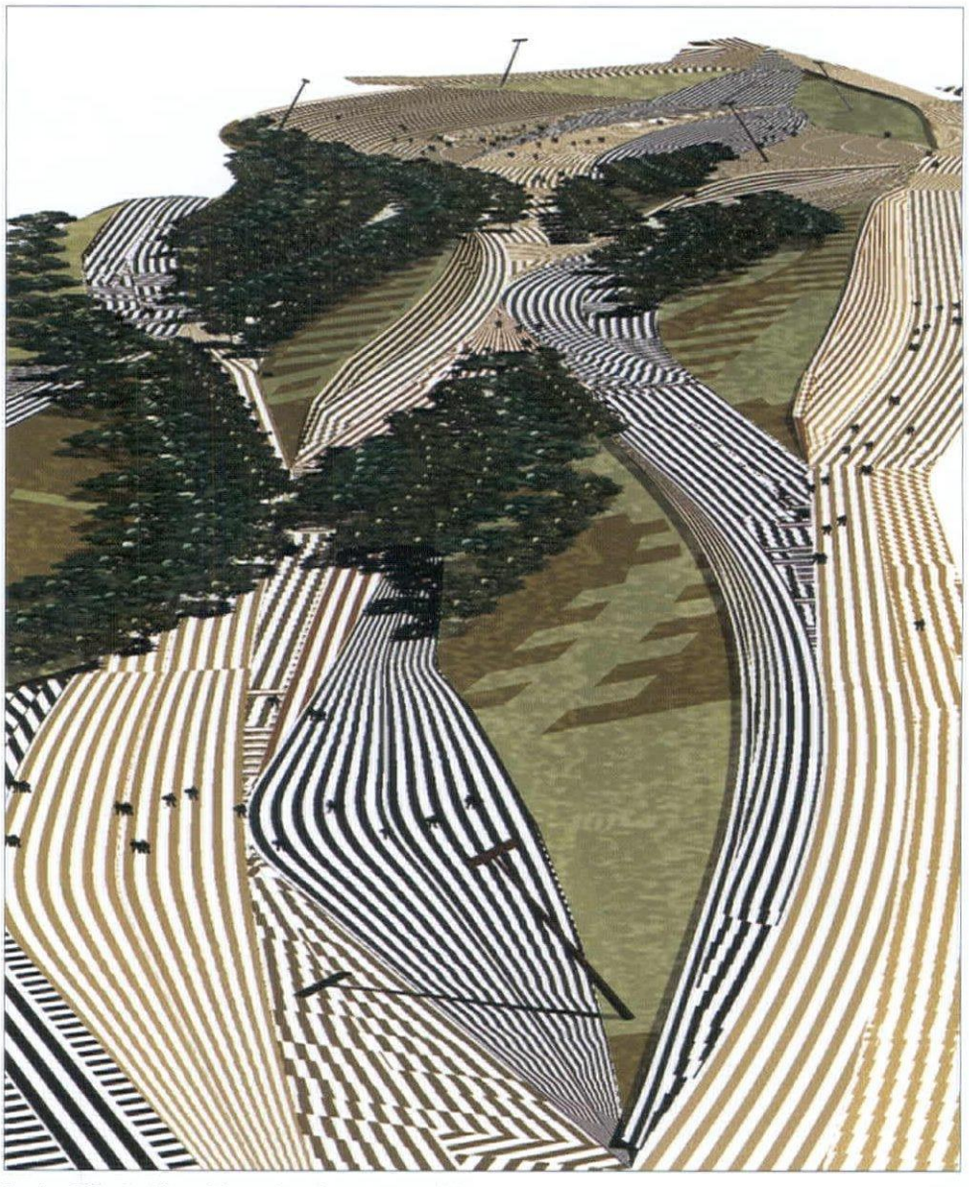
Herzog and de Meuron's triangular Forum building – ecologically OK, with recycled water in cooling cascades.

View from Barcelona

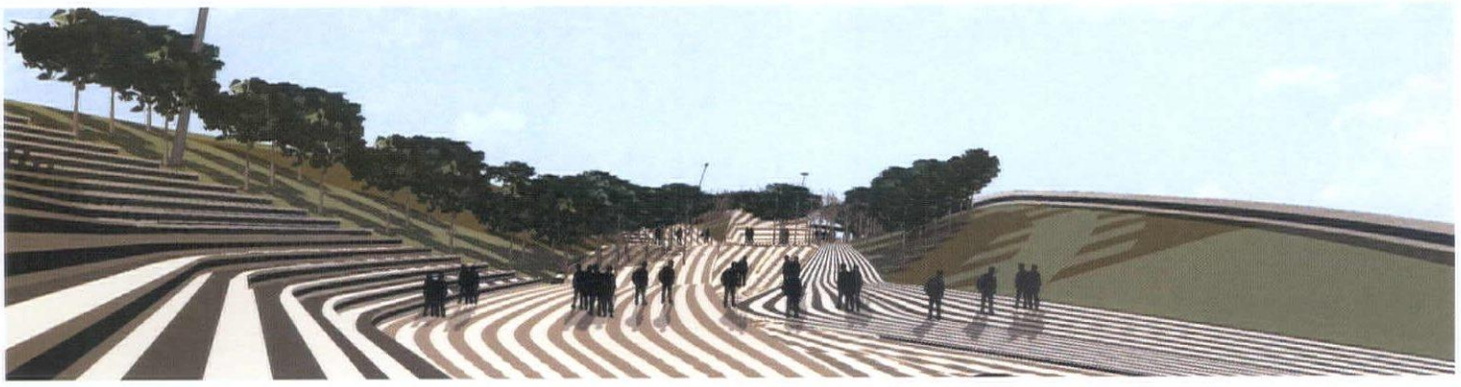
Barcelona continues its remarkably creative approach to architecture and planning, but some recent developments are becoming socially controversial.

The City of Barcelona continues to develop. Following the Olympic Games in 1992, the cultural festival Forum 2004 will attract major conferences, requiring convention centres, exhibition halls, hotels, and office buildings, in a series of developments that will regenerate several run-down regions by the waterfront. 'Barcelona will continue to open up and refurbish the waterfront', says Juan Carlos Monteil, senior planner at Infrastructures Llevant, an operation management company of the Barcelona municipality. 'The Olympic Village was developed ten years ago, and the Forum area further north is next. Financed by public, private and EU funds, it will be ready for the Forum 2004 cultural festival, with events taking place throughout the year. These developments along the transformed waterfront will be a catalyst for refurbishing the surrounding run-down residential districts.' The Forum area will develop in the northern Barcelona waterfront, where the main city road artery Via Diagonal will end and the river Besos emerge. Next to it lies the major sewage-treatment plant and garbage combustion plant for Barcelona's 2.5 million inhabitants.

The Forum 2004 area is on a new triangular site created at the intersection of the elongated Via Diagonal, and the partly covered Barcelona ringroad along the waterfront. Publicly financed, and designed by the architects Herzog & De Meuron – who refurbished London's Tate Modern – the building will have a conference capacity of 4000 in the lower part, with an exhibition hall of 5000 sq metres above. The hypotenuse of the triangle is 180m long, and the 25m high black stone roof will be covered with recycled cooling water from the refurbished sewage-plant next door, which will cascade over the semi-transparent parts of the facade. The landmark sewage-plant with its high chimneys will not be removed, but rather this old industrial quarter with its bulky structures will be integrated within a new urban landscape. Next to the sewage-plant will be beaches; perfectly regular 'playas' for bathing, marinas, inventive coastal parks hiding the infrastructure, water sports harbour, and a marine zoo park.



Foreign Office Architects' dramatic park treatment, which ...



... takes its form from dunes and interweaves natural and artificial landscape; it will include two open-air spaces with capacity for 8500 and 3500 people.

Originally built for Spanish migrants at the end of the '60s and '70s, the surrounding industrial and residential areas can look forward to a total refurbishment in the next phase of development. Poble Nou, bordering the Olympic Village area southward along the coast, will be transformed into an IT-working and living area. La Mina and La Catalana districts, bordering the Forum area, will be upgraded next to a new university campus.

Juan Carlos Monteil describes how the Catalan ecologist Ramon Folchs has influenced the new approach of how to deal with garbage and wastewater. In cities, people have to learn how to deal with their waste, addressing it instead of hiding it. As well as weaving sewage-plants and a garbage combustion plant into the urban matrix, water flushing, recycling and composting will have to become central to people's daily responsibility.

Next to and connecting to the Forum, another congress hall, the CCIB building, will evolve. Designed by Josep Lluis Mateo, financed both by the public and the private sector, this building will house 15 000 people. Around these main convention halls Forum and CCIB, several office buildings and hotels are rising to provide 2000 beds. The economic driving force is the fact that tourism connected to conventions and congresses in Barcelona accounts for a quarter of the overall tourist income, although the delegates make up only ten per cent of tourists annually. An exclusive shopping galleria, Diagonal Mar, has already been completed in this run-down and decrepit area of Barcelona, much to the annoyance of the architect David Mackay, one of the founders of local practice Martorell Bohigas Mackay Arquitectes: 'The developing of the Forum area is correct and in line with the city planning since the 1860s and the days of Ildefons Cerda who laid the famous urban Barcelona-grid.

'However, we do question the commercialization of the public areas and the integration of the Forum area with the surrounding living quarter districts. Already the price setting at Diagonal Mar shows the shops are not intending to stay longer than to get their investments back'.

The high cultural content of the Forum 2004 cultural festival means that there is a high percentage of public and EU money involved. The total budget is €173 933 million, distributed over 3 and a half years. The Barcelona municipality together with local EU funds will cover 36.5 per cent, university and research funds 4.1 per cent, the central state and national EU funds 8.7 per cent, the Catalonian autonomy Generalitat 13.9 per cent and finally, 36.8 per cent or €64 008 million from the private sector. The private sector is mainly investing in the Forum area with offices, hotels, housing and high-voltage underground works. The 2004 cultural programme will take place in the transformed Barcelona Forum area with an inauguration on 9 May 2004. It will include debates, exhibitions, La Plaza public sphere, an International Festival of the Arts, an educational programme, the virtual Forum, and different forms of cultural exchange, such as tourism.

CHRISTINA FAGERSTRÖM

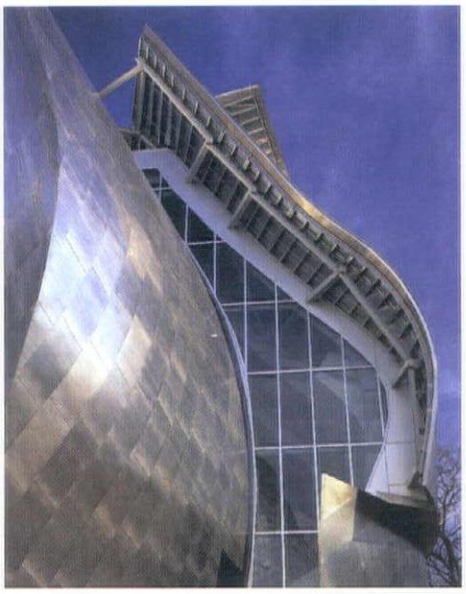
July

Next month's issue looks at buildings for high culture – art galleries, museums and performance spaces. It is a familiar theme, but one worth returning to, as historically, culture has always embodied the most expressive and experimental aspects of human endeavour and continues to be a distinguishing characteristic of all civilized societies. Latterly, culture has acted as a powerful catalyst for urban regeneration – the redevelopment of neglected areas of cities has often depended on the presence of a new cultural building, or the creative adaptation of an existing historic or industrial structure.

In the United States, we look at two major new cultural buildings which make bold statements about the relationship between architecture and culture. In Cincinnati, Zaha Hadid has just completed her eagerly awaited new Contemporary Arts Center and in upstate New York at Bard College, Frank Gehry has designed a new Performing Arts Center, his first building on the eastern seaboard. In Oslo, Sverre Fehn has completed a new Photography Museum, imaginatively inserted into an old depot in a former naval base, and in Melbourne, Wood Marsh Architects have designed a new centre for contemporary art, which forms part of the major ongoing redevelopment of Federation Square.

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1

Island in the stream

An ingenious floating structure brings drama to the heart of this year's European Cultural Capital.

1
Floating on large pontoons, the artificial island bobs up and down on Graz's River Mur.
2
The geodesic diagrid structure is wrapped in a skin of translucent metal mesh and glass panels.



long section

As part of Graz's current role as European Cultural Capital for 2003, a new artificial island has been created in the heart of the city on the River Mur. An artificial island, that is: manmade, alien and stranded.

Being free to rise and fall with the river's ebb and flow, this island structure is truly dynamic. Floating on large pontoons, and restrained to its bank side moorings by two hinged and ramped footbridges, it creates a new route and water-top civic destination, attracting and encouraging the participation of passers by. Incorporating theatre, playground, café and meeting place – along with necessary catering, lavatories and backstage spaces – it serves as both an urban prop within the city as theatre and as a practical and functional cultural catalyst: a new confluence where both functions and forms inventively combine.

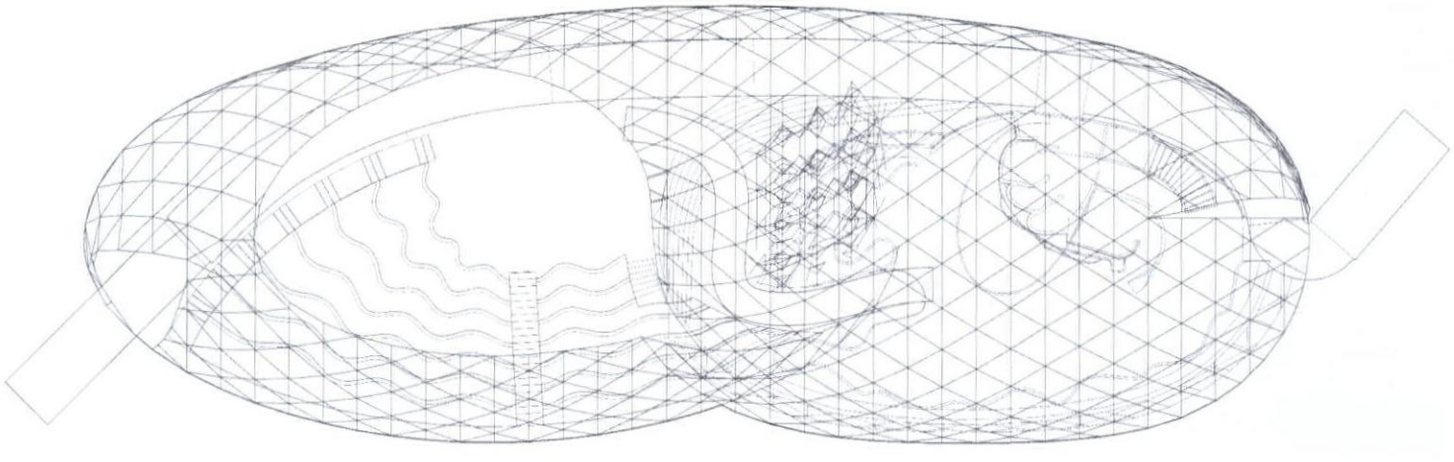
Conceived as a deformed double geodesic dome by New York based Acconci Studio, the island's free form diagrid structure wraps and contorts to create two new public spaces; one internal beneath a shallow dome, the other external within a terraced bowl. As each form clasps the other like yin and yang: solid, void, convex and concave merge into one. A skin of glass and stainless-steel mesh provides shelter, the translucency of which changes with the reflections of the water and spectacular use of night lighting. Bleacher seating terraces move in and out to allow the bowl to morph from a steeply inclined and sheltered enclosure, to a series of mini piazzas, adding to the structure's ever-changing theatrical and fluid organic dynamism. Internally a spiralling ramp ascends within the dome, rising above the lavatories and bar, circling around the cafe's centralized kitchen, and creating areas for seating, dining and socializing en route.

As a new performance space floating on the city's river, this new structure has a key part to play in the city's long-term regeneration plan; enriching the city as theatre in a vision soon to be accompanied in similar programmes by the work of British duo Peter Cook and Colin Fournier, and by Graz's own Klaus Kada. ROB GREGORY

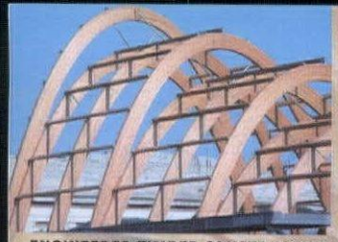


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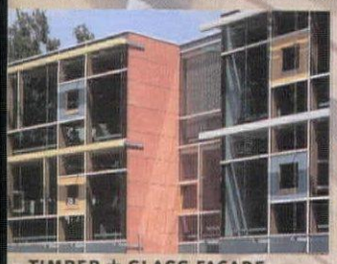
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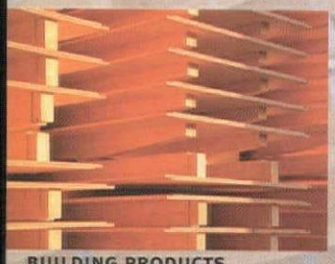
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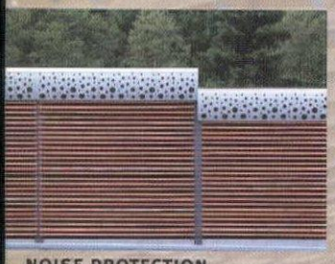
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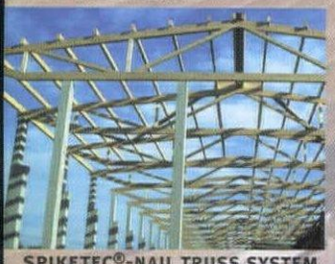
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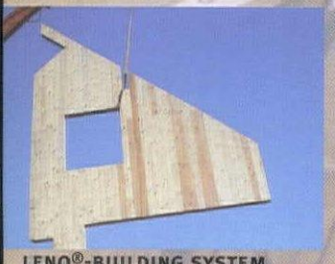
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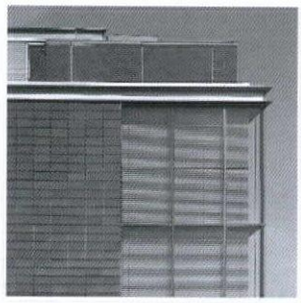
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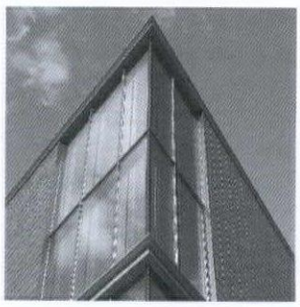
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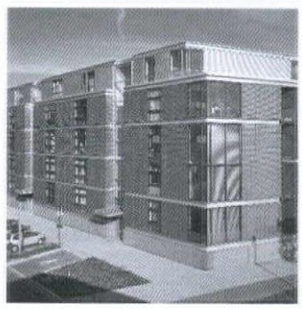
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enquiry 25 www.arplus.com/enq.html

Around 7.5 billion years from now, the sun will finally exhaust the source of hydrogen fuel in its core and swell monstrously to become a red giant, whose fiery surface will engulf our Earth and the inner planets. Oceans will evaporate, rocks turn to molten lava, and if organic life (plants, animals, humans) still remains, it will be swiftly extinguished. Should the Earth survive being incinerated (astronomical and scientific opinion varies on this point), it will then become a dark, airless, frozen cinder as the sun enters the final stage of its star life, cooled and transformed into a dense white dwarf. From our insignificant vantage point in the evolutionary cycle, it is momentarily sobering to reflect that the life-giving source of light and heat, venerated and worshipped over millennia, is destined to become our planet's fiery, hellish nemesis.

Heat from the sun kick-started human civilization – the first hominids flourished amid the warm, equable climate of the African savannah, with no need for shelter, a kind of primordial Eden. Fire, clothes and buildings came later, as primitive humans gradually colonized different climate zones. At present, arid and semi-arid regions occupy just over a third of the earth's total land area, but neglect and mishandling of ecosystems adjoining desert regions are transforming vast stretches of sub-humid and semi-arid land into sterile wildernesses. In Africa, for example, agricultural land is being consumed by the Sahara to the north and the Sahel to the east.

Equally alarmingly, indications continue to suggest that the temperature of the earth is slowly rising as a direct consequence of increased emission of greenhouse gases in the atmosphere, notably CO_2 and methane. Rising sea levels, thinning ice caps, melting glaciers, expanding deserts, earlier springs in the northern hemisphere and extreme heat episodes in hitherto temperate climate zones are all manifestations of this phenomenon. While we are not yet in danger of being fried to a cosmic crisp, things are definitely hotting up.

Too much sun can precipitate environmental and social catastrophes, such as drought and famine, and within our precariously small zone of temperature tolerance, excess heat can be lethal. If an adult human being were to stand naked in the Sahara (where temperatures can easily rise to 49 deg C), he would lose most of his body water by midday. By late afternoon, his glands would stop functioning, raising his body temperature to 42 deg C. Soon after this, he would die (if not provided with water) and expire even quicker if exposed to the desiccating effects of hurricane winds (completely dried and mummified bodies have been found after desert sandstorms where individuals were unable to get help or water).

Survival tactics

Despite the harshness of such conditions, humans have developed many ingenious means of survival in hot latitudes. The lightweight goat hair tents of the nomadic Bedouin, for instance, can be pitched under a tree for shade, or to catch prevailing breezes. Australian aborigines build open-sided *wiltja*, shelters covered in paper-bark which permits air circulation yet gives dense shade. The Acoma Indians of the American South-West constructed thick-walled adobe dwellings which absorbed the heat of the day and released it at night, fundamental principles of thermal mass now reinterpreted in contemporary approaches to environmentally responsive design.

Beyond the level of mere survival, there are numerous examples of inventive building types developed in response to hot climates. The basic Arabic and Persian courtyard house, with rooms arranged around an open often planted or water-filled courtyard, is a common feature of life from Morocco to India. In the hot, humid conditions of the Asian tropics, buildings are traditionally elevated above ground, with overhanging eaves and thin permeable walls to encourage ventilation. In their conquest of Mexico and South America, the Spanish adapted Mediterranean principles to more challenging climes, with their haciendas, adobe patio houses and city squares or *zocala*. In Australia, the prefabricated timber and tin verandah houses of the Victorian era were layered, lightweight and in contact with nature, principles that still obtain in the work of contemporary Australian architects such as Glenn Murcutt and Bligh Voller Nield (p48).

In modern times, such intuitive, ecologically undemanding ways of living and building in hot climates have been superseded by the rise and rise of technology, notably air conditioning. The outcome is that from Dallas to Dubai, models developed in temperate climates, such as the glass curtained, air-conditioned, energy-guzzling office block are simply plonked down in patently unsuitable settings. This 'one-size-fits-all' approach has its roots in simple economic expediency but also, to some extent, in the heroic, progressive visions of Modernism (despite Corb's discovery of the *brise-soleil*). In an age of increasingly rapacious globalization, this lowest common denominator thinking has also been reinforced by a more general erosion of regional identities and cultural nuances. Yet it is clear that long held tenets of vernacular wisdom are still relevant if we are to evolve new climate-specific planning and building models – and ways of construction – that will create environments that are both ecologically sustainable and humanly satisfying.

The buildings in this issue attempt to show how architecture is shaped and tempered by hot climates – from the unforgiving latitudes of Chile's Atacama Desert, p42 (the driest inhabited place in the world), to a new language of tropical Modernism in Singapore, p54. All in their different ways add to the ongoing debate and the perpetual search for appropriate models that try to touch the ground lightly. In doing so, the experiential dimension of hot climate architecture should not be overlooked. Unlike cool climates, where elements have to be firmly repelled through a protective, impermeable enclosure, buildings in warmer latitudes are usually more open and can filter the climate in many different ways, enriching the relationship between architecture and context and bringing humankind in touch with nature in a way that is both pragmatic and poetic.

CATHERINE SLESSOR

HOT ISSUES

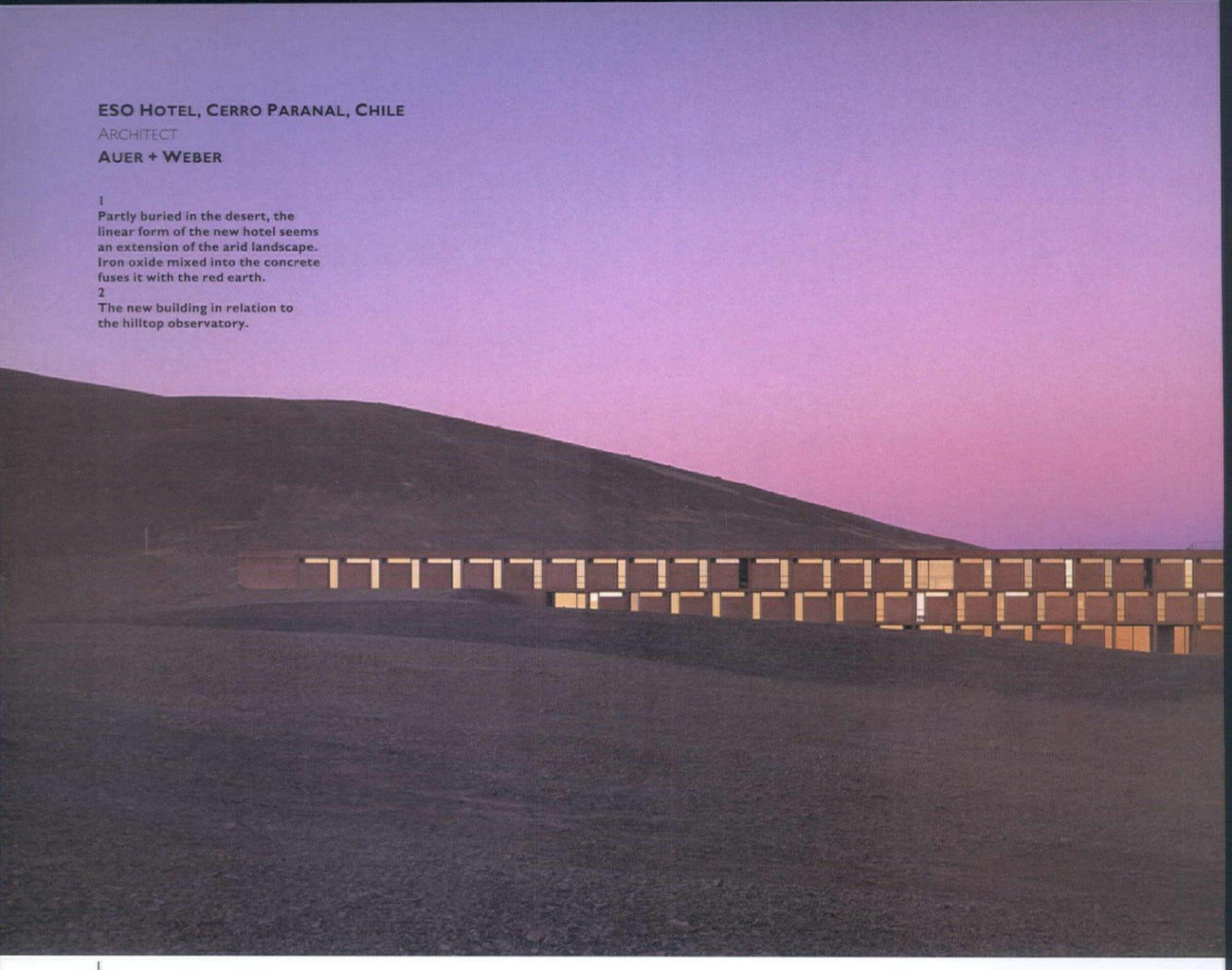
Building in hot latitudes presents its own particular challenges, but even the most extreme climates can give rise to intuitive forms of architecture that have an important role to play in the search for a new ecological responsiveness.



The effects of the sun tempered by shading in a market in Marrakech, Morocco. Photograph by John Chitty.

ESO HOTEL, CERRO PARANAL, CHILE
ARCHITECT
AUER + WEBER

1
Partly buried in the desert, the linear form of the new hotel seems an extension of the arid landscape. Iron oxide mixed into the concrete fuses it with the red earth.
2
The new building in relation to the hilltop observatory.



1

Extending from the Pacific Ocean to the Andes Mountains, the Atacama Desert in northern Chile is one of the hottest, driest places on earth. Sparsely populated and virtually rainless, the desert plateau is made up of salt basins (*salars*) and lava flows melded into a desolate, lunar landscape scorched by day, chilled by night and blasted by strong winds. Average relative humidity is around 15 per cent (well below comfort zone levels) and minor earthquakes are common. Humankind's impact on such an inhospitable place is at best precarious, yet for 3000 years, native peoples have resiliently exploited scarce natural resources to colonize the Atacama wilderness, building canals and aqueducts to irrigate fields, using water drawn from underground aquifers. Scattered settlements were established around water sources and, when the Spanish arrived in 1500, the native populace adapted to and absorbed colonial influences. As might be expected, contemporary architecture is scantily represented, but German del Sol's Explora Hotel (AR February 1999), a modern tourist *estancia* that responds to the distinctive culture and spirit of Atacama, is one notable exception. Building in this wilderness is a considerable logistical challenge, but German practice Auer + Weber have inventively addressed it in a new building for an isolated colony of astronomers, in which scientific rationale squares up to the rawness of nature.

One favourable consequence of the Atacama's lethal conjunction of extreme climate and harsh topography is perpetually clear skies; the remote terrain is also largely free of the distracting light pollution that accompanies human settlements and activities. Such conditions are ideal for astronomical observation and the European Southern Observatory (ESO), a technical and research federation made up of representatives from ten European countries, currently operates two observatories in the Atacama plateau. Las Sillas was established in 1962, and nearly thirty years later, in 1991, a second base was set up at Cerro Paranal, just inland from the Pacific coast and about 130km south of the town of Antofagasta. Set on top of a 2600m high peak, the Cerro Paranal observatory has an unequalled view of the heavens through the

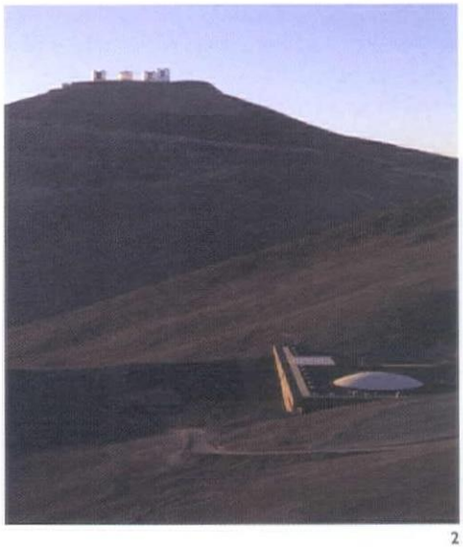
STAR GAZING

Set in the lunar landscape of Chile's Atacama Desert, this new residential building for astronomers has to contend with harsh extremes of climate.

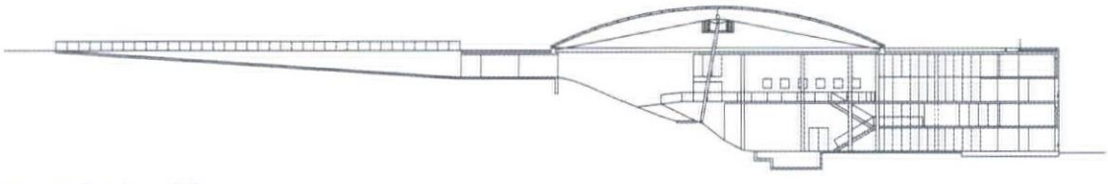
world's most powerful and sophisticated astronomical device, the prosaically named Very Large Telescope (VLT). The Paranal base sustains a sizeable community of astronomers and scientists, who need living quarters as well as laboratories, and Munich-based practice Auer + Weber (the ESO has its headquarters in Germany) were asked to design a new residential building for the observatory; a sort of hotel for boffins at the end of the world.

So as not to contaminate the night sky with light, the new addition is sited at some distance from the hilltop telescope, but it also had to generally minimize its impact in the landscape. The outcome is a long, low, almost topographic structure partially embedded in the terrain as protection against the scorching sun and scouring winds. The building's two visible elevations are orientated towards the south-east and south-west, away from the main VLT site and the prevailing north winds.

