"There is a point where in the mystery
of existence, contradictions meet;
where movement is not all movement,
and stillness is not all stillness; where
the idea and the form, the within and
the without, are united; where infinite
becomes finite, yet not."
–
RABINDRANATH TAGORE

THE ARCHITECTURE
OF ATMOSPHERE
by ARC Studio
Architecture + Urbanism

Poems and essay
by Cheong Suk-Wai

Book Design
by H55, Singapore

THE ARCHITECTURE OF

ATMOSPHERE

YOU. AND LIFE.

A   Aura. And Atmosphere.
       Beginning. And Burgeoning.
       Care. And Commitment.
       Deep. And Divine.
       Elite. And Enlightenment.
       Fiza. And Forever.
       Grace. And Gratitude.
       Holy. And Holistic.
       Iconoclastic. And Iconic.
       Joy. And Jubilation.
       Kolkatan. And Kolkata.
       Luxury. And Luxuriant.
       Minute. And Millennia.
       Nature. And Nurture.
       One. And Once.
       Prospect. And Promise.
       Quiet. And Quotidian.
       Ray. And Radiance.
       Sanctuary. And Sorority.
       Today. And Tomorrow.
       Unique. And United.
       Vertu. And Vastu.
       Well. And Whole.
       X-ray. And X-tra.
       You. And Life.
Z   Zenith.

PROLOGUE

BY RAHUL SARAF
MANAGING DIRECTOR,
FORUM PROJECTS

"As a proud citizen of this great city, I like to think this city and its people will be happy to have a modern skyline, few landmarks and a few iconic structures."

ONE balmy summer's evening, I was with a few friends at the poolside of one of my favourite haunts in Kolkata, when one of them asked me casually, "What would you want to be if you were given a chance to go back 20 years in time and start your life all over again?" It wasn't a serious question; it wasn't meant to be. But something stirred within me. I thought hard: What would I do if I were given a chance to live life all over again?

In my childhood, unlike many of my friends, I showed no special talent. I wasn't particularly good with sports, art or craft nor was I a bookworm. But I was gifted with a keen sense of observation. I have always been fascinated by how people behave differently in different settings and milieu and these little observations have over a period, became a repository of beliefs, a sort of wisdom you can say, that guides me today to conceive space for people to work, play or live.

My career in real estate happened due to an already existing business in the family. This was a lucky coincidence. Because as I got more and more into the business, delved deeper into the different verticals of the industry, I realized how fortunate I was to be pursuing a career where my passion is also my inspiration.

these projects we have earned a few accolades, made lot of friends and developed a strong belief that our customers like what we do and the way we do it. We like to be the harbingers of change in the way people live, work or play. I have learnt that our job is to facilitate people's lifestyle.

Our enterprise today, propels itself on a fuel called passion and we enjoy giving shape to smart habitat ideas, intelligent work places and cozy community touch points.

When we decided to launch ourselves in the residential sector, we were aware that building public places where people go to and building their homes where they come back to were two completely different genres.

As a place to build our first upscale urban dwelling, we could not have asked for a better location. Our project sits on the best part of the EM Bypass. There is only this small stretch of the EM Bypass that has an unadulterated view of the beautiful wetlands and lakes, which will never change.

By the time the project is built, a new network of flyovers, which is presently under construction, will change the way the city looks at travel distance between places.

I have learnt over time, how cities grow, shift and sometimes also shrink. Major infrastructure projects like mass rapid train service, new airports, over-bridges and underpasses, flyovers and elevated high ways have always had major impacts to our urbanscape. Decades ago when the metro link was first laid in Kolkata we suddenly had a faster way to reach the southern fringes of the city. Over time, the entire area around the terminal station at Tollygunge and its surrounding developed into a major residential zone. The new Shanghai airport at Pudong helped the city grow overnight. Take the example of Tokyo - sometimes people live as far as a hundred kilometers and come to work in the city center every day. This is possible because of the super fast railway system in that city which ensures that the travel time is not much. I have realized that distance, in today's modern society is not measured in kilometers or miles, but in time. The sea link in Mumbai has brought Bandra and BKC closer to Worli and Lower Parel, reducing the travel distance from forty minutes minimum to ten minutes. Major infrastructure projects sometimes have the ability to shrink our cities by reducing travel time.

