CONTENTS

Introduction

6 BEYOND 89 DEGREES Aaron Betsky

The Complete Buildings and Projects

16 MALEVICH'S TEKTONIK London, 1976–77
17 DUTCH PARLIAMENT EXTENSION The Hague, 1978–79
18 IRISH PRIME MINISTER'S RESIDENCE Dublin, 1979–80
19 59 EATON PLACE London, 1981–82
19 PARC DE LA VILLETTE Paris, 1982–83
20 THE PEAK Hong Kong, 1982–83
24 THE WORLD (89 DEGREES) 1983
25 GRAND BUILDINGS London, 1985
28 HALKIN PLACE London, 1985
28 MELBURY COURT London, 1985
29 TENTS AND CURTAINS Milan, 1985
29 KYOTO INSTALLATIONS Kyoto, 1985
30 24 CATHCART ROAD London, 1985–86
32 HAMBURG DOCKLANDS Hamburg, 1986
33 NEW YORK, MANHATTAN: A NEW CALLIGRAPHY OF PLAN 1986
34 KURFÜRSTENDAMM 70 Berlin, 1986
38 IBA HOUSING Berlin, 1986–93
42 AZABU-JYUBAN Tokyo, 1986
43 TOMIGAYA Tokyo, 1986
44 WEST HOLLYWOOD CIVIC CENTRE Los Angeles, 1987
45 AL WAHDA SPORTS CENTRE Abu Dhabi, 1988
46 METROPOLIS London, 1988
47 BERLIN 2000 1988
49 VICTORIA CITY AREAL Berlin, 1988
50 A NEW BARCELONA 1989
51 TOKYO FORUM Tokyo, 1989
52 HAFENSTRASSE DEVELOPMENT Hamburg, 1989
56 MOONSOON Sapporo, Japan, 1989–90
60 FOLLY 3 Osaka, 1989–90
61 LEICESTER SQUARE London, 1990
62 VITRA FIRE STATION Weil am Rhein, Germany, 1990–94

68 ART AND MEDIA CENTRE Düsseldorf, 1989–93
72 MUSIC VIDEO PAVILION Groningen, The Netherlands, 1990
74 HOTEL AND RESIDENTIAL COMPLEX Abu Dhabi, 1990
75 INTERZUM 91 Gludenzdorf, Germany, 1990
76 LONDON 2066 1991
78 THE HAGUE VILLAS The Hague, 1991
80 THE GREAT UTOPIA New York, 1992
84 VISION FOR MADRID 1992
86 BILLIE STRAUSS ART HOTEL Nabern, Germany, 1992
87 CONCERT HALL Copenhagen, 1992–93
88 RHEINAUHAFEN REDEVELOPMENT Cologne, 1992
93 CARNUNTUM Vienna, 1993
96 SPITTELAU VIADUCTS Vienna, 1994–
102 SPITTELMARKT Berlin, 1995
104 LYCEE FRANÇAIS CHARLES DE GAULLE London, 1995
105 PANCRAS LANE London, 1996
106 42ND STREET HOTEL New York, 1995
110 BLUEPRINT PAVILION Birmingham, England, 1995
116 PRADO MUSEUM EXTENSION Madrid, 1996
118 CARDIFF BAY OPERA HOUSE Cardiff, Wales, 1994–96
124 BOILERHOUSE EXTENSION, VICTORIA AND ALBERT MUSEUM London, 1996
130 WISH MACHINE: WORLD INVENTION Vienna, 1996
133 PAPER ART Düren, Germany, 1996
133 MASTER'S SECTION Venice Biennale, Venice, 1996
135 HABITABLE BRIDGE London, 1996
140 LA FENICE Venice, 1996
143 PHILHARMONIC HALL Luxembourg, 1997
151 LANDESGARTENSCHAU 1999 Weil am Rhein, Germany, 1997–
156 MUSEUM OF ISLAMIC ARTS Doha, Qatar, 1997
163 HACKNEY EMPIRE London, 1997
164 CAMPUS CENTRE Illinois Institute of Technology, Chicago, 1998
168 CONTEMPORARY ARTS CENTRE Cincinnati, 1998–
170 FURNITURE AND OBJECTS

172 Project Information
174 Exhibitions
175 Publications
176 Vita
The film, on the one hand, extends our comprehension of the necessities which rule our lives; on the other hand, it manages to assure us of an immense and unexpected field of action. Our taverns and our metropolitan streets, our offices and furnished rooms, our railroad stations and our factories appeared to have us locked up hopelessly. Then came the film and burst this prison-world asunder by the dynamite of the tenth of a second, so that now, in the midst of its far-flung ruins and debris, we calmly and adventurously go travelling. With the close-up, space expands; with slow motion, movement is extended. The enlargement of a snapshot does not simply render more precise what in any case was visible, though unclear: it reveals entirely new structural formations of the subject. So, too, slow motion not only presents familiar qualities of movement but reveals in them entirely unknown ones which, far from looking like retarded rapid movements, give the effect of singularly gliding, floating, supernatural motions.

Evidently a different nature opens itself to the camera than opens to the naked eye — if only because an unconsciously penetrated space is substituted for a space consciously explored by men.

The Explosion of a Tenth of a Second

Zaha Hadid is a great cinematographer. She sees like a camera. She perceives the city in slow motion, in pans, swoops and close-ups, in jump-cuts and narrative rhythms. As she draws the world around her, she draws out its unconscious spaces. She finds what is latent in the constructions of our modern world and storyboards them into utopias. She boldly explores, she slows down and accelerates the rhythms of everyday life, and she subjects her environment to the surgical exposition of architecture as a form of representation. She builds the explosion of a tenth of a second.

This does not mean that she is not an architect. Zaha Hadid aims to build, and her images are part of the process that moves towards construction. She does not, however, propose inserting an autonomous object into a blank site. Instead, her buildings are intensifications that lead to extensions. She compresses all the energies that cause the building to appear, from its programme to its technological infrastructure. Her buildings are free to reach out from this density to create spaces that are free of encumbrances. Where there was once (the potential for) private activity, walls and pipes, there are now shards and planes that slice through the landscape to open up a space we did not know could exist.

Hadid has constructed her career in architecture in a similar manner. She has folded the memories of a youth spent on woven carpets into a training at London's Architectural Association. She has used the forms of early twentieth-century artists as the building blocks out of which she has erected her palaces of abstracted memories. She has drawn the energies of the city and the heavy contours of the landscape around her like a cloak, and then used that force as the starting point for explorations into an unknown territory towards which her angular forms point.

One might say that Zaha Hadid is a modernist, designing lofts tied to technological cores as a celebration of the new. Hadid has no truck with typologies, applied orders, implied assumptions or gravity: she believes that we could and should build a better world, one marked by freedom, above all else. We would be liberated from the past, from the constraints of social convention, from physical laws, and free of our bodies. Architecture, for modernists such as Hadid, is the always fragmentary construction of such a world.

The Three Modes of Modernism

Traditionally, there are three aspects to such modernism. First, its adherents believe in new structures. By harnessing technology, a good modernist posits, we can use our resources (including ourselves) more efficiently to create the maximum amount of surplus, whether of space or of value. This ‘too much’ is that which is the heroic reality of the always new, the future, the utopian. It is that which has no shape and comes about by reducing form to its minimum. Second, the modernist believes in new ways of seeing. Perhaps the world is already new, but we just don’t recognize it as such. We see only what we have been trained to perceive. If only we can look in fresh ways, we can change the world by just that act. We need to open our eyes, our ears and our minds to the realities of our existence. Then we will already be free. Third, the modernist wishes to represent the reality of modernity. Fusing the first two aspects, she or he transforms our new perceptions into representations for the forms we have created. Such shapes are the prototypes for a reality in which things have become rearranged and dissolved to the point that all but the new disappears. By representing new things in new ways, we can build a new world and inhabit it, if only with our eyes.

It is this third aspect that characterizes Zaha Hadid. She does not invent
new forms of construction or technology; she shows us a world in new ways by representing it in a radical manner. She finds the roots of modernism in the dissolution of both subject and object and draws them out onto the stage of the modern landscape, which she reshapes as a place in which we can boldly go wandering.

The models for such modernism go back at least to the Baroque, when subject and object first lost their unquestioned authority. Instead of the human body, which stood before God in a world of sin, there was only the continuity of the real into which the self became folded:

Matter thus offers an infinitely porous, spongy, or cavernous texture without emptiness, caverns endlessly contained in other caverns: no matter how small, each body contains a world pierced with irregular passages, surrounded and penetrated by an increasingly vaporous fluid, the totality of the universe resembling a ‘pond of matter in which there exists different flows and waves’ (Leibniz).4

Architecture attempts to make this flow of energy present, to catch it in its myriad forms:

The Baroque invents the infinite work or process. The problem is not how to finish a fold, but how to continue it, to have it go through the ceiling, how to bring it to infinity... [the fold] determines and materializes Form. It produces a form of expression, a Gestaltung, the genetic element or infinite line of inflection, the curve with a unique variable.4

The industrial revolution of course built such a world of chaos, removing meaning or value from each object or individual and folding it into the flow of capital. As a result, architecture increasingly dissolved into fields of glass, steel and concrete, flowing around the last vestiges of form and burying them behind the accumulations of consumer goods. It is these flows that Zaha Hadid builds.