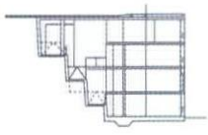
Planning is logical and economical. A long thin bar of 108 cellular bedrooms meets a slightly fatter block of communal spaces at right angles to form an L-shape which encloses a circular central courtyard. Planted with palm trees, succulents and cacti, and equipped with a sybaritic swimming pool, the courtyard is a literal oasis in the desert, as the planting helps to raise and maintain humidity levels within the building. The region's searing daylight is tempered and filtered through a 35m wide geodesic dome clad in panels of translucent polycarbonate sheeting. The gentle geometric



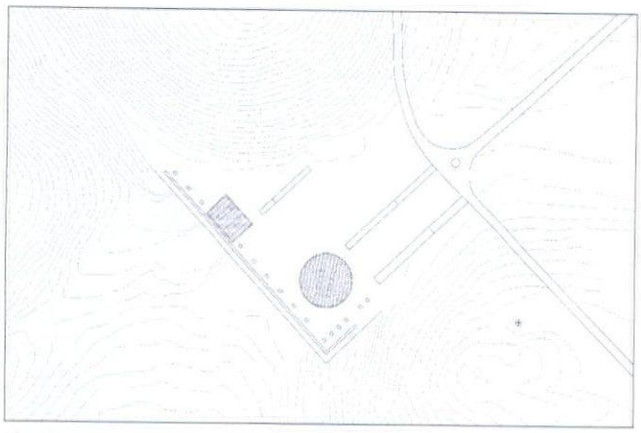
2



cross section through dome



cross section through bedrooms



site plan

intermediate level plan (second floor)

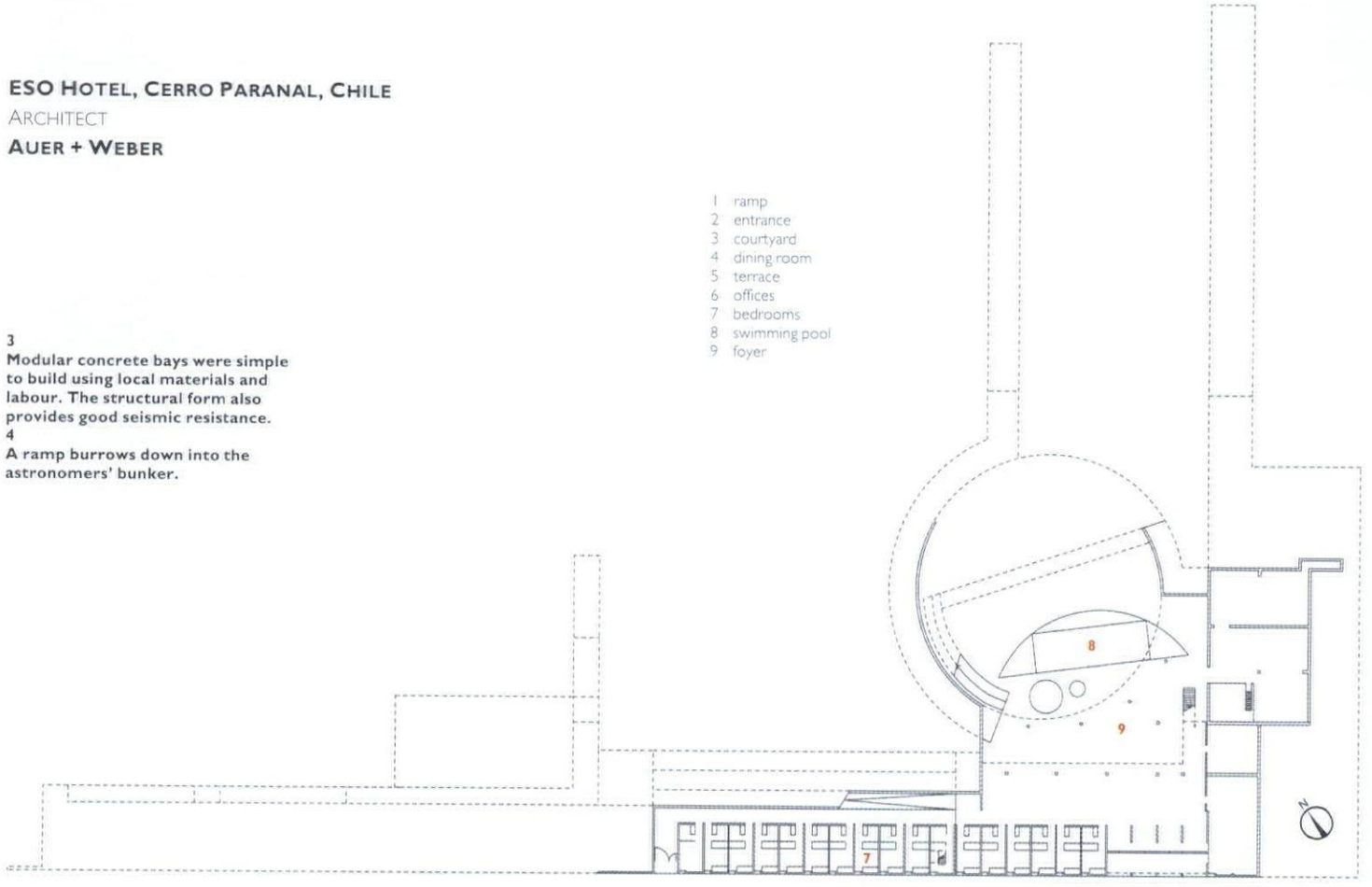
ESO Hotel, Cerro Paranal, Chile

ARCHITECT

Auer + Weber

1 ramp
2 entrance
3 courtyard
4 dining room
5 terrace
6 offices
7 bedrooms
8 swimming pool
9 foyer

3
Modular concrete bays were simple to build using local materials and labour. The structural form also provides good seismic resistance.
4
A ramp burrows down into the astronomers' bunker.



lowest level plan (ground floor) scale approx 1:1000



3



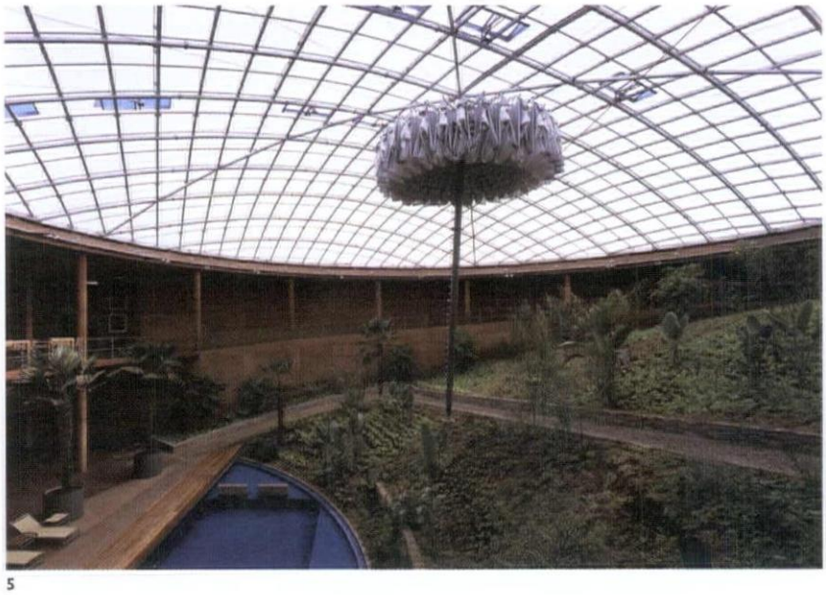
4

undulation of the dome (appropriately resembling a crash-landed flying saucer, but also alluding to the domed telescope housing and the infinite vault of the sky) is the only part of the building to rise above the existing line of the horizon, so the hotel seems barely there. The entrance is also consciously inconspicuous – a long ramp leads down into the ground and sweeps and spirals around the Bond-villain's-lair central courtyard in a kind of *promenade architecturale*.

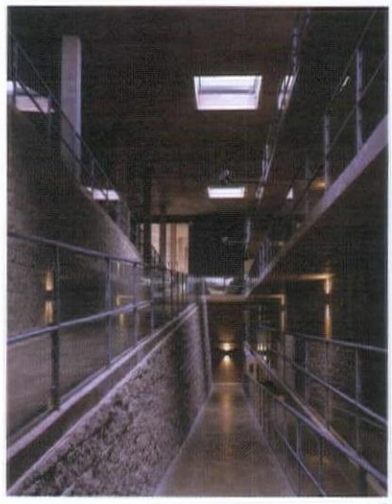
From a distance, the elongated horizontal streak of the main south-west facade seems like an extension of the stark landscape. And in some ways it is, as iron oxide mixed into the concrete renders the building a deep rusty red, matching the hue of the surrounding earth. The layered facade is designed to screen as much sunlight as possible, while still allowing spectacular views of the lunar scenery. Glazing in each bedroom bay is confined to a narrow L-shape, incised into the massive concrete planes, and deep window reveals also help to diffuse glare. At certain points, the inner wall is pulled back from the concrete outer grid to create a terrace running along the edge of the communal dining hall. The prospect of off-duty astronomers lounging on their terrace, savouring the views down to the Pacific, are perhaps more suggestive of an upmarket wilderness resort than a forum for serious scientific endeavour, but the programme emphasized the role of the new building as a place for rest and recreation, and, as with all isolated, self-contained working communities (eg oil rigs, monasteries, military bases), participants need some kind of experiential texture to enliven the passing of time.

Despite the whiff of luxury resort, the building is actually reassuringly economical (the budget was 8.7 million euros). Construction methods and materials were selected for their simplicity and durability, to achieve low capital and maintenance costs, but even so, the building process proved particularly testing. Water for mixing concrete had to be trucked in from outside and the high winds contrived to hamper the most basic tasks. The basic in-situ concrete structure took advantage of local construction experience and labour and can be easily extended incrementally should the building need to expand. The small bay, flexibly jointed, modular form also provides good seismic resistance.

Animated by the intense light that casts a changing grid of shadows over the sharply modelled concrete bays, the new hotel has a powerful monolithic presence. The imposed formal constraints root the building in the landscape so that the scientific community is brought back to the bosom of the Earth, both symbolically and literally, after hours spent gazing heavenwards contemplating the mysteries of the cosmos. CATHERINE SLESSOR



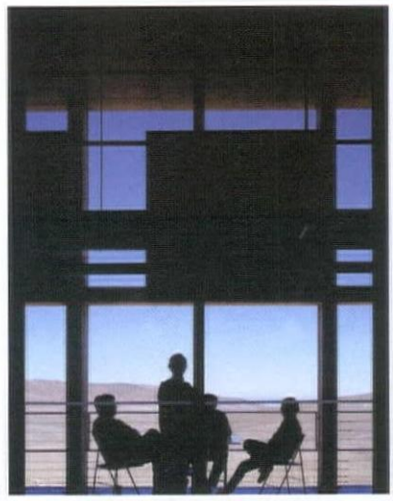
5



6

5
Lush internal courtyard is capped by a geodesic dome.
6
Bedroom wing.
7
Astronomers at play. Cerro Paranal is one of two ESO bases in the Atacama plateau.
8
The building has a powerful monolithic presence.
9
The internal wall is pulled back from the concrete screen to form a civilized terrace.

Architect
Auer+Weber+Architekten, Munich
Project team
Dominik Schenkirz, Philipp Auer, Robert Giessl, Michael Krüger, Charles Martin
Structural engineer
Mayr + Ludescher
Services and electrical engineer
HL-Technik
Photographs
Roland Halbe



7

ESO HOTEL, CERRO PARANAL, CHILE
ARCHITECT
AUER + WEBER



8



9

Townsville is one of Australia's largest military ports, strategically located to command the Coral Sea. In the tropics, well north of Brisbane, the town has a relatively rainless but nonetheless humid climate, largely shielded by mountains from tropical downpours further north and west. Just south of the town, Lavarack Barracks are the home of the Third Brigade, the army's rapid deployment force. New approaches to soldiering, brought about partly by increased recruitment of women, and by the need to retain soldiers in a competitive labour market, have caused a need for redevelopment of the barracks, which were originally built by American military engineers during the Vietnam war in the '60s.

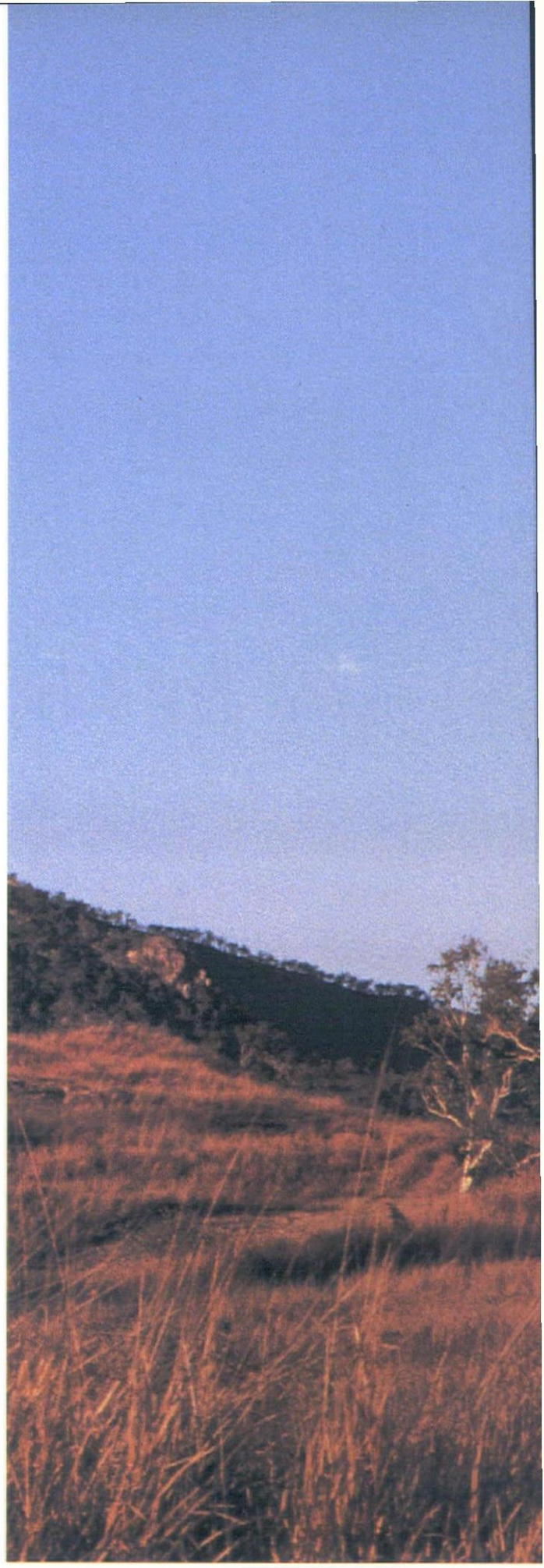
The main aim of the new work has been to give each inhabitant a sense of personal place, while maintaining physical notions of the group, and beyond that of the brigade as a whole. In generating the new buildings, much was learned by the architects (Bligh Voller Nield working with Troppo) from the existing structures, for instance use of steel-framed prefabricated construction, deep roof overhangs, light-coloured steel cladding, narrow plans to encourage through ventilation and generally north-south orientation to conserve energy.

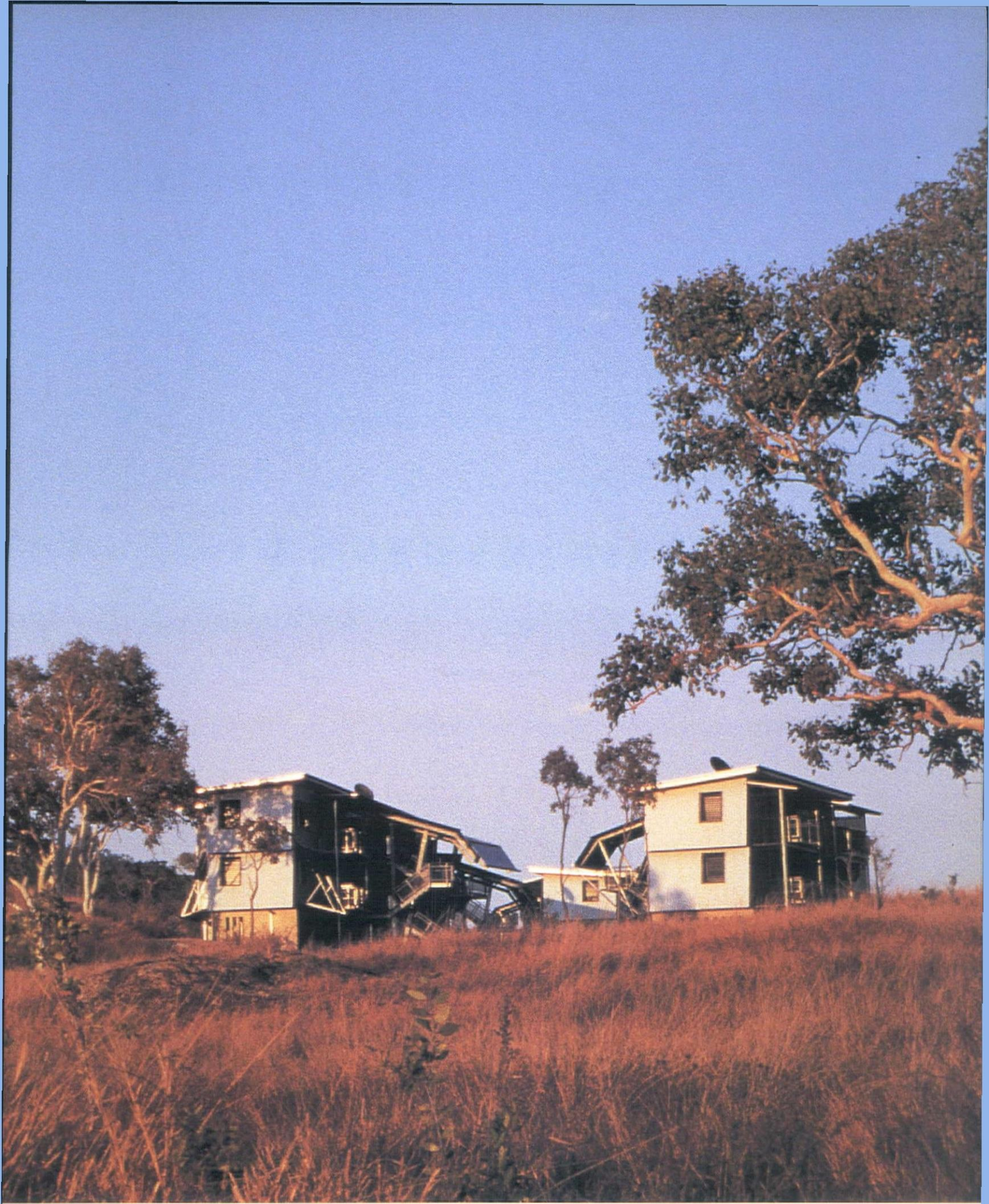
Main differences between new and old include giving each inhabitant at least a private room with a bathroom and an often generous balcony. Such units are formed into two- and three-storey blocks clustered round courts in which existing trees are preserved. Views to Mount Stewart to the south and to Castle Hill to the north are preserved and framed.

MILITARY BARRACKS, TOWNSVILLE, QUEENSLAND, AUSTRALIA
ARCHITECT
BLIGH VOLLER NIELD WITH TROPPO ARCHITECTS (QLD)

OUTBACK BARRACKS

An experiment in prefabrication optimizes orientation and shade to reduce artificial cooling needs.

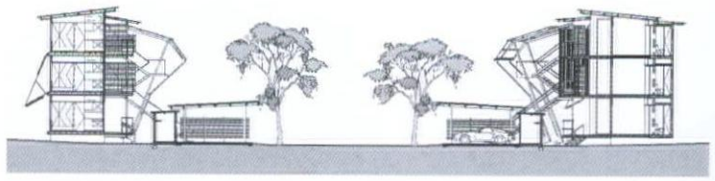




1
Blocks are clustered to increase sense of social group, and to minimize impact on bush. Laverack Barracks must be some of the few anywhere that try to engage with wild nature.



site plan of eastern precinct (scale approx 1:1125)

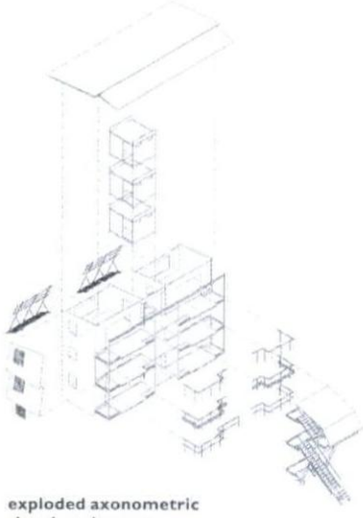


cross section through typical court cluster

MILITARY BARRACKS, TOWNSVILLE, QUEENSLAND, AUSTRALIA

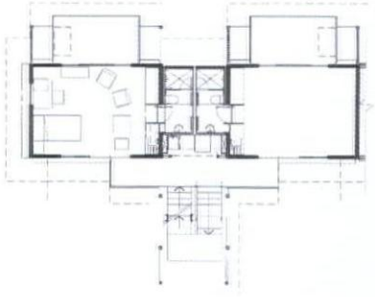
ARCHITECT

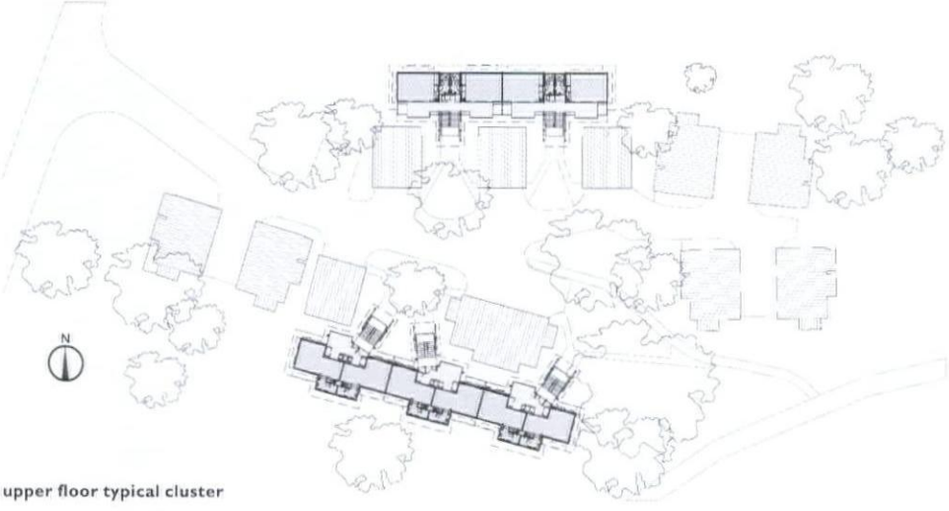
BLIGH VOLLER NIELD WITH TROPPO ARCHITECTS (QLD)



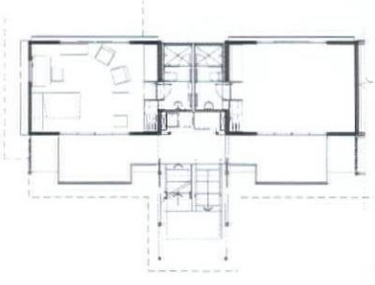
exploded axonometric showing elements



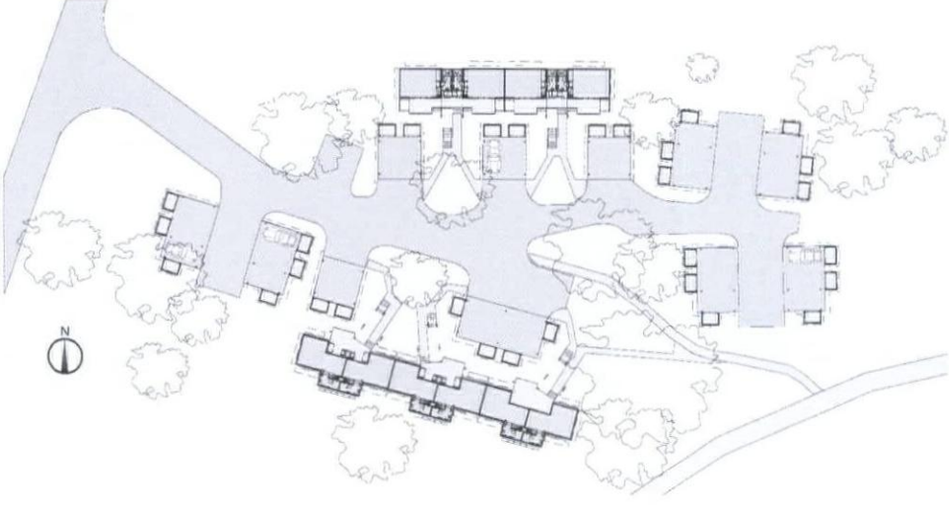




upper floor typical cluster

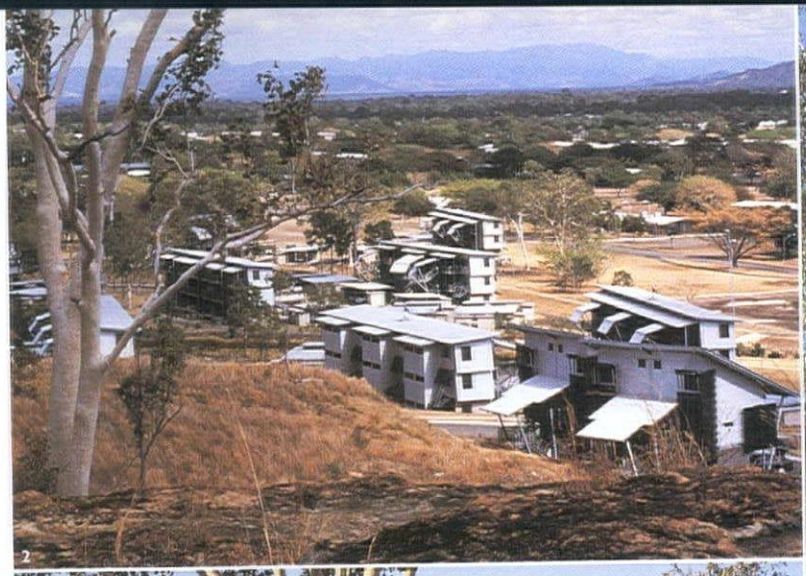


floor plans of other rank units

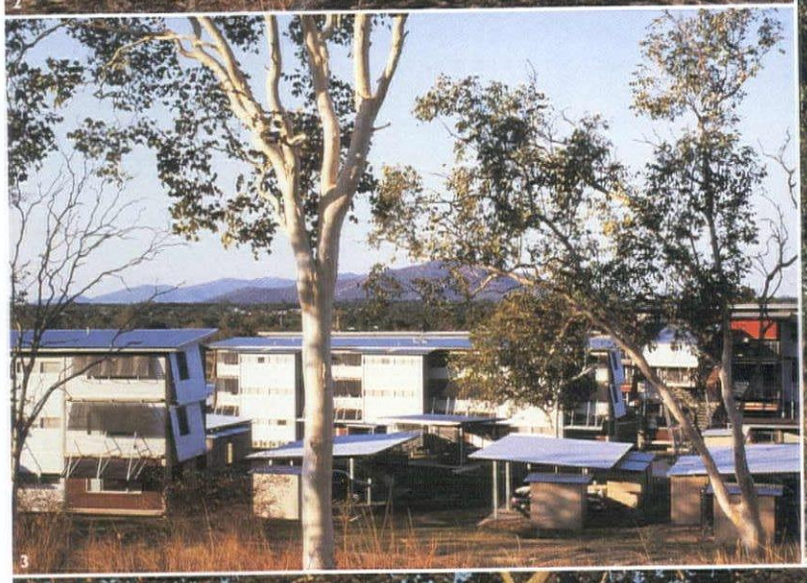


ground floor typical cluster (scale approx 1:150)

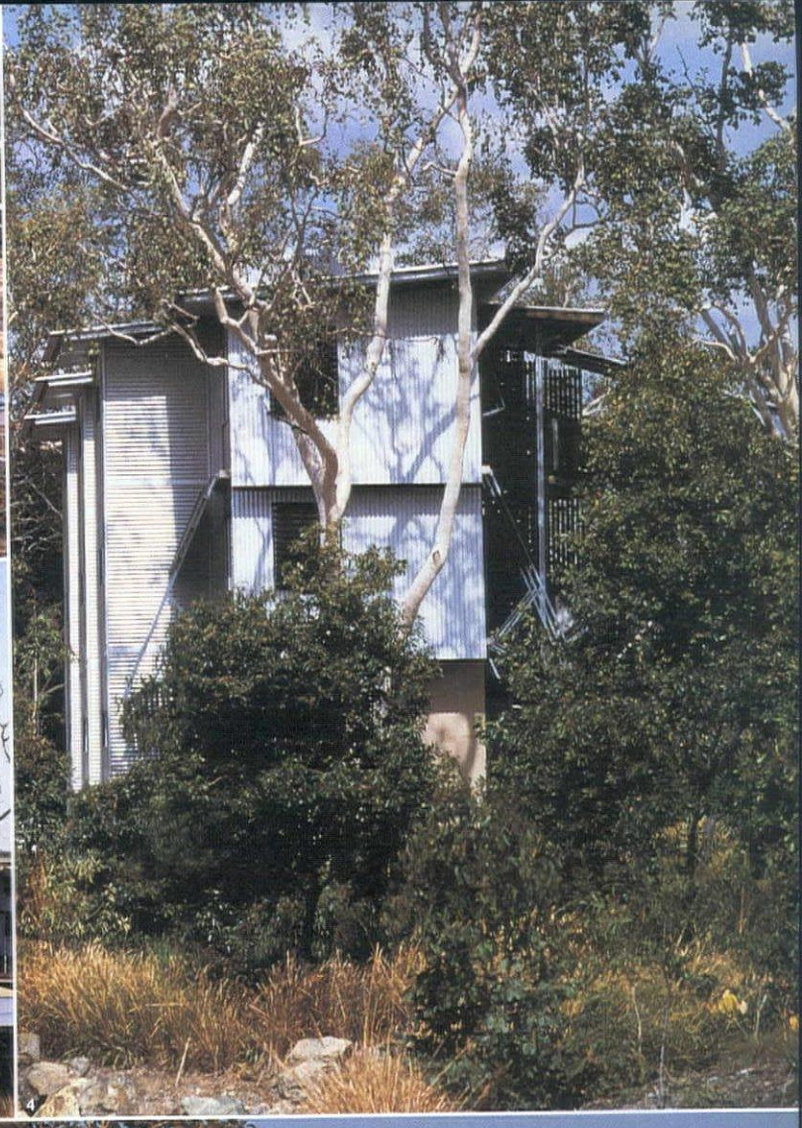
2
Eastern precinct: hillside is left free of building as far as possible.
3
Extensive provision of car ports tends to suburbanize some spaces ...
4
... but elsewhere, nature comes right up to buildings.
5
Court side of blocks has stairways and elaborate sunscreens.



2



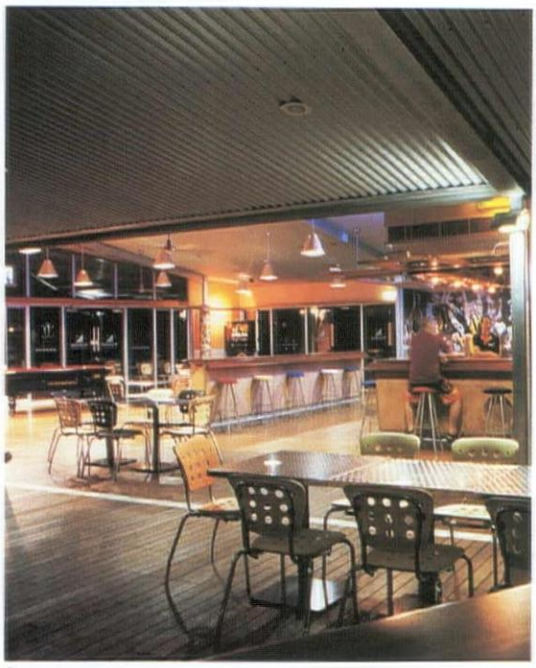
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4



5



6

MILITARY BARRACKS, TOWNSVILLE, QUEENSLAND, AUSTRALIA

ARCHITECT

BLIGH VOLLER NIELD WITH TROPPO ARCHITECTS (QLD)

Prefabrication was an overriding preoccupation to contain costs, increase building speed by reducing wet-season delays and to provide good finishes. Most buildings on site were erected by crane with no scaffolding. Acoustic and fire separation, and a degree of thermal stability, are provided by precast concrete party floor and wall units bolted together (wall elements were formed using the tilt-up process). External walls are framed in lightweight steel with corrugated metal or plywood panels, some of which are brightly coloured to add a sense of individuality and location – for the same reason, panels are sometimes formed of natural timber. Further particularity is given by adding a variety of prefabricated galvanized steel and hardwood stairs, balustrades and sun-shading devices, all of which to some degree recall the tin and timber domestic rural architecture of tropical Queensland.

More than 1000 individual units have been provided in stage two of the redevelopment. The courts formed by the living units are grouped into what the architects call three 'precincts', sited to maximize the cooling effects of prevailing site breezes and make the most of natural site features. Each precinct has a mess located on Robert Towns Boulevard, the main east-west axis of the whole camp. Messes are used by all ranks, but traditional differences between officers, senior NCOs and other ranks are retained, with separate entrances, eating and drinking spaces and finishes, so the apparently democratic atmosphere generated by the living and sleeping accommodation is not as all-pervasive as it seems initially.

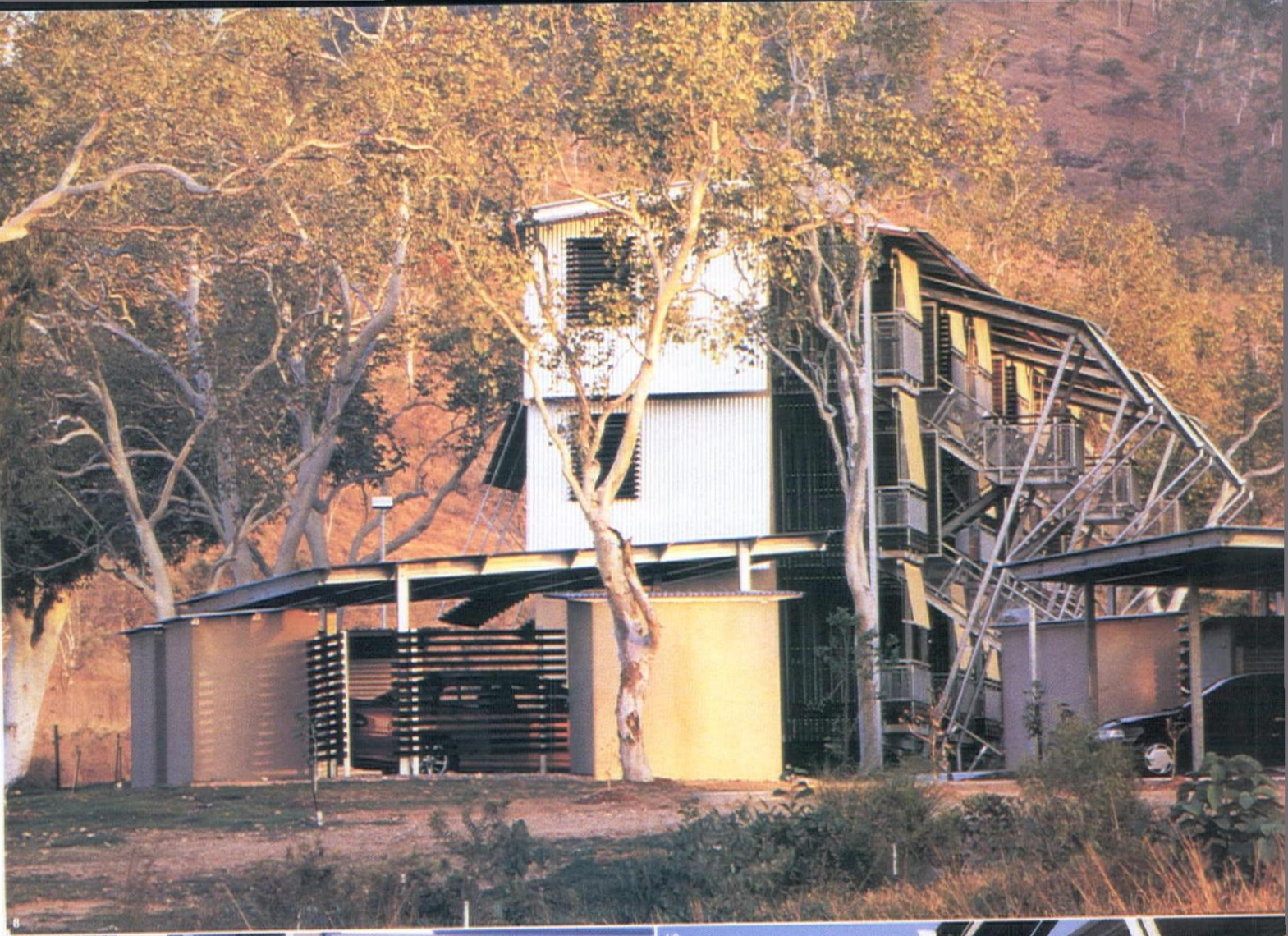
Nonetheless, the messes are much more open and approachable than many buildings of their type, just as the barrack blocks themselves are radically different from traditional eighteenth-century institutional dormitories. Within the constraints of army life, the barracks are as inventive as they are in economically and constructively dealing with the hot and humid climate. E. M.

