



Architecture & Sensuality

Andrew Bromberg of Aedas – Recent Works

Text by:

Larry Rouch

Rodolphe el-Khoury

Michael Speaks

ORO *editions*

Contents

008

016

027

032

082

160

206

220

232

240

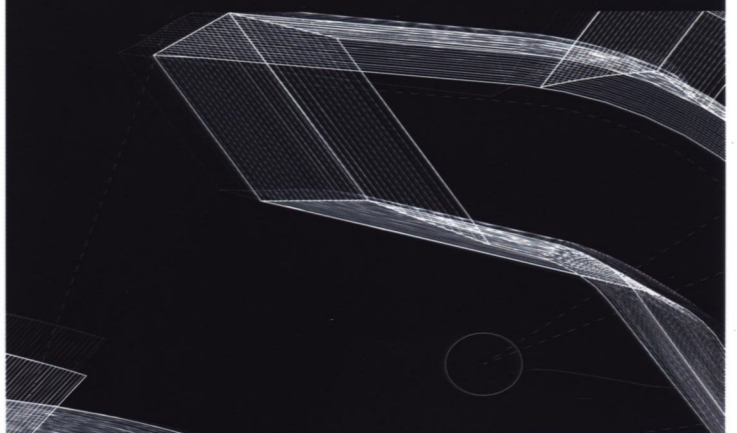
262

Foreword **Larry Rouch**

Essay **Rodolphe el-Khoury**

Recent **Works**

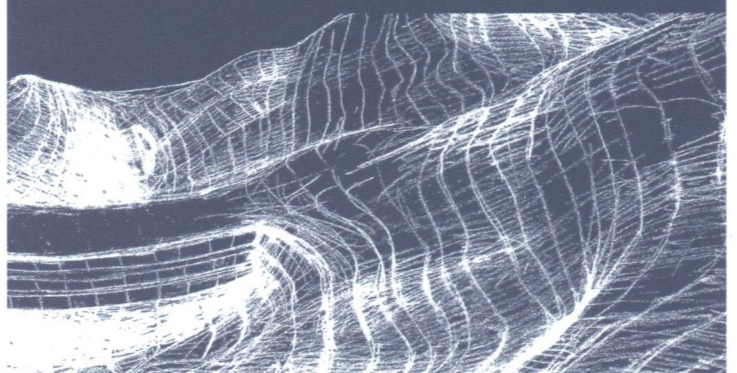
Challenging Conventions



Civic Approach



Contextualism



Interview with **Michael Speaks**

Design Process

Construction

Chronology/Scale

Team

Program **Performance Venue** Site Area 320,000 sqm
Floor Area 650,890 sqm Building Height 284 m

Program **Mixed Use** Site Area 87,420 sqm
Floor Area 232,340 sqm Building Height 350 m

Program **Office** Site Area 10,058 sqm
Floor Area 37,170 sqm Building Height 194 m

Program **Residential** Site Area 3,746 sqm
Floor Area 858,655 sqm Building Height 310 m

Program **Residential** Site Area 7,007 sqm
Floor Area 90,206 sqm Building Height 249 m

Program **Residential** Site Area 3,453 sqm
Floor Area 197,975 sqm Building Height 420 m

Program **Mixed Use** Site Area 12,950 sqm
Floor Area 64,314 sqm Building Height 79.3 m

Program **Mixed Use** Site Area 4,180 sqm
Floor Area 44,235 sqm Building Height 160 m

Program **Cultural** Site Area 40 Hectares Open Space
Floor Area 1,734,871 sqm Building Height 155 m

Program **Broadcast Studio/Office** Site Area 39,756 sqm
Floor Area 303,929 sqm Building Height 300 m

Program **Urban Planning** Site Area 9,795,000 sqm
Area 6,611,625 sqm Population 50,248

Program **Mixed Use** Site Area 19,883 sqm
Floor Area 119,298 sqm Building Height 263 m

Program **Mixed Use** Site Area 54,519 sqm
Floor Area 679,697 sqm Building Height 420 m

Program **Hotel** Site Area 9,904 sqm
Floor Area 84,237 sqm Building Height 97 m

Program **Residential** Site Area 29,356 sqm
Floor Area 330,977 sqm Building Height 185 m

Program **Mixed Use** Site Area 43,000 sqm
Floor Area 139,641 sqm Building Height 35 m

Program **Media Centre** Site Area 63,600 sqm
Floor Area 87,696 sqm Building Height 81.7 m

Program **Mixed Use** Site Area 2,525 sqm
Floor Area 161,780 sqm Building Height 107 m

Program **Theater/Mixed Use** Site Area 19,270 sqm
Floor Area 54,000 sqm Building Height 60 m

Program **Residential** Site Area 2,200 sqm
Floor Area 2,000,593 sqm Building Height varies

Program **Mixed Use** Site Area 54,519 sqm
Floor Area 351,684 sqm Building Height 428 m

Program **Residential** Site Area 2,711 sqm
Floor Area 43,987 sqm Building Height 120 m

Program **Hotel** Site Area 345,000 sqm
Floor Area 60,927 sqm Building Height varies

Program **Residential** Site Area 32,090 sqm
Floor Area 90,050 sqm Building Height 45 m

Program **Hotel** Site Area 17,200 sqm
Floor Area 60,927 sqm Building Height 173.7 m

Program **Residential** Site Area 3,500 sqm
Floor Area 111,730 sqm Building Height 516 m

Program **Mixed Use** Site Area 60,267 sqm
Floor Area 195,803 sqm Building Height 282 m