Bringing the Outside(r) in

Yet Hadid’s work does not have only the Western roots associated with modernity. Born in Iraq, she speaks of her fascination with the Persian carpets of her youth, the intricate patterns that defeated comprehension and embodied the collaborative efforts of hands transforming reality into a sensuous surface, simple spaces into lush ones. Note, coincidentally, that was also women’s work.5

In the narrative unfolding of Hadid’s work, one can also draw a comparison to Chinese and Japanese scroll paintings. Modernism proposes that we construct sense out of the accretion of everyday activities that continually change our reality, rather than fixing a particular order onto things. This is a method of working that the painters of scrolls knew well. They slithered in and out of their works, focusing on small details, showing scenes several times from different angles, stringing together landscapes out of isolated elements. The sweeps of echoing lines folded into a vision that altered and returned a world, transformed, back to the viewer.

All of these traditions were available to the artists of the early twentieth century, and their art provides clues to Hadid’s pictorial building blocks. Whether in Cubism, Expressionism or Suprematism, abstract fragments were assembled into a narrative structure. These artists blew up their world – Duchamp’s *Nude Descending a Staircase* is Hadid’s grandmother. Hadid’s most immediate parentage is that of the Architectural Association in London. She studied there during a period when the school was at its peak as the world’s centre of architectural experimentation. Building on the legacy of Archigram, students and teachers such as Peter Cook, Rem Koolhaas, Bernard Tschumi and Nigel Coates transcribed the convulsions of the modern world into the subject and the form of their work. Daring to be modernist all
over again, they sought to capture the energy of all our changing activities by

telling stories about them, and in so doing added a narrative viewpoint to the

tempt to give shape to modernity. Whether the works were anecdotal and

convoluted (Tschumi), a mythical collage (Koolhaas) or a manifesto (Cook),

they all incorporated multiple perspectives, sweeping and expressive forms,

and technological frameworks into images whose representation described

rather than defined.

Condensed Collages

It is in this context that Zaha Hadid’s work took shape. Her first notable pro-

ject, her thesis design for a bridge over the Thames (Malevich’s Tektonik,

1976–77; p. 16) is undoubtedly indebted to her association with Rem Kool-

haas – she collaborated with the Office of Metropolitan Architecture for three

years – in the way in which it foregrounds a geometry reduced to its essence,

literally evoking the Suprematist work of Malevich. Her painting of the bridge

looks like the Malevich airplanes that could also be sculptures or homes.

The neutrality of the image is intentional, as she saw the building as a ‘social
condenser’, to use a phrase then popular at the Architectural Association. The
building itself is a modernist loft that folds back on itself to bring different

programme elements (which she does not actually show) into close contact

with each other. What astounds us as viewers, however, are not the project’s

functional aspirations or its quotations of the past, but the image itself: it

holds the page and eye with a resolute statement of the new.

In several projects after her graduation, Hadid continued to develop her

narrative stance more fully into a spatial language. The forms of 59 Eaton

Place (1981–82; p. 19), an apartment design for her brother, directly evoke an IRA

bomb that had exploded on the site. The drawing itself is an explosion, and the

elements it places on the page are fragments from this most modern release of

energy. In what was to become a central theme in Hadid’s architecture, the

objects condense and the city’s forms turn into furniture. These interior pieces

then move back out to take their place as Pop Art elements, a stage set for the

re-occupation of a modern city.

Hadid developed the 59 Eaton Place drawings further into her vision of

Halkin Place (1985; p. 28). In a rooftop view, the viewer soars above the eaves

of the city’s rowhouses to have a Peter-Pan view of a city coming apart at the

seams, a perspective that lets Hadid’s fragments of a modernist utopia re-

inhabit their historical forms.

Hadid’s proposal for the new residence for the Irish Prime Minister

(1979–80; p. 18) introduced collage into her work. Representational elements
(tiles, globes, bricks) populate a simple cube through which a long curving

wall cuts to open up the project’s narrative. Instead of telling us about the

programme or the site, Hadid evokes the cosmopolitan nature of the resi-

dence; rather than give us the plot, she sets the scene.

Her proposal for the Grand Buildings project in London’s Trafalgar Square

(1985; p. 25) summarizes many of her achievements and shows her ability to

re-imagine the urban landscape. The painting is a diptych that depicts

the building from at least five perspectives. It also shows the city peeling

away from itself in both a right-side-up and a bottom-up view, creating the

unsettling effect of not knowing what is the reflection and what is the pre-

ferred ground of the painting. By combining the cleverness of an Escher
drawing with the aspirations of a Constructivist composition, Hadid delami-

nates the city.

Hadid has a programmatic rationale for this manner of representation.

The Grand Buildings project was something that would put the activities

and forms of Trafalgar Square into a dense composition that would free up

layers of open spaces to allow the city to breathe into the building while its

aggressive shapes moved out into the urban terrain. Opening up the city at

the seams, where the reality we experience and the fantasy of a new projec-

tion or building meet, became a recurrent subject of her paintings. In this

instance she accomplished this within the image itself, leaving Trafalgar

Square to its over-touristed reality and her building in the utopian realm of

unfulfilled fantasies.

The summation of these early works took two forms. The first was a paint-

ing that presented all of her projects to that point, The World (89 Degrees)

(1983; p. 24). In it Hadid imagines our global reality as a collection of her

designs as we might see them from a helicopter or a missile shooting off into

space. As the world turns, its landscape heaves up into fragments of new

geometries. The real world becomes Hadiland, where gravity disappears,

perspective warps, lines converge, and there is no definition of scale or activ-

ity. This is not a specific scene of functions and forms, but a constellation of

possible compositions that together form a veritable landscape: a space

shaped by human hands into an artificial depiction of the physical environ-

ment in which we live.

The second summation made Hadid famous. Her winning entry for the

Hong Kong Peak competition (1983; p. 20) proved to thousands of architects

and design students (including this author) that the techniques she had been

developing were a new form of architecture. Situated at the highest point

of the colony, the project was itself a summation of the site as well as of

all those programmes that jettisoned the mundane demands of existence

in favour of a purely hedonistic collection of forms. The building was a

facility that aimed to delight and discipline the body in a form that appeared

socially acceptable.

Hadid’s architecture embodied this programme and site in tubes that

stacked up on top of each other like a pile of wooden beams on a construc-

tion site. They extended the verticality of the site in cantilevers and stratified

spaces. The interstices of the forms articulated the Peak’s function as a social

club where activities intersected, while the beams’ movement seemed to cap-

ture and solidify the trajectory of bodies in motion. It was a building that

brought human and mountain together to test each other. It did not just

‘crown the brow’; it pulled the very Peak apart so that we, like latter-day

Titans, could do battle with it.

Hadid laid out this vision in a set of very large paintings that seemed to

aspire to the scale of the Peak itself. Although the architect emphasized the

rational nature of her construction, the drawings pulled the parts and pieces
apart, exploding its site and its programme. In one painting Hadid showed
elements of the club becoming part of downtown Hong Kong, while the
metropolis's skyscrapers below became abstract planes that rotated, flew off
and actually turned into the building blocks for the Peak. In these instances
Hadid put forward an architecture that represented the artificial landscape of
that or any metropolis as an assembly of abstract geometric forms. These
shards of the new pointed towards a more open, intense and unstable
arrangement of space.

Setting Sail on a Sea of Gestures
In the following decade Hadid expanded these themes in buildings, designs
and proposals around the world, a number of which were in Germany. These
included her two largest built projects to date, the IBA Housing Block in Berlin
(1986; p. 38) and the Vitra Fire Station in Weil am Rhein (1990–94; p. 62).
While the former built the basic forms used in the Grand Buildings design, the
latter pointed the direction to a new phase of her work.

The projects for Berlin Victoria (1988; p. 49), Hamburg Hafenstrasse (1989;
p. 52) and Düsseldorf (1989–93; p. 68) had in common what had by now
become Hadid's signature prow shapes, loft-like spaces around eccentric
cores, public spaces brought into the building and shapes extending out into
the city. Over the years these forms took on an almost stylistic cast, yet they
also changed character. They became lighter, more transparent and more
layered. To some degree this was the result of larger and in most cases more
conventional programmes. These office buildings and apartment blocks had
few hybrid elements, so it was perhaps difficult to develop a narrative
representation of them.

One also sensed a shift in focus. Where Hadid's earlier buildings were col-
lages assembled out of disparate elements, her forms now seemed to evolve as
singular gestures. To Hadid this was the result of seeing her work as a form of
landscape, or shaping of the land. While the Berlin Victoria City Areal still fol-
lowed the recipe of intensification and extrusion Hadid had first proposed in the
Grand Buildings scheme, the large complexes in Düsseldorf and Frankfurt read
like fragments of a modernist iceberg whose crevices leave the edges as openings.
These fissures reveal the partial nature of each building. In the Düsseldorf pro-
ject, the complex's various functions accrue similar forms, which are sheered off
into bridges, walkways and public buildings that are unified in their free explo-
ration of space. Whether in the public realm or in the office towers, everything
is part of the same universe of forms.

Hadid's use of colour also began to change. After the hot image of the
London ICA project (1988; p. 46) and the colour-coded fragments that still
haunted both Berlin buildings, the other German designs were remarkably
soft in their colourations. This was partially because glass now predominated,
and perhaps also because of the relatively grey environment of German cities.
It also, however, seemed to mark a cooling down of Hadid's palette: tones
and tonalities, folds of continual forms and modulated volumes displaced col-
lages of shards.