Architect
Bligh Voller Nield with
Troppo Architects (Qld)
Project director
Phillip Tait
Design directors
Shane Thompson, Phil Harris
Project architects
Jon Florence, Andrew Bock
Project team
Chris Bligh, Geoff Clark, Sonia Graham, Paul Baker, Greg James, Michael O'Brien, James Russell, Rob Vider, Sacha Cochran, Prue Langer, James Peet, Carolyn Biasi



7

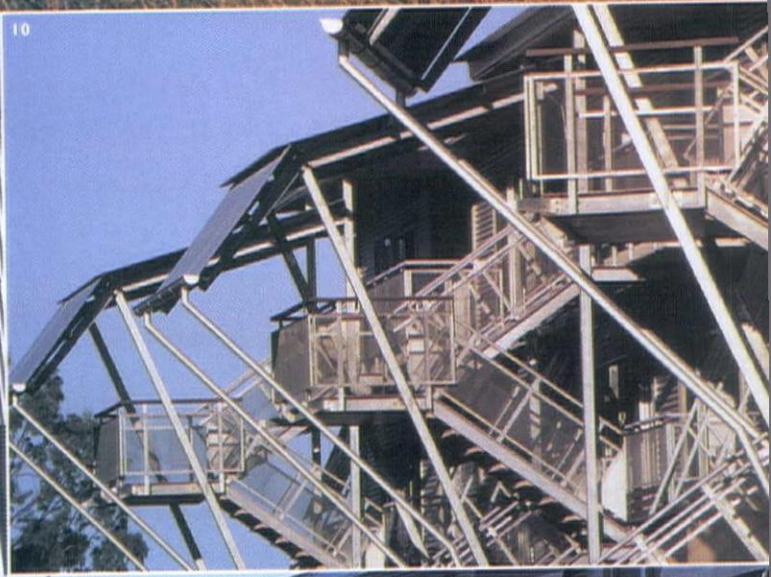
6
Other ranks' bar in mess.
7
Mess with shaded exterior spaces opens as far as possible to surrounding landscape.
8, 10
Each pair of rooms has a balcony reached from a separate staircase.
9
On short ends of blocks, concrete wall slab is protected from elements by metal screens.
11
Outward-facing facades offer views of landscape through sun-screen system.



8



9



10



11





Nassim Hill was a favourite location of the early colonial settlers in Singapore and the British Civil Service built a number of early 'Black and White' houses in the area. Several foreign embassies were sited in the wooded enclave. Remote from the commercial bustle of Orchard Road, it is close enough to enjoy all the amenities of city life and the Botanic Gardens are within walking distance. The slightly elevated topography ensures that buildings benefit from gentle tropical breezes. It was also an area where early modern residential architecture was introduced in the form of the Nassim Hill Apartments designed by K. A. Brundell in 1951.

It is apt that Mok Wei Wei, the architect for a new residential scheme, should be one of Singapore's foremost exponents of contemporary Modernism. The site for the Loft, a 77 unit condominium development, is a right-angled triangle with both acute angles cut off so it is more a misshapen pentagon. Rising to the north of Nassim Hill Road, the 7534 sqm site is fringed by mature trees.

Perimeter planning for housing was developed at Cambridge by Lionel March and Leslie Martin in the early '70s. It provides the most efficient way of achieving a relatively high density development without resorting to construction of tall blocks by building a continuous extrusion around the perimeter of the site with a cross section between 12m and 16m deep. This strategy works particularly well in the tropics, for a relatively narrow extruded section encourages cross ventilation. Mok Wei Wei adopted the concept and, in spite of the statutory height restrictions, he effortlessly achieves a plot ratio of 1:1.4.

Programme requirements are first resolved in a linear extrusion of four storeys plus an attic, with main living spaces (living/dining room and master bedroom) on one side of the extrusion and secondary rooms (bedrooms/ kitchen/yard) on the opposite side. Linear blocks are then arranged on the site so that the main living spaces look inwards to a large private courtyard containing a narrow lap pool, jacuzzi and barbecue area. The inner facade is transparent, the external one more solid. The architectural language is an elegant synthesis of Modernism and vernacular responses to the hot climate, a further development of ideas that appeared in Mok's designs for the Morley Road House (1998) and Paterson Edge (1999). His choice of materials – white-painted plastered walls, black powder-coated steel-framed windows, steel and glass balustrades and stainless steel *brise-soleil* – clearly reflect a Modernist sensibility reinterpreted in the pursuit of an architectural language particular to tropical Singapore.

Corners are the main difficulties of perimeter planning; they usually have problems of overlooking and lack of ventilation. Mok's solution is simply to remove the re-entrant angles of the perimeter block and, in the process, frame magnificent views of mature trees just beyond the boundary of the site. Further fragmentation of the perimeter extrusion was necessary to preserve the five 100 year old tembusu trees on the site which are protected by law. This fragmentation is turned to advantage as it breaks down what otherwise might have been a simple triangular courtyard at the heart of the development into a more complex shape.

The scale of the central communal courtyard is remarkably urban and its success is partly due to the presence of a strong linear element, a high grey stone wall that cuts diagonally across the site and forms the north-east boundary of the space. This wall also conceals the upper level of the two-storey car park.

The courtyard is defined by the stone wall, with its horizontal emphasis, and a 25m swimming pool. A timber deck runs alongside

1
Linear blocks wrap around the site, enclosing a central private courtyard. Bedrooms and kitchens face outwards.
2
The more hermetic outer facade.
3
Existing mature trees are preserved and the restrained landscaping enhances the architecture.
4
Blocks are linked by walkways.
5
Living rooms overlook a central courtyard and pool.
6
Glazed walls are shaded by *brise-soleil*.

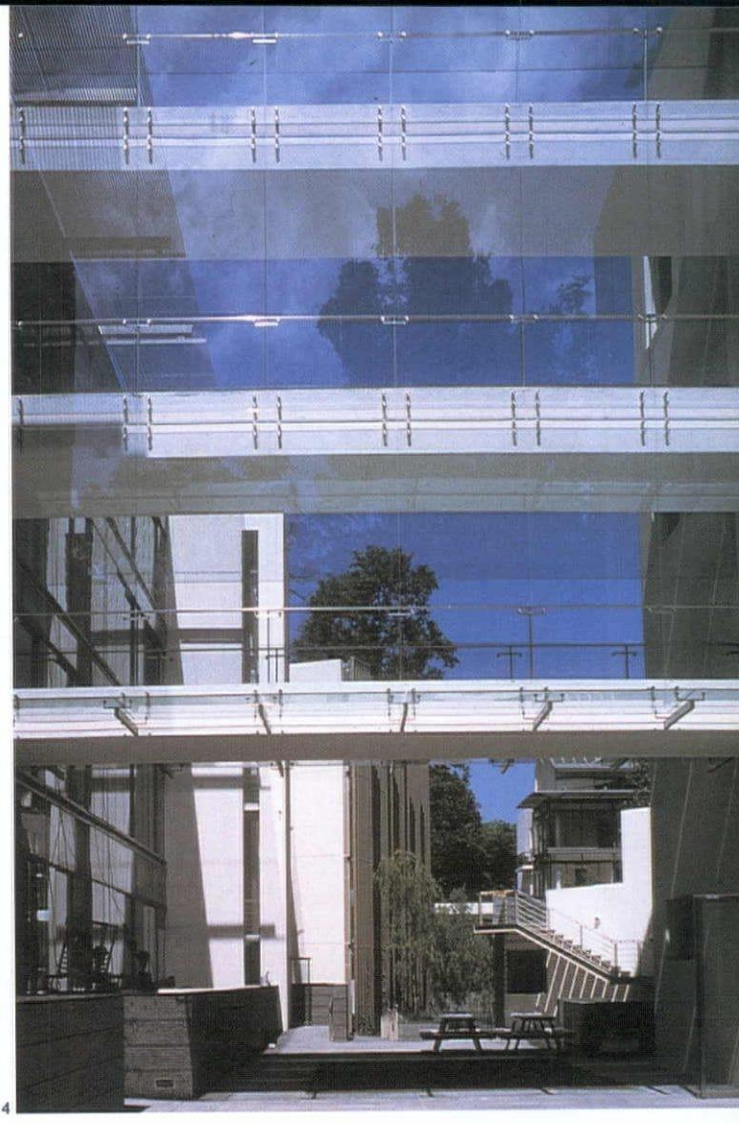
TROPICAL PERIMETER

This housing complex in Singapore mixes Modernism with local forms in response to the tropical climate.

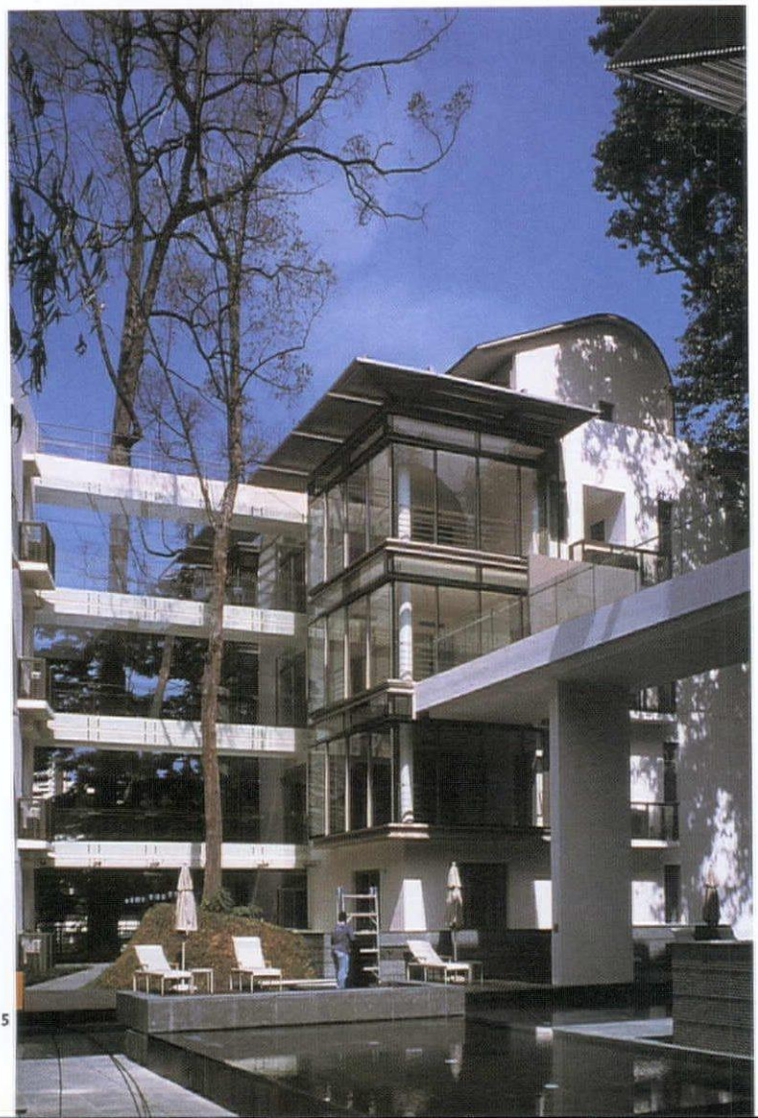
HOUSING, SINGAPORE
ARCHITECT
MOK WEI WEI, WILLIAM LIM ASSOCIATES



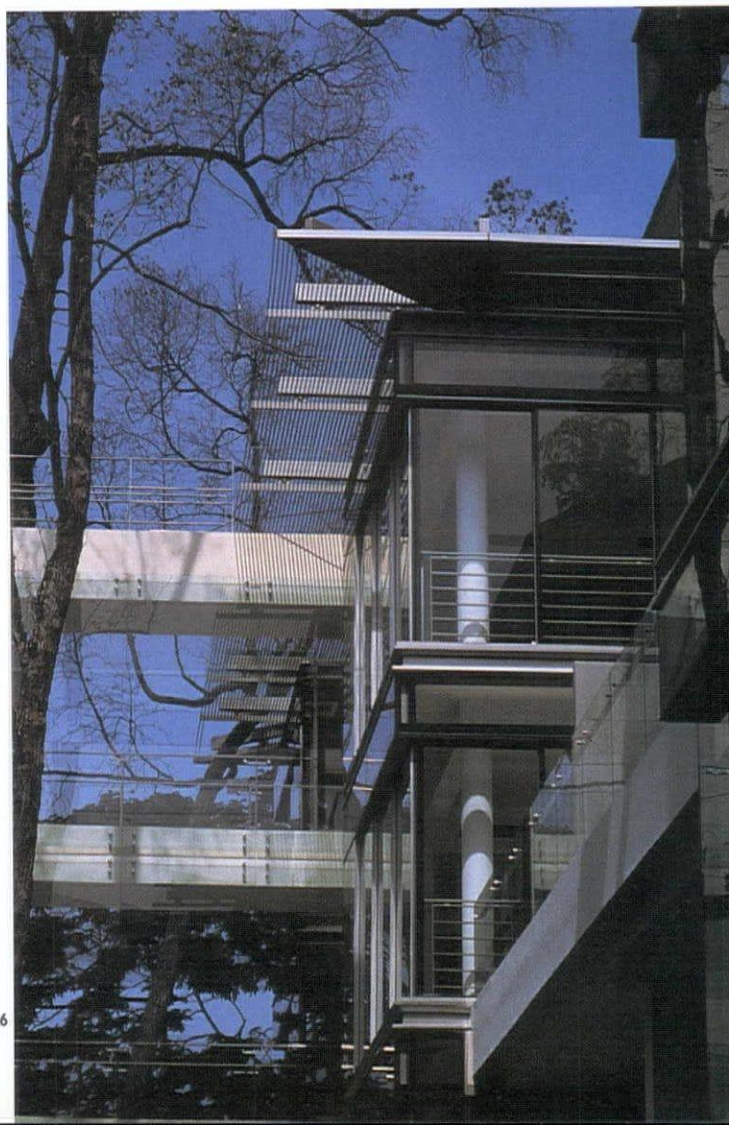
3



4



5

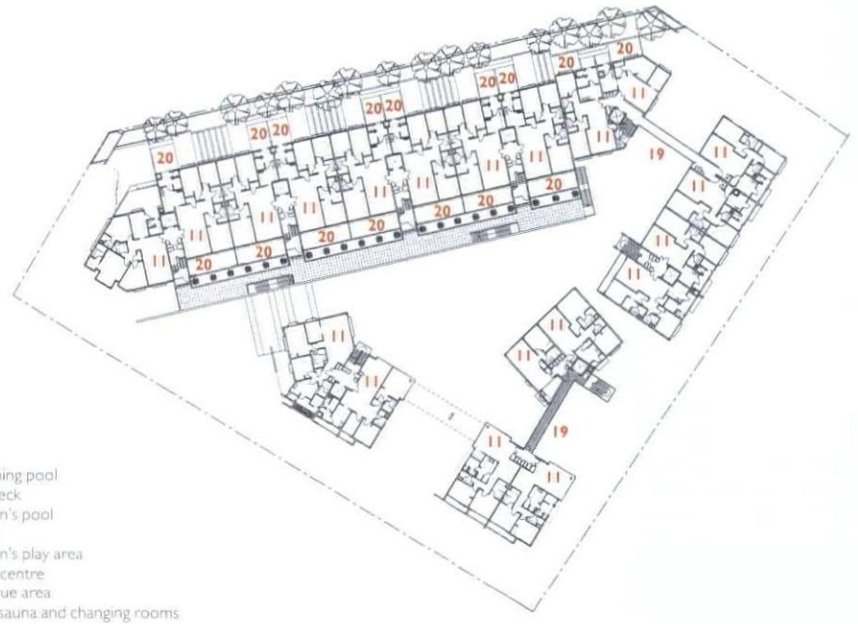


6

the pool and terminates at the base of one of the towering tembusus. The linearity of the space and the verticality of the tembusu are softened by willows, which also counterbalance the solidity of the stone. A light stainless-steel structure provides a frame for vines creating vertical green veils. This creates a seamless transition from the interior to the exterior while providing privacy.

Until recently Bali Style gardens were very popular in Singapore, involving the planting of a large number of trees and shrubs integrated with stone carvings to simulate a tropical resort transplanted to the city. Mok Wei Wei and his Argentine-born landscape architect Martin Palleros are in the vanguard of a reaction against the style. Public spaces at the Loft are more urban in character and the landscape more disciplined, displaying a Modernist sensibility that complements and reinforces Mok's thoughtful architecture. ROBERT POWELL

Archite·t
William Lim Associates, Singapore
Project team
Mok Wei Wei, Zhang Ying, Baet Yeok Hoon, Wee Hiang Khoon, Carol Cheng, Cheong Lip Khoon, Mohd Zamri Arip, Ng Weng Pan, Sanjay Lal Shrestha, Yau Yi Ting, Yeo Chian Ping, Stephanie Kuan, Olive Siok
Structural engineer
SCE Consultants
Mechanical and electrical engineer
Beca Carter Hollings & Ferner
Landscape
Tierra Design
Photographs
Albert Lim



1 swimming pool
2 pool deck
3 children's pool
4 jacuzzi
5 children's play area
6 fitness centre
7 barbecue area
8 steam sauna and changing rooms
9 gym
10 lift lobby
11 apartment unit
12 water feature
13 management office
14 ramp to parking
15 bin store
16 substation
17 car park
18 patio
19 link bridge
20 terrace

first floor plan

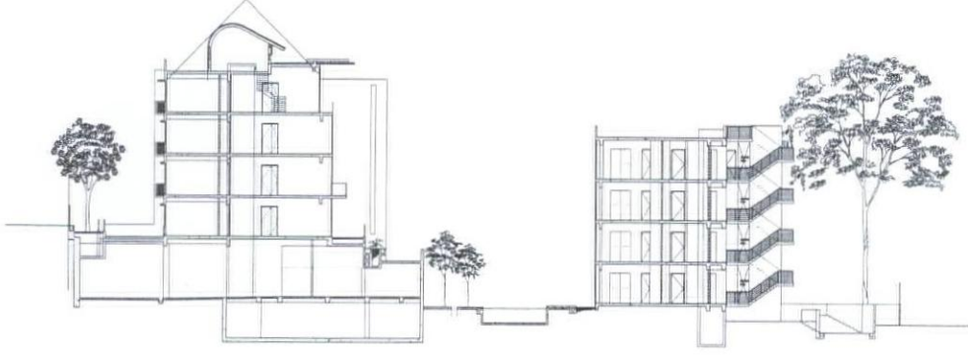


HOUSING, SINGAPORE

ARCHITECT

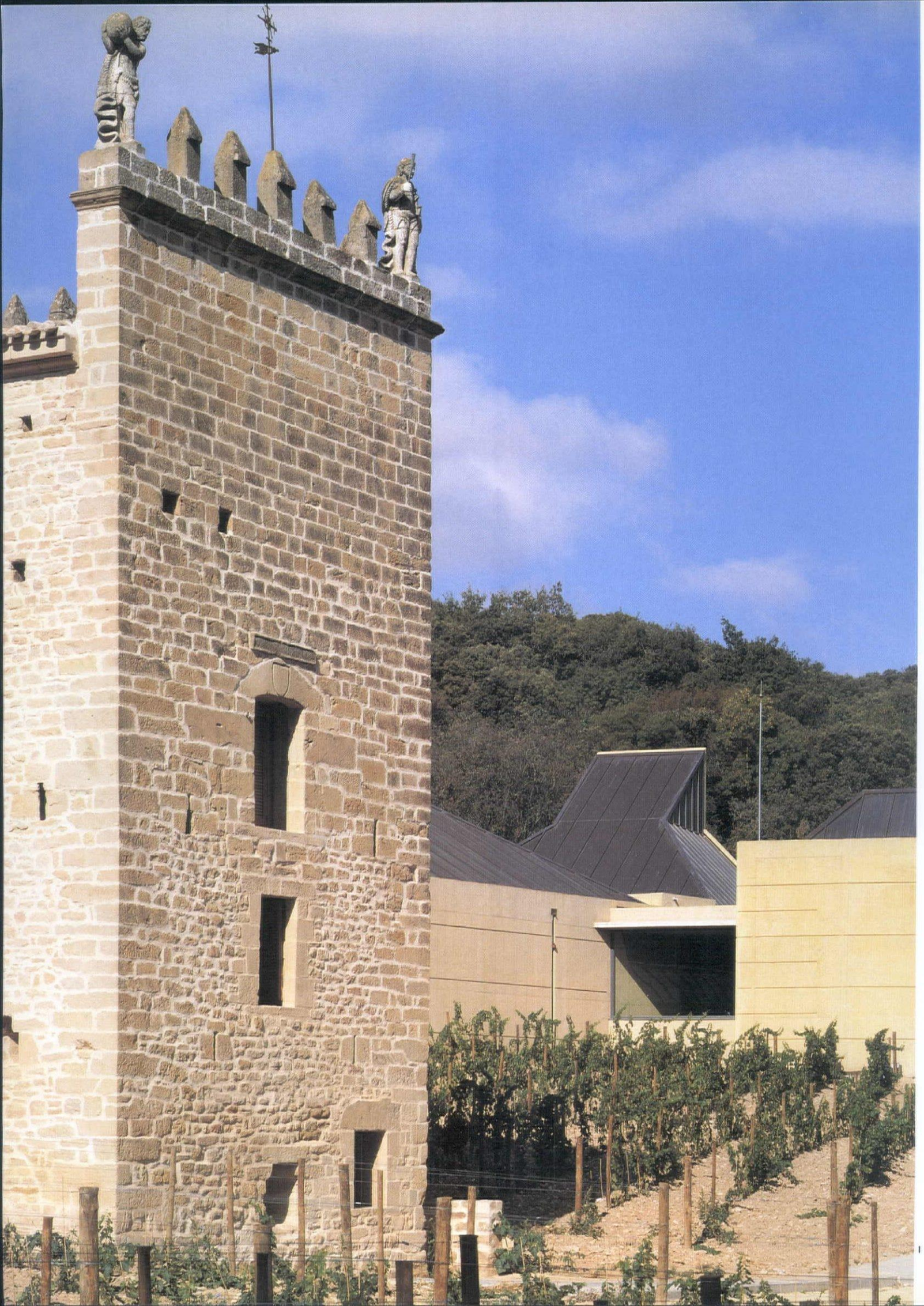
MOK WEI WEI, WILLIAM LIM ASSOCIATES

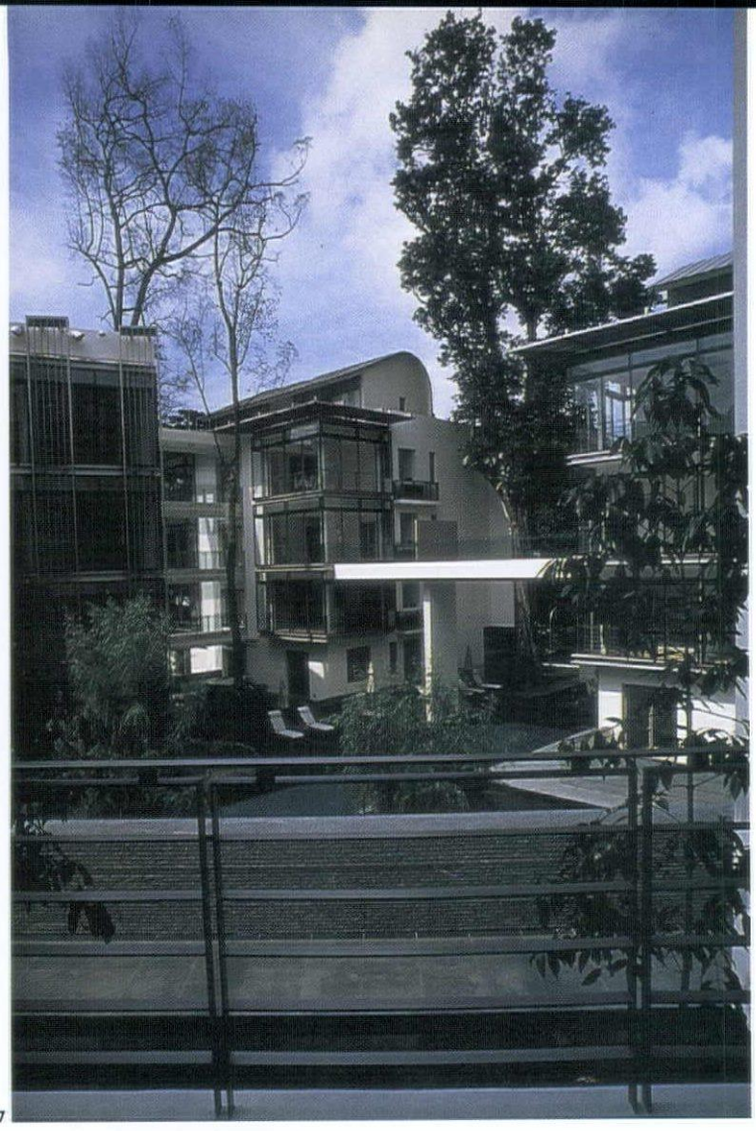
ground floor plan
(courtyard level scale approx 1:1250)



cross section

7
The scheme explores a language of tropical Modernism, developed in Mok's earlier projects.
8
A high retaining wall forms a strong linear element along one side of the central courtyard.
9
Stair towers articulate the courtyard facades.
10
Detail of balcony and *brise-soleil*.

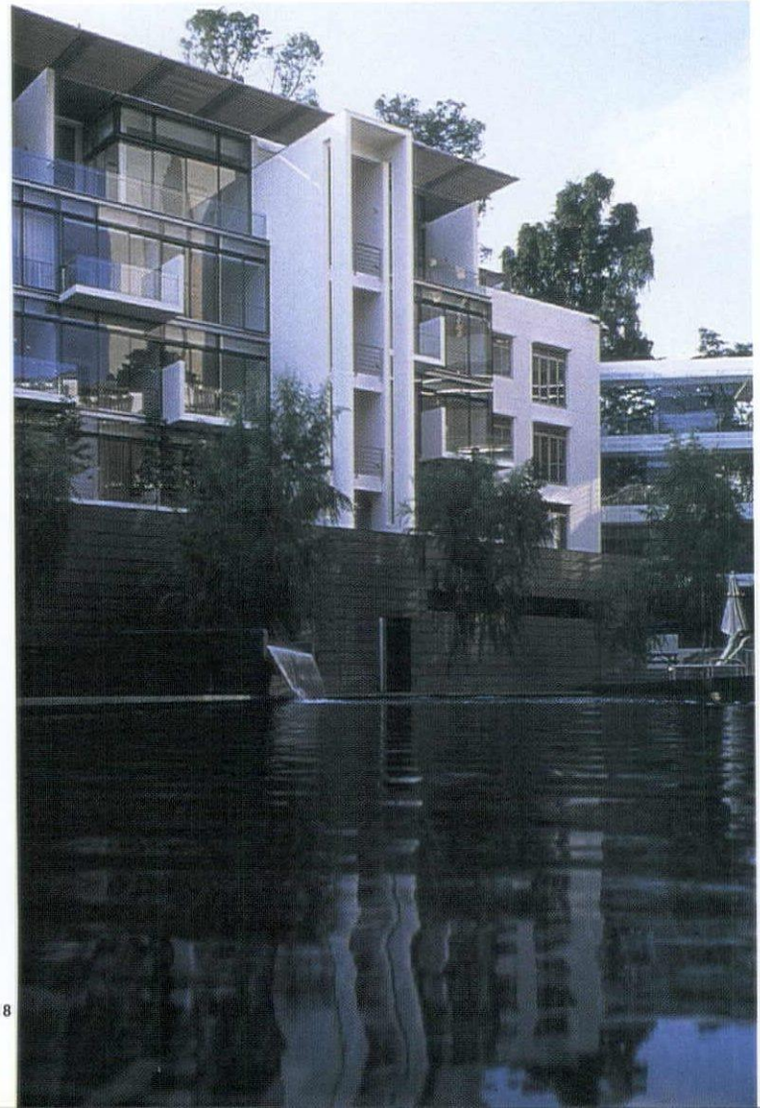




7



9



8

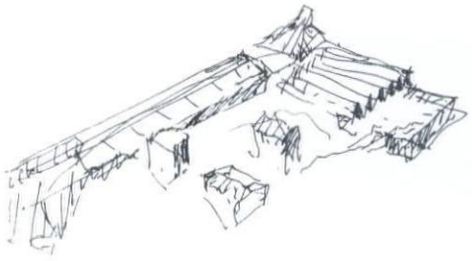


10



2

WINERY, NAVARRE, SPAIN
ARCHITECT
RAFAEL MONEO



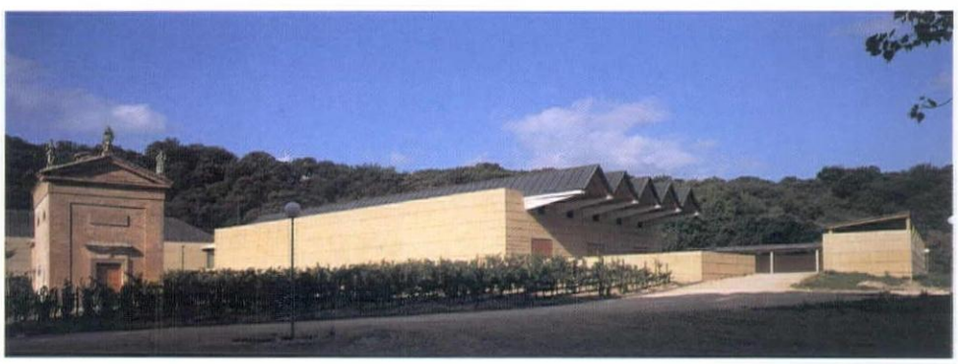
VITAL VITICULTURE

Deep in rural northern Spain, this new complex of buildings for a wine estate draws on the simplicity and austerity of Iberian vernacular traditions.

With an expanding repertoire of overseas buildings (the latest being a monumental new cathedral for that most godless of cities, Los Angeles, AR March 2003), Rafael Moneo has become the world's Spanish architect *sin igual*. Being so internationally sought-after can often serve to dilute or debase the essential character of an architect's work, but this does yet seem to be the case with Moneo. His signature, Iberian-inflected architecture of mass, typified by alcázar-like walls enclosing elegant, neutral containers for works of art or worshippers, still travels well, equally at ease in such disparate locales as Stockholm or Houston.

For this latest project, however, Moneo has temporarily stepped off the international stage and gone back, quite literally, to his roots, to his native Navarre in northern Spain, where he was commissioned to design a winery in a remote rural site (a departure from his more familiar densely urban settings). Here, where the foothills of the Pyrenees meet the dry, dusty plains of the interior, the Chivite family has been making some of the best wine in the region – Merlot, Cabernet Sauvignon and Tempranillo – for at least 11 generations, deliberately keeping the yield low to maintain quality. At the end of the 1980s, the family acquired a former cereal farm known as Señorío de Arínzano, a 300 hectare spread extending along both sides of the meandering river Ega. Flat alluvial fields rise up from the river to meet undulating slopes and escarpments that have been in cultivation since the sixteenth century. Under the direction of Julián Chivite, father of the current generation of estate managers, extensive improvements were undertaken so that new vineyards could be planted without radically altering the existing topography or sacrificing the rich woodlands of oak, black poplars and ash. The effects of such scrupulous husbandry are manifest by the way in which the cultivated and natural landscape merge into one another in a rare reciprocity.

When Moneo first accepted the commission, he was confronted with a disparate array of agricultural and historic buildings, scattered randomly like chess pieces around the site. Of these, the most outstanding was the floridly entitled Palace of the Commander of the Arsenal, a squat stone tower embellished with statues. Its neighbours included a small nineteenth-century church dedicated to San Martín, and a dusky pink manor house dating from the eighteenth century. These have since been brought back into use as part of the estate; the Commander's Palace now houses



3

1
Unified by new landscaping, Moneo's elegant buildings merge discreetly with the estate's existing historic structures.
2
The winemaking sheds form a protective cordon around manor house, tower and church, now all converted to new uses.
3
Grape harvest is received in a courtyard before passing into the giant vat shed.