036
046
054
056
064
066
070
072

086
100
110
112
118

120
126
132
138
140
148

164
172
180
182
186
188
196
200

Arabian **Performance Venue**

Middle East **The Legs**

Dubai **Headquarters**

Dubai **Ocean Heights One**

Abu Dhabi **Empire Tower**

Dubai **Ocean Heights Two**

PRC **Zhongguan**

Abu Dhabi **Dancing Towers**

Civic Approach

082

Hong Kong **West Kowloon Cultural District**

Middle East **Media Tower**

UAE **Multaka**

Dubai **U-BORA Towers**

Thailand **Office Park**

PRC **Crowne Plaza Hotel**

Abu Dhabi **Sorouh**

Dubai **Union Square**

PRC **Foshan Media Centre**

PRC **North Star**

Singapore **Civic & Cultural Complex**

Contextualism

160

PRC **Xian Residential**

Bangkok **Corporate Towers**

Beirut **Solidere**

Abu Dhabi **Jebel Hafeet**

PRC **Luo Xi Residential**

Dubai **Boulevard Plaza**

Dubai **Pentominium**

Asia **Gateway Complex**

Arabian **Performance Venue**

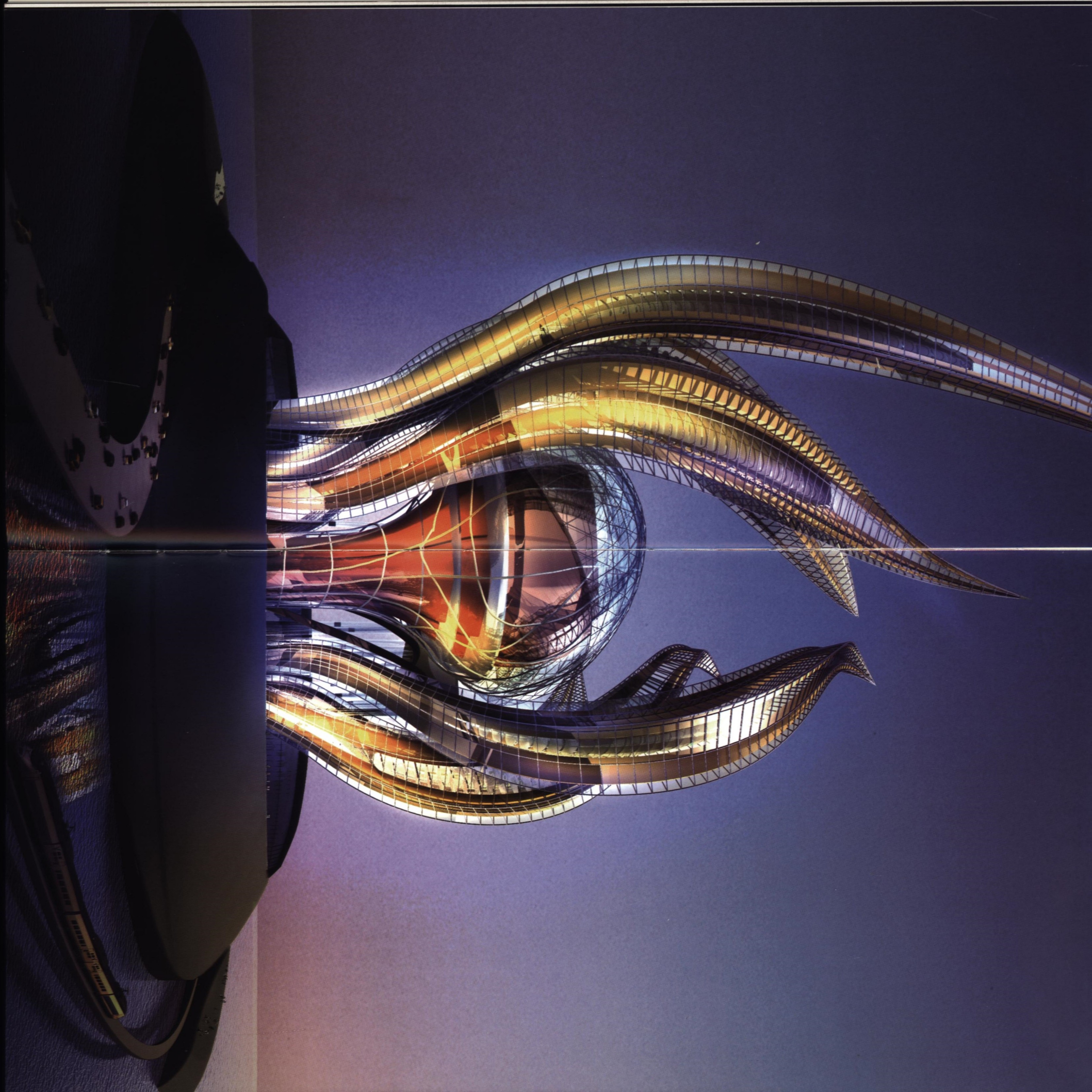
Arabian Performance Venue

Surrounded by the desert sands and occupying its own island in the middle of a nature reserve, the Arabian Performance Venue is organically tied to both its context and its use. The venue is experienced through an entry sequence of surprise and discovery.

The island is connected to the mainland via long span bridges for both vehicles and trains. Also approachable by boats, the entrances are cut into the mounded landscape to open into a water-filled cavity. The walls, which contain the water, become the main entry foyer to the complex and a museum/exhibition center. The museum rises in the center and drops on its sides, opening out and focusing on the water, which is filled with people engaged with nature.

Dropping down from the main foyer, the lower concourse opens up and moves underneath the water into a darkened space dappled with reflections from the water above. There are restaurants off to the side and a "black box" performance theatre near the center of the space. Inside this sedated world there are 44 splashes of light from above, which are emitted from glass tubes that house 44 elevators. Entering the elevator, one rises out of the water and above the walls that define this inner space. The walls open up to allow for 360-degree views of the surrounding landscape and waters.



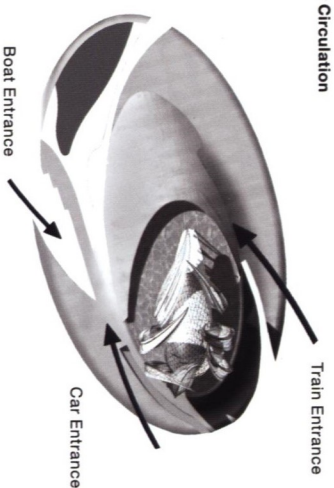


The elevators arrive at a traditional forecourt for the 2,500-seat performance venue 100 meters off the ground. It is surrounded by seven dancing figures that rise high into the sky above. This entry platform also serves as a public observation area, allowing views beyond to the migrating birds which flock to the surrounding waters.

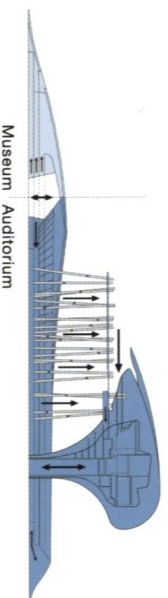
In the center of four dancing figures, filled with different activities, is the solidity of the performance venue, the pearl of the construction. Entrance into the main hall exposes the volume rising from the waters below. The auditorium hall opens up above to the main lobby of the hotel sitting on top of the performance venue, which is enclosed with an outer glass shell. The hotel lobby can be reached with its own express lifts and is flanked by four figures that are reached via sky-bridges. These figures house 300 hotel and service apartment rooms.

The front two figures are filled with public food and beverage stations and provide shade to the forecourt. The back figure contains supporting facilities for the performance venue itself. Overall, the seven dancing figures rise into the sky with the highest one reaching upwards to 284 meters in height.