These developments culminated in the Vitra Fire Station. When one sees it
from Frank Gehry's celebrated all-white museum, one is most aware of the
prow-like shape of the building. In reality — and Hadid's drawings make this
clear — the fire station has been conceptually sheared off from the factory
blocks next to it and shot through with a curving walkway that leads back to
the museum and around the complex. It is an eruption out of its place that
freezes the muteness of the factory walls as tilting enclosures. The building
opens up views along the fire station's contours, rather than standing against
them. This geological formation continues on the inside, where the larger
spaces for the fire trucks curve into the shower and lounge areas, and the
stairs step up with the volumes towards the second floor.

Hadid proved with Vitra that she could build a landscape. Although the
forms may appear familiar, they are a long way from the constructed assemblages of her early work. Instead of building on the land, opening up new spaces and inserting forms that reared up with aggressive challenges to their surroundings, she now drew her forms out from the site, moulded them out of functions and used spatial logic to create monumental built facts. Her architecture became reminiscent of how fields rise up over hills and caves open up below them, of how rivers move through undulating landscapes and peaks provide a sense of orientation. Perhaps Hadid realized that the ‘explosion of a tenth of a second’ revealed not so much the construction of the human psyche as it did the nature of the built environment as a sedimentation of human habitation that follows rules analogous to those in inorganic nature. She found free spaces not in the fragments of a utopia, but in the exploration of what already exists.

**Spiralling into Control**

After Vitra, spirals begin to appear in Hadid’s work, in the folded metal plate that enclosed the Blueprint Pavilion (1995; p. 108), the curling up of the ‘urban jewels’ in the Cardiff Bay Opera House (1994–96; p. 118) and the Victoria and Albert Museum Boilerhouse Addition’s tight sequence of spaces (1996, p. 124). After wandering in the landscape, Hadid’s buildings seem to want to make the landscape their own by wrapping it around the programmes and then using the surroundings to shelter or contain space. In the V & A project, the gallery spaces reach up beyond the rooftops in the same way they did in Halkin Place. In the Cardiff Bay Opera House spirals enclose the grand space of the main hall; in the Blueprint Pavilion, they created an aedicular presence for the fair stand.

Although most of her recent works are large buildings, Hadid draws them as transparent volumes. Instead of the weighty presence of tectonic plates, she now suggests that the manipulation of geometry and structure could liberate a space from its confines. The preoccupation with continuity of a landscape becomes recast as open reaches and interior volumes. Many of the drawings associated with these projects have white lines on black surfaces, as if they were but sketches of possibilities open to interpretation. The certainties of her early projects have given way to the gestural exploration of abstract openness.
This translucent, gemlike quality reached a culmination in Hadid's proposals for the Hackney Empire theatre complex (1997; p. 163) and the Cincinnati Contemporary Arts Centre (1998; p. 168). Here the skins dissolve into nothing more than the interface between the energy of the city and the interior. These forces become more and more localized in ramps and spiralling volumes. Folding and interlocking, positive forms (walls, floors and ceilings) and negative spaces (inhabitable spaces) turn into eels slithering around each other in ever more dense, and yet fully lucid, spatial organizations.

At the same time, the tubular forms of her earlier projects turn into dominant features. They are bundled together to form the Spittela Umbricht in Vienna (1994; p. 96) and the Habitable Bridge project (1996; p. 135). Though to some extent the beams recall the slabs of the Peak project, they are now much denser and more tightly packed; circulation and usable space become virtually indistinguishable. They also emphasize the horizontal movement through space over the vertical build-up of form. In the 1997 project for a landscape exhibition in Germany (p. 151), they merged with Hadid's previous interests in the making of a landscape to create a great curved plane.

**Towards a New Landscape**
Landscape has become a dominant pre-occupation in Hadid’s work. If the volumes of her designs are increasingly fluid, so are their exteriors. In projects like the Museum of Islamic Arts in Qatar (1997; p. 156), the building becomes no more or less than a ripple undulating out of the site, moving up to encompass spaces and then dying back down into the ground. Courtyard slots weave space and solid together like a Persian carpet, but also like rivers or lakes, and move in and out of land. Like ripples in clothing or the forms of the Verner Panton chairs she adores, these buildings are moulds of the programme that rise up only as far as they must to accommodate use, but then reveal the beauty of the body inherent in the movement itself.

Inside this new world, however, there is a different reality. It is one Hadid has most fully explored in such recent projects as her scheme for an exhibit in the London Millennium Dome (to be completed in 2000). The complex interweaving of spaces and forms is smoothed over by the landscapelike skins, but with a flip of a wall, the contours of landscape become overhanging prows. Hadid has not forgotten her desire to gesture beyond the limitations of site and programme to create structures that seem larger and more open than we expect from a confined building.

Most of Hadid's recent projects thus appear to have replaced slabs, prows and blocks with spirals and tubes. Motion and gesture have replaced form as dominant elements, and the work is more open, tentative and lyrical. Opening up the urban landscape, unfolding the energies of the modern metropolis and creating a visionary world, Hadid explores the spatial possibilities of such an architecture in forms that have their own typology, structure and – dare one say it – stylistic properties.

The manner in which she presents this work parallels its intentions. Over the years Hadid has involved herself less and less with the execution of her paintings and drawings. She now prefers to work, like a Renaissance master, as the head of an atelier. She sketches and does ‘all the precise lines’ that
indicate her design objectives: her co-workers render the work at a larger scale and fill in the spaces between her gestures. There is less detail in the work, less differentiation and less colour. Having moved from multicoloured and heavily painted collages to monochrome washes, she now produces paintings that are only white lines on black paper, ghosts of a future city.

**Screen Gems**

Despite her continuing painterly approach, Hadid now also makes use of the computer to advance her aims. The latest software allows her to take the existing landscape and unfold it, to pan, swoop, swerve, cut, slow down and speed up. In many ways the computer fulfils Benjamin’s promise, especially as the separation between perception, representation and realization dissolves. The computer is a way of registering facts about our environments; it makes visible forces that are otherwise too abstract to see; it allows us to form and reform those facts however we choose; it can then quantify these critical representations into buildable qualities. Thus the new comes out of a manipulation of the representation of what already exists.

What disappears in the process is the hand of the maker. This Benjamin also predicted, but it would seem particularly ironic in this case because of Hadid’s heroic stance as a maker of outrageous structures. To a certain extent this is not something that she can avoid. The latest computer programs can render what Hadid had constructed with such care in the 1970s and 1980s into a common mode of presentation. Everyone today sees their buildings from swooping helicopters, and many designers follow the stress points of metal and stone to create undulating, attenuated and prow-like structures. At the same time, Hadid is responsible for engendering a style that now forms office buildings, homes and fast-food franchises from Seattle to Singapore.

Instead of the framed image, the critical painting or the film, the model for her work is now the screen that collects the flows of data into moments of light and dark. The reflection of her own face is barely visible on that screen. Most of the space is dark, and the lines point not out of the cadaster of the space of representation, but in towards the flows of information. The question Zaha Hadid now faces is whether she can solidify these flows into form. Can she find the landscape beyond the physical metropolis? Can she form the spaces that open up not as modernist lofts, but as the fragments of tuned and wired environments suspended in global relationships? Can she make something real and free out of what is hard to grasp and constrained by the logic of technology and capital?

When Hadid summed up her and our world together in 1983, she had confidence in the power of her painting to re-assemble the disparate pieces of our reality into a new one. She is poised to realize many of her dreams, and her ability to do so owes a great deal to the tremendous freedom computers have given us not only to imagine new worlds but also to construct them. Even if we miss the visionary painter of the early 1980s, we must recognize that the visible evidence of her signature on paper or canvas has disappeared exactly
because her vision can now take concrete shape. As paintings disappear into computer drawings, their imagined world begins to appear.

In her recent projects Hadid seems to be moving beyond landscape into a new kind of space. It is one that is at once dense and open, defined and indefinite, real and virtual. Its shape is still only a promise, one that will soon be realized. What world awaits beyond 89 degrees, beyond right angles and skewed geometries, and beyond the event horizon in which human activities solidify into form, remains for Zaha Hadid to see and then present to us in her luscious lines.

Notes
2 The loft is the modernist space par excellence, as it is an industrial, open and functional space that frees us from the distinctions between programmes, private and public, and decoration. It is the building block not only of Hadid's work but also of such other late modernists as Coop Himmelb(l)au. I discuss the significance of the loft in greater detail in Coop Himmelb(l)au (London: Architectural Review Press, 1998).
4 Ibid., pp. 34–35.
5 Conversation with the author, 14 December 1997.
7 Conversation with the author, 16 December 1997.

Models of Lycée Français Charles de Gaulle, Spittelau Viaducts, Pancras Lane [opposite]

Philharmonic Hall, Luxembourg (1997)
The Complete Buildings and Projects
MALEVICH’S
TEKTONIK
London, 1976–77

For my graduation project from the Architectural Association, I wanted to explore the 'mutation' factor for the programme requirements of a hotel on the Hungerford Bridge over the Thames. The horizontal 'tektonik' conforms to and makes use of the apparently random composition of Suprematist forms to meet the demands of the programme and the site.

The bridge links the nineteenth-century side of the river with the South Bank, which is dominated by the Brutalist forms of a 1950s arts complex. The structure’s fourteen levels systematically adhere to the tektonik, turning all conceivable constraints into new possibilities for space.