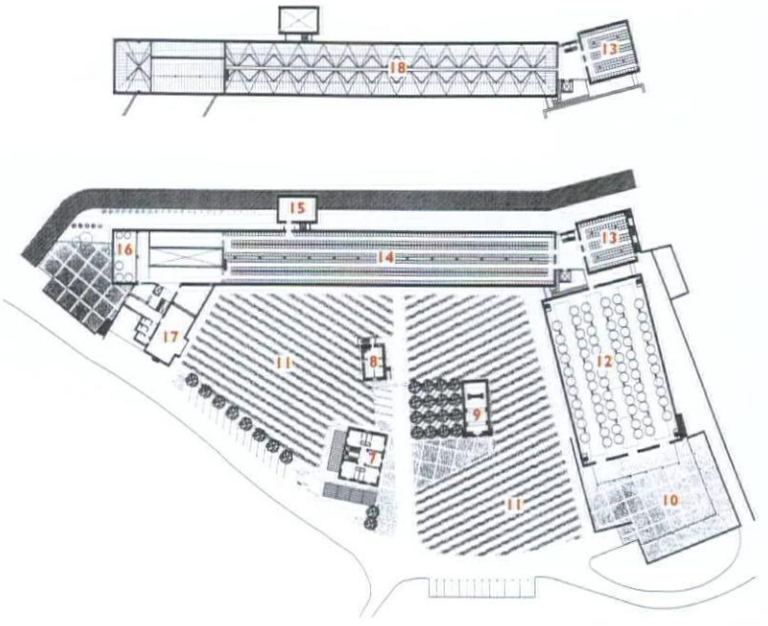


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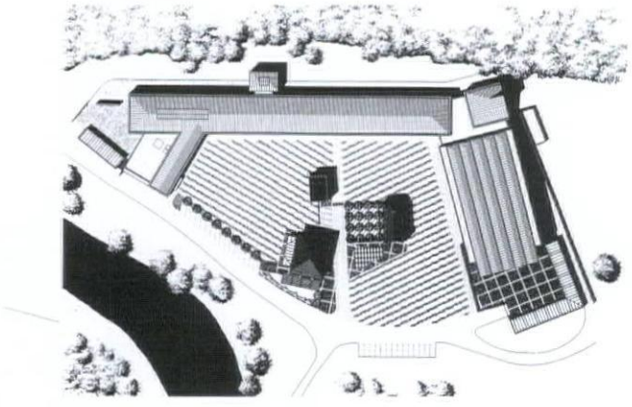
WINERY, NAVARRE, SPAIN

ARCHITECT

RAFAEL MONEO



ground and first floor plans

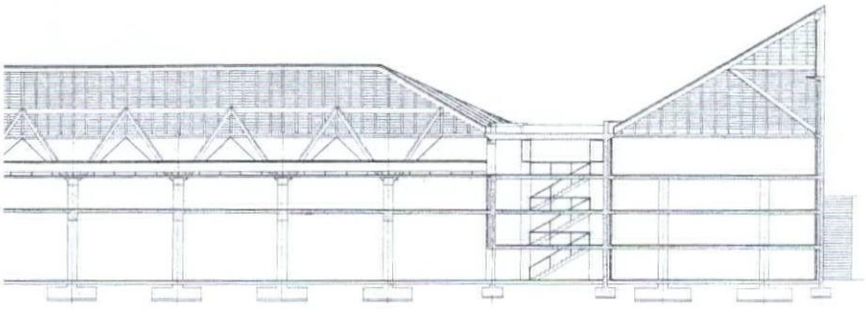


site plan

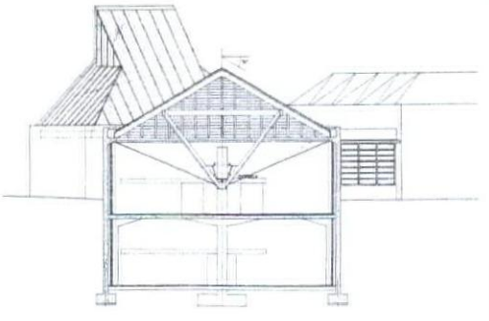


1 storage
2 loading dock
3 bottling plant
4 bottle store
5 equipment room
6 service yard
7 manor house
8 Commander's Palace
9 church
10 courtyard
11 new planting
12 vat shed
13 fermentation building
14 ripening cask cellar
15 cask cleaning
16 coupage (blending) tank
17 sampling room
18 spinal walkway

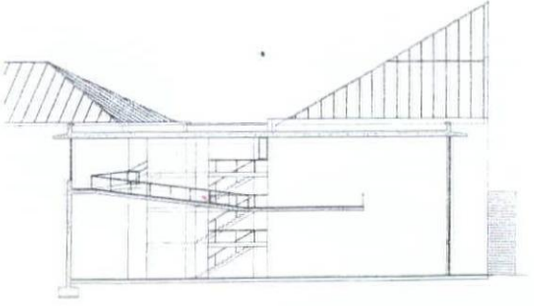
lower ground floor plan (scale approx 1:2500)



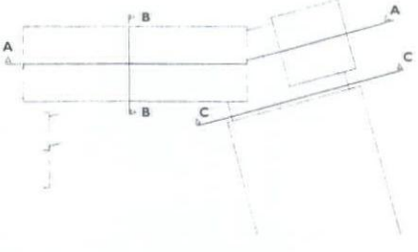
long section AA



cross sections BB

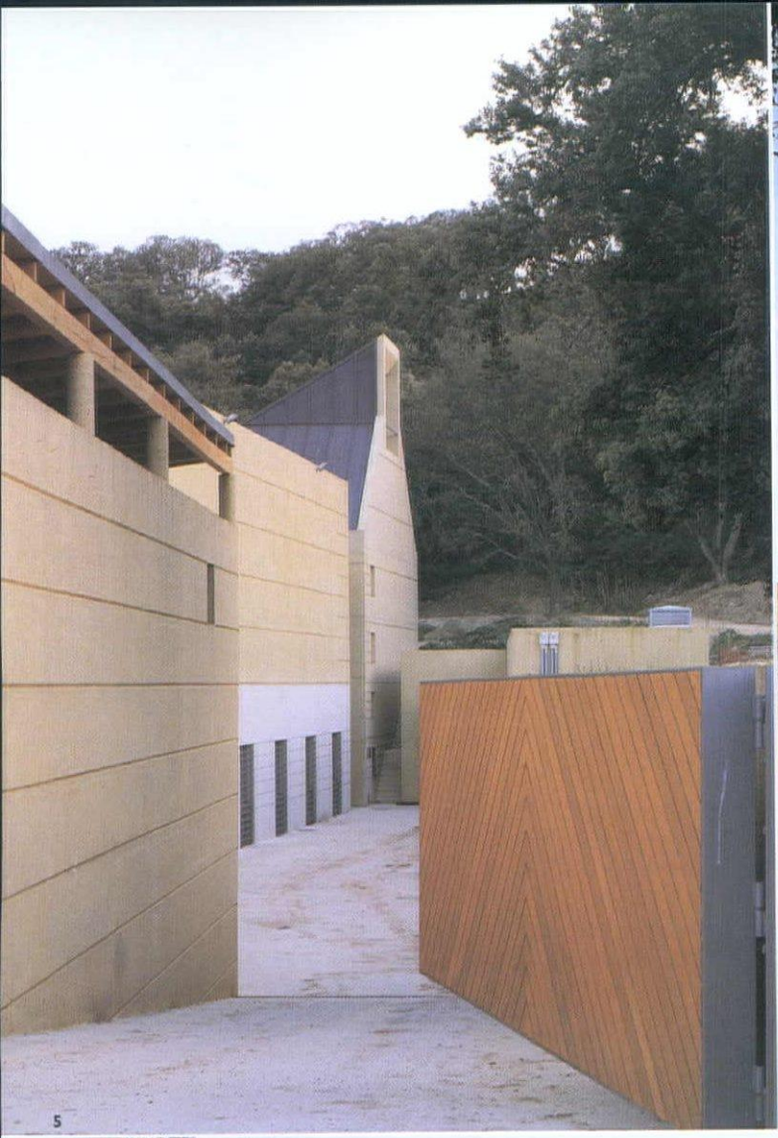


cross section CC

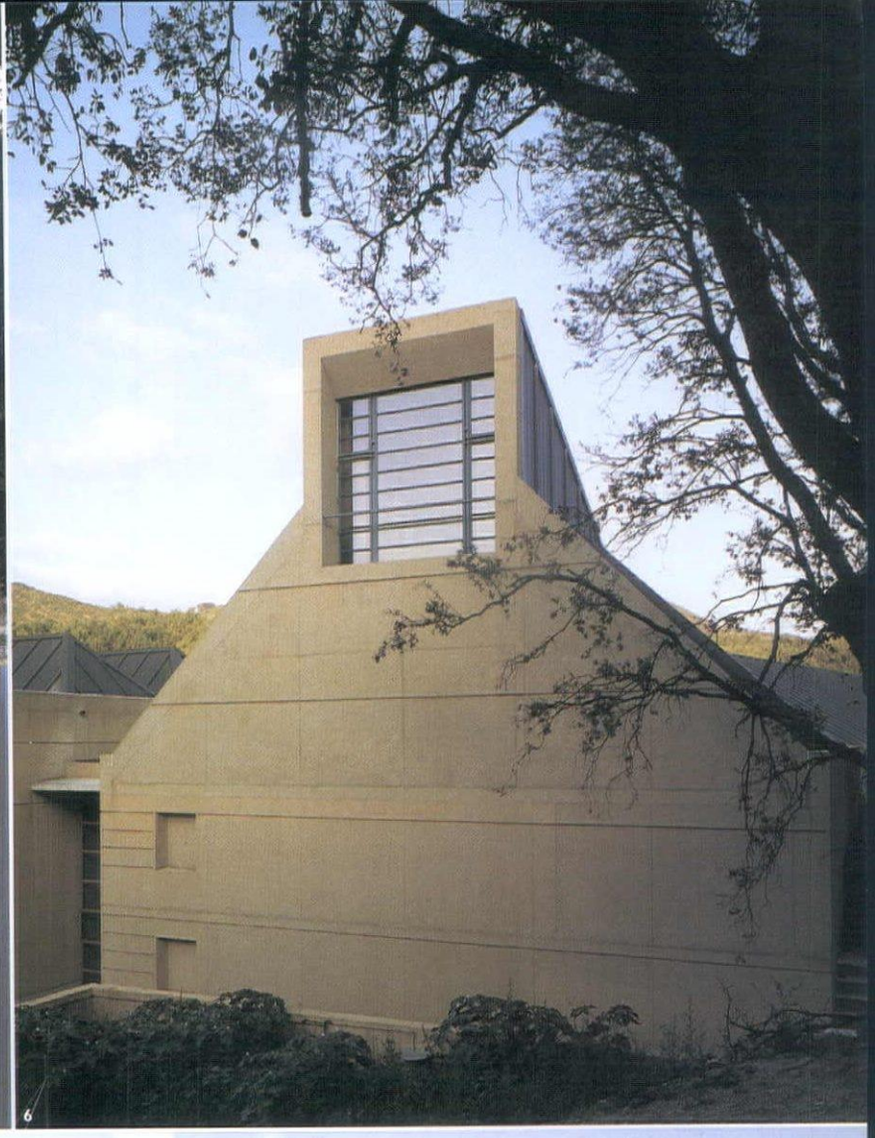


key to sections

4
The original cereal farm, a random patchwork of different agricultural and historic buildings, now rationalized by Moneo's new scheme.
5
Hermetic walls of plain concrete combine with copper-clad roofs.
6
Fermentation building acts as hinge between the vat shed and barrel store.
7
The offices and tasting suite, with large projecting window, reassert a sense of human scale.



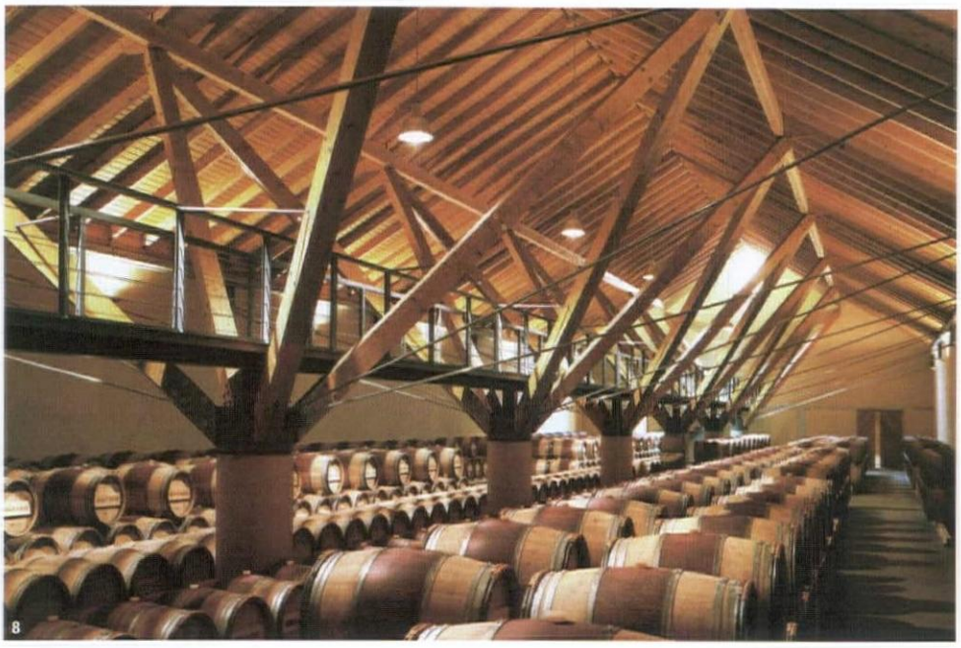
5



6



7



workers' flats, the church has been restored and the manor house contains guest rooms.

Drawing on the unassuming vernacular of rural architecture, Moneo's new processing, storage, bottling, tasting and office buildings form a cordon around the existing trio of historic structures, their relationship consolidated and enhanced by newly planted geometric grids of vines and trees. Though much larger in scale, the long, low new additions echo the mass and solidity of their predecessors, with copper clad roofs and hermetic walls of plain, sand-coloured concrete meticulously hammered and worked so that it will eventually acquire a patina akin to weathered stone.

The arrangement of the new buildings is a functional expression of the winemaking process. The grape harvest is received and sorted in a colonnaded courtyard at the east end of the site, where an oversailing roof canopy shades and signposts the entrance to the great vat shed. Heavy oak doors, like those of a church, lead into a cool, cavernous cathedral of viticulture with its gleaming congregation of stainless-steel vats. By far the largest element in the complex, the vat shed docks nearly at right angles into the long, narrow bar of the barrel store and bottling plant. The cubic knuckle of the fermentation building, with three floors of temperature controlled rooms, acts as a hinge point between them. Almost monastic in their austerity, the different buildings have that dignified, muscular quality associated with industry; to some extent, the volumes and the equipment they house speak for themselves and this resonates with Moneo's innate spirit of elegant restraint. Possibly the most imposing space is the cask store, its roof supported by a colossal oak and stainless-steel truss that runs down its spine. The stacks of casks (made from French oak, the material employed by Moneo for the roof structure) can be surveyed from an elevated walkway, also supported by the truss.

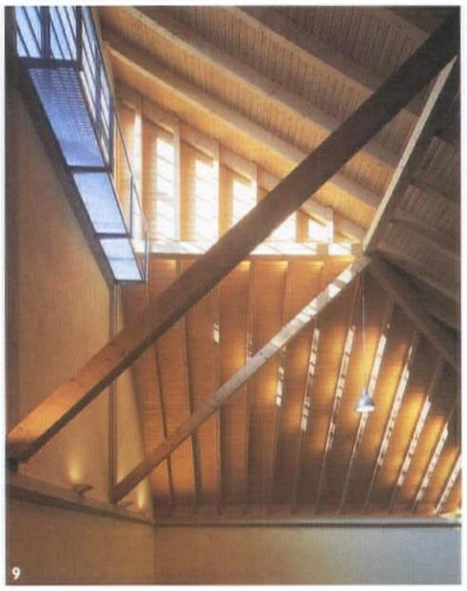
The final stage of the winemaking cycle takes place in the bottling plant at the west end of the linear shed. Bottles are then stored or shipped from an adjacent loading dock, partly buried in the ground to minimize its impact. A small reception building with offices, reception and a room for tasting adjoins the bottling plant, reasserting a sense of human scale after the magnitude of the industrial spaces. Compared with the robust functionalism of the winemaking buildings, the tasting room is a theatrical, urbane flourish, with its wood panelling, open fireplace and rinsing basin for the quasi-religious rituals of sampling. A large projecting vitrine frames a view back over the winery and the three existing buildings, now rehabilitated.

Like a good vintage, the new buildings will improve with age, as the walls weather and the planting matures, softening the taut geometric forms of the architecture and strengthening the symbiosis between human intervention and the land. Both the built and natural landscape will reap the benefits of careful cultivation. CARLA BERTOLUCCI

Architect
Rafael Moneo, Madrid
Project team
Rafael Moneo, Michael Bischoff, Collette Creppell, Belén Hermida, Silvia de Anna, Francisco González Peiró, Mariano Molina, Eduardo Miralles, Julio Olóriz, Pedro Elcuaz
Structural engineer
Jesús Jiménez Cañas
Photographs
Duccio Malagamba

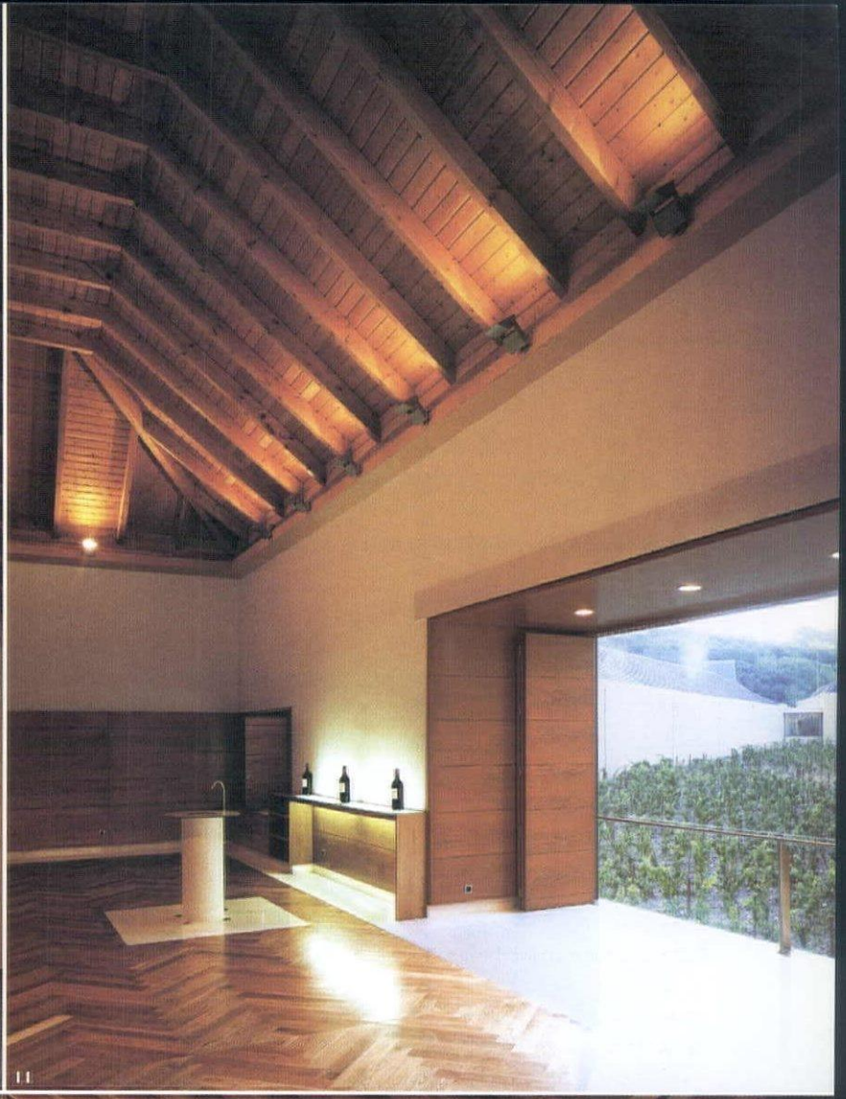
8
Elevated walkway runs down spine of cask store, supported by massive timber truss.
9
Upper storey of fermentation block, which might yet be turned into an exhibition space.
10
Interiors are austere yet dignified.
11
Tasting room has view over winery complex.
12
The drama of the cask store.

WINERY, NAVARRE, SPAIN
ARCHITECT
RAFAEL MONEO





10

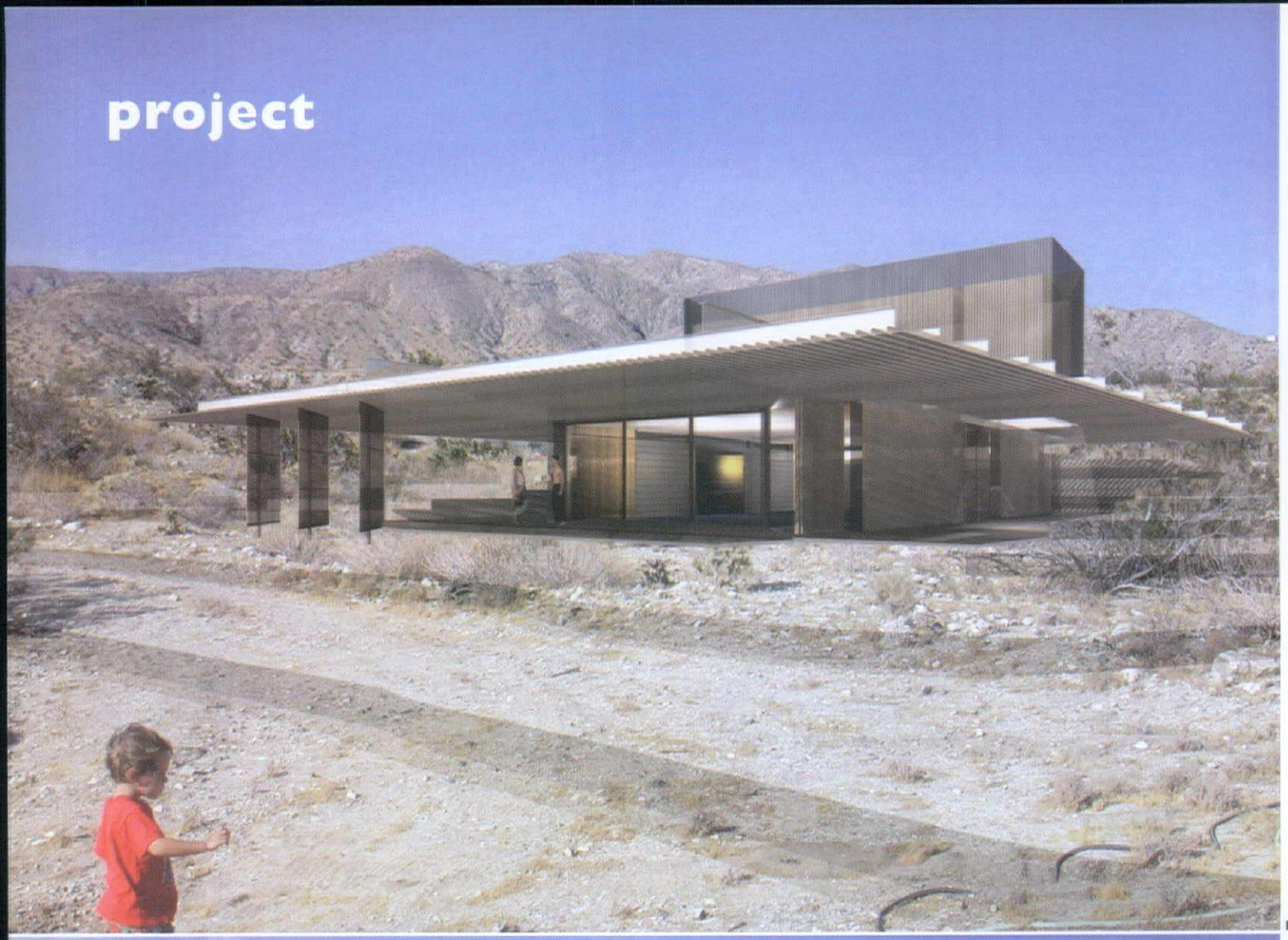


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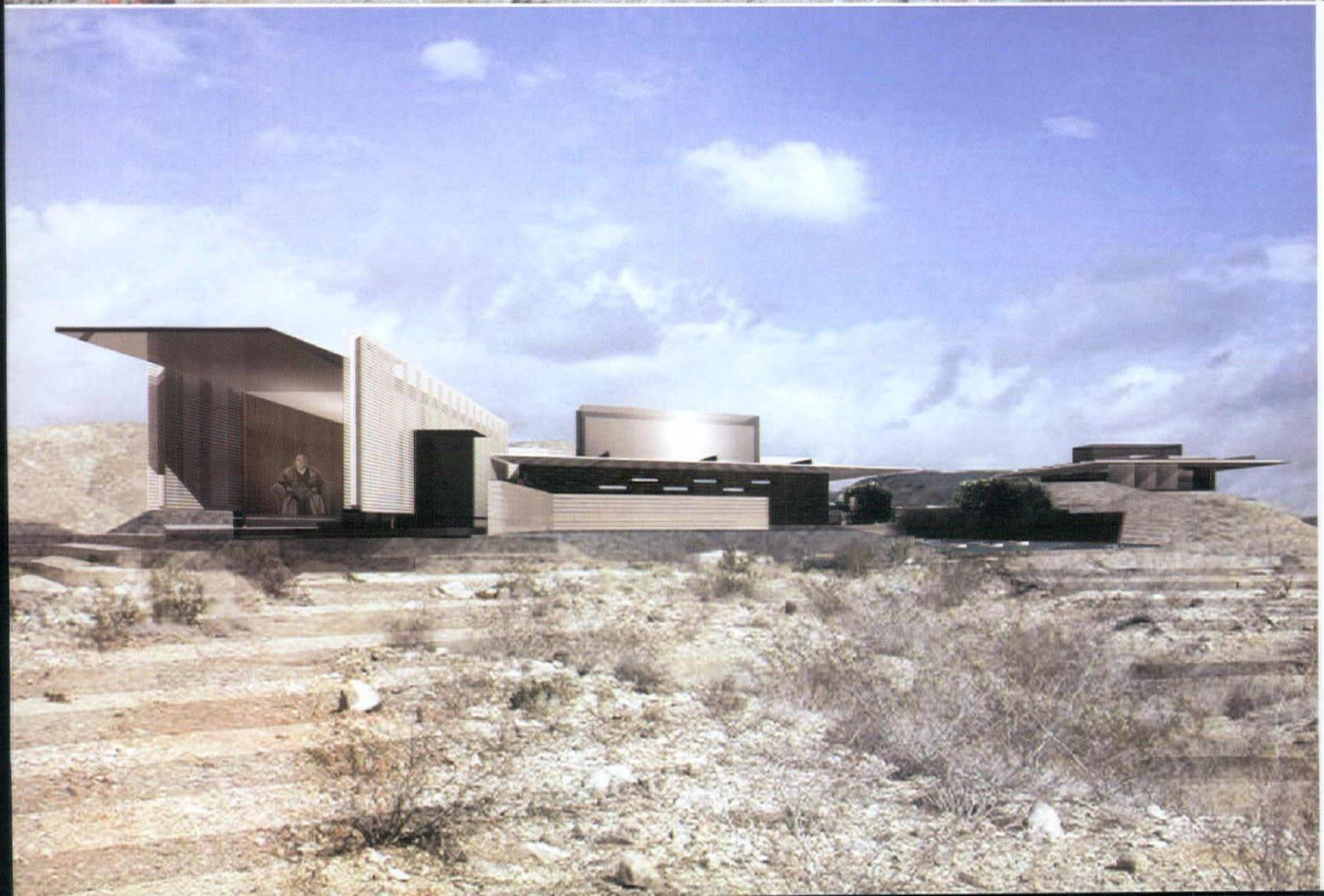


12

project



1



2



site plan

Desert zenith

Predock_Frane Architects' have designed a new Zen Buddhist retreat in California's arid Desert Hot Springs.

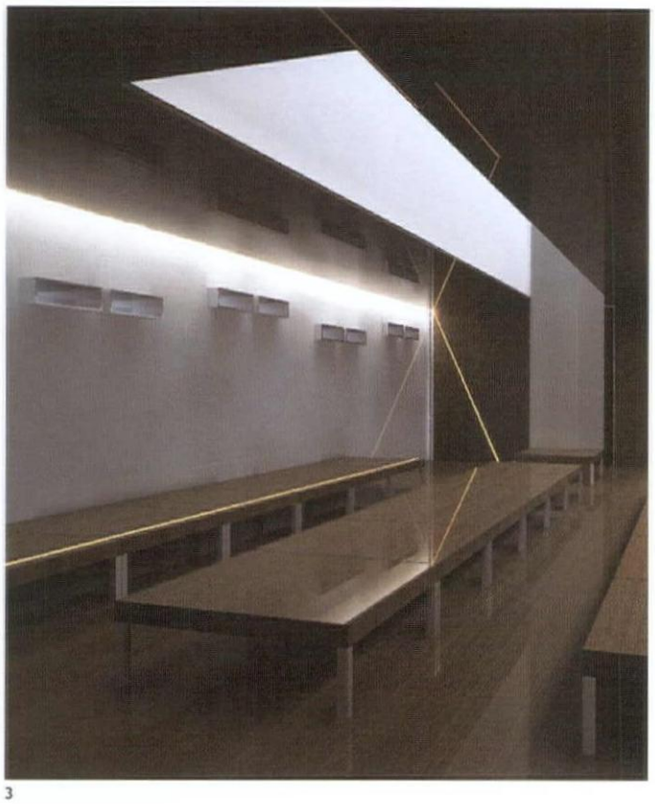
BUDDHIST RETREAT, DESERT HOT SPRINGS, USA
ARCHITECT
PREDOCK_FRANE ARCHITECTS

For a community where ritual governs the entire day, Predock_Frane Architects have recently completed this design for a new desert retreat. Responding to the natural environmental conditions found in California's Desert Hot Springs, and the supernatural tenets of the ninth-century Rinzai-ji Zen Buddhist tradition, the complex comprises three new buildings: a meditation hall, the Sanzen Room – where students recite lessons to their teacher – and a bathhouse, all of which are structured around the desert's seasonal cycles and the daily routine of Zen practice. Views, typography, solar angles and prevailing wind patterns have all helped shape the spaces, that are either buried into the ground or rise above it to enable air to flow efficiently around them. Where necessary, wind breaks and spectacular cantilevered eaves provide shelter from the elements, unifying the complex into a coherent and contemporary planar composition; a move that when combined with the use of metal shadow-screen walls to shield the buildings from direct sunlight, responds to the client's interest in reinterpreting and recontextualizing traditional Japanese and American typologies.

Hadrian Predock is the son of Antoine Predock, the noted South-West regionalist, and his emerging body of work reflects a strong kinship with his father's in its attempts to merge an image of the powerfully surreal desert landscape with an evocation of the region's complex cultural ancestry to create architecture that transcends both historicism and regionalism.

From an aquifer 100ft below the surface of the desert,

1
The main meditation hall with generous cantilevered roof and wind breaks.
2
The retreat in context, showing the Sanzen Room in the foreground with its picture window capturing distant views of Mt San Jacinto.



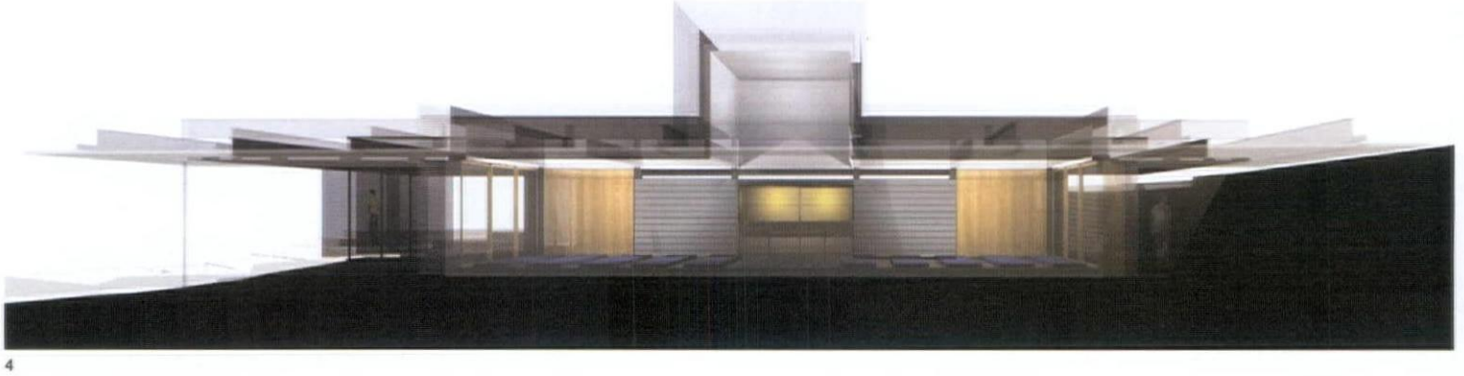
3

geothermal water is harnessed and drawn through the site in a manner that further strengthens the synergy between the physical and the spiritual. Emerging at 140 deg F, the water passes through the bath-house pool that is used for winter and night-time bathing rituals before spilling into a larger shallow reflection pool. As an oasis within the retreat's barren landscape, the pool harnesses the cooling benefit of the wind to temper the adjacent spaces. Once cooled to body temperature, the water then completes its cycle by being returned to the ground where it slowly irrigates a grove of mesquite trees that form a new desert park.

With work soon under way on site, the retreat is due for completion in 2004 for visiting students, with the Desert Park being open to the wider community during certain times of the year. ROB GREGORY

Architect
Predock_Frane Architects, Santa Monica

BUDDHIST RETREAT,
DESERT HOT SPRINGS, USA
ARCHITECT
PREDOCK_FRANE ARCHITECTS



4



5

3
The interior of the Sanzen waiting room, where students prepare to meet their Zen Master.
4, 5
Cross sections through the proposed meditation and teaching spaces, composed to optimize shelter, daylight, prevailing winds and views.



Lime stabilized cement free blocks – a less harmful alternative to Malawi's tradition of fired earth bricks.

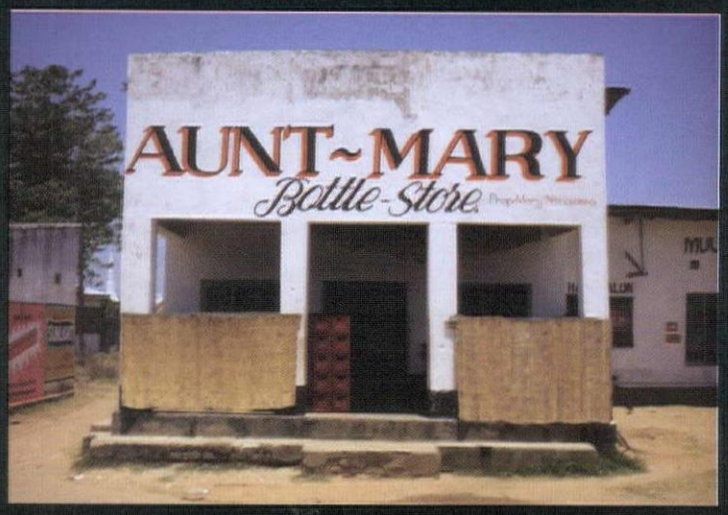
mutu umodzi susenza denga one head alone cannot lift a roof

How a team of volunteer architects and engineers assembled by Feilden Clegg Bradley helped a community develop a prototypical building system, inspiring collaboration, innovation and hope in northern Malawi.

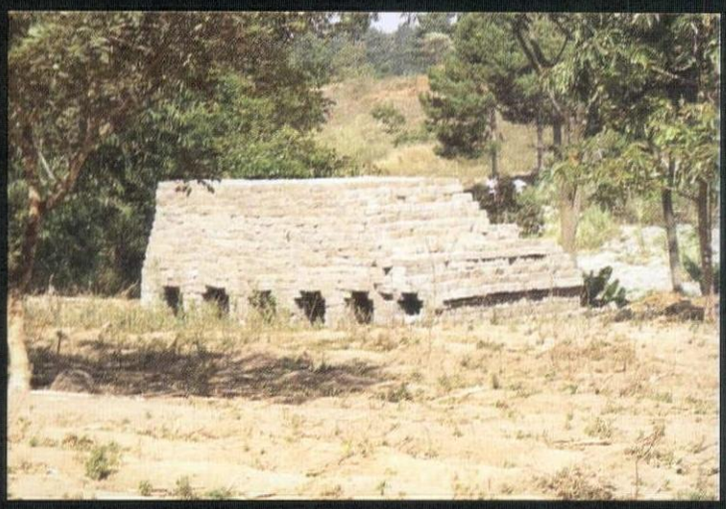
In Malawi, a country where it is typical for individuals to seasonally build and maintain their own homes, there is a proverb – *mutu umodzi susenza denga* – that states, 'one head alone cannot lift a roof'. The proverb has it origins in the traditional process by which houses are built. Recalling the collaborative process where cone-shaped roof structures are assembled on the ground by individuals before being ceremonially lifted into place, in some cases by the entire village, it speaks of teamwork, co-operation and community spirit. A spirit that, despite the tidal wave of pressure from corruption, famine and HIV that is currently sweeping across the country, still prevails in Malawi and which was the central inspiration for this story; a positive story of collaboration, innovation and hope, that has taught us a great deal and that we hope will demonstrate how architecture and design can bring delight to a remote community and provide practical solutions to significant problems such as disease, poverty and environmental degradation, without costing the earth.



Positive traditions: the delightful timber market stalls ...



... and the widespread art of hand-painted sign-writing and murals.



Negative traditions: the widespread use of brick kilns ...



... and the inappropriate use of imported prefabricated buildings.

Mzuzu University Health Clinic and Treatment Centre

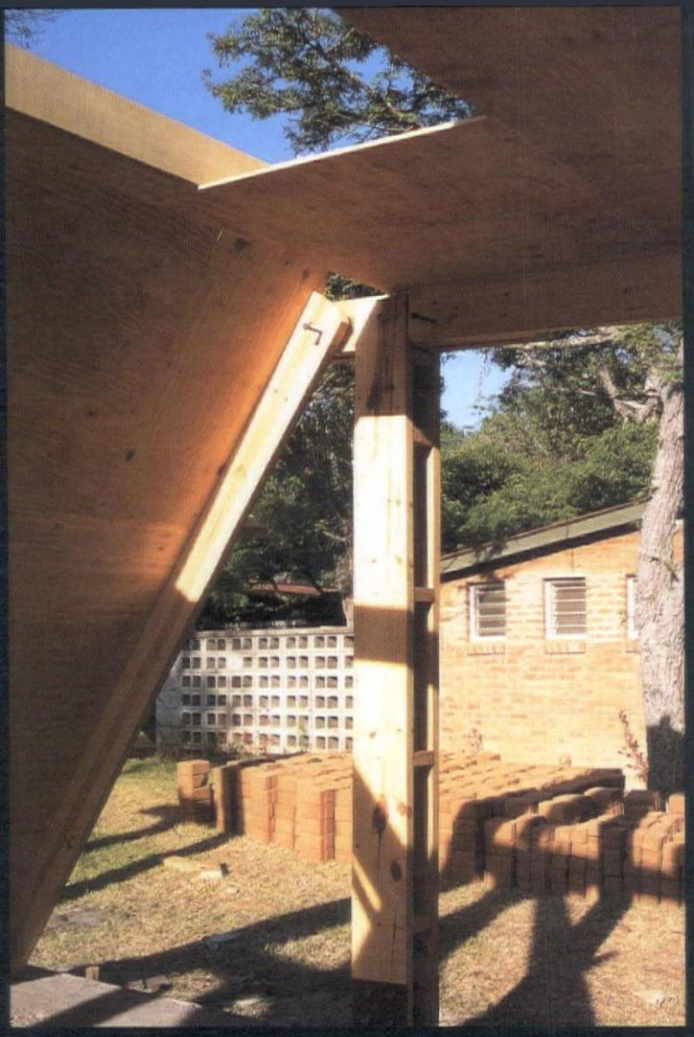
As a fledgling university in the northern district of Mzuzu seeks to educate a new generation, reversing the brain-drain that is compounding the country's reliance on foreign aid and externally imposed 'solutions', a design was sought that would meet the university's extensive campus expansion programme. As an alternative to importing expensive and inappropriate prefabricated buildings, an innovative construction process was required that would use locally sourced and sustainably produced materials, and which more significantly would employ and develop the skills of local people, training them to build with environmental sustainability as a key consideration.