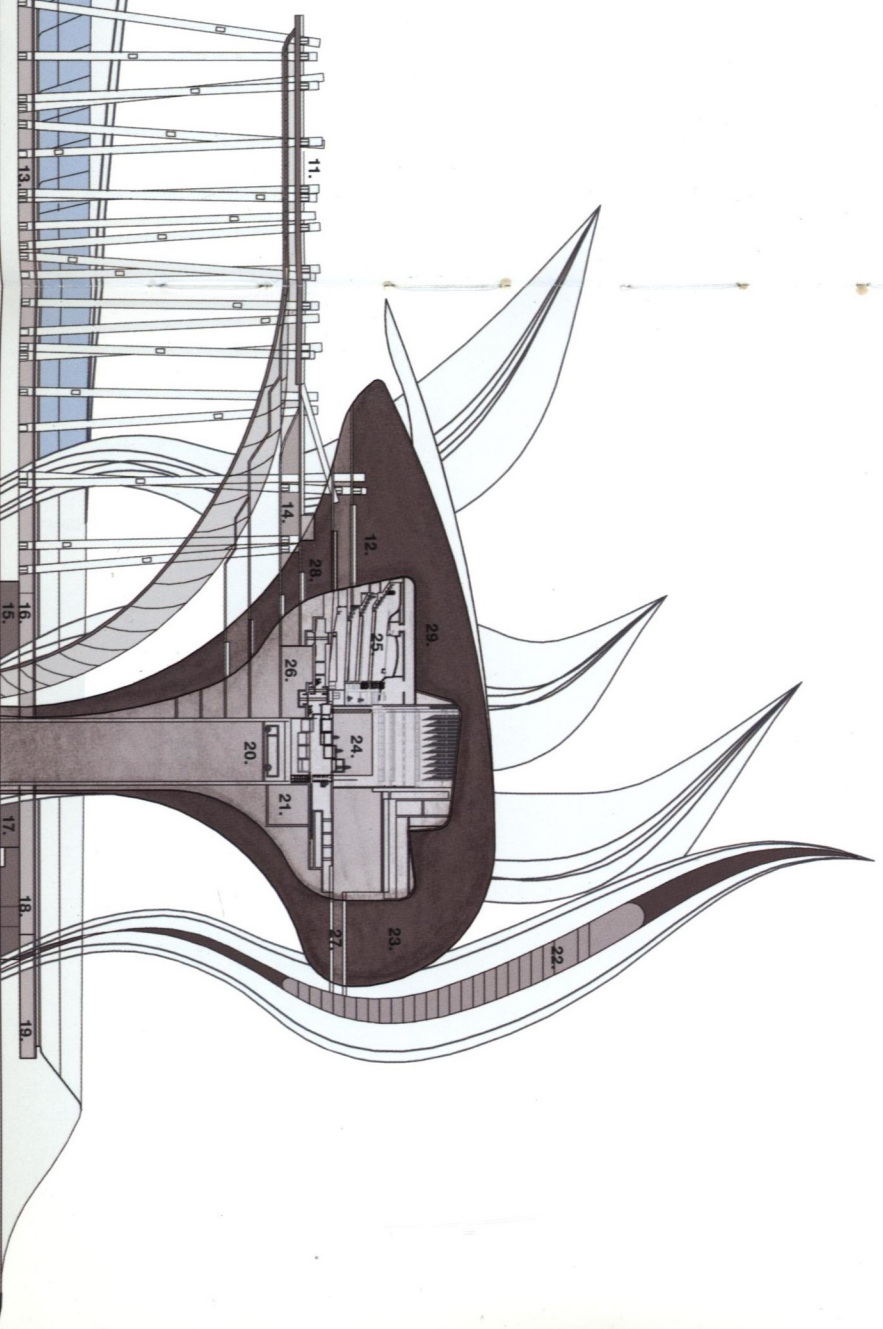
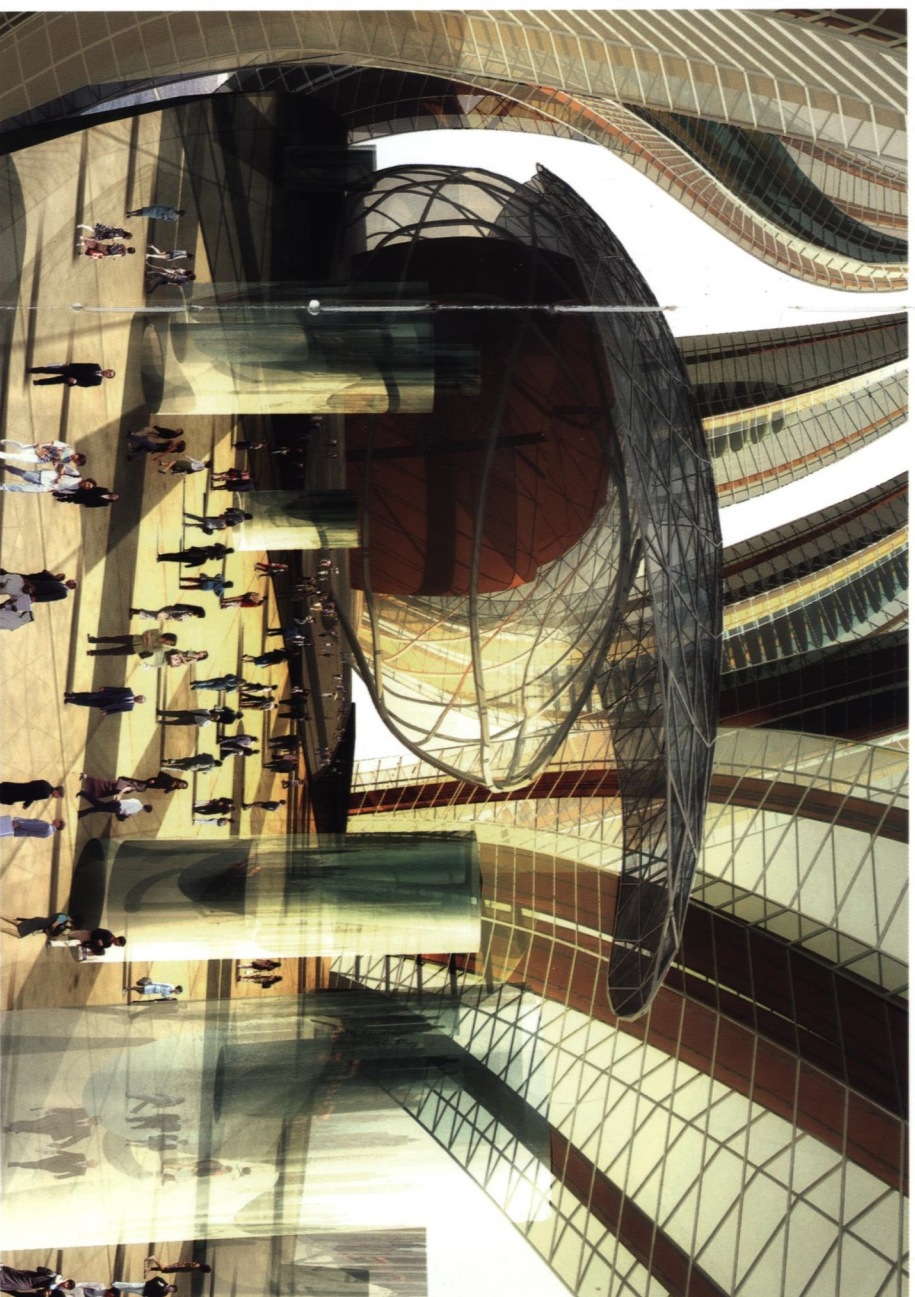
Vehicular Circulation