The project has particular resonance with my later projects: first, in the Great Utopia show at the Guggenheim [p. 81], in which I was able to realize some of these tektoniks in concrete form, and second, in the Habitable Bridge project [p. 135], which considered the possibilities of a mixed-use development over the Thames.
MUSEUM OF THE NINETEENTH CENTURY
London, 1977–78

One of my first ideological and conjectural projects, in which I sought to establish principles for the role that architecture should play in cities at the end of the twentieth century. I was particularly interested in the problems of historical and cultural context. The archetype of the nineteenth-century museum was thus explored in two ways: through the elaboration of the precise social scenario of the metropolitan location, and through the display of a symbolic sensitivity, an aspect that appeared to be absent in the work of the contextualist architects at that time.

DUTCH PARLIAMENT EXTENSION
The Hague, 1978–79
The Office for Metropolitan Architecture (OMA);
Zaha Hadid, Rem Koolhaas, Elia Zenghelis

Situated within a rectangular "fortress" in the centre of the Hague, the politically distinct branches of the Dutch parliament and government were housed in a single complex called the Binnenhof. To separate these two politically opposing branches, a triangular site was acquired to allow for an expansion of parliamentary accommodation. The programme therefore involved working within existing structures while making the parliament spatially autonomous. This was achieved by creating a gap in the Binnenhof that is occupied by two slabs: a horizontal element - a glass-brick podium that contains a variety of functions and that acts as a covered forum for political activity - and a small skyscraper of oval rooms. The two structures are unified by an assembly space that bridges the general public and government officials, and an ambulatory running through one slab allows circulation.
IRISH PRIME MINISTER’S RESIDENCE

Dublin (Phoenix Park), 1979–80

For my first major project, a new residence and state function room for the Irish Prime Minister, the objective was to create a weightlessness, freedom from the stress of public life. Both buildings, though connected by a road and walkway, needed to retain their privacy. Placed within the existing walled garden, the new guest-house is screened from the prime minister’s residence by the main reception rooms. The guest-house rooms are located around its perimeter, apart from the reception block and master suite, which ‘float’ over the garden.
59 Eaton Place
London, 1981–82

An explosion at the Italian Consulate at 38 Eaton Place provided the main inspiration for our renovation of an elegant turn-of-the-century town house on a sterile, white-washed street in Belgravia. The apartment is contained on three floors, which we inverted conceptually as three vertical zones. Our intervention in these spaces was intended to provide a certain newness, which we achieved by introducing materials such as silk and stone on the ground and top floors, as well as by inserting a new staircase in the lobby and dining-room area to open the public domain up into the middle level.

Parc isometric

Parc de la Villette
Paris, 1982–83

For a competition to design the plan and elements of a park located outside central Paris's most visited area and devoted to science, we created floating pieces that would move across the site's flat terrain. The green plateaux in a field form a new type of garden, suspended rather than hanging. Together, these pieces function like calligraphy on the land, which is dictated by mechanical systems that are at once controlled (by humans) and random (by nature). Picnic areas, fast-food restaurants and information kiosks orbit within their own galaxy in contrast to a long monochrome 'planetary strip'. Appropriate to a project conceived for the future, there is a 'discovery garden', which condenses all the park's functions and landscapes.
THE PEAK
Hong Kong, 1982–83

A Suprematist geology – materials that are impacted vertically and horizontally – characterizes this clifftop resort loftily located above the congested city. The architecture cuts through traditional principles and reconstitutes new ones, defies nature and resists destroying it.

Like the mountain, the building is stratified, with each layer defining a function: the first and second levels contain apartments, the third layer – a 13-metre-high void suspended between the second and the penthouse storeys – features the club. The void is a landscape within which functions – exercise platforms, snack bar, library – are suspended like planets. The upper strata contain penthouse apartments.

Offering and symbolizing the pinnacle of the high life, the Peak’s beams and voids are a gentle seismic shift on an immovable mass.
THE WORLD
(89 DEGREES)
1983

This painting represents the culmination of a seven-year exploration into architecture’s uncharted territories that began with my work as a student at London’s Architectural Association. Technology’s rapid development and our ever-changing life styles created a fundamentally new and exhilarating backdrop for building, and in this new world context I felt we must re-investigate the aborted and untested experiments of modernism – not to resurrect them but to unveil new fields of building. The painting compresses and expands projects I had carried out over the last seven years.
GRAND BUILDINGS
Trafalgar Square, London, 1985

Schemes to recapture London’s most famous square continue to this day. In the hope that outdated planning restraints might be abandoned, we presented a proposal that celebrated the dynamic possibilities of the urban landscape by extending the public realm into professional offices, thereby pushing forward the frontier where modern architecture can contribute to the quality of city life. A public podium, slabs of offices and towers are the central characteristics of the buildings. Beneath the towers, which are topped by penthouses, are subterranean lobbies. A shopping concourse peels up, gently curving around the site’s perimeter and enclosing a new public domain as it winds up to the roof, which features a public terrace that overlooks the mire of cars below. As one’s vantage-point moves around the square, the towers appear to mutate from shards that penetrate the square’s surface into a single solid mass.
HALKIN PLACE
London, 1985

This study considers London at various levels, from small housing sites to larger urban schemes. We envisage a roofscape [right] that relates to the sky and its immediate urban condition — some roofs are habitable, others not. (This idea anticipates our concept for La Fenice [p. 140]). In a metropolis where land is scarce and planning restrictions are severe, these elevated sites are considered sites in themselves, with spaces divided vertically into indoor and outdoor zones. In the scenario of Halkin Place, the penthouse’s spaces are sandwiched between the existing and the new roofs.

MELBURY COURT
London, 1985

This design aimed to explode the rigid box rooms of a small flat in a post-war, purpose-built flat. Two curved glass walls were stretched across the existing apartment, occasionally overlapping, to create a generously fluid space around the central light well. Furniture is on tracks or pivots to allow spatial and functional flexibility in the living areas.
TENTS AND CURTAINS
Milan Triennale, 1985

This exhibition gave us the opportunity to create a modern contrast to the Victorian notion of tents, which so often characterized the interiors of the period. Our scheme inserts a plastic structure within a pre-existing space. Intended to be viewed from above, the structure’s plan embraces the space by means of its exclusion – the opposite effect of the enclosure created by the Victorians’ curtains and tents.

KYOTO INSTALLATIONS
Kyoto, 1985

The installation is a fragment of the ideas that would reach fruition in the Cathcart Road project [p. 30], just as the Osaka Folly [p. 60] served as a test for design principles later employed at the Vitra Fire Station [p. 62]. Seeking new ways to articulate space within a confined context, we used curved walls to warp or bend space (like the Melbury Court project [opposite]) and canopies to mark the entrance.
24 CATHCART ROAD

London, 1985–86

This International Style residence provided the backdrop for the first material display of my ‘Suprematist geology’, an extension of my exploration at 59 Eaton Place [p. 19]. The ensemble included Biiar furniture [p. 170], which did not act as sculptural objects in a neutral container; rather, the extra-large pieces created a dynamic space of their own. Pivoting, sliding and swivelling, a storage wall further animated the space with the actual physical movements of its doors and cabinets.
HAMMEmG DOCKLANDS

Hamburg, 1986

During the late 1980s there was tremendous interest in revitalizing waterfront areas in numerous cities in Europe and America. As part of two workshops set up in Hamburg to explore the possible re-uses of these districts, we were asked to consider ways in which the city's historic old harbour area, particularly the former warehouse district of Speicherstadt, could be re-energized to regenerate the area and accommodate a wide range of mixed uses.

The openness and large scale of the harbour front, as well as its integration into the city centre, raised a number of interesting problems that we addressed in various ways in the Hafenhstraße Development (p. 51) and in Cologne’s Rheinau (p. 86). By pushing the city's urban context into the harbour to capitalize on the spaces particular to it - views, openness, ever-present water - we sought new geometries and zones for redevelopment that would create not only a new style of urban living but an entirely new dynamic within the city's fabric.

NEW YORK, MANHATTAN:
A NEW CALLIGRAPHY
OF PLAN

1986

Relating to a proposal for the reconstruction of a hotel, this sketch outlines possibilities and variations for redefining “hotel” and “metropolitan living” as a specific series of confined explorations. The point of departure was Corbusier’s Ville Radicale for Manhattan, which I believe fundamentally misjudges New York’s urban conditions. Because Manhattan is a multilayered city, intensification by its urban density, built interventions should be considered to be like condensed explosions. Whereas Corbusier’s vision was to dissolve the city, only to replace it with a carpet of blurred modernism, I believe it is possible to sustain the intensity of the metropolis without eroding the grid that holds it together.
The constraints of an extremely narrow site (3.7 x 16 meters) gave rise to our design of a compressed 'sandwich' structure that comprised a series of partially shared spaces and uses. The horizontal planes of the sandwich are the basis for the floor plan, which establishes the separation of circulation and movement from the office spaces. Vertically, the sandwich of spaces differentiates between the ground-floor plan for the public entry and the cantilevered building above, which houses offices and a double-height office at the top. The lobby and entrance are skewed below the ground and reached by a ramp, generating the plan from the ground, a nod to the Russian Suprematists. The structure above is pulled away from a new back wall, and the gap above this ramp reveals the main entrance.