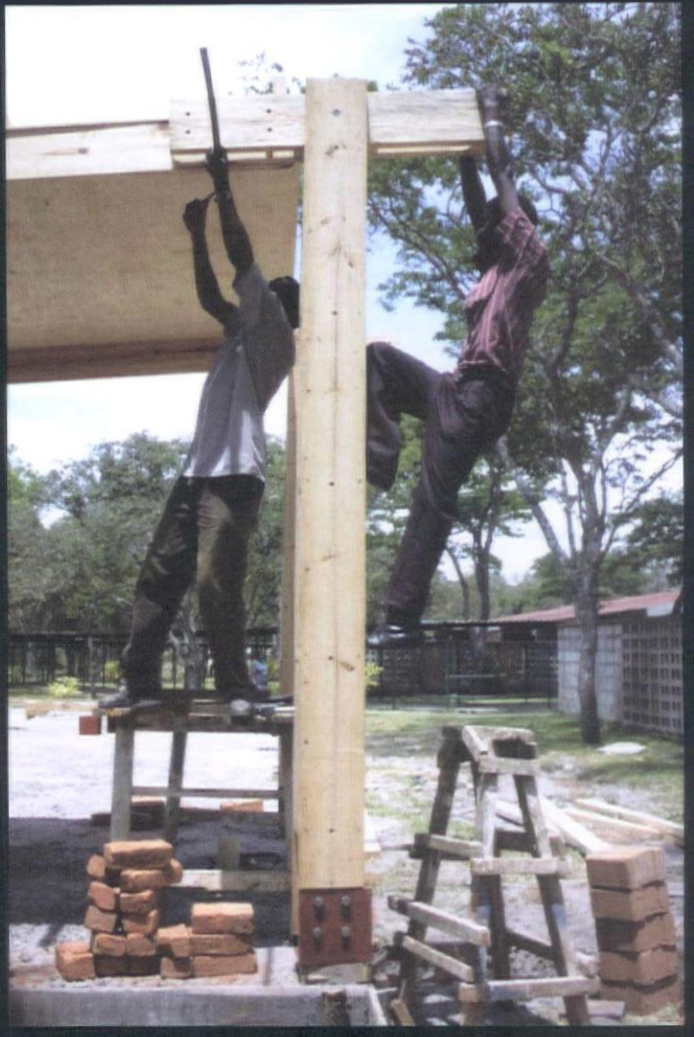
Malawi is a beautiful country and, despite their limited means, the people are extremely proud of their surroundings. Beyond the urban centres where past colonial influences have adopted inappropriate versions of international Modernism, the more remote regions have developed distinctive architectural traditions. From simple timber market stalls and vibrant sign-writing and murals that adorn shopfronts, to the widespread use of earth bricks, self-built dwellings and shops form an almost seamless settlement along Malawi's roads. Unfortunately, within this vernacular, the recently adopted fired-earth brick process that has replaced the traditional sun-dried technique is accelerating Malawi's most significant manmade environmental problem, deforestation.

Although the process by which people make bricks from the soil taken from their own sites seems sustainable, the number of trees required to fire the bricks is alarming. Impossible to miss as you travel, the distinctive brick kilns are as widespread as the houses themselves, underlying the threat that as long as people continue to fire bricks by cutting down trees with no managed replanting strategy, the consequences of deforestation – erosion, flooding and famine – will continue to be catastrophic.

These issues pose pertinent questions at this time of global environmental consciousness and reparations suggested through development projects. How should we practically build in the developing world? Do architects have a role to play in development projects? And as much as we feel we can teach, what can we learn from countries like Malawi?

For a small team the opportunity to address these questions arose in May 2001 when Feilden Clegg Bradley reviewed their charity policy to include a donation of £5000 towards a special development project. With the intention being that they would also offer design services free of charge, the office began looking for projects to support. However, within this relatively limited budget, what, where, and how should they build? Through an introduction made by Ron Nkomba, a recent recruit to their London office who as an architect from Malawi identified a project that needed support, it soon became clear that a donation





... a modular frame that can be manufactured and assembled on site by a small team, without the need for scaffold or wasteful temporary works elements.

Once in Mzuzu, the first two weeks were assigned to block making and testing, using earth taken from a nearby site where the university was digging a pit for a new water tank. After several test mixes, over 3000 blocks were made in just four days with the help of a diesel powered hydraform compression machine, while the university's carpenters and labourers began to fabricate the timber frame under the direction of Buro Happold engineer Jon Norton.

After a few days' delay in the manufacture of the steel column bases, caused by difficulties experienced in translating drawings, the final week saw the steel shoes bolted onto the column bases. The first seven columns were then erected in just one day, with the bolts left loose to allow for minor adjustments once the roof cassettes were in place. The cassettes were then propped and pinned to the central row of columns, before being swung into position. In traditional fashion, students from the university came to lend a hand with the lifting – for one head alone cannot lift a roof – and the accuracy with which the carpenters made the frame allowed the team to erect two complete bays, including the cantilevered eaves panels, and metal profile roofing in just four days.

Throughout the process, a number of design refinements were identified; for example, the timber that was available was far superior to that originally engineered, meaning that structural members could have been significantly finer. Also, following the complications in the fabrication process of the steel column bases, a plywood shoe detail will be considered for future phases. Beyond this however, the most profound lessons learnt related more to the social aspirations of the project than to the practical or technical aims.

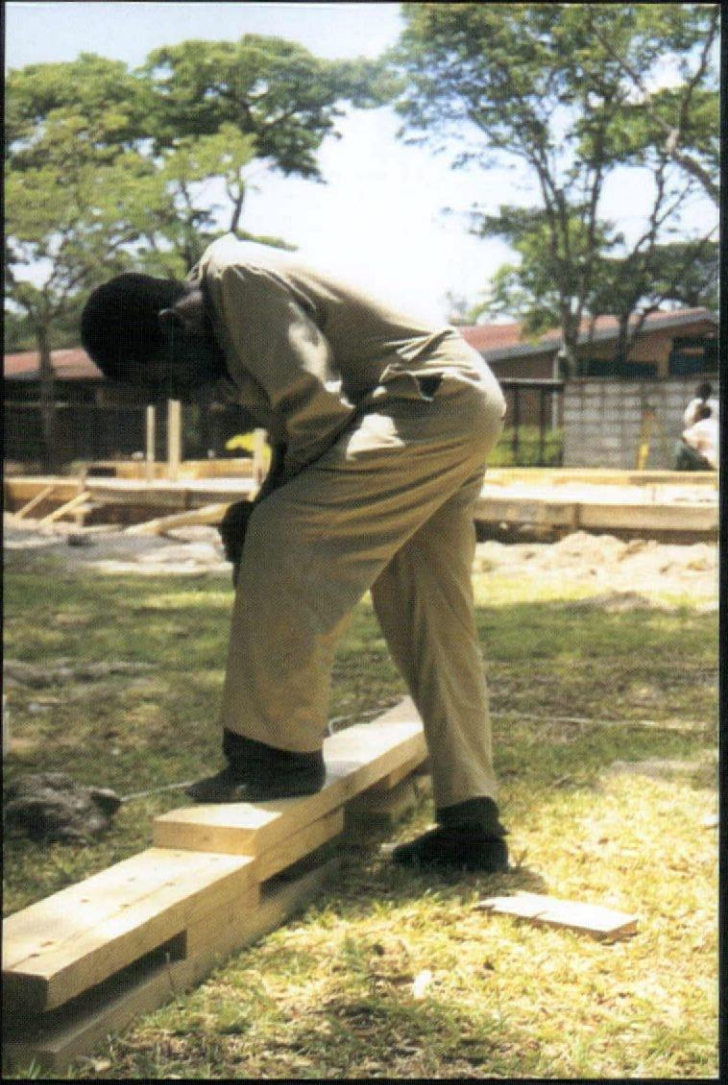
Clearly with this project the notion of charity did not apply. The initiative rests solely with the university as they begin their programme of works to provide accommodation and facilities that will see the campus community grow from 500 to 5000 students by the year 2020. How they adopt and adapt the system, and how they develop their own expertise, will inevitably gauge the true success of this project. As a collaborative demonstration, this initiative breaks the mould of traditional development projects that often impose foreign ideas on 'helpless' communities. For while foreign donor funding and expertise is desperately needed for development, the initiative, drive, and commitment must come from clients, designers, and artisans within these countries.

RON NKOMBA and ROB GREGORY

Photographs by Rob Gregory and Mzuzu University

Team Malawi: *Teddy Phiri, Jordan Kadzombe, George Musongoze, Stocker Chirwa, Albert Mkandawire, Odinga Mamulowe, Danny Shaba, Webster Chisi, John Kagwanda, Homson Chirwa, Jacob Mwale, Anwar Mkandawire, Rodiur Winga*

Team UK: *Ron Nkomba, Carol James, Richard Marks, Geoff Rich, Helen Roberts, Rachel Sayers, Marigold Webster, Jon Norton, Rachel Battilana, Guy Nevill, Rebecca Hull*





With donated power tools and using locally sourced pine, the university's carpenters begin to fabricate the components that form the modular frame system ...

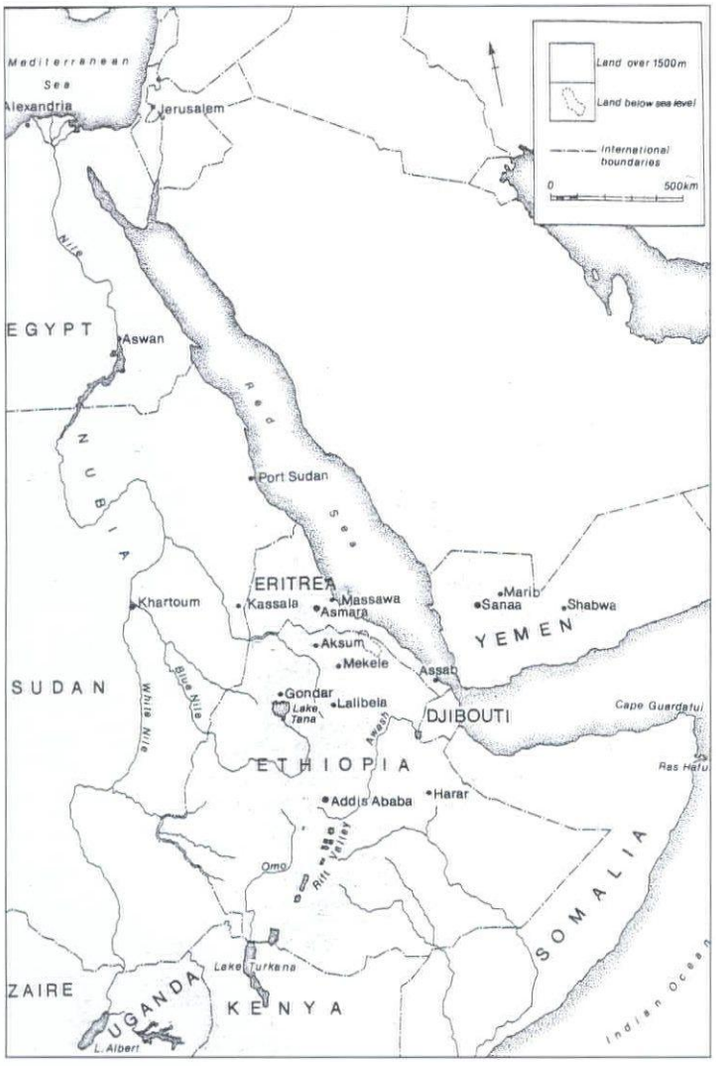
such as that being offered could make a significant contribution towards the construction of a new health clinic and treatment centre for Mzuzu University. Not only would the money cover the entire cost for a first phase of the project, but the process would also give individuals the opportunity to work collaboratively with designers and artisans from another culture to address different climatic and environmental issues. So, following a brief visit to the university to meet academic and medical staff, to fix the brief and collect preliminary site survey information, a core team of FCB staff, supported by engineers Jon Norton and Guy Nevill, began the process by setting themselves several key targets.

While the brief called specifically for a new health clinic and treatment centre, the broader objective was to design and test a prototype building that would give the university its own modular self-build system. A system that could be fabricated and erected by a small team of local artisans without the need for cranes or scaffolding, offering an alternative to the expensive and anonymous imported prefabricated steel sheds from South Africa. Buildings not only environmentally inappropriate, with thin metal skins increasing the university's reliance on expensive bolt-on air-conditioning systems, but which also sit uncomfortably within the campus' beautiful landscape. A new system was clearly needed that was more affordable, directing any expenditure back into the local economy, that would not rely on transporting bulky materials thousands of miles, and which being more sympathetic to the nature of the university's beautifully landscaped campus would make a more positive architectural contribution.

After a year of after-hours design work, the agreed prototype utilized a softwood timber frame, handcrafted from locally and sustainably managed pine plantations, with panels of cement free earth consolidated blocks, stabilized with locally produced lime and laid dry without mortar.

With this, modules could then be used in numerous configurations to create classrooms, hostels or treatment wards, from just two components: a composite column, which included ventilation slots to eliminate complicated opening window details and which neatly doubled as a ladder during assembly; and a modular plywood cassette, that would prop the frame before being lifted into place to form the roof.

With the theory complete, the procurement process began with Teddy Phiri, the university's special projects manager, quickly becoming accustomed to communicating with the design team via e-mail. His job was a complex one, involving co-ordination of the scheduling and ordering of materials, soil tests, and the setting out and construction of the foundation slab. All this needed to be completed before our four-week field trip, a critical part of the process to help the assembled team of local craftsmen test and refine the first prototype modules.



Map of Ethiopia and surrounding Horn of Africa, showing main historic sites.

Ethiopia's recent history of dictatorship, civil war and humanitarian disasters, and its geographical and political isolation (Ethiopia has never been colonized, although it was occupied by Italy between 1935 and '41) has meant that its spectacularly rich and distinct cultures are little known in the West. But that is changing. There is a modest building boom in the capital, Addis Ababa; Western organizations and businesses, encouraged by Ethiopia's new democratic government are investing heavily in the country. Strategic reasons for investment are excellent – Ethiopia has developed a reputation for African diplomacy (the United Nations Economic Commission for Africa, the ECA, is based in Addis) and it is geographically close to the Middle East – but establishing how to build in an economic and environmentally sustainable way is difficult. Western styles and techniques are generally not appropriate, and although Ethiopians are quick to absorb Western goods and culture, global might and a degree of ignorance could prevent this from being an entirely equitable exchange. Ethiopia is the third poorest country in the world, and is currently in famine, but it is culturally rich (it has seven World Heritage Sites), and endowed with extraordinary building traditions (although, admittedly, this is not immediately visible in Addis Ababa). If ever there was a moral, let alone aesthetic, imperative for the idea of Critical Regionalism, it is here.

Although Ethiopia was isolated for over ten centuries, the ancient civilization at Aksum, which has been described as the last known great civilization of antiquity, was based on exchange and trade. Aksum was on important trading routes between Arabia, the Mediterranean and the Indian Ocean, and was a thriving metropolis between the first and seventh centuries AD. It supported a monarchy and a considerable elite class, and developed a fine stone architecture that fused imported ideas such as Egyptian formal planning with local skills and traditions.

Twenty-first century Aksum, which is in the far north of present day Ethiopia, on the Eritrean border, is now a rather ordinary, if charming, market town. Evidence of the recent civil war is all too obvious; rusting tanks lie abandoned on the road side, uneasily contrasting with the otherwise timeless rural way of life. It is hard to imagine what the ancient city would have been like – it is estimated that 98 per cent of it lies unexcavated beneath the modern town – but the grandeur and extraordinary building skills can be seen in a few of the known sites, in particular the tombs and the stelae. The main stelae field, effectively a royal graveyard, has around 120 monolithic granite stelae (flat obelisks), of various sizes and types. The simplest are rough menhirs, some are polished, but the finest, the ones particular to Aksum, are intricately carved.

Unfortunately, little is known about them – how or why they were constructed, the rituals associated with them, how they relate to the adjacent tombs, or Aksumite life in general. There have been some excellent archaeological programmes (the most recent led by Cambridge University between 1993 and '97), but not surprisingly, responding to civil war and famine has taken precedence over archaeological research.

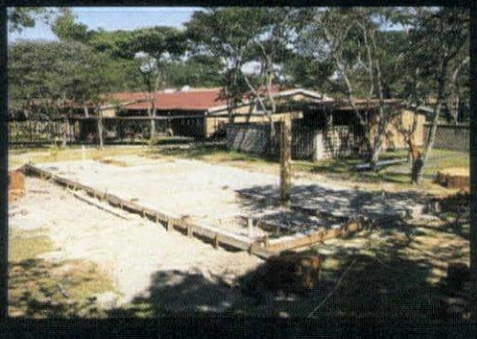
Of the three principal decorated stelae, only one remains standing in situ. It is quite breathtaking – 23m high, a single granite stone, carved to resemble a stylized multi-storey tower. Nine 'floors' of expressed windows, doors and circular tie beam details (known as monkey heads) protrude from the surface of the granite. It is simple, precise and exudes dignified power. Carving is sharp and crisp, as if contemporary, despite being constructed over 16 centuries ago and the stylized details (presumed, like classical triglyphs, to be petrified timber details) are typical of the Aksumite style.

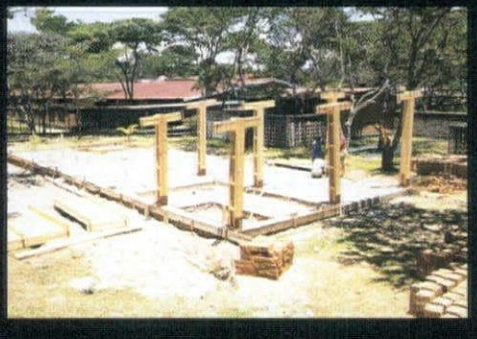
ETHIOPIAN DEVOTIONS

Christianity arrived in Ethiopia in the fourth century AD and its presence is still strongly felt in the astonishing architecture of the rock churches, in paintings and in ancient rituals that connect the population with history and place.

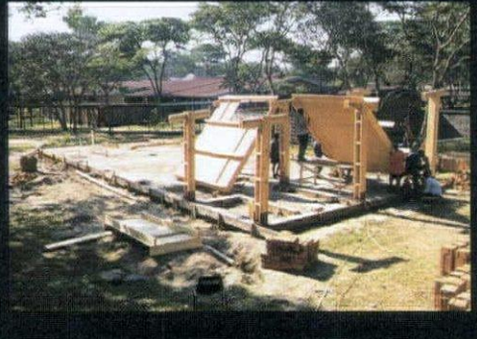


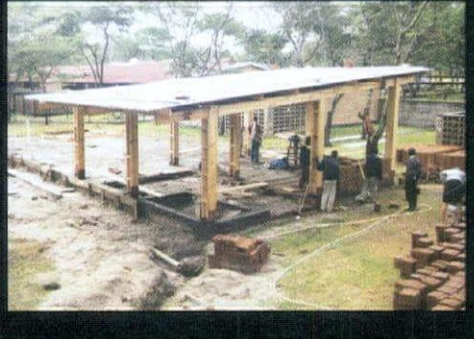
In this first application, two completed modules form one bay of the new six-bay Health Clinic and Treatment Centre at Mzuzu University.

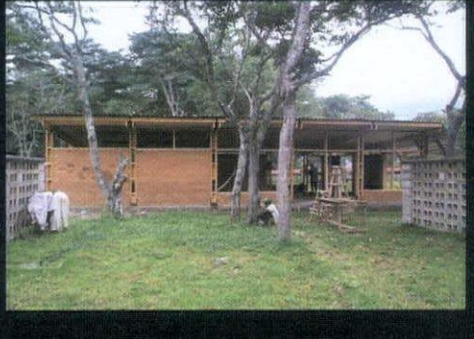




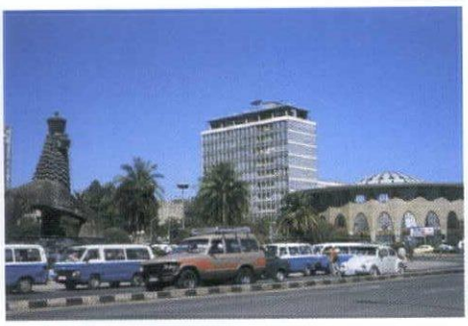




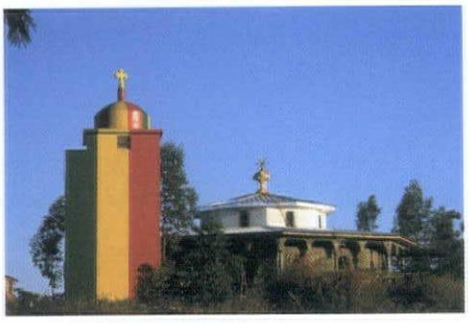




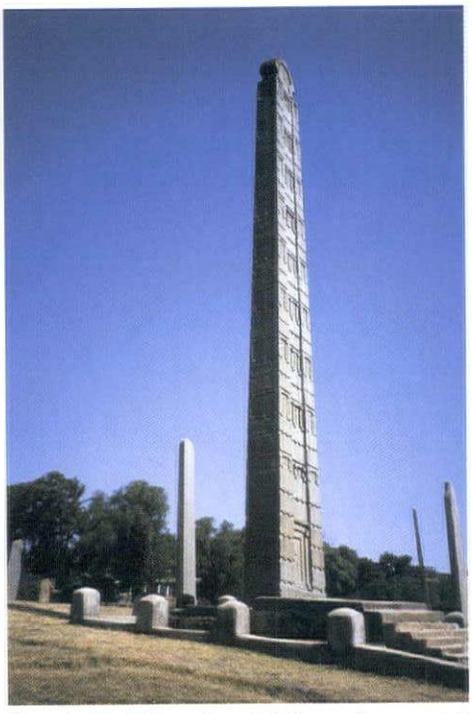
By the end of the four-week field trip to test the prototype system with local craftsmen, four modules were erected in four days. Two months later the structure was complete.



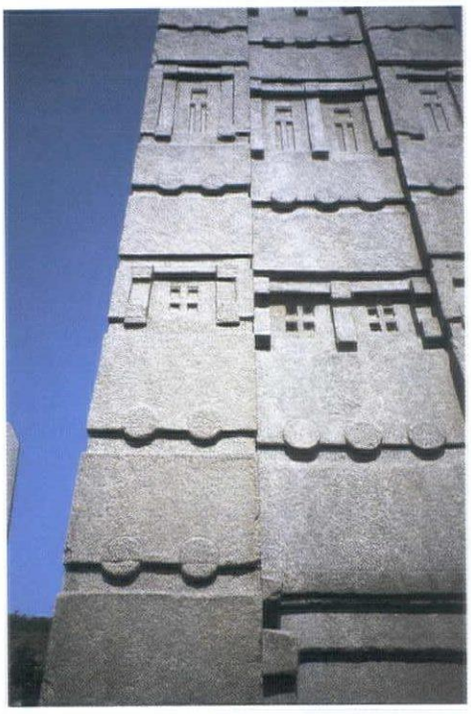
The blare and bustle of modern Addis Ababa, Ethiopia's capital, currently experiencing a modest building boom.



Church in national Ethiopian colours of red, green and gold. Christianity is a powerful force across the land.



Towering 23m high granite stela in the royal graveyard at Aksum, historic cradle of ancient Ethiopian civilization.



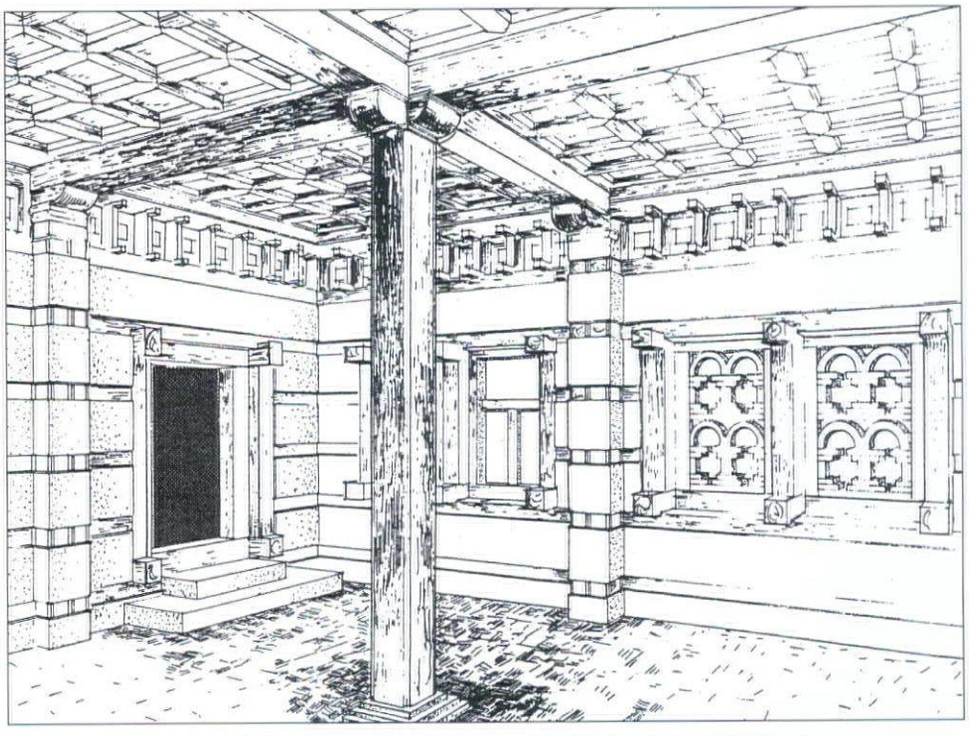
Detail of still immaculate decoration on the stela – the stone is carved to resemble a stylized multi-storey tower.



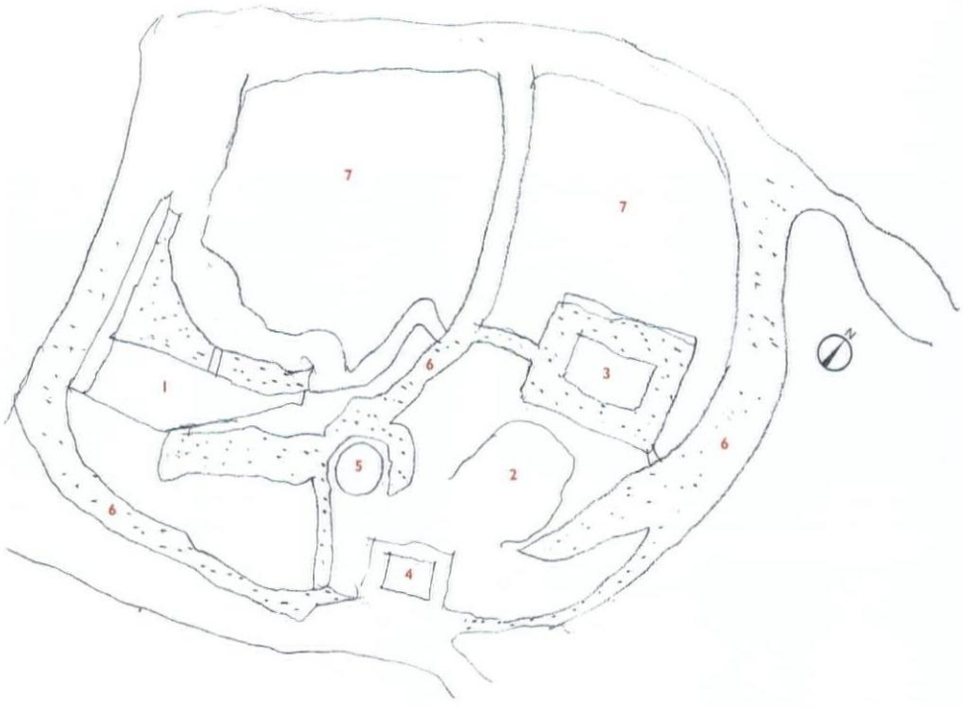
The largest stela now lies broken into three pieces. Archaeologists suggest it probably collapsed on erection.



Detail of the broken stela, a colossal single slab of granite. The circular tie beam details are known as monkey heads.



Reconstruction of room at Ta'akha Maryam: Aksumite forms and details (after Buxton & Matthews).



Sketch plan of the eastern complex at Lalibela showing location of churches and a general room for worship, Bethlehem

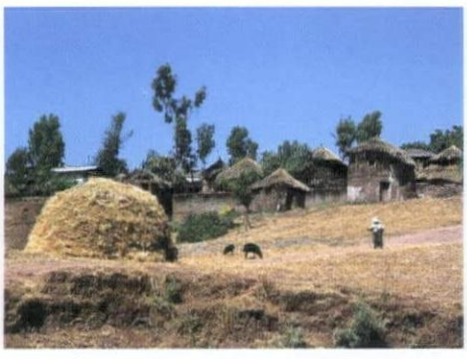
The largest stela, a single 33m stone, lies on the ground, snapped into three pieces (archaeologists think it collapsed on erection); the next largest, evocatively called the 'stolen one', was removed by the Italians in 1937 and now stands in Rome. This is Ethiopia's equivalent of the Parthenon Marbles, rousing as much passion, and though the principle of returning the stelae has been established, the logistics have not. It is not known how the Aksumites erected the stones, and it still defeats contemporary technology, unable to match the combined force of elephants, slaves and ancient wisdom. Stone was sourced from a local quarry where it is still possible to scramble around and observe a handful of small stelae, partially carved, but not quite freed from the mass of the rock.

Aksum is also the birthplace of the Ethiopian Church, the site of the first Christian church in Africa, and reputedly the resting place of the Ark of the Covenant. Christianity arrived in the fourth century AD, and quickly took hold. Ethiopia was one of the first countries to adopt Christianity as its state religion, and up until the 1974 socialist revolution (when Mengistu overthrew Emperor Haile Selassie), the church was the major cultural and social force, as well as the largest landowner. Christianity still prevails (Ethiopia is now 45 per cent Christian and 35 per cent Muslim), and is deeply embedded within the national psyche. This is explained in the fourteenth-century *Kebra Negrast*, the national epic. Part history and part religious text, it sets out (or legitimizes) the absolute and divine power of the Solomonic dynasty, from which Emperor Haile Selassie was descended.

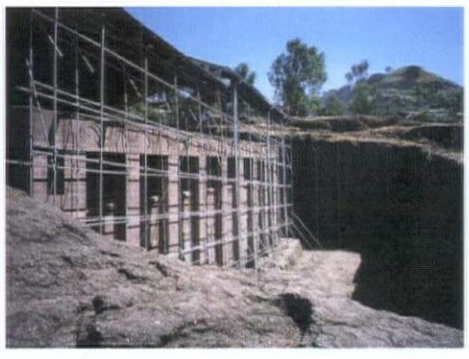
The churches of Lalibela

After the decline of Aksum, political power moved south to a new capital, Roha, renamed Lalibela after the King who transformed it in the thirteenth century into the 'New Jerusalem'. Best known for its rock churches, Lalibela is an important pilgrimage town. Although rock churches are common in this part of Ethiopia, those in Lalibela are unusual in that they are grouped together in complexes. The churches are a form of subtracted architecture, not constructed, but cut down into the volcanic rock (think of a pastry cutter), then the rock removed around and inside. Effectively, the rock is left exposed in its geological location, but cut free from its surround.

Despite their combined size they are not immediately visible; you can walk through the town, looking at the red stone walls, but not actually notice them. All 11 are still working churches, supporting numerous deacons, priests, monks and nuns, as well as lay congregations. They were planned with obvious skill and knowledge – levels, trenches, tunnels and wells were constructed with a combination of complex three-dimensional awareness and practical considerations



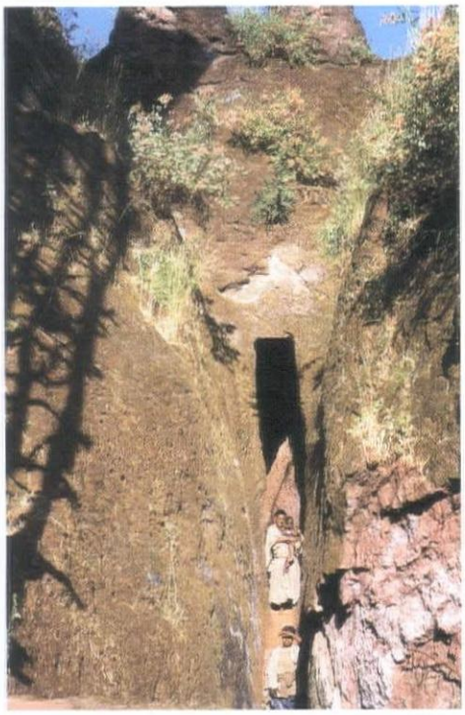
Typical houses in Lalibela. Best known for its remarkable rock churches, Lalibela is an important pilgrimage site.



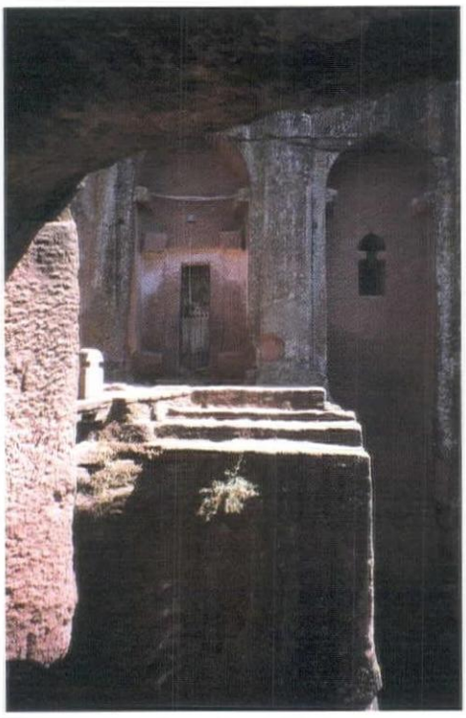
Bet Medhane Alem in the northern complex at Lalibela. The groups of pillars on the facade recall Greek temples.