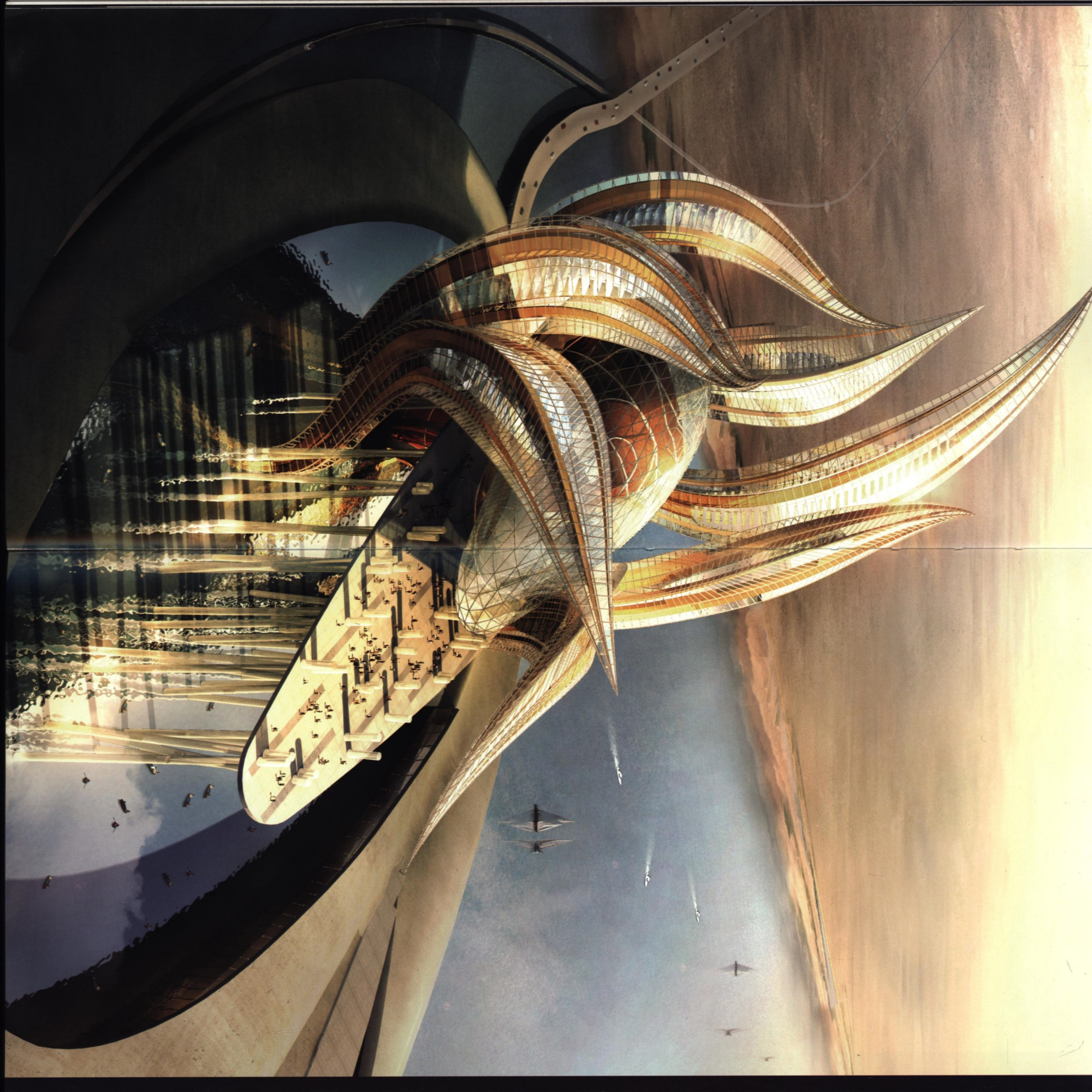


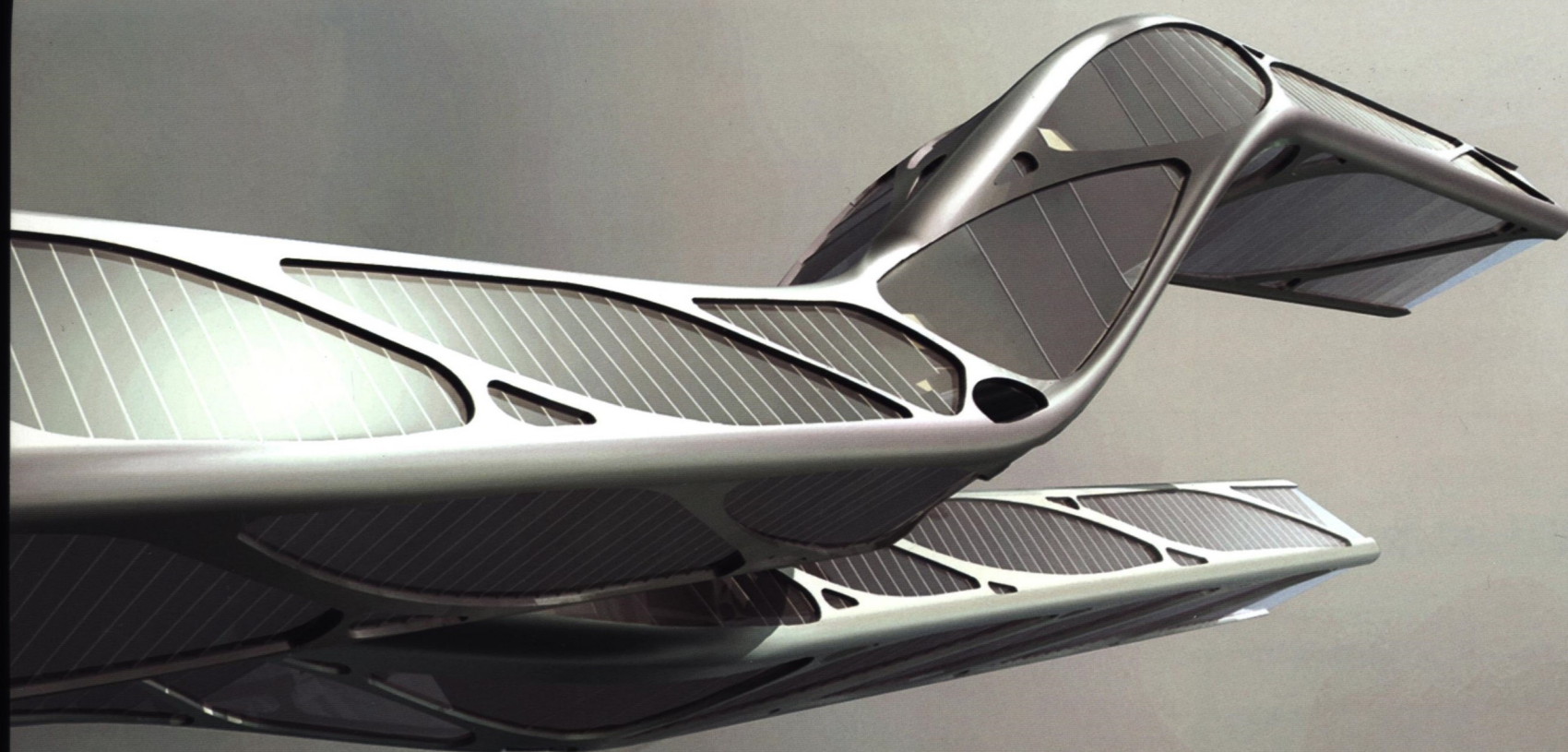
Pedestrian Circulation



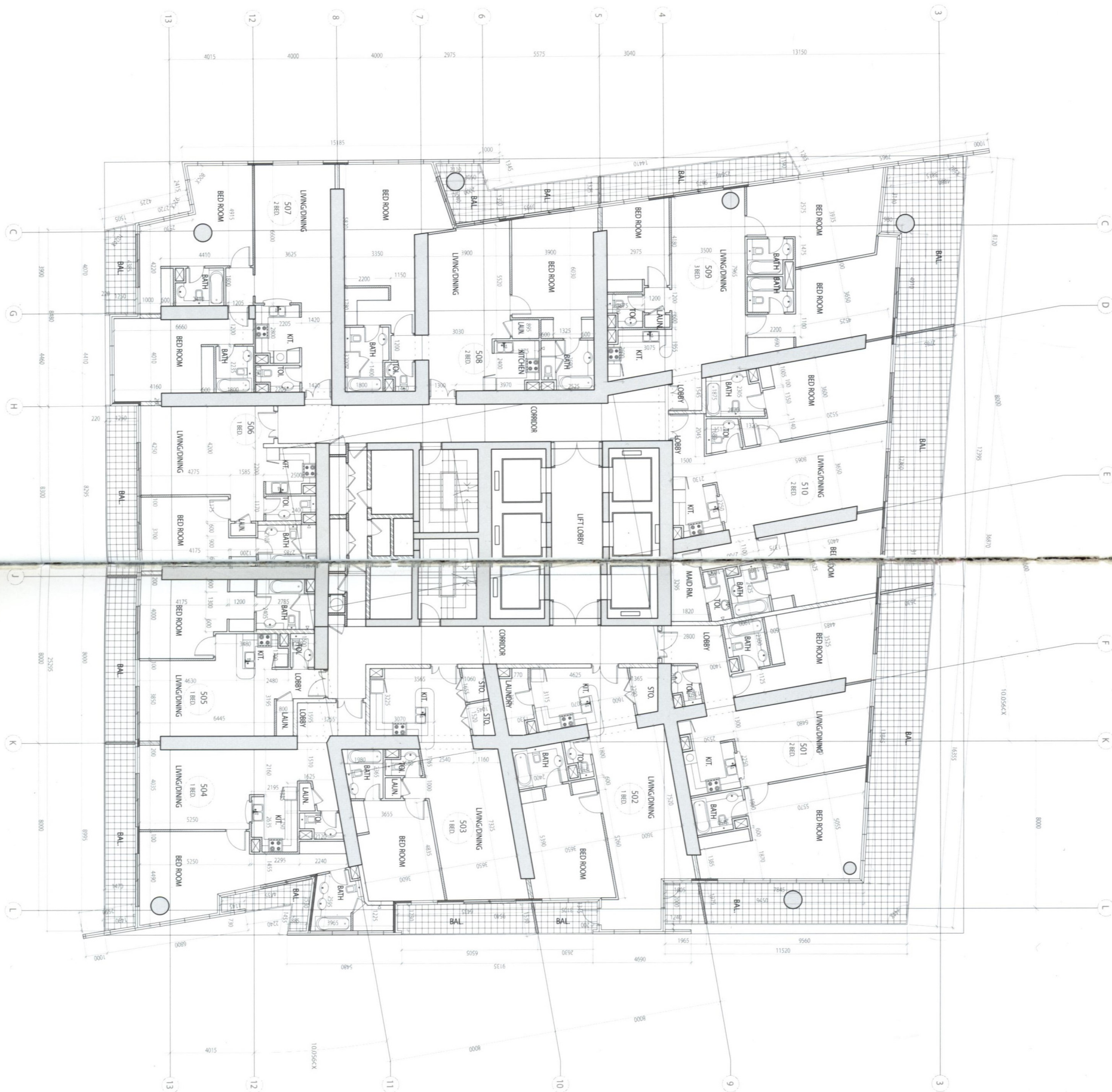
1. Atrium
2. Temporary Exhibition Space
3. Museum
4. Exterior Viewing Terrace
5. Events Exhibition Hall
6. Parking
7. Valet Services
8. Passenger/Taxi Drop Off
9. Gift Shop
10. Lobby
11. Opera Platform
12. Upper Foyer
13. Opera Lift Lobby
14. Interior Opera House Lift Lobby
15. Performers Drop-Off
16. Drama Theater
17. Opera House Shipping Loading
18. Rehearsal Studios
19. Green Rooms
20. Truck Lift
21. Loading/Storage/Workshop
22. Management/Marketing
23. Dressing Rooms/Rehearsal Rooms
24. Stage/Fly Tower & Orchestra Pit
25. Main Auditorium
26. Staff/Performers Kitchen
27. Bridge
28. Entrance Lobby
29. Hotel Lobby







Middle East **The Legs**

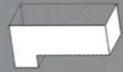


Abu Dhabi Empire Tower

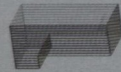
Empire Tower was challenged through a client request of not "pushing the limits" too far. The concern is that the residential project was located in the middle of a masterplan filled with potential icons. The design standardizes the units to accommodate the client request but manipulates the section to develop a very dynamic solution, which holds its own amidst the visual clutter of its neighbors. This was deemed important for the financial viability of this project that is dependent on pre-sales within a very competitive market.