The plan is gently bowed and moves out towards the corner, thus the floor area reaches its maximum at the top and creates a dynamism that rejects the usual office-block repetitiveness. The long street elevation has a transparent surface—a structural mesh of aluminium sections suspended from the top—that becomes an illuminated glass box through which the interior's activities can be detected.
Right from the beginning we had to confront two fundamental issues: the site strategy of infill and repair and the tight building regulations for social housing, which contrasted modern open-plan layouts. In addition to these constraints were the surrounding buildings, which represented a wide range of different types and periods, so strict guidelines stipulated that new developments in the area must contain an average of five storeys, a seamless integration into the existing context would have been virtually impossible.

We therefore interpreted the five-storey planning restriction by creating a long three-storey block that terminated in an eight-storey tower at the corner. The longer block's lower floors contain commercial prelacies with standardized dwellings above; on top is a roof garden with a children's playground. The sculpted tower, clad in anodized sheet metal, contains three wedge-shaped kiosks on each floor.
AZABU-JYUBAN

Tokyo, 1984

Drawing on the experiences of the Ku'damm project in 1980 (p. 84), we realized the great potential for releasing space. In Tokyo—flattening territory—most sites are beyond the boundaries of space, and many buildings only increase the city's constriction. Slicing into the landscape and piercing the earth, the building evaporates the pressure of its narrow site in a campus of random buildings near the Roppongi district. The vertical glass structure is compressed between a tall metal wall and a reinforced concrete wall punctuated by jewel-like windows. Between the walls are two curtain walls—one of glass, the other clerestory—that lift out, rising to the terrace's parapet walls. Inside, the full impact of the released space is immediately apparent in the three-storey entrance space. A vertical stairway runs from the building's heart all the way up to the top, exploding into dramatic balconies.

TOMIGAYA

Tokyo, 1986

This small mixed-use project in a cluttered residential area is related in several respects to Azabu-Jyuban (opposite), but the concept here is inverted. Composed as a series of suspended horizontal spaces and vertical elements that are interrupted by the uplifting motion of rails and platforms, it is a building in which the volume becomes the void, rather than compressing the void out, as at Azabu-Jyuban. The centerpiece of the design is a delicate elevated glass pavilion, open on three sides, that hovers above ground. Most of the building is below the covering floor, which is pulled back from the edges and holds a tall glass wall that allows light into the lower spaces, whose generous proportions make them flexible for retail and office activities.

In such a dense city, light and air are valuable commodities. We must release these spaces from their constrained sites and breathe light and air into the urban condition.
WEST HOLLYWOOD CIVIC CENTRE
Los Angeles, 1987

There were several interesting challenges in the brief for this design. The first was the relatively young and progressive municipality that sought to make its mark within the patchwork of Los Angeles’s complex urban layout. The second was the area’s fertile creative resources: West Hollywood has one of the highest concentrations of interior and graphic designers in the country, a fact symbolized by Cesar Pelli’s ‘Blue Whale’, one of the city’s most recognizable architectural landmarks; the site for the civic centre was adjacent to it. The relatively context-free environment brought about one of my earliest explorations of the building as landscape, while the area’s flat terrain allowed us to consider the site as a geometric topography, an approach foreshadowed by projects like La Villette [p. 19]. On this urban geometric canvas, objects float and interact in a way that is only possible in wide-open spaces.
AL WAHDA SPORTS CENTRE

Abu Dhabi, 1988

In stark contrast to the dense urban projects executed for sites in Berlin and Tokyo (pp. 34–43), the setting for this sports complex allowed us to expand into, rather than compress, the setting. The structure therefore became a large-scale landscape relief, mirroring and settling into the land’s contours. To some extent this project marks an early exploration into the landscape. The project comprises three main elements: a podium, conceived as a suspended park that provides access to the stadium and viewing platforms; a new ground plane, which ascends from street level and slips underneath the podium; and the stadium, which rises out of the shifting ground plane and podium and permits various seating arrangements and uses.
The screaming redness of this painting, commissioned for an exhibition that explored facets of the metropolis, is meant to express an exasperation with the sprawling mess that is London. On one level, the painting shows London as a patchwork of villages. But rather than promoting an even distribution of this urban merging— which has been evolving for centuries—we articulated the city as polycentric, where a number of metropolitan centres condense at different focal points. In this context, the red represents the fires of London, where new settlements and new centres need to be invented to replace an exhausted and overworked heart.
BERLIN 2000
1988

Before the collapse of the Wall in 1989, we were invited to speculate about the city's future. As part of an overall scheme between the axes of Mehringplatz to Bahnhof Friedrichstrasse and Brandenburger Tor to Alexanderplatz, the falling of the Wall offered new possibilities for regeneration. We considered both the expansion and the repair of the city, ranging from corridors of development to 'Wall-zone' building programmes.

The focus of our vision was the Alexanderplatz. Because it represents one of the few attempts to go beyond typical nineteenth-century urbanism, we decided to leave it free of homogeneous commercial development, to stand in poignant contrast to the vulnerable line that used to demarcate Berlin's division. A series of diagrams [right] shows possible development of these newly released territories. Corridor cities project into the landscape, and in the lower diagrams, new geometries inhabit the former dead zone, sometimes rectilinear yet slightly out of sync with the existing order.

In our eyes the Wall zone could become a linear park. Where once a concrete ribbon wall and no-go zone lay, we would lay down a strip of park, decorated with buildings.
Before the Wall came down, this site exploited Berlin's state as an urban island. The site is now major axis, the Kurfürstendamm, but completely enclosed and virtually inaccessible. To create a building in such a fortified context situated that no should intensify the urban density horizontally. The site was thus divided into new corridors with three distinct zones that contain the three major functions: shopping facilities, offices, and a hotel. Because the cruciform site would be a new focus of several major thoroughfares - streets and rail lines - a new shopping area is terraced in concentric relation to the shops on the fringe of the site. This encircled space is glass-floored and is suspended over further public facilities, which include more shops, the hotel lobby, a multipurpose assembly hall, a conference centre and a restaurant. Above, an extendible system of office beams - each of which might maintain a distinct corporate identity - is superimposed on the shopping facilities. On top of this floats a bent slab containing the hotel.
A NEW BARCELONA

1989

The diagonal axes of Cerda’s nineteenth-century plan for the city’s expansion is the pivotal element for our reconstruction of it. Our new urban geometry is based on a subtle twisting of the diagonal into skewed, interlocking fragments. As this field traverses urban contexts, it is constantly intersected by an ‘elastic corridor’ of local conditions - irregular (village), gridded (housing zones) or strips (railways and waterfront) - that triggers an urban response and multiplies street activity in each neighbourhood.
TOKYO FORUM

Tokyo, 1989

Similar to the principles employed in the Azabu-Jyuban and Tomigaya projects (pp. 42–43), this design aims to counteract the congestion of Tokyo. The central form is a void—a glass container—out of which smaller voids are dramatically hollowed and which house the building’s cultural and conference areas.

Within a labyrinth of closely knit rooms—like the plan of Pompeii—the conference areas are clustered and separated by variable partitions. At ground level, these spaces can be glimpsed through sharply cut slits in the glass floor. Upper levels contain exhibition spaces, studios, restaurants and public areas. On the roof is a landscaped garden with a diagonal cut that allows light and ventilation into the lower floors.

View from plaza

Elevation perspective rotation

Exploded perspective
In the old harbour street containing traditional four- and five-storey houses were two sites – or rather, gaps – slated for redevelopment. The street and its row houses are part of a series of parallel strips – a small park, the new street and the embankment being the other elements – that step down to the Elbe. Our objective was to create links running across the strips and to transform the embankment into a recreation area.

One site is located on an acute corner. A slab building leans forward and twists back, opening to the riverfront. The vertical organization is a sequence of commercial and residential layers, with a public space on the first two levels. Sliding
sections of the glass curtain wall enable parts of each floor to become outdoor terraces. The elevation facing the river is a continuous curtain wall that wraps over to become the penthouse roof.

The second site was a gap in the nineteenth-century block. We envisioned a series of compressed slabs that, despite being a dense agglomeration, allowed for a degree of transparency. As one passes the building, gaps open and close between the structure’s interstices, defying the notion of a flat façade. The ground floor contains retail spaces; residential units are above, and some connect horizontally across the slabs. Many aspects of this project anticipate the underlying principles of the Art and Media Centre in Düsseldorf [p. 68].
For a two-fold programme of formal eating and relaxed lounging we wanted to create an opposition of moods. The result is two synthetic and strange worlds: fire and ice. Inspired by the seasonal ice buildings of Sapporo, the ground floor features cool greys materialized in glass and metal. Tables are sharp fragments of ice; a raised floor level drifts like an iceberg across the space. Above the ice chamber whirls a furnace of fire, rendered in searing reds, brilliant yellows and exuberant oranges. A spiral above the bar tears through the ground-floor ceiling, curling up to the underside of the upper-level dome like a fiery tornado bursting through a pressure vessel. A plasma of biomorphic sofas accommodates eating and lounging and allows an infinite configuration of seating types with movable trays and plug-in sofa backs.
FOLLY 3

Expo ’90, Osaka, 1989–90

Our site at the International Expo in Osaka was located on an open plaza at the junction of several paths. We designed a series of compressed and fused elements to expand in the landscape and refract pedestrian movement. From afar, two vertically extruded planes signal the folly to approaching visitors, while up close horizontal planes define the structure’s perimeters and create a series of canyons. Contrasting with the flying planes, five ramps of varying size stretch along the ground plane. The unexpected junctions of these dynamic horizontal and vertical elements create a number of coves, where visitors may seek temporary refuge from the arduous exercise of walking and sightseeing.