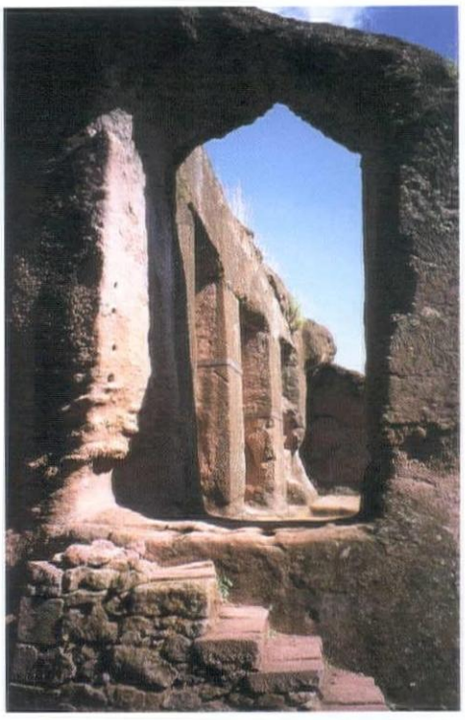
Bet Maryam, also in the northern Lalibela group, covered in scaffolding to protect the crumbling local Tufa stone.



Part of the series of trenches carved into the rock linking the various churches in the eastern complex at Lalibela.



Recessed arches in the north wall of Bet Gabriel-Rafael, the Church of the Archangels, in the eastern group.



Dedicated to Mercurios, a popular equestrian saint, Bet Mercurios is one of the oldest structures in Lalibela.

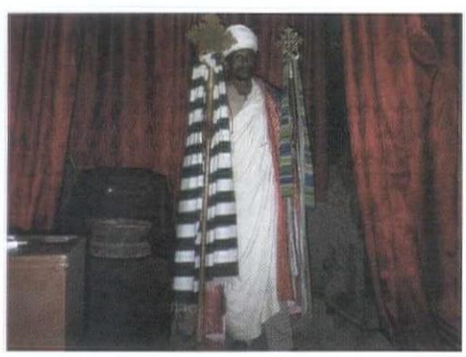
such as managing water run. None has been accurately surveyed, but much would be learnt by seeing how they interconnect. All are in need of restoration – the local Tufa stone is relatively soft and is cracking in places – and they are currently protected by UNESCO-funded scaffolding and temporary roofs. External decoration tends to be concentrated on the windows and is usually Aksumite in style, although this is sometimes interspersed with Islamic style ogee curves. Interiors are relatively plain, with decoration confined to the square column heads.

Despite these similarities, the three groups have distinctly different plans, and each church has its own identity. Not all the churches are monolithic (or free-standing); some are partially connected to the surrounding rock either at the roof or at the side, so resembling caves. It is claimed that all were built over a period of 23 years – this seems unlikely, but legend has it that their construction was 'helped by angels'.

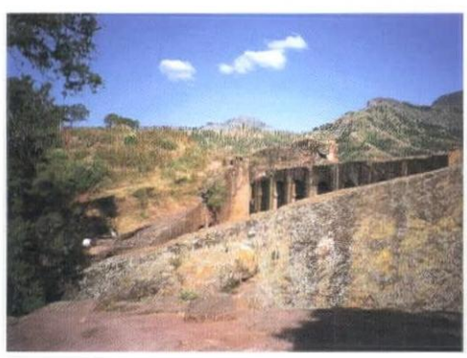
The first, or northern, group is relatively easy to apprehend, as the spaces hewn out between the churches are relatively large and they connect in an orthogonal, almost Classical way. Of the five churches in this group, the largest is Bet Medhane Alem, a vast basilica 33 x 23m in plan, with 72 free-standing columns, an astonishing feat of carving. Its cavernous, gloomy interior is penetrated by thin shafts of light that seep in from small high level windows and though it is an ungainly space, it is still quite awe-inspiring. Bet Maryam, also in the northern group, is much smaller, and, unusually for these types of rock churches, exhibits richly carved and painted interiors. Decoration is a mixture of Islamic geometric patterns fused with more typical Coptic portraits and Aksumite cushion capitals.

The second, or eastern, group, is more disorientating. Trenches and tunnels curve, dip and twist round, so there is never one point at which the complex can be experienced as a whole. Since the base rock was not as flat as the other groups, creating more of a challenge for the builders. Only one church, Bet Emanuel, is fully monolithic; it has crisp horizontal banding and window details in typically Aksumite style. This unusually high level of external decoration suggests that it was for royal use. Other churches in the group are semi-monoliths (i.e. partly attached to the rock) and so more asymmetric, or organic, in plan. The tiny, hypogeous Bet Abba Libanos (connected at its roof) still seems to be growing as it oozes out of the rock. This group is more intimate; the churches are smaller and there is more of a sense of contrast and spatial delight.

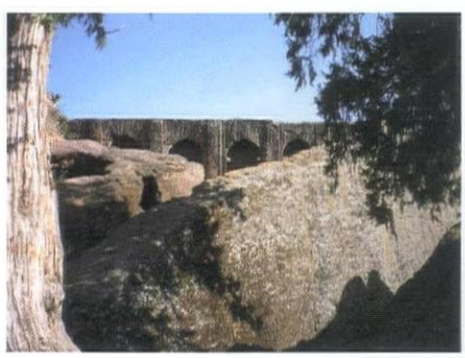
Bet Giyorgis, the last church to be built is, in some ways, the most impressive. Set on its own, unlike the others, it is a simple cruciform plan lying within a deep pit. Approached from above, the flat roof is



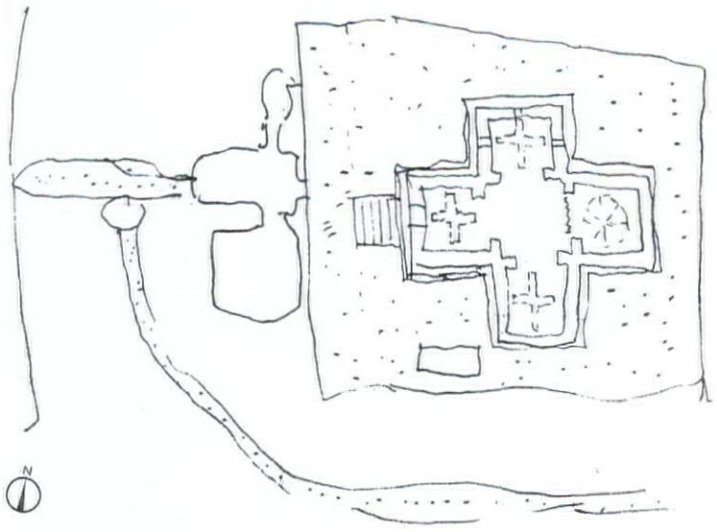
Ethiopian Orthodox priest at Bet Abba Libanos carrying traditional elaborate metal processional crosses.



Rocky landscape surrounds the eastern group of Lalibela churches. Bet Gabriel-Rafael is visible in the foreground.

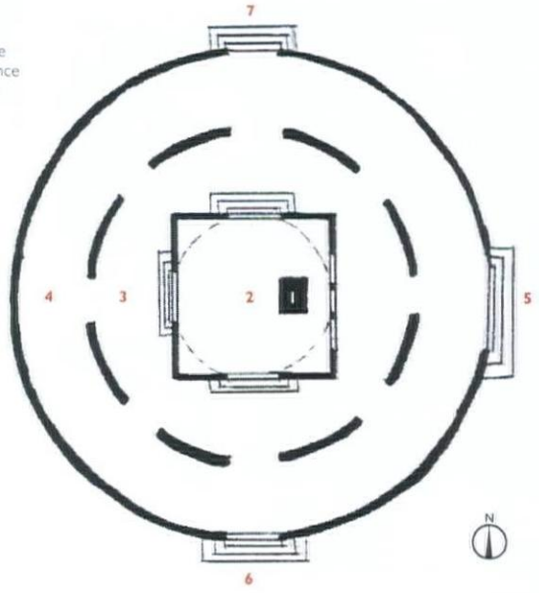


Entrance to Bet Gabriel-Rafael. Windows and niches terminate in ogee arches, suggestive of Islamic forms.



Sketch plan of Bet Giyorgis, set apart from the eastern group at Lalibela

1 *tabot*
2 *maqdas*
3 *keddest*
4 *k'ane mahlet*
5 priests' entrance
6 women's entrance
7 men's entrance



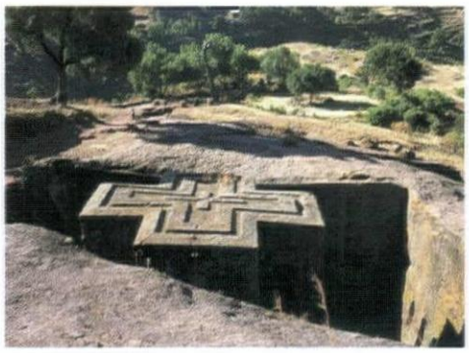
Generic plan of traditional circular Orthodox church

carved with concentric crosses – an aesthetic device, but also a practical method of channelling water, which is expelled by Corbusian-like gargoyles on the facades. Skimming the roof, the sun casts the wall planes into deep shadow. Although it is tempting to get close to the edge the terrain is daunting – a 12m drop deters clumsy, vertiginous or litigious tourists. Access is by a shallow trench that gradually cuts down deep through the rock, turning 180 degrees into a dark tunnel, then through a small door into the bright church pit. It is an intense experience – the orchestrated contrasts of space, light and orientation help you to prepare for a different, sacred world.

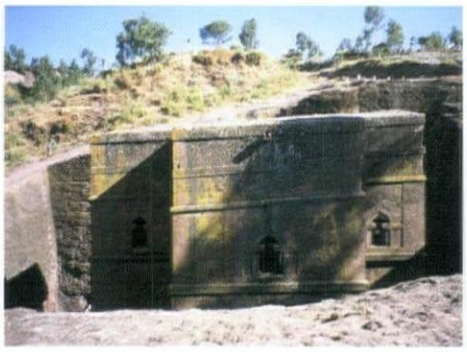
Orthodox ritual and built form

Churches evolved to suit the Ethiopian Orthodox rituals, and traditionally, except for the rock and the original ancient Aksumite types, were generally circular. Their planning and arrangement is intimately bound up with the Ark of the Covenant, reputedly brought to Ethiopia by Menelik, son of the Queen of Sheba and King Solomon, who stole it from Jerusalem. It rests, allegedly, in the St Mary of Zion church complex in Aksum, where it is guarded by specially chosen monks. The Ark holds the Word of God, the Ten Commandments, written on tablets of stone; every Ethiopian church has a copy of these tablets, called *tabot*. Churches are divided into three concentric sections, the outer *k'ane mahlet*, central *keddest*, and the inner *maqdas*. *Tabot* are kept in the *maqdas*, which is only accessible to the high priest. The main act of worship and communion takes place in the *keddest*; worshippers face onto the *maqdas*, which are painted with biblical scenes. Colours are rich and bright, yellow, red, olive and blue, and applied directly onto a fibrous paper bonded to the wall. In a country with only 25 per cent literacy, these narrative paintings have the same function as medieval cathedral stone carvings and stained glass windows. Paintings are formally naïve, almost awkward, yet extremely charismatic. Some of the figures are easy to recognize – St George and his dragon, for instance, as well as more specifically Ethiopian figures such as St Tecla, usually represented with one leg and a crutch. (He prayed for seven years standing on one leg only stopping when his leg fell off.)

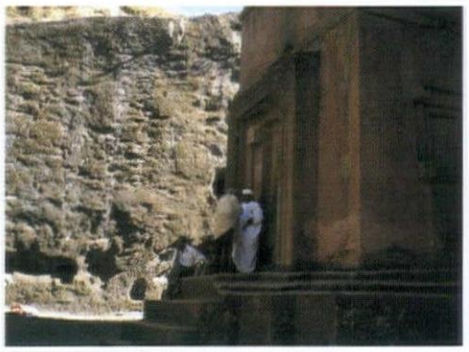
One of the best examples of the traditional circular form is Ura Kidane Meret, on the Zege Peninsula, near Bahar Dar, Lake Tana. Lake Tana, the largest lake in Ethiopia and the source of the Blue Nile, is home to many small monastic communities. Although built in the late 1800s, Ura Kidane Meret is representative of the traditional Ethiopian form. It has been rebuilt and restored, and the paintings touched up, although here (as in Japan), conservation is primarily concerned with technique, idea or form, as opposed to preserving the



The carved cruciform roof of Bet Giyorgis at Lalibela, an extraordinary free-standing structure in a deep rock pit.



The steeply sloping approach to Bet Giyorgis. The church is gradually revealed as worshippers descend into the pit.



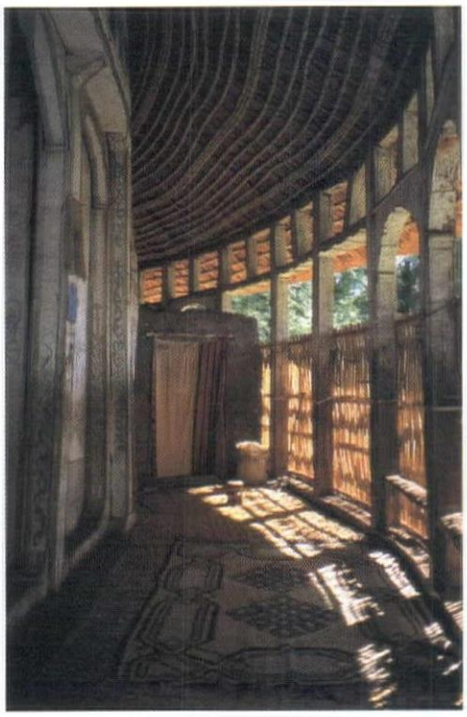
Stepped entrance to Bet Giyorgis, with some of the local congregation. Walls are carved from rosy red Tufa stone.



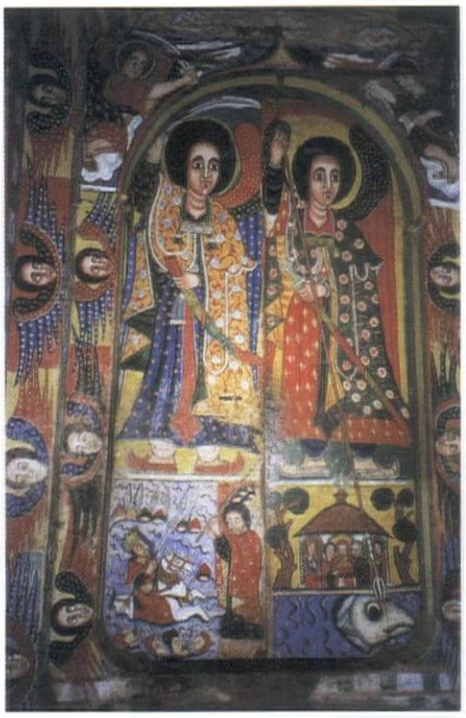
Traditional circular church (dating from late 1800s but recently restored) at Ura Kidane Meret near Lake Tana.



Vividly painted biblical narratives in bright colours boldly impart the Word of God to an illiterate congregation.



Light filters through delicate bamboo screen walls into *k'ane mahlet* (or outer enclosure) at Ura Kidane Meret.



Avenging archangels in the interior of Ura Kidane Meret. Paint is applied direct to fibrous paper bonded to the wall.

original physical fabric. Different elements are constructed from different crafts; the base is stone, the great monolithic central core, the *maqdas*, is made out of dung, a timber structure supports the roof, and the outer enclosure is woven from bamboo – an ideal Semper hut. The bamboo is loosely woven round horizontal members, then tied with a simple cowhide cross-stitch. The atmosphere in the outer *k'ane mahlet* is extrordinary, as light and air percolate through the bamboo – as with all the churches, low technology is combined with a highly developed aesthetic sense.

The requirements of Orthodox ritual have also been adapted to rectangular forms, as at Debre Berhan Selassie, a small church in Gonder. Gonder is on the north side of Lake Tana, an overnight ferry journey away from Bahar Dar; it was the capital in the seventeenth century, and the extensive (ruined) palace compound still survives. A circular church was consecrated on the site in 1694, but the present church was built in 1818, possibly around the original inner *maqdas*. The rectangular plan is unusual for this area, and could either reflect the importance of the church (in the new capital) or the Jesuit influence (for a short time the Portuguese had strong links with the monarchy). The walls of the central rectangular communion room, the *keddest*, are completely painted. Unlike a circular church where the paintings surround the *maqdas*, here the paintings surround you. They follow a typical biblical narrative, although occasionally with more visceral relish (in one part a Bosch-like devil devours a man). But it is the celestial ceiling that distinguishes this church; between the joists are the faces of about 80 angels. They stare down as if watching and protecting worshippers, each with its own character and individual gaze. In this tiny church, which is so unassuming on the outside, you experience a profound sense of the numinous, helped on your way by an infinity of angels.These few specialist, Christian examples can hardly be said to be representative of either Ethiopian culture or the built environment – Ethiopia is, after all, a vast and complex country, with many different kinds of landscape, architecture and people. But what is strikingly consistent is the continuity of craft-based construction and the skill with which external ideas have been adopted and developed to work in harmony with individual customs and beliefs. As the country slowly attempts to modernize and new forms of architecture emerge, it must be hoped that such important aspects of Ethiopian tradition will not be lost. SARAH JACKSON

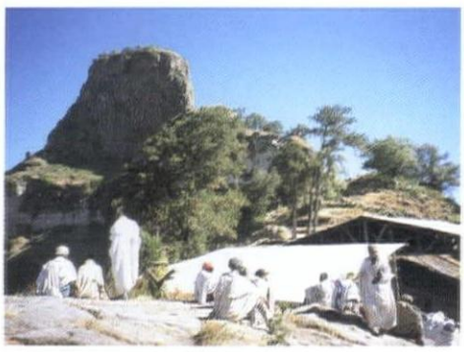
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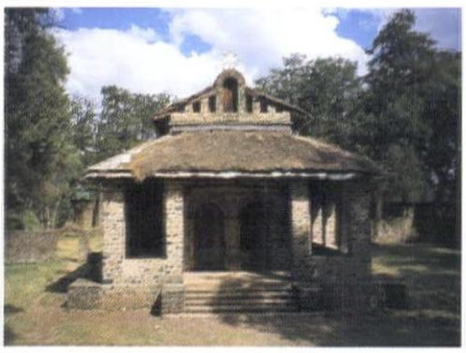
Ethiopia, The Unknown Land, Stuart Munro-Hay, I B Tauris, 2002.

Ancient Ethiopia, David Phillipson, British Museum Press, 1998.

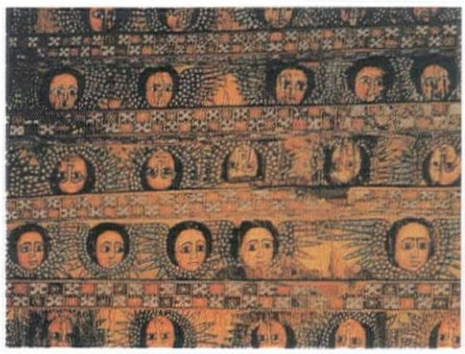
All photographs and sketch plans courtesy of the author



Sunday worshippers at Ashetan Maryam above Lalibela, a spectacle virtually unchanged since biblical times.



The rectangular church of Debre Berhan Selassie at Gonder. The form is unusual for the Lake Tana area.



An infinity of angels adorns the ceiling of Debre Berhan Selassie, bringing succour to the mere mortals below.



Think tank

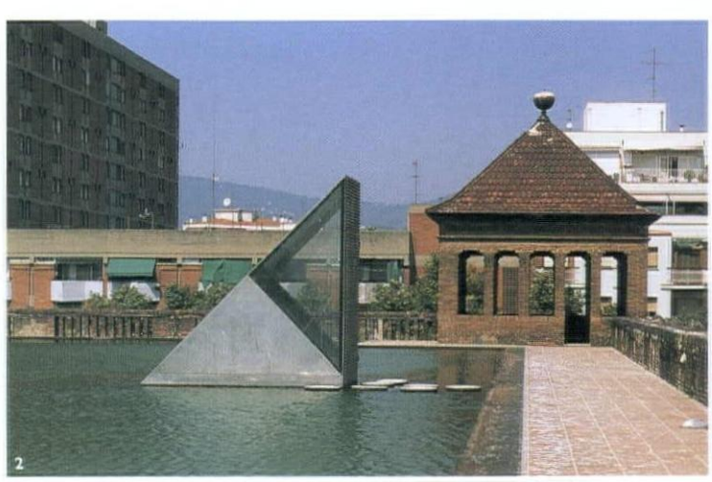
In Barcelona, an extraordinary industrial relic from the nineteenth century has been imaginatively and sensitively transformed into a new university library.

Dating from 1990, Barcelona's University Pompeu Fabra is a relative newcomer to the city's educational pantheon, yet today it is considered one of the most prestigious universities in Spain. With a student population of around seven thousand, it offers a range of graduate courses, along with doctoral, post-graduate and masters degrees. Emphasizing the role of a university as part of society, Pompeu Fabra has a distinctly urban character unlike most new campuses which tend to be exiled to the periphery. Installed in a series of remodelled buildings of diverse historical origin, the various faculties are clustered around la Ciutadella, near the city zoo and Olympic Village on the eastern edge of the Cerdá grid. Projects such as MBM's imaginative remodelling of the Roger de Llúria barracks (AR November 2001) into lecture halls and seminar rooms are typical of the ongoing development programme which seeks to invigorate and sustain the public realm, through a process of historical consolidation and repair.

This latest project by the young Barcelona-based partnership of Lluís Clotet and Ignacio Paricio Ansuátegui involves the refurbishment and conversion of the Diposit de les Aigües into a new university library. Acquired by Pompeu Fabra in the mid 1980s, the building was originally a water reservoir, designed by Josep Fontseré and Josep Comet in 1874 as part of a lake and cascade complex sited at Parc de la Ciutadella. An outstanding example of nineteenth-century industrial architecture, the building's robust brick construction echoes the massive Roman engineering of the Mirabilis Pool in Naples, an enormous reservoir of drinking water built for the Roman fleet during the reign of Augustus.

Since it ceased to operate as a reservoir, the Diposit has undergone many different incarnations – a World's Fair pavilion, archive, fire station, film set and old people's home. This most recent use involved the construction of internal partition walls, which Clotet and Paricio have removed as part of their intention to preserve the original structure and enhance the dramatic quality of the internal spaces. The urge to impinge as little as possible on the historic fabric strongly underscores the entire project.

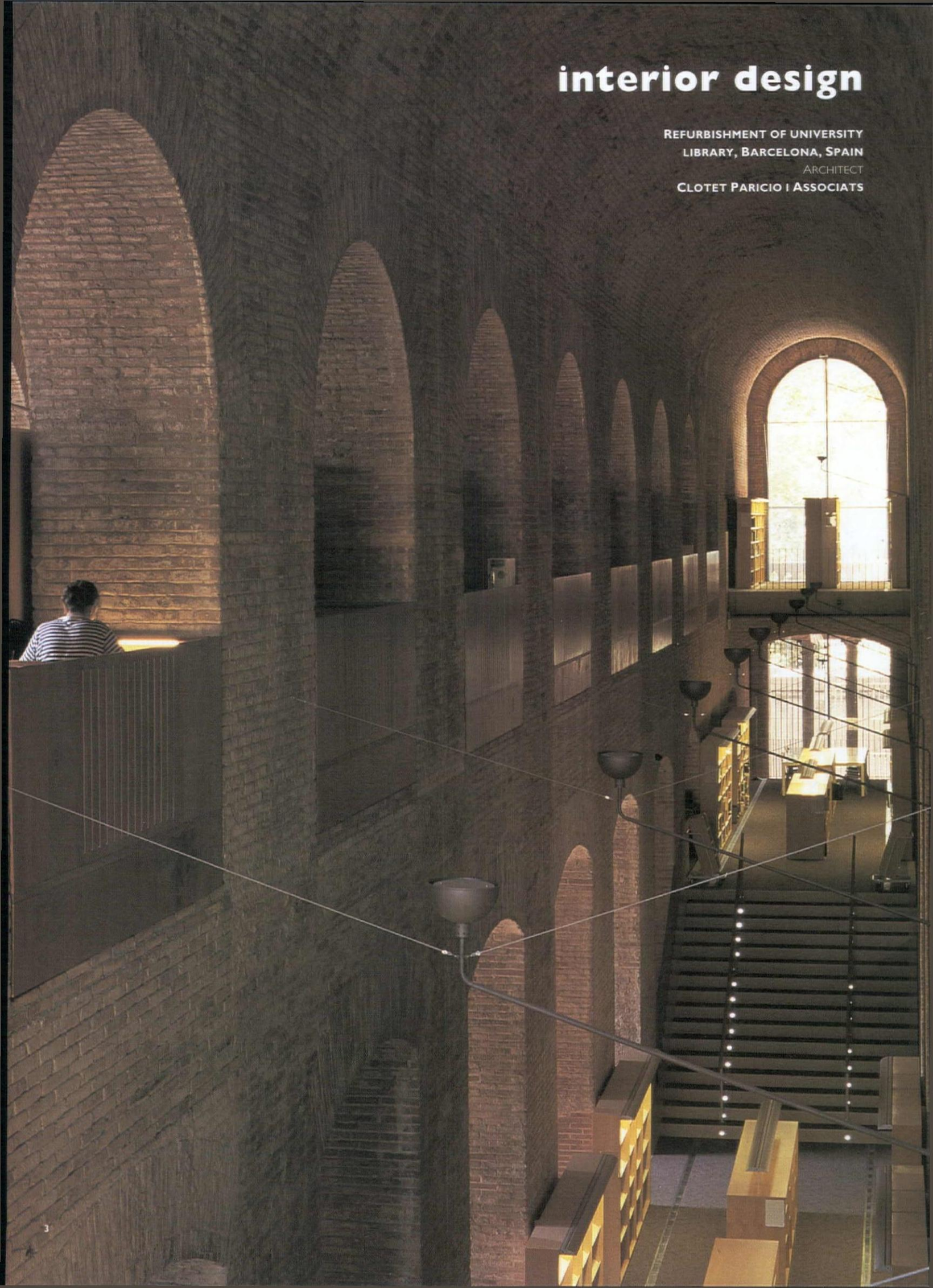
The building's new function responds both to the drama and practical constraints of the existing structural geometry.

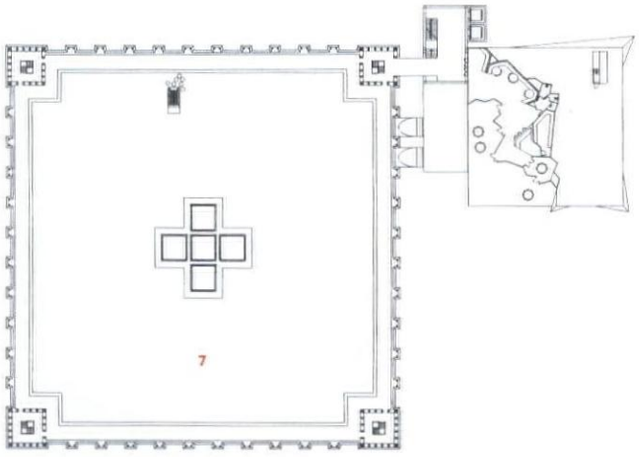


1
The rooftop tank and the surrounding city. New pyramidal rooflights reflect and channel light down into the library below.
2
Detail of rooflight.
3
The heroically scaled vaulted brick structure dominates the interior.

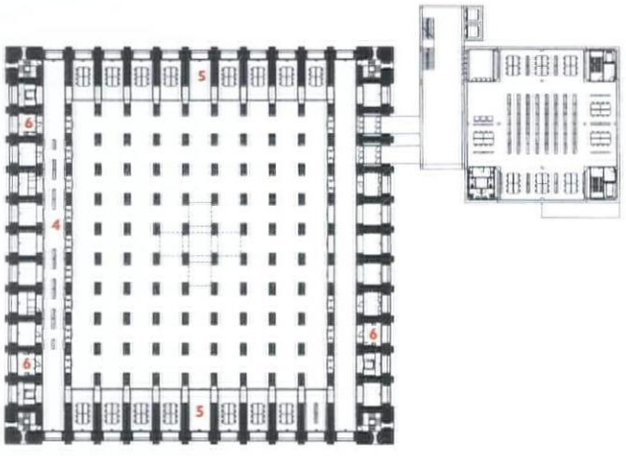
interior design

Refurbishment of university library, Barcelona, Spain
Architect
Clotet Paricio i Associats

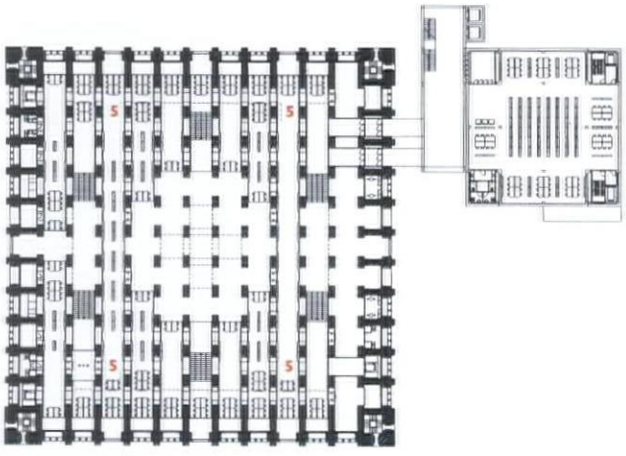




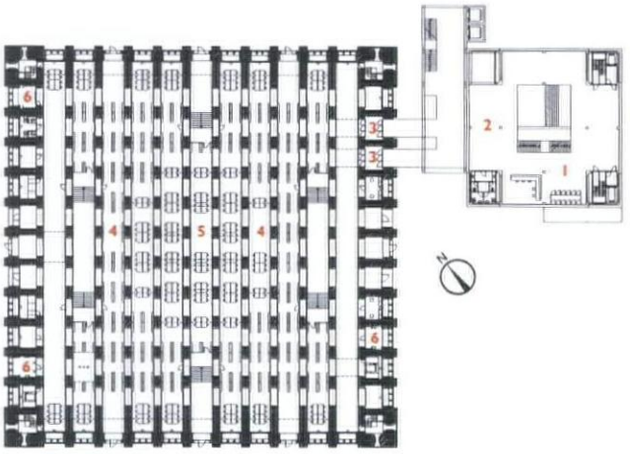
roof plan



second floor plan



first floor plan



ground floor plan (scale approx 1:1250)

The rooftop water tank is supported by a dense grid of 1m thick parallel brick walls penetrated by arches to create a series of 4m wide vaults. Around the perimeter, massive brick buttresses provide lateral restraint. The resulting interior is a cavernous, cathedral-like volume made up of a rhythmic labyrinth of vaults. This heroically scaled space has been sensitively transformed into a reading room and library, the rows of desks and book stacks slotted with precise economy into the regimented structural grid. Subsequent interventions have been stripped out – for instance, the existing upper floor has been cut back to form a reading balcony around the perimeter, giving views out over the scholars toiling below. A modular precast concrete structure, independent from the brickwork, permitted the installation of a raised floor. All the necessary building services (wiring, plumbing, furniture) were installed without disturbing the original structure.

Despite the monumental character of the space, the architects have managed to create many different sorts of work and study areas, ranging from intimate, individual enclaves, to communal spaces dwarfed by the towering structure and vast vaulted vistas. The most ingenious new interventions are the skylights on the roof's tank. Each consists of an inverted mirror-glass pyramid set in a clear glass casing which funnels sunlight reflected off the water into the deep plan of the reading room below. Other interventions are more prosaic, bringing the nineteenth-century structure in line with current planning and seismological legislation. Overall, the architects have accomplished the often difficult task of injecting new life into a distinguished historic building with a mixture of rigour and sensuality. Pompeu Fabra has another happily revitalized relic. FREDY MASSAD and ALICIA GUERRERO YESTE

Architects
Clotet Paricio i Associats, Barcelona
Photographs
Fredy Massad

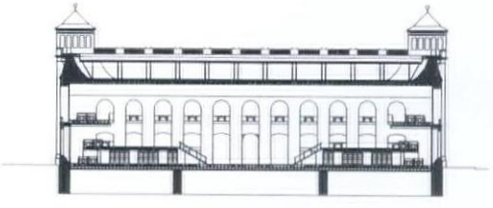
4
Detail of massive brick vault.
5
Set against the rough brickwork, new furniture is spare and simple.
6
The rhythmic labyrinth of learning.
7
Intimate individual study space.