The design maximizes the towers presence on the street with vertical layers spreading out to the property lines. The building then bends back away from the street across from a large commercial tower allowing for an enlarged view corridor between the central park of the community and the sea, one block away. The splayed vertical layers converge while rising up before bending forward together as the 249-meter tower rises toward the sky and maximizing its views between the park and sea.

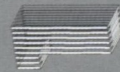
Initial
Massing



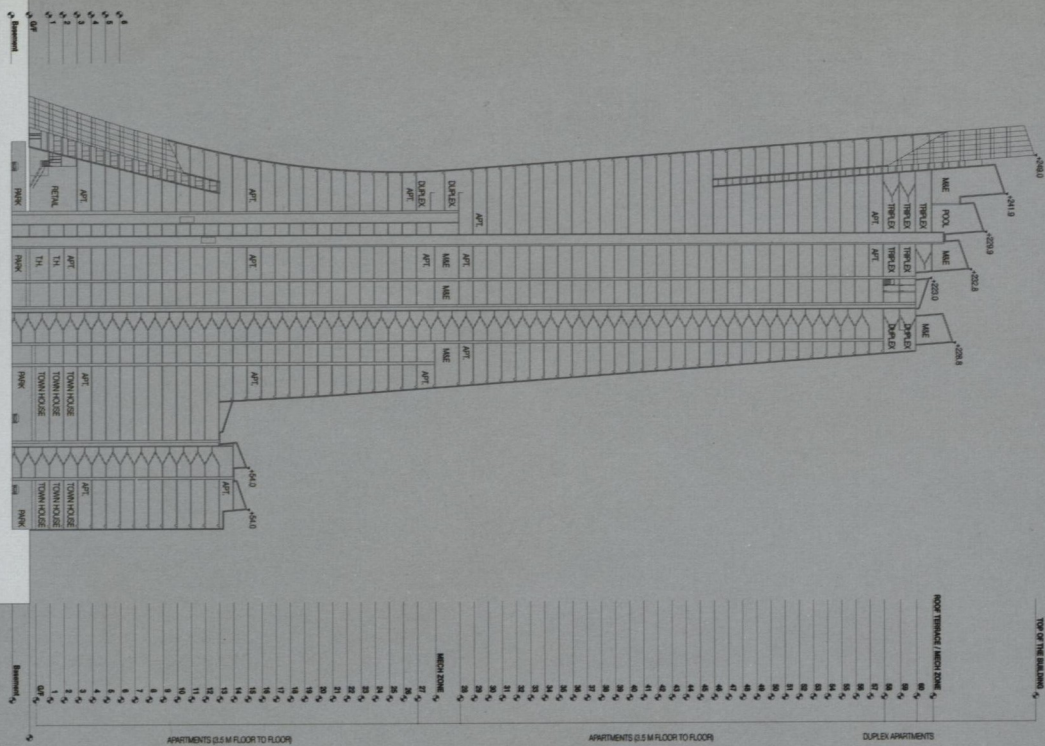
Mass
Divisions



Strip
Shifting



Strip
Bending



Abu Dhabi **Empire Tower**

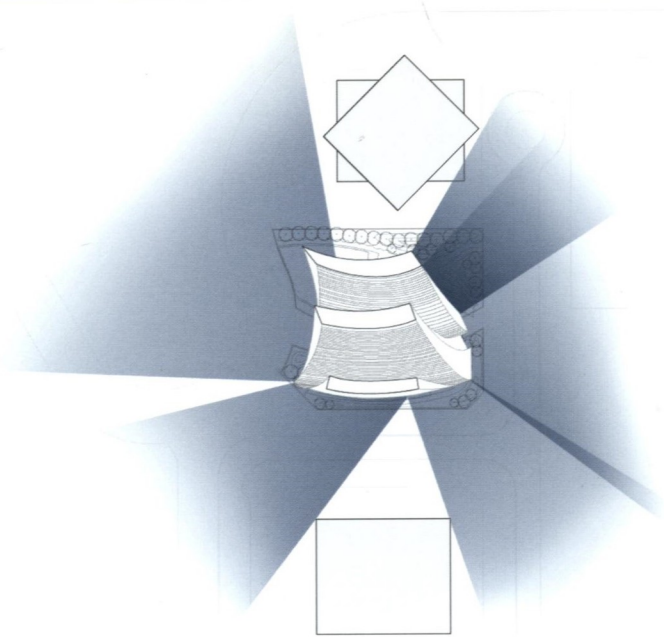
Dubai Ocean Heights Two

Ocean Heights Two is also located in Dubai Marina, UAE, along with its sister project, Ocean Heights One. Over 420 meters in height, it will be one of the tallest towers in its vicinity. However, unlike its predecessor, the requirements for more modulated units up to the 60th floor, forced a different approach while intending to maintain the spirit of its sister.

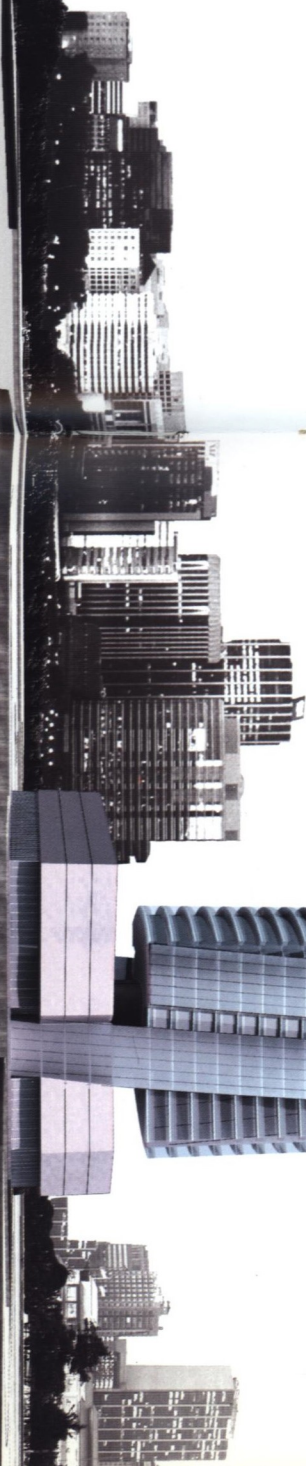
The first 60 floors of the tower needed to have the majority of units standardized. The curved shape of the tower improves views past its densely located neighbors. The playfulness of this tower was concentrated into the two most visible faces, allowing units to bend up the tower in two blades. These blades were still modulated up to the 60th floor before the tight restrictions of unit area fluctuations become more relaxed. At this point, the modules drop off and the blades continue, tapering and bending into the sky.