With its bundled and twisting walls, we were also able to treat the Osaka project as a half-scale experiment for the Vitra Fire Station [p. 62].
LEICESTER SQUARE

London, 1990

The idea of designing new fountains to decorate public places is redundant. Shoot the square; it is dead. Hopes of renovating the existing square should be abandoned.

We would rather see Leicester Square as a public room, habitable and submerged beneath the surface, a heart that beats with the city. We would not propose to fill the square with buildings or spouts of water: we would turn such structures upside down and sink them into the ground. Solid and transparent skyscrapers slicing into the earth could contain accommodation, and water could cascade down these inverted canyons as a cooling mechanism for an overworked heart. Bridges and passages would traverse the voids and solids of the new subterranean fabric, while light slits would remind the visitor of the city's familiar fabric hovering above.

Blue and Green Scrapers
puncture is the movement of the fire engines, perpendicular to the line of the walls and the landscape as a whole. As one walks across the structure, the red fire engines are the central focus of this landscape. And as the fire engine's red lines appear to be written on the asphalt, so are the rituals of the firemen inside inscribed like choreographic notation. The whole buildings is frozen motion, suspending the tension of alertness, ready to explode into action at any moment.

Aerial site plan

Elevations (left)

Elevations (right)
For the redevelopment of Düsseldorf's prominent harbour into an enterprise zone containing offices for an advertising agency and studios intermixed with shops, restaurants and leisure facilities, we created an artificial landscape that boxed the river and became an extension of the river's activities and functions. The landscape is protected by a 90-metre-long wall-like building that contains the offices and blocks out traffic noise. From the river an enormous metallic triangle cuts into the site, piercing the wall to form an entrance ramp. The adjoining ground plans can open to reveal technical studies to the north, and shops and restaurants. Below ground, a wall of technical services is compressed, so that part of the wall rises above ground and curves around to create a 300-seat cinema.

The wall's street-side has tiny linear incisions in its concrete; on the river side, levels are articulated by varying depths of cantilever on each floor. A glazed 'finger' building is a fragmented series of slabs set perpendicular to the street line glass spindles that have broken free from the wall. Where the sides converge, a void is carved out for conference rooms and exhibition areas. A minimal glass box surrounded by a family of sculpted feet and heavy triangular structures, the entrance lobby is at the intersection of the wall and the finger building. From here the street and riverscape are visually connected. A ribbon-like grand stair leads up to the conference rooms through the underbelly of a heavy slab suspended above.
The intention for our music-video pavilion was to make a playful place in what was for me the most challenging location in the city: the gap between the monumental A-kerk and the Korenbeurs buildings in the Vismarkt district. Like the 'monitor' houses of New York's Fire Island – clapboard houses with huge plate-glass windows facing the ocean, which at night reveal lofty interiors – the design for this pavilion provides a window to the world in which people can be seen moving amid video imagery, becoming part of the performance.

Trapped between two walls set one metre apart are decks which protrude into the glazed enclosure. Images are projected from the upper decks onto the mid-deck, onto translucent panels set into the glazed façade and onto the raised-
Alternative proposal: plans, elevations, sections, elevations and structural frames [below]

Main façade at night [below] Study models

ground finish beneath. It takes a lot of money and effort to produce short video-slices of message and song, but the videos are insufficient on their own. We wanted filmmakers, performers and video producers to have a structure with which they could experiment.
HOTEL AND RESIDENTIAL COMPLEX
Abu Dhabi, 1990

Like many American cities, Abu Dhabi is organized on a grid. As a uniform structure the grid serves as the base against which special architectural 'events' are placed. For a hotel complex located on a prime site in the city centre we flipped this horizontal urban grid to become a vertical plane. A slab of apartments and hotel rooms that become a backdrop for hotel-related spaces like conference rooms, restaurants and a health club. Where the slab splits apart, these spaces are suspended and sculpted in a 'vertical courtyard'. At ground level a four-storey beam cuts across the site and through the slab, providing spaces for a shopping mall below and offices above. On the beam's fourth floor, with views over the gulf, is the hotel lobby, whose vehicle access is via a curved ramp that sweeps from one corner of the site, around the slab and into the vertical courtyard.

INTERZUM 91
Guenzendorf, Germany, 1990

We were asked by a German timber manufacturer to create an exhibition stand to display their products for the biannual Interzum trade show. The primary intention of our design was to create a separate environment that could be experienced on several levels. Within the backdrop of a large and sterile trade show, we wanted to induce the sense of an industrial landscape within an enclosed structure. Inside, a central pathway, which, like the trunk of a tree, had branches that ran off it, led to product exhibits and ambient surroundings.
This large-scale painting continues the exploration of views into London's urban character that began with the Grand Buildings project (p. 33), Metropolis (p. 46) and the fountains project for Leicester Square (p. 61). This work presents our most radical re-make of the metropolis in both diagrammatic and pictorial terms within a single painting - and it should be judged by this radicalness.

We studied plans of the open spaces, rail, road, water and air routes and restructured the entire plan. As the brush moves over London from the west, strands converge, stretch and continue - not always in parallel - towards the east. These strokes cut new section lines of air and areas for what we believe could be new areas for buildings, for it is the very intersection of vertical structures to the ground where public activities would be intensified in this new plan.
THE HAGUE VILLAS


The single-family house is a building type that continues to be constrained by convention. We presented two designs as part of a ‘field’ of eight villas to be located in a suburb of The Hague. The two villas, to be constructed of reinforced concrete, abstract the conventional configuration of domestic spaces to create unexpected spatial and social interactions.

The first design – the ‘cross house’ – is formed from a ground-level podium that is intersected by two ‘beams’ that enclose most of the residence. The lower beam is cut into the podium level, a ‘negative’ space that forms a courtyard. The upper beam is ‘positive’, housing an open living and studio space that floats above the podium and crosses the courtyard. The house is thus a superimposition of two opposite living conditions – introverted and extroverted.
The ‘spiral house’ is essentially a cube through which a floor plate revolves from the entrance level up through the living areas to an upper-level studio, occasionally poking through the exterior. Glazed façades follow the floor’s spiral, describing a rotation that is alternately solid, louvred, translucent and, finally, transparent. Residual spaces and gaps between the interstices of the exterior and internal spiral afford surprising views and channels of communication and interaction.
THE GREAT UTOPIA
The design for an exhibition on Russian Suprematism and Constructivism offered the opportunity to revisit my student explorations of the three-dimensional qualities of Malevich's tektonik [p. 16]. Our proposal for the Guggenheim show featured two large-scale installations of the Tatlin Tower and Malevich's Tektonik, which both engaged in their own ways with Frank Lloyd Wright's spiralling form and were in turn distorted by the space. For the first time, Malevich's tektonik was habitable: visitors had to pass through it to reach the upper galleries.

Our design for the galleries features interventions that actively engage with the objects on display. For example, the tower and tektonik set up the opposition between Malevich's *Red Square* and Tatlin's *Corner Relief*. For the space containing work from the original *0.10* exhibition, one of Malevich's Suprematist compositions has been extruded from the floor. In the Black Room, which shows objects from the 1921 $5 \times 5 = 25$ exhibition, paintings displayed on Perspex stands appear to dematerialize and float above the floor. This sense of weightlessness is encountered again in the Globe Room, in which constructions hanging from the ceiling gravitate towards a white orb that emerges from the floor.
Historically, the growth of Madrid could be described as a successive bursting of shells: the circular medieval city, the nineteenth-century grid and, in the twentieth century, the linear development now defined by a highway in the form of an ellipse. Framed in the west by the Rio Manzanares, the city is now growing mainly outwards. Suburbs of housing blocks have mushroomed beyond the M30 highway and are about to engulf the nearby villages.

Our objective was to prevent the city from collapsing into formlessness, to channel and organize this anarchy of development. We proposed four specific areas of redevelopment and regeneration: to the north, the former industrial fabric around the city’s railway could be transformed into lively parks and leisure-landscapes; new commercial development could be concentrated along the strip-corridor leading to the airport; the north-south axis, Paseo de Castellana, could be intensified by inserting buildings into existing slivers and public spaces into open pockets; and, finally, the remaining gaps in the suburbs should be preserved.
BILLIE STRAUSS
HOTEL

Nabern, Germany, 1992

The context for this art-hotel addition was an interesting one: a half-timbered farmhouse and stable that the clients wanted to augment with a challenging new structure that would have a sculptural presence. The heart of the design is a ‘blobby’, an elliptical space that mediates between the old building and the new one. Partly set into the foundation, the space can be used for performances or exhibitions. In the tower above this lively pivot point are three levels of rooms based on the cross and star, each of which has a completely self-contained environment with built-in furniture and fittings. A third motif, the spiral, is shared by the two other spaces as they connect back to the main building. In a village of strong local character, the ensemble sets up a striking contrast, one that is intended to encourage debate and creativity.
CONCERT HALL

Copenhagen, 1992–93

This large structure achieves both compactness and openness by striking deep cuts of light, land and water through a solid volume that occupies a compact site. These sharp cuts are open to the sky, and show the full relief of the hall. A curved diagonal cut cleaves off the public-square component, bringing the promenade slowly up into the building. Sculpturally expressive volumes of the structure, articulated by different colours of granite, compress space between them. The structures are made from cast-in-place reinforced concrete to allow irregularly shaped flat slabs to be formed.
To connect this former industrial zone to Cologne we used three distinct formal devices – trapezoidal, wedge and spiral – to define and adapt the multipurpose site to its heterogeneous surroundings.