REFURBISHMENT OF UNIVERSITY LIBRARY, BARCELONA, SPAIN

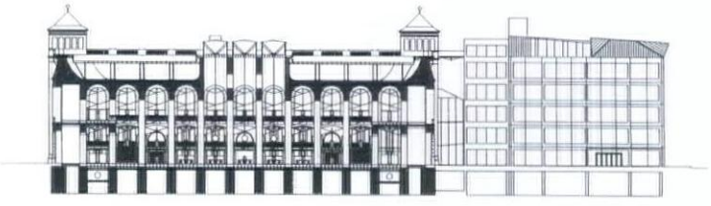
ARCHITECT

CLOTET PARICIO I ASSOCIATS

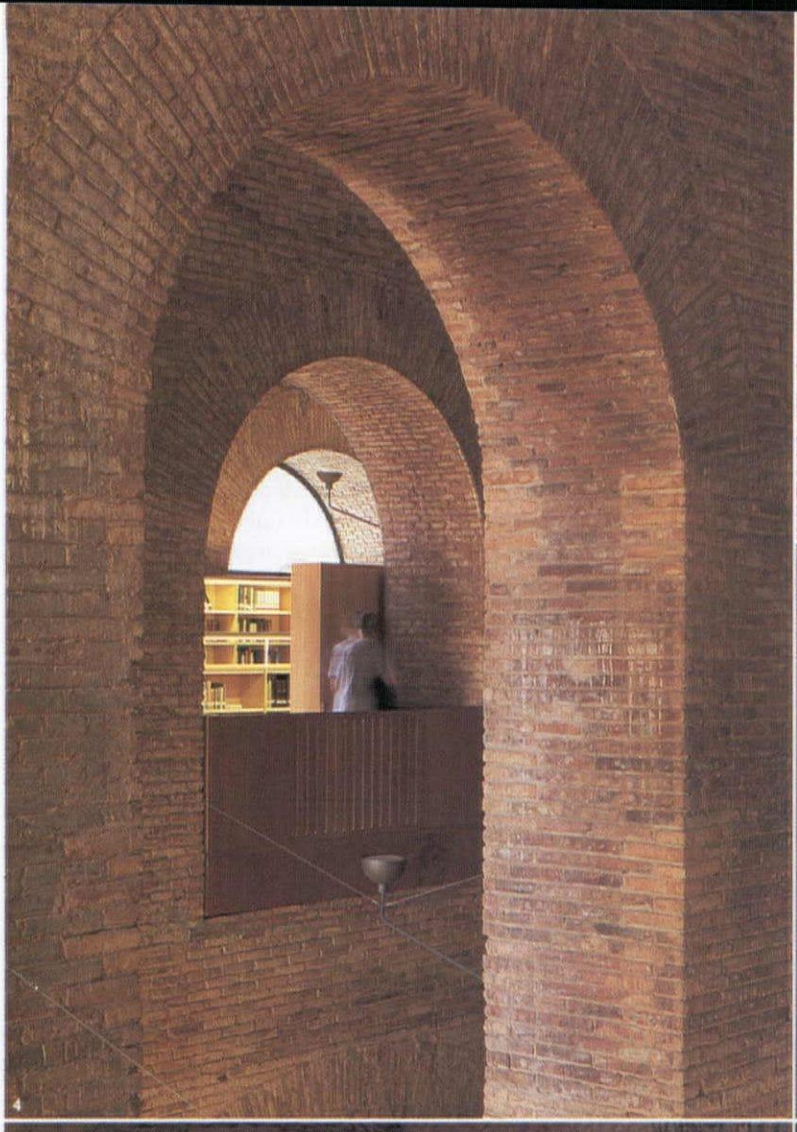
1 entrance
2 foyer
3 entrance to Diposit
4 book stacks
5 study desks
6 wcs
7 rooftop tank



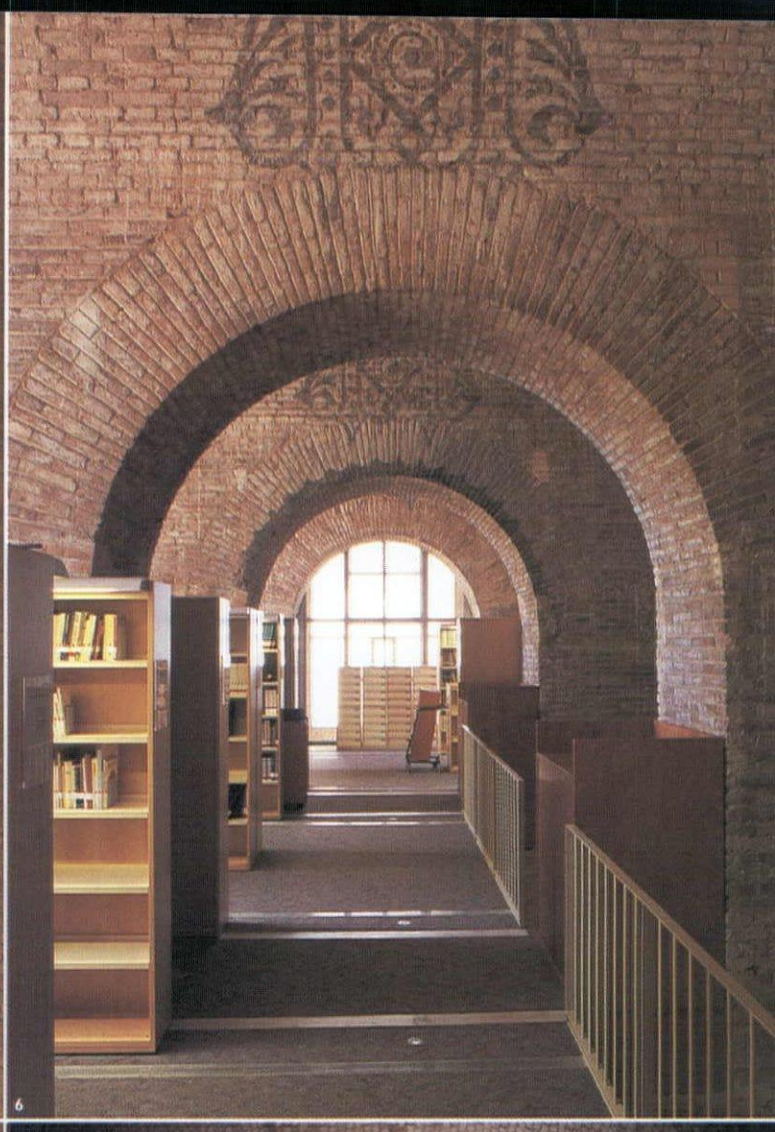
cross section looking north-west



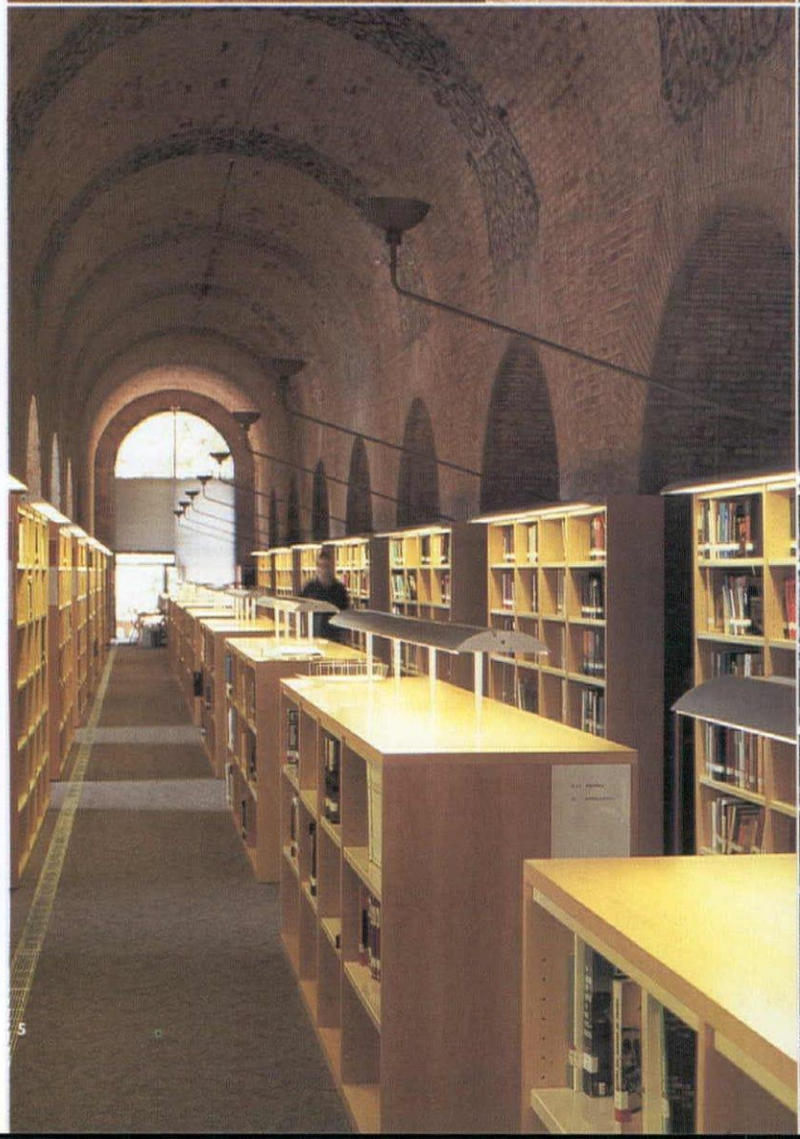
cross section looking north-east



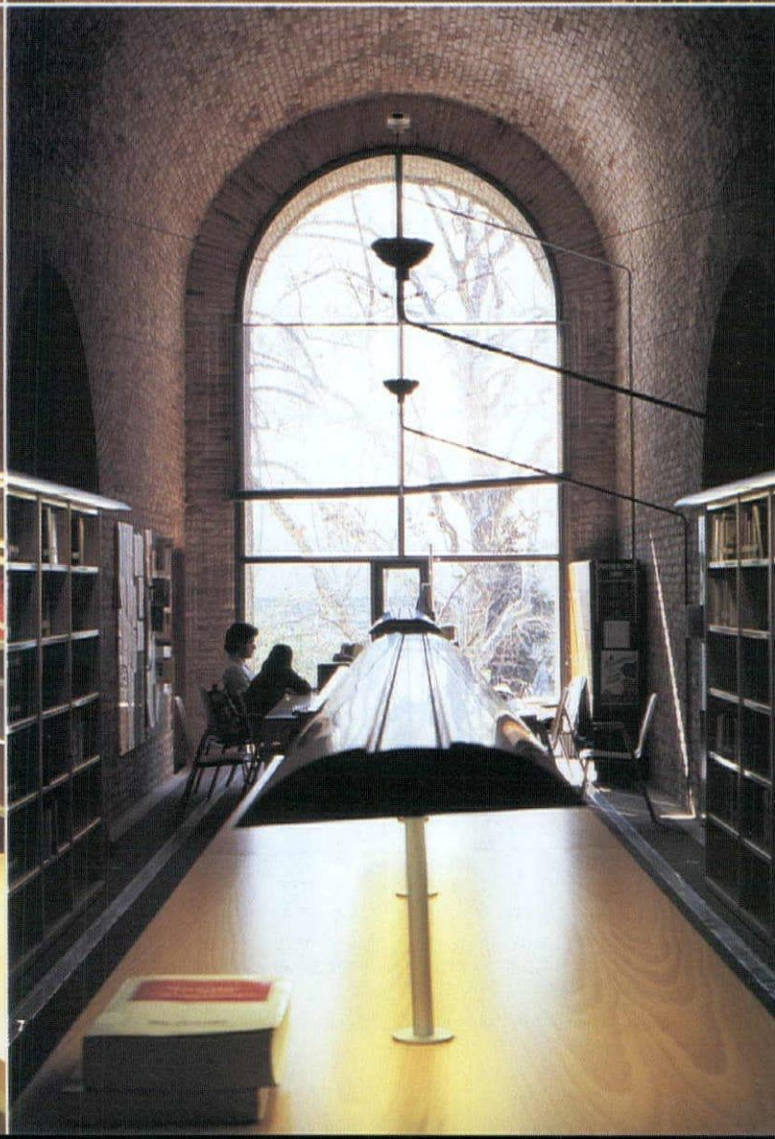
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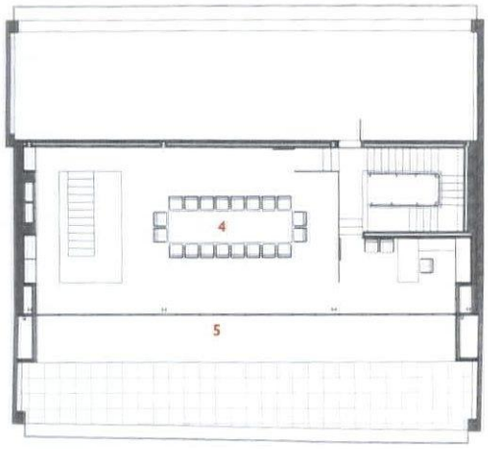
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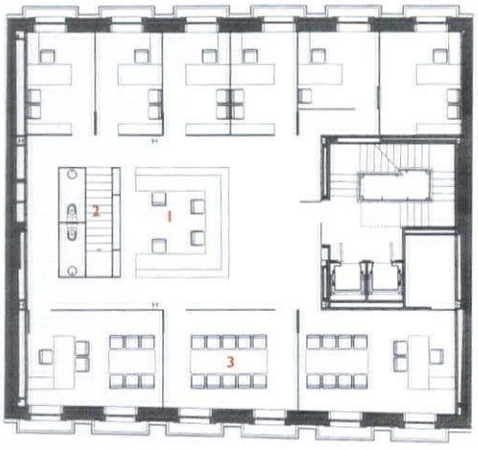
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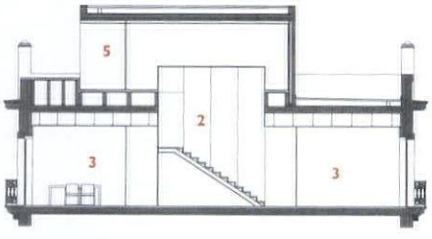
plan at boardroom level



plan at office and reception level

1 reception desk
2 lavatory and stair core
3 offices
4 boardroom
5 terrace

OFFICES, CADIZ, SPAIN
ARCHITECT
TOMAS CARRANZA



cross section through central staircase

Attic stories

With simple forms and fine materials, new offices give Cadiz's skyline a contemporary lookout post.

Through the passage of time, the dense and narrow street patterns of Cadiz have caused the city to rise up to conquer a new realm on top of its buildings. By exploiting the benefits of the warm winter sun and the cool offshore summer breeze, roof gardens flourished during the eighteenth century, articulated by the distinctive and widespread lookout towers that have helped to define the image and character of the city. Adorning the city's harbour facade, these aerial structures that surrounded the north-eastern side of the bay provided expansive, spectacular views of ships returning from across the sea; a tradition recently reinterpreted by local architect Tomas Carranza in his design for this new and contemporary attic storey.

Behind a discrete yet generous full width terrace, new reception, office and boardroom accommodation now occupy the top two floors of a house that had previously lost its lookout tower. Through his use of pure forms, a limited palette of materials and his sensitive manipulation of light, this new collection of spaces exhibits the proportions, planar composition and detailed refinement of Mies Van der Rohe. With glazed screens held delicately between the uninterrupted floor and ceiling planes, slender stainless-steel columns, and with service cores, lavatories and stairs neatly contained within deliberately placed and powerfully composed pieces of finely crafted furniture, the spaces contrast notions of solidity and lightness, transparency and opacity.

On the lower level, glazed screens subdivide the working area by alternating between translucent and opaque glass panels along the space's longitudinal and transverse axis, while from behind the centralized reception desk, a secret staircase carves its way through to the boardroom above.

As an empty prism-like space, the boardroom is dominated by the panoramic view across the sea. Framed by the cantilevered soffit and the stone bench that shelters the external terrace, this delightful new volume that is flooded with eastern light, holds the distant horizon and creates a dramatic new vantage point from where to view the City of Light.

ROB GREGORY

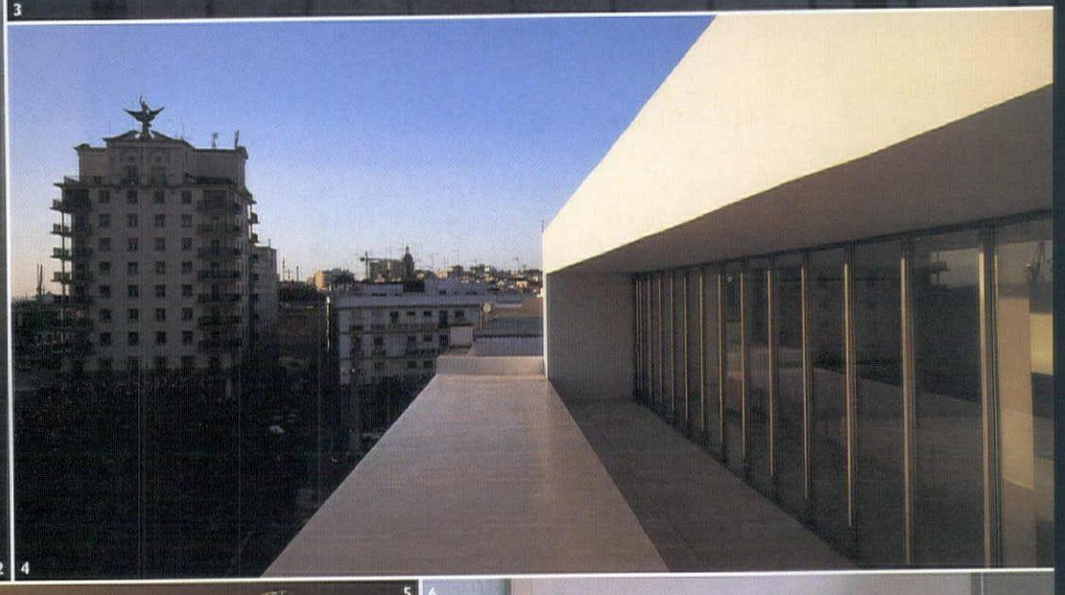
Architects
Tomas Carranza
Photographs
Fernando Alda

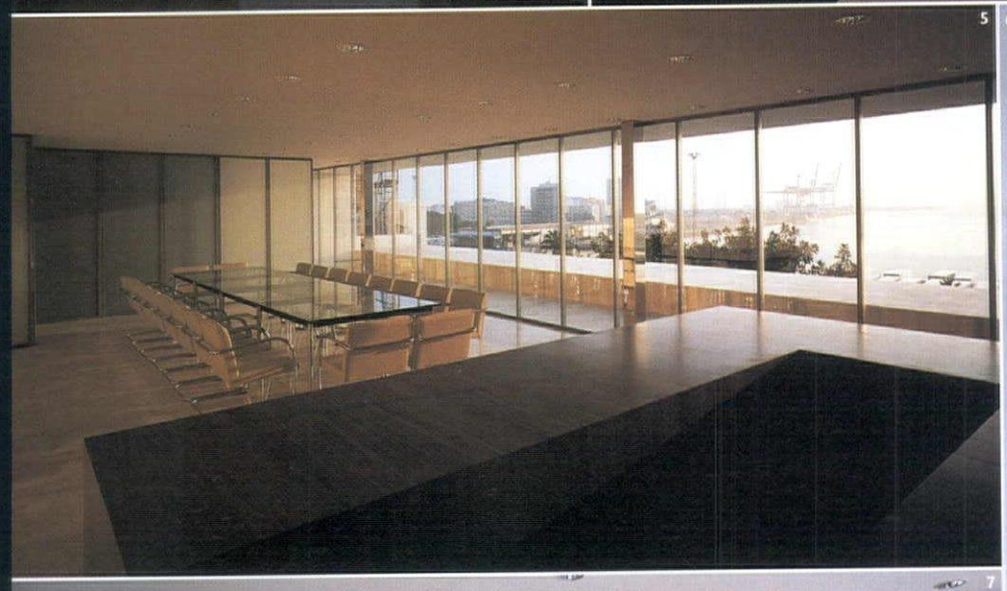


1
A new look-out post sits quietly above the harbourside facade of Cadiz.
2, 3 & 4
From the office, new views of Cadiz's traditional look-out towers. The boardroom and external terrace command spectacular panoramas of the city's skyline and harbourside.
5, 6, 7
Entrance space dominated by a powerful centrepiece, combining reception desk, lavatories and a stair to the boardroom above. Carved out from within the timber core, the secret stair leads you through a dark slot up into the bright space beyond, and a stunning harbourside view.

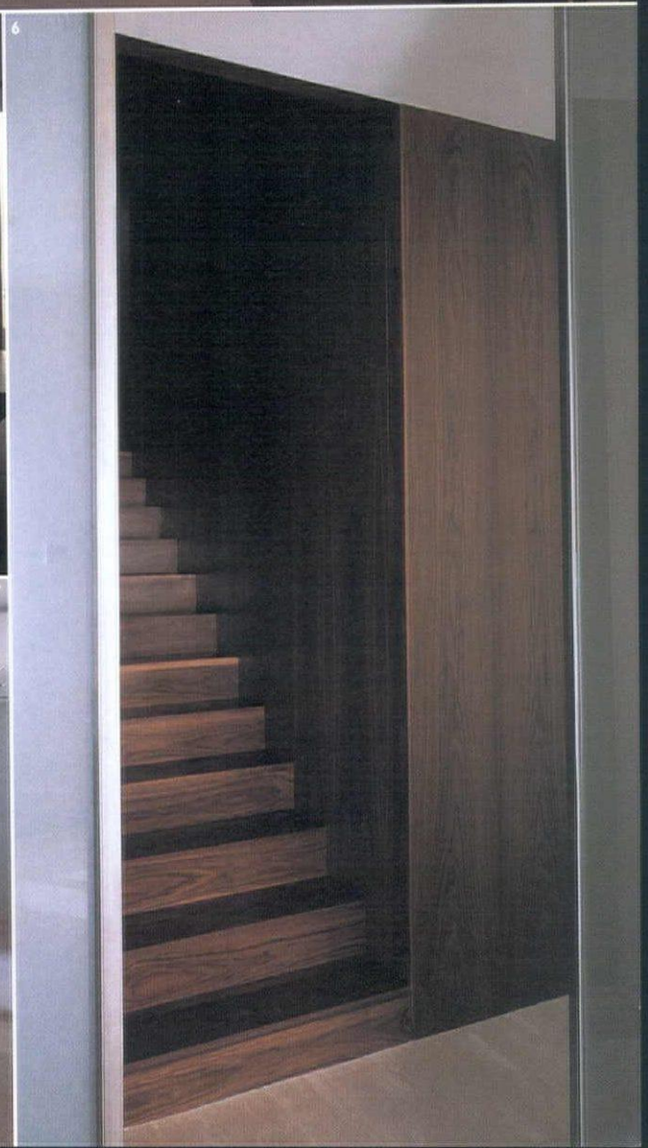












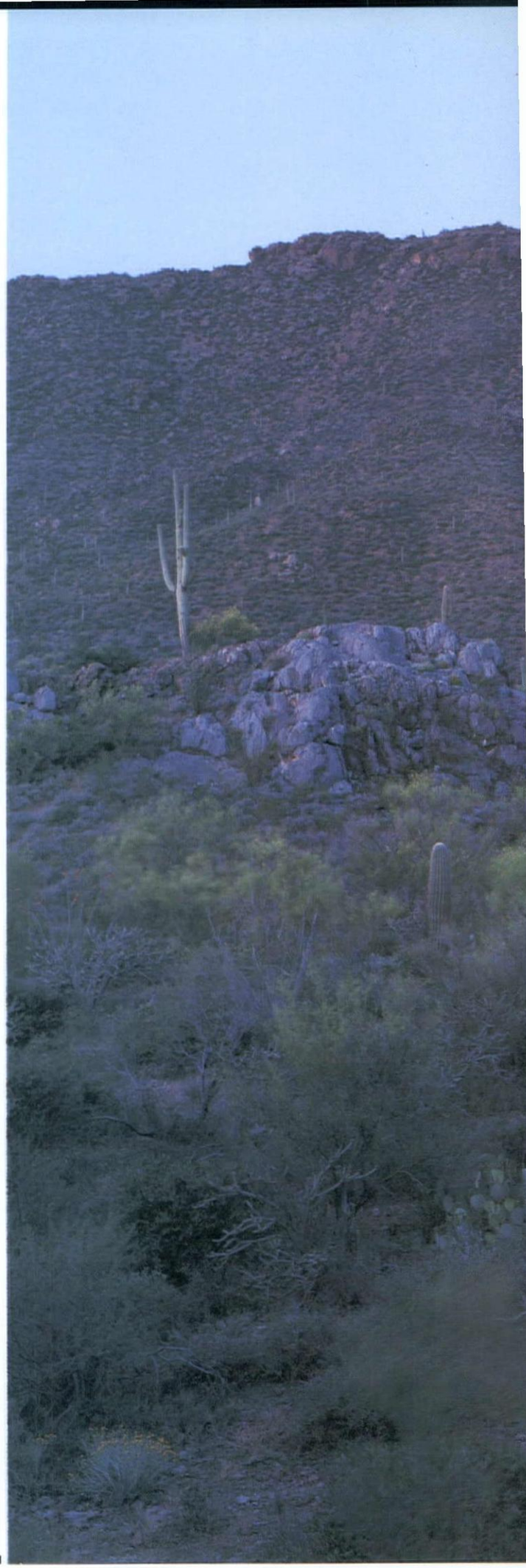
In the house Rick Joy designed in a small valley in the Sonoran Desert near Tucson, he used his well-tried arid-climate repertoire of materials (other essays in the genre can be seen in for instance AR November 1998 and AR July 2001). Massive rammed earth walls often 2ft (600mm) thick provide insulation and thermal capacity to combat a climate that can be both very hot during the day and pretty cold at night. In contrast, large sheets of glass allow wonderful vistas of the desert, which is allowed to come right up to the outer walls with its strangely prolific and often zoomorphically shaped flora. Car parking is carefully hidden in the bush and the house is approached through the cacti along a simple path aligned axially with the main thrust of the plan.

A butterfly roof finished in rusted steel unites all elements of the house. The roof valley divides the plan into two strips, with the elements of the house proper to the south, and the main entrance, guest bedroom porch and terrace in the northern strip. A massive rammed earth fireplace offers hearths to porch and living area, and becomes the physical and psychological link between the two strips. Both porch and living room open to the desert slightly north of east. The massive earth walls are pierced to frame other views treasured by the owners.

In the bright desert sunlight, the whole place acts as a giant internalized sundial, with light slowly moving over the polished concrete floors and the wonderfully richly textured earth walls. In these, daywork joints are revealed by changes in texture and colour but there is an overall order made by the regular horizontal striations of the boarded shuttering which turned stiff mud into regular strata. The architect's own construction company (now highly experienced in rammed earth) was the main contractor.

High and dry

Rick Joy is perhaps set to become the Murcutt of the northern hemisphere with houses that are sharply honed to respond to hot and dry desert climates.



1
The V within the valley: Joy's carefully controlled geometry complements the austere shapes of the natural world.

ar house

House, Tucson, USA
Architect
Rick Joy





2



3

HOUSE, TUCSON, USA

ARCHITECT

RICK JOY

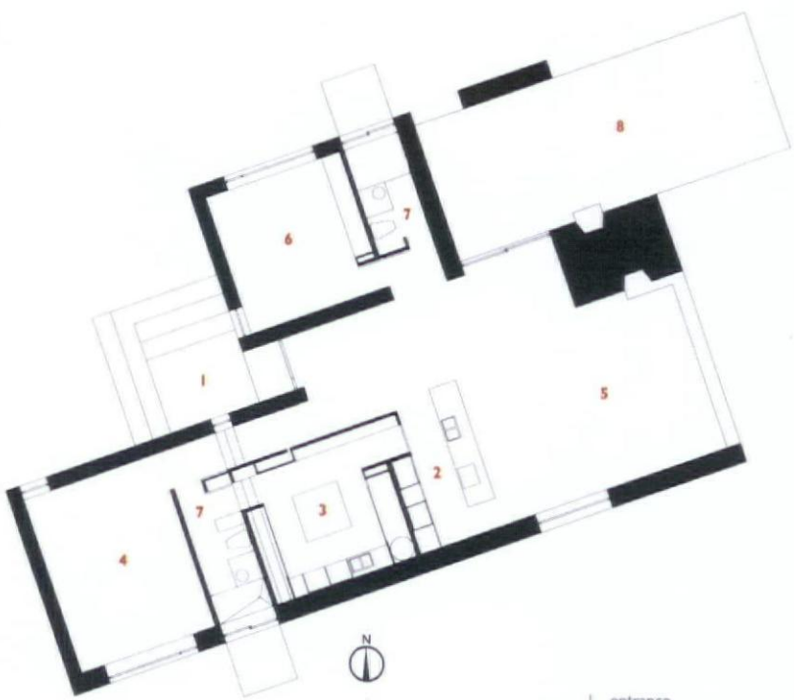
2
Main entrance dives into the harsh desert landscape.
3
Kitchen to entrance.
4, 5
Living area with polished concrete floors and delicate, almost lacy, rammed earth walls.

In contrast to the delicate textures of the heavy walls, the glass planes are a little crude. Though sheets are large, the standard aluminium frames are clumsy compared to the semi-hand-crafted earth.

But the overall feeling of the spaces is calm and gentle. The apparently simple device of the butterfly roof affords much subtle gradation of space: for instance the areas round the fireplaces are the lowest and most intimate, while the tall south north and south windows draw the landscape into the house. As Juhani Pallasmaa has pointed out, Joy's houses in the northern hemisphere 'bring to mind some of the clearheaded and poetic house designs of Glenn Murcutt in Australia'.* In this house, the poetry lies in sensitivity to nature, and in the essence of materials, making a place that evokes simultaneously the archetypes of both tent and cave.

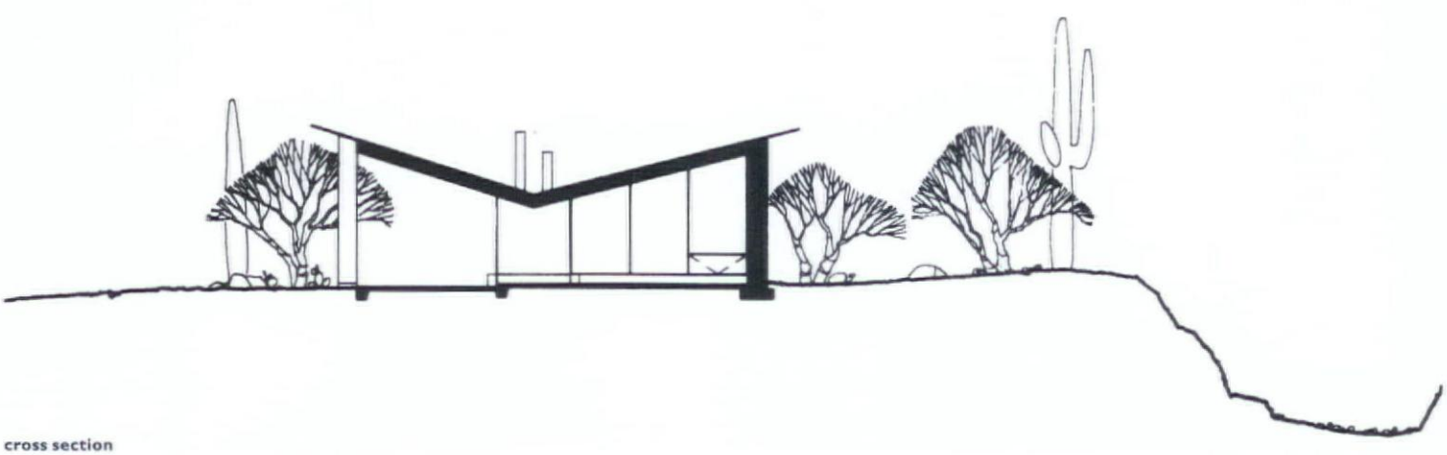
* Rick Joy, *Desert Works*, Princeton Architectural Press, New York, 2002, p16.

Architect
Rick Joy Architects
Project team
Rick Joy, Andy Tinucci
Photographs
Bill Timmerman



plan (scale approx 1:250)

1 entrance
2 kitchen
3 pantry
4 bed
5 living
6 guest
7 bath
8 porched terrace



cross section

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4



5

This year's Milan *Salone* was distinguished by atrocious weather (freezing rain) and the Fall of Baghdad (on all channels). World events do make you stop to ponder, albeit briefly, if humanity really does need more chairs, especially costly, over-designed ones. But the international furniture industry will have no truck with such sedition and grinds determinedly onwards and upwards. As with fashion, newness is all, although it seemed a slightly more subdued cavalcade than in recent years, with fewer intrepid new launches and more playing-safe tactical updates. Tottering through the tempest in kitten heels, here's what caught the AR's eye.

501



501, 502, 503, 504
SAWAYA & MORONI

Sawaya & Moroni have established fertile working relationships with a number of architects, including Zaha Hadid and Jakob MacFarlane, to create limited edition set-piece furniture that gives free rein to the upper register of indulgent self-expression. This year's crop included Iceberg, a bench of wood and aluminium sheeting by Zaha Hadid (**502**), which attempts to crystallize movements of soil and water in chair form, and Three-2, by Jakob MacFarlane (**504**), a funky, arboreal bookcase in translucent coloured methacrylic.

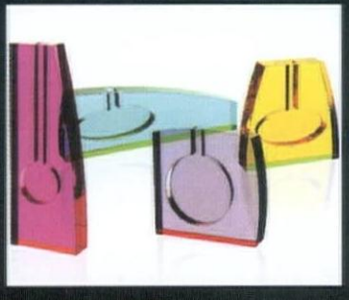
French designer Christian Ghion showed the Butterfly Kiss (**501**), a sinuous armchair inspired by the insect world, and Tomoko Mizu's collection of delicately hued geometric vases (**503**) explored the properties of Plexiglass, exploiting the effects of light.

Enquiries 501, 502, 503 & 504
www.arplus.com/enq.html

502



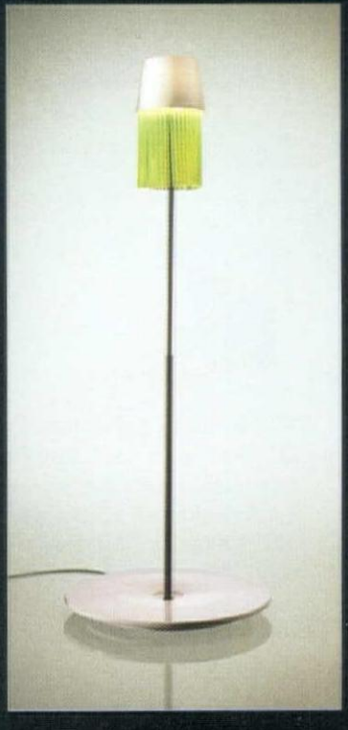
503



504



505



506



507, 508 EDRA

The Favela chair (**508**) by Brazilian brothers Humberto and Fernando Campana was one of the expensive *faux-pauperist* follies on show at Edra. Made of scavenged scraps of wood, it shows a functional, if not exactly political, solidarity with the shanties (as it costs €1500). Some wags suggested it should be used to furnish the private offices of Brazil's new populist president Luiz Inacio Lula de Silva.

Also unveiled was Au (**507**), seating elements created by Japanese designers Setsu and Shinobu Ito. Au means 'meeting' in Japanese and the fluid forms resemble the intertwining symbols of yin and yan, offering the potential for different sinuous configurations. More prosaically, chairs are made of single blocks of polyurethane-foam covered in stretch fabric with leather-covered bases.

Enquiries 507, 508 www.arplus.com/enq.html

507



508



506 WEVER & DUCRÉ

Belgian lighting company Wever & Ducré launched Scan light-fittings-with-a-twist. Laminated polycarbonate shelves serve as a funky and functional distributor of light creating the impression that the luminaire is floating. Laminated foils round the edges come in white, anodised aluminium and a range of colours for that touch of individuality. Available recessed, surface-mounted or suspended, with two different types of lamp.

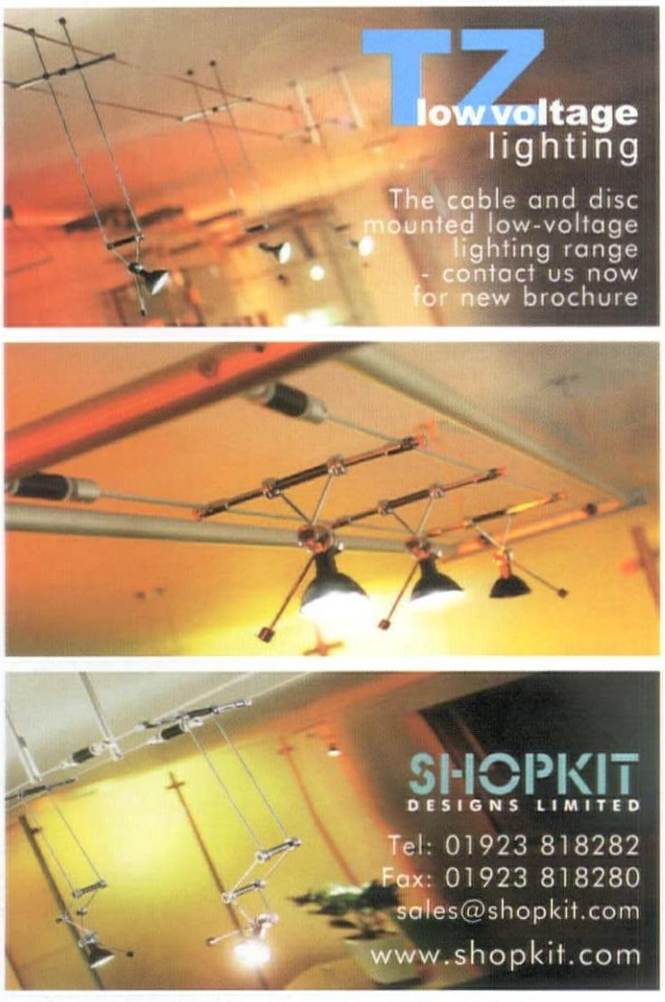
Enquiry 506 www.arplus.com/enq.html

505 INGO MAURER

'The world is at war!' exclaims lighting designer Ingo Maurer excitedly in his quadralingual press release. 'But the show must go on,' he adds, pragmatically.

And it does, with a raft of new products, including Little Big Lamp, an anorexically slim adjustable standard lamp available with porcelain or aluminium shades. The design is a technical and formal refinement of a prototype first developed in 1984.