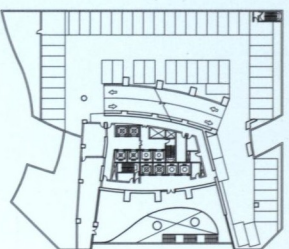


View Diagram

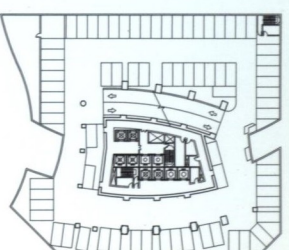


Dubai Ocean Heights Two

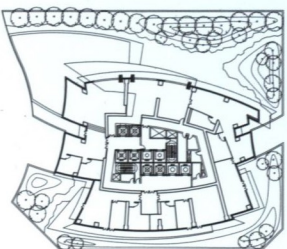




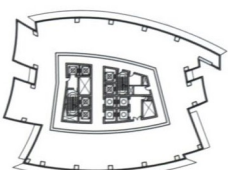
1st Floor



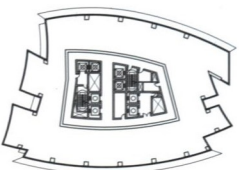
2nd-3rd Floors



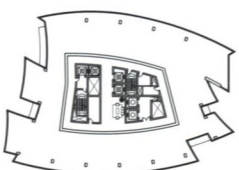
4th Floor



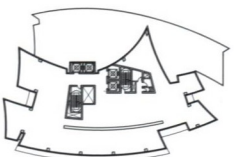
7th Floor



37th Floor



69th Floor



79th Floor



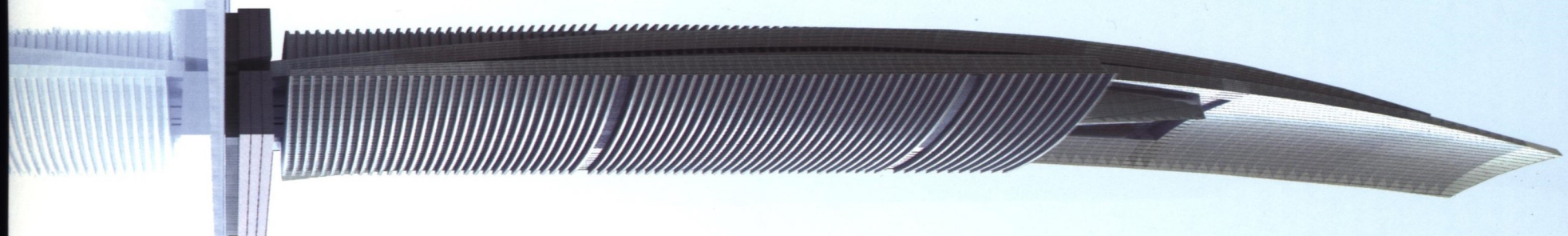
90th Floor



100th Floor

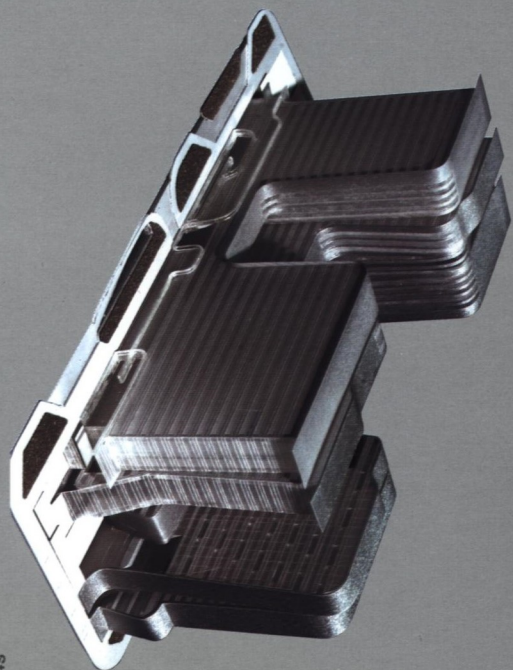
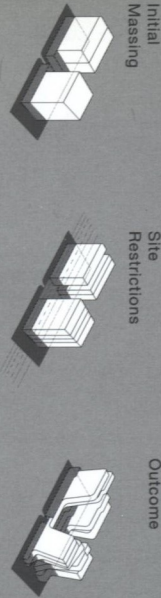


101st Floor



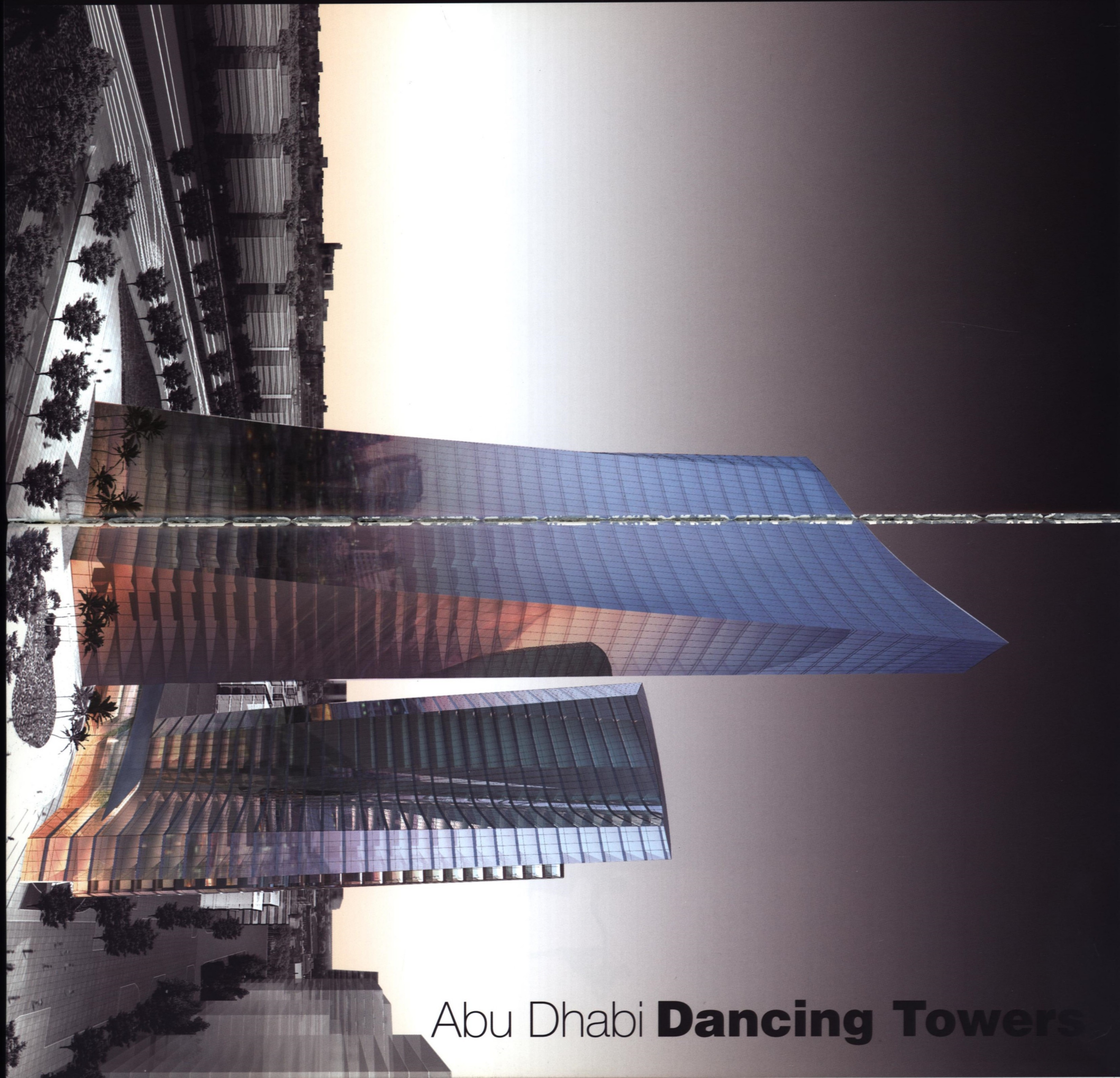
People's Republic of China Zhongguan Plaza

Zhongguan Plaza is sited at the confluence of the major vehicular and pedestrian paths into the Haidian District, enabling this project to become the new gateway and architectural icon of the community. Programmatically, two separate office buildings were requested as a requirement for a service apartment/hotel. Both sites have a six-floor retail base, including two floors below grade. The design intends to unify all of these disparate forces under a unifying umbrella, strengthening its impact within the Haidian District as well as strengthening the internal vitality of the project.