The shapes are massive, ambiguous entities that are scaled somewhere between buildings and land forms. Working together, the sections form a coherent area with a high density of cultural, leisure, housing and commercial facilities, as well as incorporating old buildings with converted uses and new structures.

The trapezoidal area embraces the entire harbour basin, with two quayside buildings that contain boating facilities and a check-in centre for the riverboat. An area to the north includes a conference centre. Between the trapezoid and wedge areas rise slanting office towers. The wedge section itself cuts from the banks of the River Rhine into the Uferbereich, connecting the riverfront with the Severins housing quarter. Housing is organized in long horizontal blocks or slits like the former warehouses, as if they have been lifted to allow unobstructed views of the river. The spiral links the Flämischen with the quayside, spanning part of the riverside road. Throughout the site new cultural centres were envisioned as scattered jewels that would reflect the water’s movement as it flows by and changes with the seasons.
CARNUNTUM

Vienna, 1993
in collaboration with Frank Gehry

The idea of a man-made extension of the landscape came from the observation that the remains of prehistoric dwellings are part of the landscape and seem at one with it. We wanted the architecture of this cultural park to become another man-made extension of the landscape. We took the history of this site as a starting point for our local human interventions like quarrying. The buildings - a geological center, outdoor theater, belief store and museum - are the first fragments of a new culture on the mountain that over time will gradually inhabit the surrounding quarry. Fragments that suggest an archaeology in reverse.

The geological core is housed in the history of the mountain itself, its geological layers form the bases for the visitor's experience. Rooms open into each other like folded planes, one cuts into the mountain, the other follows its slope. The outdoor theatre is conceived as a Greek amphitheater, a 'social object' in the quarry that follows the earth's contours. Out of this negative, carved space emerges a positive projection, cantilevering over the slope and crystallizing itself over time. The ground plan wraps and thrusts large slabs up into the air, like geological outcroppings. From the street this formation is seen against the mountain, which now has a dialogue with the quarry - the place of the sanctuary - in the distance.
The project revitalizes a waterfront area in Vienna by linking the water's edge to the city fabric through an existing former highway viaduct.

Located along the Donaukanal in Vienna, a series of artists' studios, offices and commercial spaces weave like a ribbon through, around and over the arched bays of the viaduct, designed by Otto Wagner. Shops, cafés and restaurants on the ground floor of three separate buildings cater to the waterfront pedestrian path, which also leads to a nightclub in the old subway tunnel adjacent to the viaduct. The entire project is linked to the university by a pedestrian/cycle bridge.
The centre of former East Berlin’s Mitte is one of the busiest and biggest redevelopment sites in Europe, a forest of cranes and partially erected structures. We were asked to design an office development along one of the district’s busiest thoroughfares, the Leipzigerstraße, at a major junction – not unlike the scenario presented to us in the West Berlin Victoria development [p. 49]. The building would contain both the headquarters of a major financial institution and private office spaces.

Our design attempts to mediate between the historic nineteenth-century buildings and the characterless post-War buildings that dominated the skyline before the Wall’s collapse. Using an iteration of L-shapes that are collided and woven together, the building consists of three primary slabs that recall the Düsseldorf project [p. 68]. Like the swarming traffic intersection at which they stand, the building’s monolithic structures mirror their surroundings while picking up and accentuating the dynamism of the passing cars.
The owners of a lycée in South Kensington requested a gatehouse and porter's quarters to mark the entrance to the small existing building and its courtyard. We decided to rotate the traditional vertical gate so that it could be merged with the house on a floating horizontal plane. One passes freely through this building through a forest of column systems, just as one would pass through a gate. The raised horizontal plane is then shattered into puzzle-like segments, each of which is supported by its own structural system of columns, fins and podia, transforming the ground level into a playground of structural elements. In addition to living quarters for the porter and his family, the building contains four classrooms.
PANCRAS LANE
London, 1996

Because of the historic background of London’s financial district, designing an office development on a tight site came with a number of planning and building restrictions. The most pertinent was that the ground-floor level must include a public area off the street that functioned as a kind of interior park. We resolved this issue by creating a building that wraps its structure around an area to create an ‘outdoor room’. Within the permitted envelope of the site, the ‘snake’ establishes a balance between indoor and outside space, private office space and public plaza, while introducing a dynamic interaction into the traditional architecture of the City.
Our design for a hotel complex at the intersection of 8th Avenue at 42nd Street was motivated by a desire to create a microcosm of urbanity that asserted the intricacy and magic of a global city. The proposed complex comprises two three-level commercial podia and two hotels, forty-five floors on the north side and twenty-two floors on the south. Circulation systems, kinetic signage, lighting schemes and the synergy of related entertainment and retail activities unify the complex.

The hotel tower is a vertical street – a tower of towers, stacked in the geometric plan of the square and containing 950 rooms. Each ‘building element’ contains slightly different rooms and façades. A void
through the tower's centre is interrupted by elements of the second tower. Where the hotel tower connects to the commercial podium below, the vertical street spills out into the horizontal plane, into a network of retail shops, restaurants and public hotel facilities, integrating itself into the city's complex plan down to the subway concourse below.
The pavilion’s form was designed as a continuous and unified space that expressed the circulation of visitors while unifying the products on display within the structure. The pavilion is defined by a continuous plate that folds into itself to create two interlocking beams so that the inside of the plate becomes the exhibition area. The plate comprises a chassis of steel beams sandwiched between an external cladding material (sheet aluminium or industrial siding) and an internal cladding material (mor, industrial flooring or other finish). With this arrangement, finishes can flow uninterrupted from the floor to around the walls. Lighting is recessed into the plate or suspended from it.

As a whole, the Möbius-strip-like plate functions as a completely integrated exhibition space. Each exhibitor (in this case, different manufacturers of bathroom fixtures, tables and storage cabinets, carpeting and steel) has a specific location within the ‘object’, while displayed surface materials – like the floor and wall finish – move seamlessly across one space and into another.
The various museums that constitute the Prado are intertwined by an urban calligraphy, architectural inscriptions in the form of embankments, staircases and walls that make up the topography around them—a landscape rather than a building, a twisted ribbon of cultural events in the urban fabric. Our addition to the Prado occurs at the focus and crossing point of the movements through the Prado complex, the point at which this ribbon constricts and curls into a tight wedge behind the Villanueva building. As a natural extension of this ribbon, the new building turns upon itself, generating a continuous flow of interlocking spaces. A wide ramp carves deep into the ground and establishes a new main entrance at basement level. The foyer spaces and ancillary zones are illuminated by light wells that articulate the structure, and temporary exhibition spaces rise above the foyer on two crossing levels. As the ribbon penetrates the end of the site's wedge, it flips into a vertical strip containing offices, ateliers and conservation studios.
For the new home of the Welsh National Opera we wanted to create a 'living-room' for the city, a building that extended the public spaces of this port city into a symbol of urban pride. The primary device to achieve this effect and to embrace the activities of the complex while creating its own context was a glazed perimeter wall that was raised and reached out into the city to draw the public into its curved courtyard, which we termed the 'bubble'. Below the courtyard was a dramatic concourse, where the public could experience and participate in exhibitions, recitals, dance classes and educational programmes – or simply enjoy views over Cardiff Bay.

Conceptually, the building is a...
literal opening up of the activities of an opera house. This is achieved materially through glass planes. The performance spaces, like the production and rehearsal facilities, orchestra rehearsal rooms and main auditorium, are articulated as sculptural forms and painted striking colours, which are set into the glazed wall like jewels in a necklace.
View from plaza [top]
View into interior courtyard (above)
Sectional perspective through auditorium [left]
The V & A is an urban block that has grown over the last 150 years, a rich patchwork of period buildings. After a process of outward expansion, the museum is looking inward, to make use of its remaining empty spaces. Our design, for the former boilerhouse, uses these voids to create accessible spaces while reflecting the V & A's role as an agent of change in architecture.

The future promises fluidity of space, an adaptive, flexible architecture made possible by lightweight modular components. Our design uses the pixel as the medium for configuration, whether on the scale of a display panel, an exhibition cabinet or a space.

The first architectural move is to raise the main building so that Exhibition Road can be directly connected to the Pirelli Gardens, allowing the ground-floor wing to be opened up to incorporate a restaurant fronting the garden. This large public area penetrates deep
into the existing museum and creates shops, gardens and a series of entrances in the gallery wings.

The top three floors are interlocking volumes that house the educational and events centre, administration and plant rooms and connect to the museum's existing wings. Between these solids, voids are cut into the roof and elevations to bring in daylight and inserted into the areas between the existing façades and the new building so that Aston Webb's elevations can still be seen.

The façade is made of two skins that serve specific functions but that weave and sometimes merge with each other to form floors, walls and windows. The outer skin is a rainscreen made of standard-size flat panels in glass and metal and makes use of an overlap detail to create an undulating surface. The inner skin incorporates blinds for solar protection and for blackouts for exhibitions.
WISH MACHINE: WORLD INVENTION

Kunsthalle, Vienna, 1996

In collaboration with Patrik Schumacher

The architectural interpretation of humanity’s tangle of fact and fiction cannot be reduced to ideal, Platonic forms. Nothing is conceived a priori. The exhibition spaces are thus ambiguous perspectival effects of a bundle of walls. The walls emerge at the point of entry and traverse the box – which can barely contain them – in all directions. Without a prescribed route, surprises are inevitable.