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enquiry 23 www.arplus.com/enq.html

creative collaborations five

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enquiry 26 www.arplus.com/enq.html

AALBORG UNIVERSITY

Assistant Professor/ Associate Professor

in Urban Design at Aalborg University

Applications are invited for a position at the level of Assistant Professor or Associate Professor at the Faculty of Engineering and Science, Department of Architecture & Design, available from December 1, 2003 (position number 40884). The position as Assistant Professor is available for a 3-year period.

The research area is within Urban Design with focus on urban architecture, urban planning, and design of urban and landscape scales.

We are looking for a person, who is used to work in an international context, and is fully qualified for research and development within urban design, urban planning and design – and with considerable knowledge of the history of modern urban architecture and urban theory. We would also prefer a person with professional competences in preparing proposals and plans for urban architecture, urban development and urban remodelling.

Teaching will primarily be within Master of Science in Architecture & Design, but also in other study programmes at the University.

For further information please contact Associate Professor Gitte Marling, phone: +45 9635 9912 or E-mail: marling@aod.auc.dk

Applicants should be aware that it is necessary to read the full text (www.auc.dk/stillinger/) for the position before applying.

Terms of appointment and payment are in accordance with the agreement between the Ministry of Finance and the Danish Confederation of professional Associations (AC) on Academics in the State.

Application marked with position number, including CV, diploma, particularly relevant publications, other documentation as well as a complete list of the enclosed documentation, all in triplicate must arrive at Aalborg University with the morning post **August 1, 2003**.

Application is to be forwarded to:

Aalborg University
Faculty of Engineering and Science
Niels Jernes Vej 10
DK-9220 Aalborg East

Aalborg University (AAU) conducts teaching and research to the highest level in the fields of Engineering, Natural Sciences, Social Sciences and the Humanities. In 1995 Esbjerg Engineering College was incorporated into AAU. Aalborg University has 12,000 matriculated students, and the annual budget is in excess of DKK. 1 billion.

enquiry 24 www.arplus.com/enq.html

509



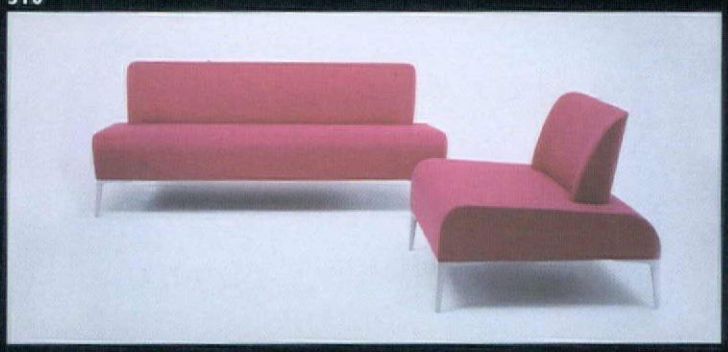
509 WILKHAHN
German Möbelmeisters Wilkhahn showed Signo, a new conference chair designed by Werner Sauer. Formed from a moulded plywood seat shell with a kite-like backrest of taut stretch fabric, Signo is extremely lightweight, so that businessmen (and their long suffering PAs) can tote it around with ease.

Enquiry 509 www.arplus.com/enq.html

510, 511, 512 SEGIS
British designer George J. Sowden showed the Pacific chair (**512**). Made of polypropylene, it is injection moulded in one shot using the latest airmoulding technology for high strength, material economy and no nasty sharp edges. Colourful and robust, for all sorts of applications. Satin finish, range of bold hues.
Alphabet padded seat (**510**) is by young Udine-based designer Roberto Romanello, available in sofa and wing chair versions. Timber-frame, polyurethane padding, diecast aluminium feet with chrome or painted finish.
Bartoli Design have developed a new type of plastic material for use in furniture manufacture. R606 might appear rigid, but this is belied by a surprising sensation of softness and flexibility. Its high specific gravity and compactness make it resistant to wear and tear. The first prototype chair, the 606 One (**511**), is now on the market, a full range is planned.

Enquiries 510, 511, 512
www.arplus.com/enq.html

510



511



512



513



513 COLOMBO
Never squabble over whose turn it is to change the loo roll again with Isole, an elegant range of chrome bathroom fittings by Anna and Carlo Bartoli for Colombo Design.

Enquiry 513 www.arplus.com/enq.html

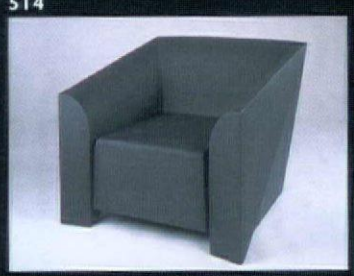
514, 515 HELLER
Another classic Bellini from Mario. Indoor or outdoor armchair in comfy self-cushioning polymer (**514**). Pouf and table also available, so collect the set.
Also from Heller comes Joe (**515**), a surreally oversized baseball glove first produced in 1970 in leather, now reissued in polymer in either tobacco brown or marble grey. Bound to be a talking point at parties.

Enquiries 514, 515 www.arplus.com/enq.html

516 DRIADE
New additions to Driade's Aleph range include the organically-inspired Tipto easy chair designed by Peter Emrys-Roberts and Christine Harvey.

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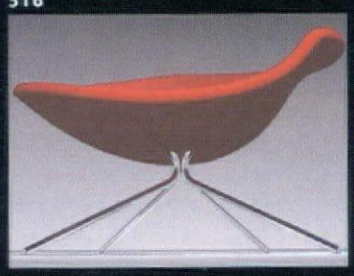
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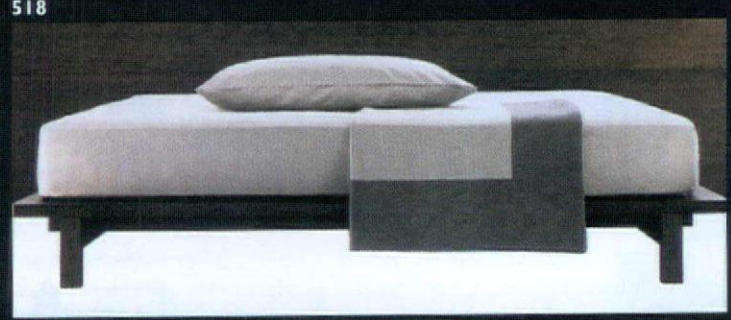
517 DELIGHT
A decided whiff of 1950s coffee bars pervades the Mambo pivoting stool by Archirivolto Design. The gas operated seat is made of blown techno-polymer in a range of translucent kaleidoscopic colours. All you need is the full skirt, red lips and quiff, Daddy-o. Elvis lives!

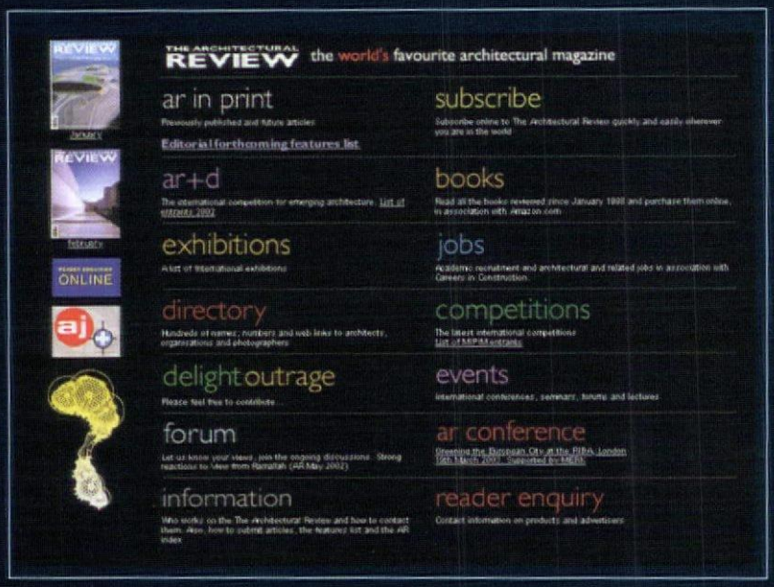
Enquiry 517 www.arplus.com/enq.html

518 ZANOTTA
Zanotta showed a series of beds, a new departure for the firm and part of an in-progress collection. Eco by Emilio Nanni has an all-wood frame (absolutely no metal parts) for that ascetic back-to-nature appeal.

Enquiry 518 www.arplus.com/enq.html

518





www.arplus.com

The Architectural Review's own specialized website **http://www.arplus.com** greatly adds to information provided in the magazine. Besides reproducing selected features from the issues, the site has up-to-date world-wide news on books, architectural exhibitions, competitions and events.

There is a jobs section, directories of museums and galleries, of design journals and websites, and of architects and photographers featured in The Architectural Review – and of course latest information about our awards: the ar+d prizes for emerging architects, with over 700 entries in 2002. And you can subscribe securely online.

THE ARCHITECTURAL REVIEW

519 ARPER

Lola, is a new stacking chair from Arper designed by the Lievore Altherr Molina studio. A chrome-plated tubular steel frame supports a composite shell finished in oak veneer coated with a matt varnish. Toughness with style – a bit like Humphrey Bogart in his pomp.

Enquiry 519 www.arplus.com/enq.html

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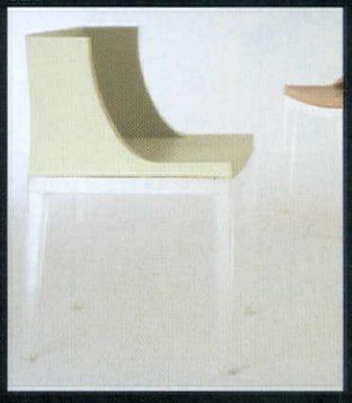
520, 521, 522 KARTELL

The prize for Best-in-Show for exhibition stands must go to Kartell's groovy candy-coloured homage to the '70s, with Farrah Fawcett flicks for the girls and afros for the boys. Furniture-wise, French *enfant terrible* Philippe Starck added to his Kartell role of honour with Maria Antonietta (**522**), a small goblet-shaped table in injection-moulded transparent polycarbonate. Starck also showed Mademoiselle (**521**), an armchair that inventively combines the apparently incompatible materials of polycarbonate and polyurethane. The polyurethane seat (mass coloured or fabric upholstered) is fixed to the transparent polycarbonate base.

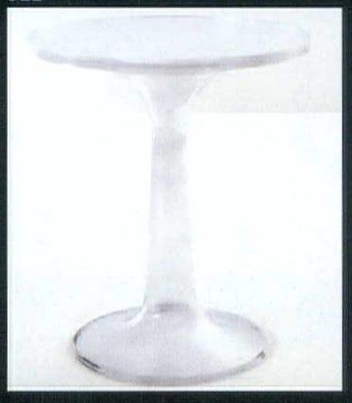
Elsewhere on Planet Kartell, Antonio Citterio gave us Spoon (**520**), a 'revolutionary' stool, shaped like (you've guessed it) a spoon. It's adjustable by means of a gas lift, but Citterio's cunning design means the elegant spoon-like line is preserved. Available in white, black, red, and, er, curry. To takeaway, perhaps.

Enquiries 520, 521, 522 www.arplus.com/enq.html

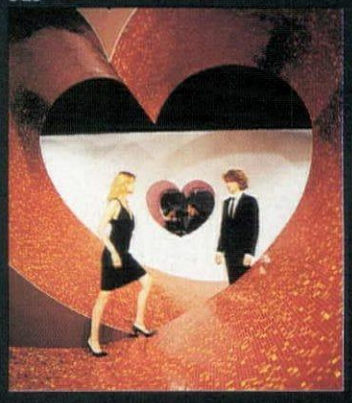
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524 ARTIFORT

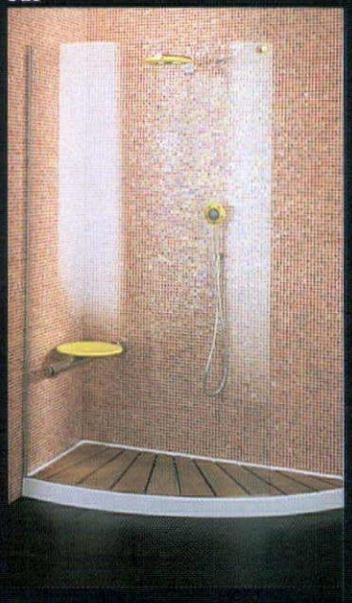
Dive by Dutch designer Michiel Van de Kay is a sleek shell poised on a slim metal frame. Equally at ease in the home or office with a wide choice of upholstery options.

Enquiry 524 www.arplus.com/enq.html

524



525



523 BISAZZA

Bisazza, the entrepreneurial Italian mosaics people, were keen to illustrate the potential of their products during Il Salone. As a part of a showcase of designs, Fabio Novembre created an installation entitled 'A Big Heart', a runway-like strip furling dramatically into a towering heart shape. Walls were clad in glittering Venetian glass mosaics, 20 x 20mm, subtly graduated from red to brown.

Enquiry 523 www.arplus.com/enq.html

525 CESANA

Halfmoon shower cabinet by P. Billekens for Cesena is an elegant sliver of transparent or translucent glass with a teak base, warmer to the touch than conventional tiles. Slim shower and seat fittings come in white, silver, orange and yellow.

Enquiry 525 www.arplus.com/enq.html

526 KALLEMO

Never has felt, that greatly maligned material, looked (and felt) so sexy as in Swedish firm Källemo's Filt chair, designed by Susse Fischer and Thomas Winkel. Easy chair with a lightweight steel frame and felt back and seat. Colourful and tactile, it also comes in a tantalizing mixed felt and leather option. Whip crackaway!

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526





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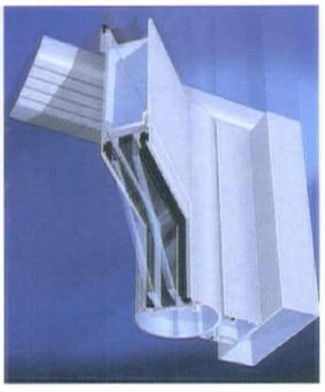
Specifier's Information



Kawneer UK

Kawneer and CAP Aluminium have completed a prestigious curtain walling and window contract for the Pentland Group's new international headquarters in Finchley, North London. Set against a palette of natural materials including brick, slate and timber, CAP installed Kawneer's 86 500 series 1800mm x 1800mm fixed windows, 250m² of Kawneer's 1203 slope glazing to the street and gallery roofs, and 1260m² Kawneer 1202 zone drained curtain walling to form an impressive lakeside facade – all of which incorporated high performance solar control glass.

900 www.arplus.com/enq.html



Kawneer UK

'Finger Guard', by Kawneer, is a revolutionary door safety device designed to eradicate the possibility of trapping fingers in the pivoting side of doors when being opened or closed. In response to increasing customer demand, particularly within the public sector, the traditional hinge stile has been replaced with a continuous vertical cylindrical section which, set within a sealed jamb section, forms a rotating joint that remains sealed at all times. The system comes in single and double swing actions and is fully compatible with Kawneer's established 400 451 and 451PT framing systems.

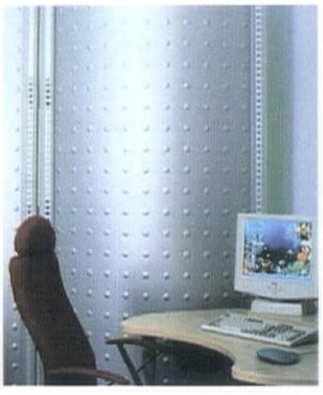
901 www.arplus.com/enq.html



Gooding Aluminium

Durable flexible and eye-catching, GA's Versatility Step-Up Stair Trims have provided the perfect stair solution throughout Cheltenham's trend setting 'Q Bars' American Pool and Bar Complex. With a pattern from GA's extensive range of designs, a striking alternative to conventional tread solutions shows Gooding Aluminium's commitment to evolving sensational new products, services, and designs. To apply for *The Really Useful GA Handbook* – which has everything 'exclusively' aluminium for the specifier contact Gooding on fax 020 694 2004 or visit www.goodingalum.com

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Gooding Aluminium

GA's new website is now showing on a screen near you.
Gooding Aluminium's picture perfect Project Showcase is the star performer in super cool whiteout with over 250 fantastic full colour project photographs taking centre stage. Easy to access – GA's hassle free Literature and Samples Service is also included on-line. Visit the big picture at www.goodingalum.com

903 www.arplus.com/enq.html



Vetrotech Saint Gobain

Specialist glass from Vetrotech Saint Gobain, the world's leading manufacturer of fire resisting glass, is being installed in the largest and most prestigious cruise liner of all time – the £550 million Queen Mary 2, set to carry her first fare-paying passengers to Florida in January. Vetrotech Saint Gobain is supplying 1400 square metres of SGG Pyroswiss Extra for doorways between passenger cabins and their own external balconies – a product that can be incorporated into double-glazed units, used in conjunction with solar control glass or low emissivity coatings for increased thermal insulation.

904 www.arplus.com/enq.html



Spa – Sandtoft Roof Tiles

In the American state of North Carolina a remarkable recreation has recently been completed of Epworth Rectory in Lincolnshire – the birthplace of John Wesley the founder of Methodism. As the headquarters of the World Methodist Council, the replica building was roofed using 5000 clay tiles. The County Pantiles in Flanders Red were made at Sandtoft Roof Tiles' Broomfleet plant, and provide a stunning finish to the building, which mirrors the Queen Anne style of the original.

905 www.arplus.com/enq.html

corus

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Sequia Corus

Corus is offering a newly RIBA accredited CPD technical seminar Coatings for Metal Roofing & Cladding. Drawing on over 35 years experience in production of coatings for metal roofing and cladding, Corus aims to provide a greater understanding of substrate and coatings technology. The seminar is for experienced and recently qualified architects, covering the role of coated metals in architecture, factors influencing the final appearance and performance in use. Members of Corus Colours' business development team will host the seminars at the architects' premises.

906 www.arplus.com/enq.html



Ansong

Maxx comprises a range of luminaries of uniform formal design for a wide variety of lighting requirements. Due to their innovative reflector technology, Maxx downlights are ideal for applications in office environments with PC work stations. Recessed, semi-recessed, semi-surface mounted and pendant versions are available and can be equipped with metal halide and compact fluorescent lamps. Two reflector sizes with ceiling cut-out of ø130mm and ø185mm with a choice of three angles of beam of 40°, 60° and 80°, allow purposeful lighting design for a variety of applications.

907 www.arplus.com/enq.html

BAWA BEATIFIED

GEOFFREY BAWA: THE COMPLETE WORKS

By David Robson. London: Thames & Hudson. 2002. £45

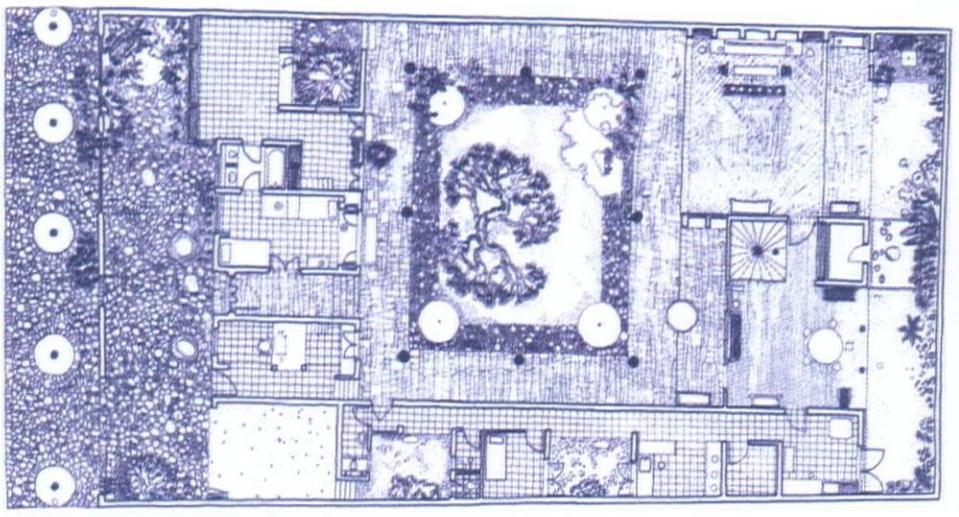
Geoffrey Bawa worked at the cusp of the colonial and post-colonial periods in Ceylon. One of the great strengths of Robson's beautifully produced book is that he makes this duality clear and explores its implications. Bawa's education, cultural background, rootedness to a place, always belonged to two worlds – so much so that, at the age of 29, he seriously thought of settling permanently in Italy.

This early background is particularly significant since Bawa came to architecture late, having first practised as a British barrister but, as he put it, 'I wasn't very good at it; all my clients got imprisoned or hanged'. He was eventually much happier at the Architectural Association where, uncharacteristically for the time, Frank Lloyd Wright was his preferred modern architect. Many years later in 1977, he told Channa Daswatte, latterly Bawa's principal associate, 'the AA gave me a discipline, though it didn't push me in a particular direction, which is why it was so good'.

Bawa spent the next 40 years developing a direction for himself which was never rigid, and which became a humanist architecture with an influence well beyond the confines of Sri Lanka. It is this which also makes Robson's book so relevant and timely but sadly, because of its price, out of reach of so many who most need to see it.

One of Bawa's early influential contributions was to rethink the urban house in the wet tropics. Instead of putting the building in the middle of the plot, he considered the whole plot as a building and then gouged out open spaces to provide light and cross ventilation. This was an adaptation of the Pompeiian/Islamic plan. It made privacy possible on confined sites increasingly common in Colombo and elsewhere.

This theme was brilliantly explored in the Ena de Silva house of 1960-62. The house is densely illustrated in black and white photographs that emphasize structure, texture, and the control of light. These also try and convey the architectural promenade which Bawa devised from the blank wall to the street onwards. Such a controlled sequence of images became frequently the hallmark of Bawa's architecture, as did the use of a large roof – totally appropriate in a monsoon climate – on his designs for houses, hotels, the Parliament Complex, a university, and other building types in Sri Lanka, Bali, India and Mauritius. Bawa's final built project, the house on the south coast, has a huge, slightly sloping roof hovering above a totally open unenclosed and undivided sitting area; it is the distillation of decades of experience.



Bawa's Ena de Silva house: re-evaluation of tropical living in Sri Lanka.

It is sad to have to write 'final' as also is the subtitle of the book 'the complete works'. Though Bawa is still alive (March 2003), he is unable to communicate after his second severe stroke. We have, however, a legacy, which we are able to enjoy and attempt to understand. There are three essential steps: to buy the book; get an airline ticket to Sri Lanka – it is a wonderful island; and to go and see and touch Bawa's buildings.

MICHAEL BRAWNE

US URBAN MAELSTROM

THE EVOLUTION OF AMERICAN URBAN DESIGN: A CHRONOLOGICAL ANTHOLOGY

By David Gosling. Chichester: John Wiley. 2002. £34.95

'Urban design is (or should be) an integral part of the process of city and regional planning. It is primarily and essentially three-dimensional, but must also deal with non-visual aspects of the environment such as noise, water, air pollution and traffic safety, which contribute significantly to the character of an area. Its major characteristic is the arrangement of the physical objects and human activities that make up the environment; this space and the relationship of elements within it is essentially external, as distinct from internal design, and embraces the discipline of landscape architecture. Urban design includes concern for the relationship between new development and existing city form (context), as much as the social, political and economic demands and available resources. It is equally concerned with the relationship of different forms of movement within urban development.'

This is how David Gosling sets out the territory of this book, published posthumously after his premature death last year. After a career in urban practice and teaching in both Britain and the US, he would seem well qualified to undertake a review of this important subject. But the difficulty of the task is laid bare in the heterogeneity and complexity of this definition.

In five chapters, the events of the last decades of the twentieth century are presented through a parade of leading figures and events in the world of urban design in America. In the 1950s we encounter, among others, Mumford, Gropius, Mies and Wright and Louis Kahn with his plan for Philadelphia. The next decade saw the emergence of academic study and the contributions of authors such as Kevin Lynch and 'The Image of the City', Christopher Tunnard, Donald Appleyard, Christopher Alexander, with and without Serge Chermayeff, Venturi and Scott Brown, and the influential social commentary of Jane Jacobs. This decade also produced significant design projects like the new town of Reston, Virginia, and Charles Moore and colleagues' much-admired Sea Ranch project on the Californian coast. The 1970s begin with 'The Social City', as represented by the writings of Richard Sennett and Oscar Newman, marking the emergence of environmentalism. Towards the end of that decade we see Rowe and Koetter's influential arguments in 'Collage City' sitting alongside pragmatic proposals for rapid transit systems, and the growing influence of Charles Jencks' propaganda on behalf of post-modernism. In the '80s citizen participation and advocacy planning were juxtaposed with the so-called 'new-urbanism' and the corporate urban imagery of Disney's EPCOT project in Florida, leading at the decade's end to the promotion of pluralism as a desirable condition. The last years of the century saw pluralism assume an ever wider definition, as deconstruction became a powerful force in American schools of architecture and as the digital future proposed in William Mitchell's 'City of Bits' acquired a following.

All of this, and more, is described in the extensively documented text, but there is little attempt to develop a cogent critical position from which to offer an interpretation of this vast body of facts.

The book is further compromised by the shortcomings of the illustrations. These are too few and poor in quality. As a general primer and sourcebook this will prove useful, but the evolution of American urban design and its consequences demand more insight than is to be found here.

DEAN HAWKES

DISNEY'S MODEL CITIZENS

WALT DISNEY AND THE QUEST FOR COMMUNITY

By Steve Mannheim. Aldershot: Ashgate. 2002. £35

Although not written in an enjoyable or stylish way, this little book provides a valuable, largely technical, insight into Walt Disney's approach to tourist planning, a subject very much broader than the downscaled historical facadery, and the other well-known and carefully contrived technical devices, which have given the Disney organization a bad name. The last years of the cartoon and entertainment pioneer were taken up with the planning of an 'Experimental Prototype Community of Tomorrow' of 20 000 inhabitants, to provide the public with a commercial theme park showcasing both technological progress and romanticized 'traditional' American values. This is the story of how Disney drew on the experience of his Californian Disneyland to devise a community, never realized, in which every aspect of life including language was controlled and designed; in which splendid neologisms such as 'edutainment', 'utilidors' (underground service passages), 'wienies' (principal local attractions) and 'plussing' (making things work better) were coined; and where futuristic PeopleMovers were to whizz visitors around radially planned sites with exemplary safety and efficiency.

Mannheim is a property development consultant; he scarcely mentions the sociological aspects of Disney's ideas beyond a few paragraphs explaining the statutory planning context of Lyndon Johnson's America. Yet Disney's social ideas were both bizarre and influential. He was proposing a residential community in which the residents, like their houses, would constitute a perfectly-maintained tourist attraction. They would be tenants and not landowners, and therefore without voting rights; pensioners and the unemployed were ineligible. Rubbish would disappear down vacuum chutes, Swedish-style, to avoid unsightly carts; and maintenance activities would be restricted to the 'utilidors'. Disney had made films in Britain, and he seems to have wanted to realize an idealized Britain-of-the-movies in a Florida swamp; he had studied the English New Towns movement, and his personal ideas about planning layouts were derived directly from Ebenezer Howard's garden city diagrams. It appears that far from being a post-modern blip, the world of *The Truman Show* and the towns of the New Urbanists, such as the Disney's own 'Celebration', testify to a complex and significant strand of American culture and politics, for which Disney was to a considerable degree personally responsible.

TIMOTHY BRITTAIN-CATLIN

POOR REPORT

SCHOOL BUILDERS

By Eleanor Curtis. Chichester: John Wiley. 2003. £50

This is a book destined for the coffee tables of architects who design schools, however educationalists might be more discerning about schools being used solely as a vehicle for architectural rhetoric. Eleanor Curtis is a photographer and this is apparent in the range of beautiful plates which suggest a level of sophistication not evident in the accompanying text. It has the immediacy of a magazine and does not pretend to say anything profound.

The book describes 29 school projects in various countries, the majority of which are from the UK, the US and Germany but also include individual selections from India, Japan, Singapore, Norway and Canada. The architecture is pluralistic and, not surprisingly, the quality varies from the simple elegance of New Modernism to the overworked and overindulged extremes of Post Modernism. The selection process is bound to be seen as inconsistent and arbitrary coming from such diverse cultural sources and traditions. So you question the general assumptions the author makes about the generic issues and approaches to school design. None of these are innovative or original and many are just clichés; issues that have grown tired by repetition. Many of the projects seem to contradict the text, particularly with regard to flexibility. Schools are ordinary buildings with a specific purpose and the design challenge is how to satisfy the practical and the utilitarian changing needs of the teacher and at the same time display the love and dreaming for the child.

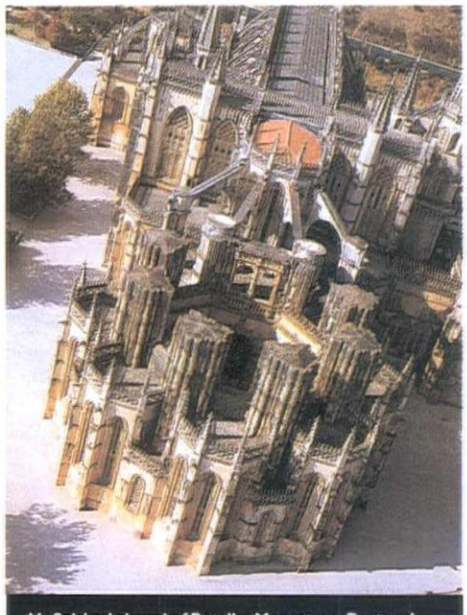
But these do not feel like ordinary buildings with a number expressing pretentious, extravagant images without a child's presence as though to include the child would contaminate the architectural purity. These environments are no doubt a stimulus to the designer, but it is questionable whether they are a stimulus to the child. They do not presage a return to the social agenda nor do they carry the same hope and optimism of the elegance and simplicity of the early Hertfordshire schools. The introduction makes a critical comparison with these post-war programmes. It seems to be forgotten that those designs and systems of the late 1950s won international acclaim and engaged more honestly the key virtue propounded as flexibility. Most of the designs in this book are bespoke tailor-made solutions with little regard for flexibility and changing curricular needs.

The senior partner of Perkins and Will is interviewed in the commentary and the three projects by this firm characterize the period covered by Eleanor Curtis, but hardly add credence to the aspirations for design flexibility, particularly Desert View Elementary School with its axial symmetry and classical overtones. These geometries are heavy and ponderous but give shape to a school environment that is always at risk of becoming anarchic and formless in the search for a democratic, liberal and flexible framework.

Four projects are included from Hampshire County Council Architects, of which two representatives are interviewed (disappointingly, most of the plates are in black and white). Hampshire's architectural ambition exploited its relationship with private practice of which offices like Hopkins, Aldington, Cullinan had exceptional influence.

In spite of the superficial and generalized nature of the commentary and the elaborate extremes of many of the projects, the book seems to summarize a period of post-modern architecture during an eclipse of the public realm. It is an interesting social comment at a particular time. However, precise dates, sequence and authorship would have helped comprehension as would more scholarship to present school building in the context of the pluralism of a post-modern era.

COLIN STANSFIELD SMITH

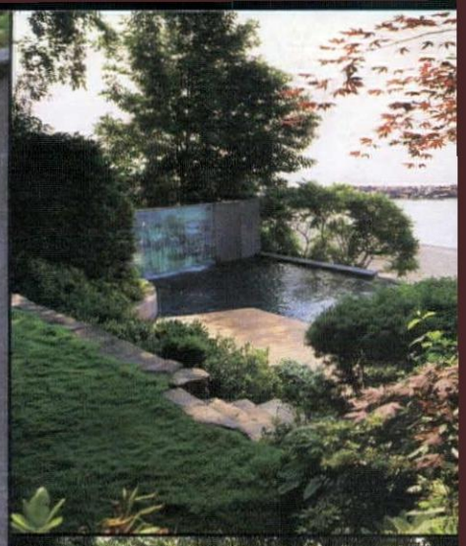


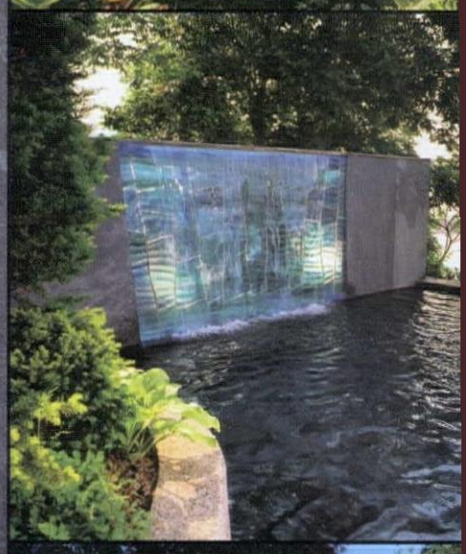
Unfinished chapel of Batalha Monastery, Portugal, an important monument of Manueline style, the late flowering of Gothic crossed with Oriental architectures made possible by wealth from great explorations. From excellent guide *The Manueline*, Art Books International (Electa), Vienna, 2003, £14.95.

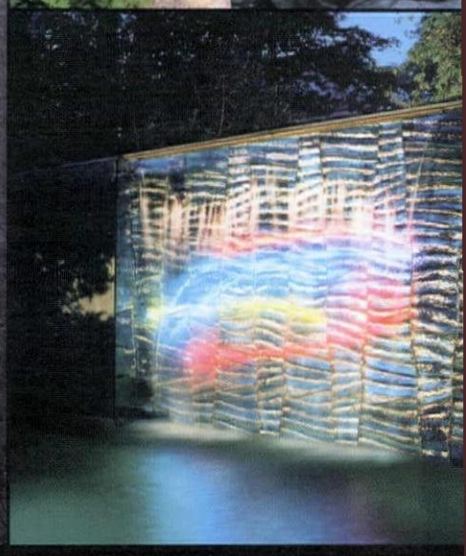
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delight









A GARDEN FOLLY IN THE WOODS OF ONTARIO THOUGHTFULLY USES GLASS AND ELECTRICITY TO MAKE SUBTLE COMMENTS ON NATURE, AND AT THE SAME TIME PROVIDES STIMULUS TO SWIMMING.

A turn of the century Canadian Arts and Crafts house overlooks Lake Ontario from a small bluff. Its owners wanted a swimming pool and asked designer John Thompson to create one that would relate to the forested terrain. Initial hopes of building it entirely in granite to harmonize with the landscape had to be abandoned on cost grounds in favour of slate and grey render; only a granite diving rock remains of the original intentions. But the result was gloomy, so Thompson was asked to find some way of relieving it.

Working with glass artists SWON (Orest Tataryn, Alfred Engerer and Andrey Berezowsky), he evolved a translucent wall of glass: a waterfall that reflects light onto the smooth surface of the water which ends with a negative edge so that the pool seems to be a piece of lake inexplicably lofted up onto the slope. Thompson and SWON chose to pattern the surface of the glass wall in a rhythm based on the ripples of sand made by the water of the lake. Wall elements are of glass cast against carved graphite moulds and coloured by careful admixture of additives. In all, 70 pieces in seven basic shapes make up the 3m wide, 2m high glass wall, that has a thin slit at the top from which water continuously cascades, softly chattering over the texture of the glass or splashing robustly into the pool. If you want, you can sit at the base of the wall on an underwater bench below the waterfall.

At night, the wall instead of reflecting, becomes multi-dimensional with coloured neon tubes behind the glass. Integrated into the garden with native and exotic trees and shrubs and a hardwood deck, the pool and its glass wall make a magic moment in a semi-natural scene.