Study Model

PRC Zhongguan Plaza



Abu Dhabi **Dancing Towers**

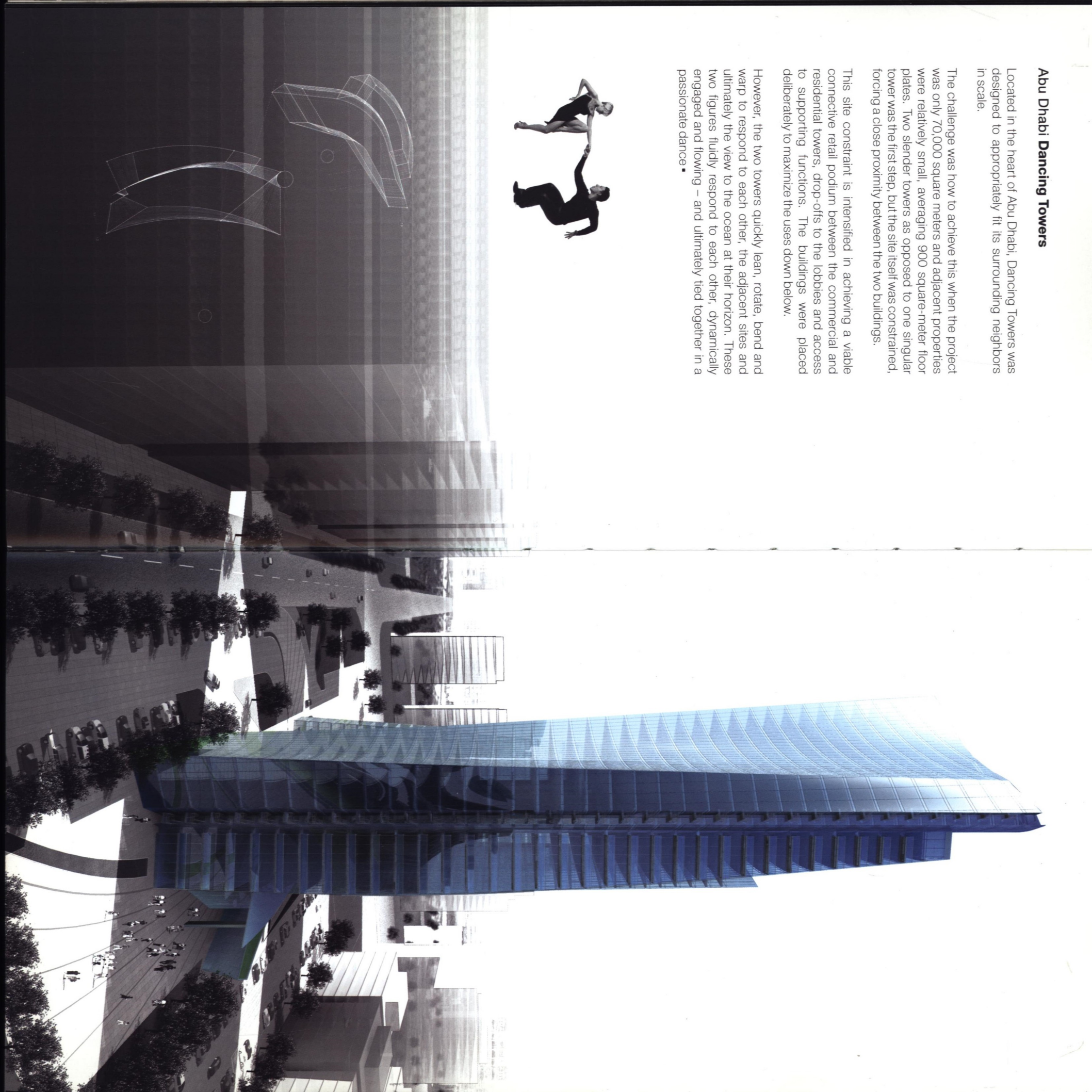
Abu Dhabi Dancing Towers

Located in the heart of Abu Dhabi, Dancing Towers was designed to appropriately fit its surrounding neighbors in scale.

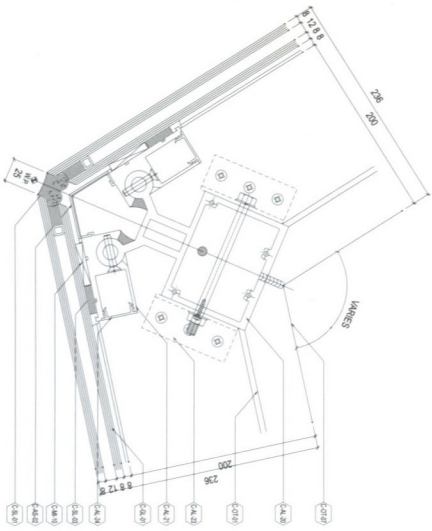
The challenge was how to achieve this when the project was only 70,000 square meters and adjacent properties were relatively small, averaging 900 square-meter floor plates. Two slender towers as opposed to one singular tower was the first step, but the site itself was constrained, forcing a close proximity between the two buildings.

This site constraint is intensified in achieving a viable connective retail podium between the commercial and residential towers, drop-offs to the lobbies and access to supporting functions. The buildings were placed deliberately to maximize the uses down below.

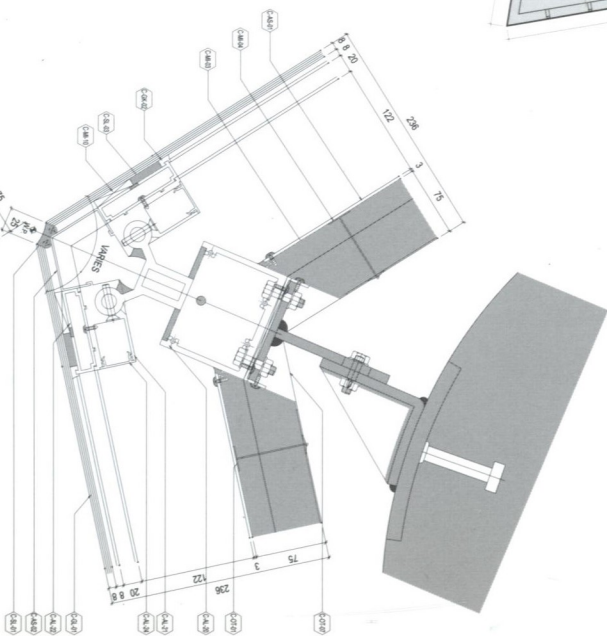
However, the two towers quickly lean, rotate, bend and warp to respond to each other, the adjacent sites and ultimately the view to the ocean at their horizon. These two figures fluidly respond to each other, dynamically engaged and flowing – and ultimately tied together in a passionate dance. ■



Typical External Corner Mullion Detail At Vision Glass

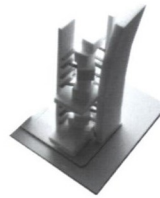


Typical External Corner Mullion Detail At Spandrel Glass



Under Construction

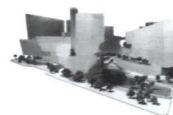
Middle East **Media Tower**



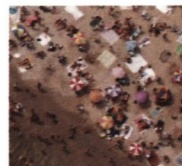
100



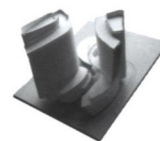
Dubai **Union Square**



132



PRC **North Star**



140

designed as a very large and central urban park, which also happens to house activities including the cultural center.

From a project viability point of view, the benefits of the project (which are both inward and outward in approach) are not immediately apparent. However, a building that is embraced by the public has enormous benefits for the project's viability. This is especially true with respect to commercial, hospitality, residential and retail, whose success is directly related to an ability to sell or be sold. In this respect, the "altruistic" goal of being "civic" can be sold to a client who may only care about profit.

Of course, projects such as libraries are truly public in nature and help define the public domain – in this respect, they can be deemed civic. It is this "public" component that needs to be nurtured. A project that can offer something to everyone will be used, enjoyed and experienced. The transition from public to private activities can be softened with varying degrees. This enables a multitude of opportunities for human interaction to be sustained within the project even with socioeconomic realities.

If a project is active, commercial components benefit. If a project is enjoyed, people will want to live, work and play within its walls. This is the formula and result of mixed-use projects. This is not a new formula, as Trajan's Market in Rome, dating back thousands of years ago, proves. A mixture of different types of activities are brought together in varying degrees, enticing public activity through commercial interaction, resulting in a rich and vibrant setting. Time cycles are increased and there is an impact of the project within the public domain.