Interior perspectives

Exploded isometric
**PAPER ART**

Leopold-Hoesch Museum, Düren, Germany, 1996

The exhibition space was marked by an ordered ‘wholeness’ that somehow seemed to have rendered the space static. To counter this immobility, we attempted to materialize more dynamic qualities, such as speed, intensity, power and direction. The openings – doorways, corridors – into the entrance hall serve as witnesses to an event, the act of capturing an infinite number of temporary images witnessed by the viewers’ changing perspectives. These successive images combine to form a space born of motion, a new image of architectural presence.

**MASTER’S SECTION**

Venice Biennale, Palazzo Grassi, Venice, 1996

The space was an elliptical room and a small adjacent terrace. Because all four sides of the room were connected to the major circulation routes, we emphasized the space’s volume but did not interfere with visitor traffic by emancipating the wall display space from the floor and suspending it two metres high. The manner in which paintings, drawings, models and reliefs were composed on the walls created a ‘super-image’.

The material interplay between the paper, transient by nature, and the solidity of the existing space is important: the paper’s lightness and movement capture the spontaneousness and ephemerality that the invisible traces of motion manifest.
With the possibility of becoming a dominant feature of the skyline, the bridge takes the form of a horizontal skyscraper that contains a variety of spaces: accommodation, retail, cultural and recreational. Drawing on the metropolis’s cultural diversity, the bridge weaves together a variety of activities and functions into a living structure.

The bridge’s north side is characterized by beams that are bundled together to mirror the urban density of the riverfront. The bundle splinters apart as it reaches together, forming a series of volumes and routes that veer towards the South Bank and Coin Street. The splintering occurs at and is emphasized by an interruption—a break—in the bridge that allows views down the east–west axis, permitting a vista from Richmond in the south-west all the way to St Paul’s in the east, as well as internal views of the bridge itself.

The programme is organized vertically, with free-flow public-access ‘streets’—with a mixture of commercial and cultural spaces—on the lower levels and private areas—loftlike spaces that could be used as home/offices, artists’ studios or workshops—in the volumes above. The spaces and routes function as a fluid whole—floor plates distort and split to create voids that maximize the river’s presence.
LA FENICE

Venice, 1996

We were commissioned by London’s Daily Telegraph to offer a response to the fire that had devastated one of Italy’s most revered opera houses, La Fenice. This theoretical work is meant to stimulate a broader discussion of rebuilding cultural and national monuments. Venice is a city of towers whose rooftops are punctuated by chimneys and spires. We wanted to contribute to this fabric with our elevated opera house. Its verticality, as rendered in period paintings and literary passages, suggested to us that its presence should be stretched and incorporated into the rooftops.

Because Venice is already a theatre in itself, we proposed to invert the plan to expose performances to the outside. We would clear the ground and create an outdoor stage and seating that faced the square and canal. We adapted the canal-side to suit this staging concept, so that the canal became a stage, and the houses’ façades behind it a kind of projection screen.

As in our design for the Cardiff Bay Opera House [p. 118], foyers on different levels look down from the auditorium to the square below. Goods and services arrive by canal or passage and are hoisted up the ‘occupied’ walls to the back and side. Similarly, the public ascend the walls to open balconies to get a better view of ground-level activities, or further up to balconies within the auditorium.
PHILHARMONIC HALL

Luxembourg, 1997

In collaboration with Patrik Schumacher

The concept that drives our scheme is ‘landscape’. The steep hill facing Luxembourg’s old city provided clues for exploiting the contours. We developed the idea of an artificially contoured site through a series of tiered, stepped and ramped floors, roofs and levels. Out of this landscape emerge a grand auditorium and a chamber hall.

Visitors enter the building via a gently rising ramp that leads to the lobbies at the front of house and to the auditoria’s balconies and foyers, which face the view of the town. These slopes and ramps are like a continuous undulating landscape, with courtyards inserted at strategic positions to admit light to the activities at ground level.

The interiors of the auditoria extend the landscape idea, with contours that define circulation and in the rows of seating. Each auditorium has its own foyer; these face in opposite directions, with a common foyer between them.

The central difference between the two auditoria is their volumetric compositions. Both erupt from the tiered landscape as they twist and lock into place on the site. The chamber hall’s glazed lobby and public gallery face a triangular balcony and act as a kind of belvedere against the grand auditorium’s larger volume. In both spaces internal lines continue the contours and spiral into the halls to define stalls and balconies, as well as the finishes and features of the walls and ceilings.
LANDESGARTENSCHAU 1999

Weil am Rhein, Germany, 1997–

In collaboration with Patrik Schumacher and Mayer Bährle.

Rather than sit in the landscape as an isolated object, the exhibition hall emerges fluidly from the geometry of the surrounding network of paths, three of which entangle to form the building. Four parallel, partly interwoven spaces are caught in this bundle of paths: one snuggles up to the south side of the building, while another, gently sloping, rises over its back; the third cuts diagonally through the interior. The main spaces, exhibition hall and café stretch along these contours and permit ample sunlight and views. Secondary rooms disappear within the 'root' of the building. A terrace including a performance space is located to the south of the café.

The research centre is situated north of the exhibition hall, partly submerged into the ground in order to take advantage of the earth itself. The centre's sunken beam becomes an open mezzanine in the exhibition hall.
MUSEUM OF ISLAMIC ARTS

Doha, Qatar, 1997

There is no strong precedent for a nineteenth-century-style museum in the Middle East, so we developed an original typology that is rooted in the Islamic predilection for repetitive patterns punctuated by moments of difference. The building as a whole is a container for programmatic objects, an idea echoed in the gallery spaces: an extensive terracing of horizontal and sloped plates that house a broad spectrum of artefacts, from coins and manuscripts to glassware and carpets.

Landscape plays a vital role in the building's conception, particularly in the attempt to fuse the context with architectonic elements as seamlessly as possible. The roof is the defining feature, articulating the building as a continuous but differentiated field of spaces while mediating between the landscape, sky and galleries. Courtyards slotted into the interior provide natural light and relate to the strong tradition of courtyards, or al-fínas, integral to Islamic architecture and planning.

The new museum is a graduated dispersal of programme which starts from the north, before descending and merging into the landscape. Administrative and educational activities cluster at the top of the site, which then curves downward into the public lobby, a landscaped tier containing the orientation lobby and announcing the collection of gallery spaces that fade towards the lower part of the site.
Early site studies

Interior study

Ground plan, sections and details
A corner in north London offered the prospect of commercial development around the activities of the old Hackney Empire theatre. The central design concept is a spiral that ascends from the basement to a new fourth-floor level and cabaret theatre. We allowed the building to be essentially transparent, so that the interior would be seen as a continuously moving spiral of people and activities. Inside the existing auditorium, we opted not for a faithful historical restoration but for the use of four palettes – lighting, acoustics, texture and colour: natural and artificial lighting would be enhanced; gallery balustrades, walls, arches and ceiling would be embellished and the proscenium opening restored; seats and floor finishes would be revitalized; and an abstract expression of colour, fabric and finish would improve acoustic performance.
The proposed insertion of a student centre into Mies van der Rohe’s campus offered the rich opportunity to echo the heightened awareness of difference and multiple-use patterns by social groups within the university and the texture of Chicago itself. To respond to this multiplicity and diversity, we opted for a fluid organizational system that blurred the areas of work and leisure.

The original campus master plan was based on a lateral distribution of programme. We wanted to transform this open dispersal and fold it onto itself, so that the campus’s many elements came together in a compact and multilayered volume.

Approach to the building is through a play of graduating floor surfaces and curving ramps into a double-height vestibule space that orients the visitor towards the auditorium, cafeteria and retail spaces. The second floor partly peels off from the first, leaving voids that peer downward, cut by stair ramps. Meeting rooms are a matrix of sliding panels that recede and protrude according to the needs of the student associations. All of these spaces lack clearly definable edges, encouraging cross-fertilization of events; this is enhanced by a modular system of table-tops which allows for surprising configurations. The third floor culminates as a folded envelope that houses the clubrooms and the Mies Interpretive Center.
Computer renderings of interior, perspective, exploded and aerial views (above)

First-floor plan (right)
Ground-floor study (far right)
Second-floor plan (below right)
Second-floor field study (below far right)
Composite of study models
CONTEMPORARY ARTS CENTRE

Cincinnati, 1998–

One of the most exciting aspects of the brief for this new contemporary art museum was that it would not be built around a permanent collection. Rather, it would be a container for temporary exhibitions showing a wide variety of work, which in turn would allow an exciting degree of unpredictability between a given show and the architecture.

The building consists of four main features. An ‘urban carpet’ was conceived to create a simultaneously horizontal and vertical composition— as if the city’s grid had been curved upward—to maximize the space’s potential as a public lobby while mediating between the city and galleries. The second aspect is that of anti-gravity—recalling Magritte’s suspended rock. This is the tension that is created between gallery spaces that appear to be carved from a single block and their lightness as they hover over the lobby. The exhibition spaces themselves are linked together in a kind of three-dimensional jigsaw puzzle, the design’s third characteristic. Finally, the building’s exterior presents an animated skin, a collage of transparent elements that weave into the galleries’ mass and reveal a texture of activity and art in constant flux, thus enlivening the building as a whole.
With over 400 illustrations, more than 300 in colour