Of course, the impact a project has on people's lives may be limited by accessibility, size and location. The degree of influence should not limit the importance and role of every project. "Civic Approach" goes beyond what is deemed civic, by instituting an obligation that every project try to improve and benefit the world we live in.



Hong Kong
**West Kowloon
Cultural District**

but it taught me something. Our clients are developers, so the project must be viable—they pay attention to the plans and the efficiencies. But because everyone is in a race to get their projects sold before the development window closes—and they all expect it to—there is frenzy and a balancing act between speed to market and quality. Everyone wants to have something fresh and unique, and the image is really important to convey design originality.

MS: You are now competing with some of the most recognizable names in the design world, including, among others, Pritzker-Prize winners. How does that feel?

AB: Great. I am enjoying that. Because Aedas is such a new player, it has allowed me to become one of the design faces of the company, especially in emerging markets such as China and the Middle East, where we have done especially well. It is exciting to compete in these markets, because even though clients, especially in China, can be influenced by name brands, for the most part they are more concerned about the merits of the design and the project in front of them than in past reputation or portfolios. Ironically, as our reputation has grown for strong design, we have begun to be invited to participate in competitions,



for this client—I started the design on the plane ride home to Hong Kong from Dubai. In the middle of the flight, when everyone was sleeping, I shredded my drink coaster trying to put together some shapes that might help me better understand the project. And, after a while, I came up with something that became the initial idea for the design. This was really a difficult project for me, personally, because once I had the design it was hard to figure out how to represent it two-dimensionally. It is a very organic form, and the time constraints made it very hard to come up with the right way to model it. Luckily, in the end we pulled it off. We still do not know what will happen with this project—but it was a lot of fun.

MS: One of the most striking and seemingly controversial projects that you have designed is the crossing towers, which you call the Legs. Can you say something about their design and if they will be built?

AB: The project was a competition entry designed initially for a client we were already doing a project for in Abu Dhabi and who really wanted something original. Many of the young sheikhs in Abu Dhabi felt that Dubai was getting too much attention, and so there was a hunger for projects that would grab everyone's attention and put Abu Dhabi on the map. We had been designing a lot of sculptural

which makes me a bit uneasy because the expectations are very different. We have been short-listed, for example, along with Coop Himmelblau and Herzog & de Meuron for a concert hall in Spain. If it were simply an open-design competition on the merits of the design alone, I know we could compete and stand a good chance to win. But it might be an interview competition, and if that is the case, I am not sure if I will be able to convince the jury to choose us over offices with established reputations and with portfolios of civic projects including concert halls.

MS: Can you say something about the design for the performing-arts center in the Middle East, one of the more exotic designs you have produced to date?

AB: With this project I pushed the design boat out as far as it would go. After I sent him the first images, I called the client to see if he had received them, and he asked what planet I was calling from. We had three weeks to come up with something more exciting than the project submitted to the client by a recent Pritzker-Prize winner, who had already been working on the design for a few months. Now that is a challenge! We were already doing some projects for the client, so they knew we could push the limit. With only three weeks—and we were already driving hard on two other designs

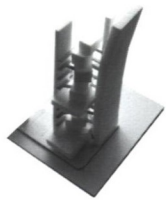


towers, and I wanted to take on an issue that we had not yet taken on before, one that might give us more flexibility. And that was the constraint posed by the core and how it limited floor plans. I decided to take on the core problem by employing an exoskeleton structure that would free up the floors. I designed two towers that formed two crossing legs whose fish-net stockings served as the structural system. The tower legs were to be serviced by express elevators and joined by sky-bridges. It is one of our most ambitious and formally exotic designs, but it is completely feasible. Everything we proposed is possible. I thought I had read the situation correctly, but in the end it was just too much for them. However, there is another client interested in the design, so I am hopeful.

MS: You have designed a number of really beautiful towers in the UAE that are either in construction or are slated for construction in the near future. Can you say something about the design process of a few of these, perhaps beginning with the Trident Towers, one of the tallest towers you have designed, and if built today, the tallest building in the world?

AB: Our approach to the design of Pentominium Towers was not to look at it as an object, but rather, to view it as a contextual problem. We wanted to design it so that it could breathe. That might sound strange, but Dubai, especially the area of Dubai where this



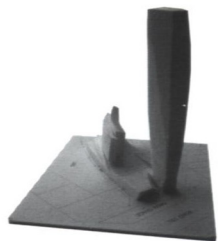
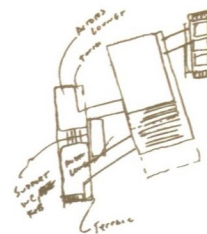


Middle East **Media Tower**



Abu Dhabi **Sorouh**

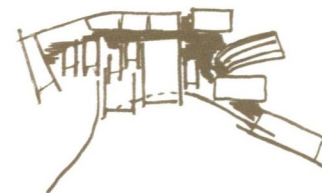
schematic design
analog process
digital process
construction



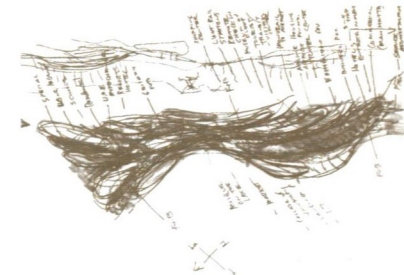
Dubai **U-BORA Towers**



Xian **Ziwei Mall**



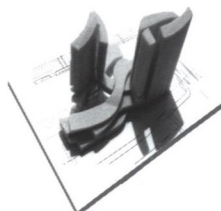
PRC **Foshan Media Centre**



UAE **Multaka**



Dubai **Union Square**



PRC **North Star**



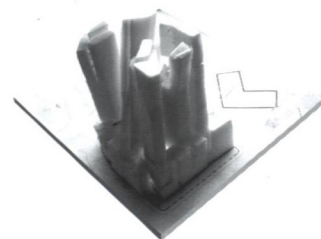
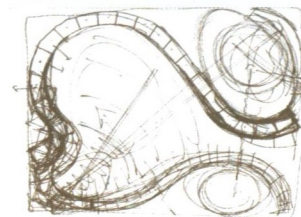
PRC **Xian Residential**



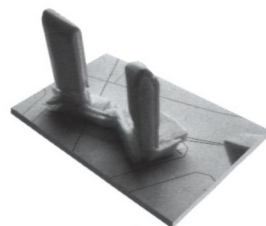
Bangkok **Corporate Towers**



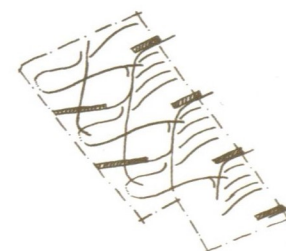
PRC **Luo Xi**



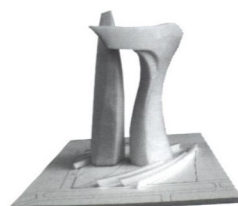
Beirut **Solidere**



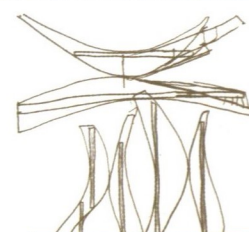
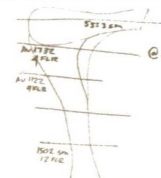
Dubai **Boulevard Plaza**



Dubai **Pentominium**



Asia **Gateway Complex**



Andrew Bromberg, the lead designer for Aedas in Asia, is recognized for his intuitive ability to conceptualize and realize complex design. With 15 years of professional experience, Bromberg has used invited competitions as a way of exploring and exposing new ideas. Boasting a curvilinear formal vocabulary of bulges, twists, and sweeps, Bromberg's sensually shaped buildings are the manifestation of an intellectual and material struggle through which type and structure are transformed by design. With many projects under construction or in the works, Andrew Bromberg has become one of the most prolific and sought-after designers in China, India, and the United Arab Emirates.

Architecture & Sensuality is the documentation of Bromberg's design visions within the emerging economies of Asia, complete with images, drawings, models, and construction photos. The pages within also include an essay, interview and statements by Larry Rouch, Rodolphe el-Khoury, and Michael Speaks—each of them offering a comprehensive description of what is so appealing and seductive about Bromberg's work and the importance it bears in today's design environment.

ISBN 978-0-9774672-8-0



9 780977 467280

oroeditions.com