Kolkata will shrink as well once work is completed on the new flyover system,

"I have learnt that our job is to facilitate people's lifestyle."

linking the EM Bypass with Park Street, Ballygunge and Alipore. One can reach Taj Bengal Hotel from the EM Bypass in the same time that it takes to get there from New Alipore or reach CCFC in as much time as one coming from Ballygunge Circular Road.

When I joined business, Dalhousie was the Central Business District (CBD) of Kolkata, but offices had begun moving out to newer locations due to severe traffic congestions and parking problems. Today, Park Street and its immediate fringe areas is the city's CBD and again, for the same reasons, offices have started moving to newer locations. Most of our Indian cities suffer from this phenomenon. Our cities simply can't keep pace with the rapidly growing urban population. Overtime, premium areas degenerate due to growing density and failing infrastructure and the city starts moving to newer locations that offer better convenience and infrastructure.

Once this new flyover is operational, Kolkata will grow eastwards, into those vast tracts of unutilized land available in its eastern fringes. The growth will be much more rapid than one can comprehend. There will be robust developments that are in sync with our needs of today. For Kolkata to keep pace with the demands of urbanisation, it will have to build new age schools and colleges, modern healthcare facilities and many more hotels and other social infrastructures. All these developments can only happen in the eastern side where large land parcels are still available. Life will move east and Kolkata will once again discover a new center of gravity.

In my thoughts if there is one place in today's Kolkata that can challenge the desirable quotient of the established posh locations, it is this stretch of EM Bypass. It shall offer an address from where going to any part of the city is only a ride away on an elevated road, and at the end of everyday one comes back to live amidst the lush greens of

For the first ten years I had a defined narrow role of a builder. The designs were done and agreed upon before the projects came to me. In the course of time, while I picked up a lot of much-needed hands on experience, I longed to 'create' my own project rather than just build someone else's vision. . So much before I attempted my first development I was quite ready with the notion of a 'developer' in the real sense of the term.

My first opportunity to be involved in a project from the design stage was *Infinity*, Kolkata's first *intelligent* building. There was no concept of an IT Park back then and the objective was simply to create tomorrow's office, for companies that will require an extensive use of computers. Infinity went on to house several ISPs, call centers, software companies including fortune 500 companies like Nortel and Lexmark. Salt Lake (Sector V), where Infinity is located, went on to become the IT hub of the city with more than 1,50,000 people working there. Soon after the country's biggest names in IT – IBM, Wipro, Cognizant built their offices in the area.

Subsequently, we gave Kolkata *Forum*, its first shopping mall, that The Washington Post cited as 'the edifice of a resurgent Bengal'.

There after we built *Technopolis*, the country's first 'Green Building' for IT and ITES companies which became the first building in the world to be certified by the United Nations to earn carbon credits. It heralded the beginning of what I like to call a green revolution within the building fraternity in India. After Technopolis, more than a 1000 Green Buildings have been registered in the country.

In the course of building some of

the Kolkata wetlands. Common wisdom says that when one looks for buying a house, it's for life. If you look at how life in Kolkata will change, it is difficult to find a place better than this to have your home for tomorrow.

We got the perfect location and now we needed the right name. We searched for a name for the project and ended up with 'Atmosphere'; We set out to plan 'Atmosphere' with a single point agenda – to redefine the quotient of luxury living for the city. We asked ourselves - "What does a Kolkatan want when it comes to luxury living?" Subsequently, we added one more question as food for thought. "What does Kolkata want?"

I have been searching for an answer as many friends have in the past asked for my help to find them a suitable home. I think we have been able to find most of the answers in this project. We are

> ## "I have realized that distance, in today's modern society is not measured in kilometers or miles, but in time."

actually going to build 80 bungalows here. For paucity of ground space, we shall stack them one on top of the other! The resultant reaction of this, if I may call it so, is a situation where the beautiful wetland will unfold before one's eyes as one goes higher and higher. The team has spent thousands of hours, designing this project. Remaining pages of this book will tell you how we have attempted to conceive and design the perfect home for the people looking for their dream house in the city.

We were yet far from answering the vexed question that kept coming back from time to time in the course of our designing stint. "*What does Kolkata want*"? For those of us, who have lived all our lives in Kolkata for many generations and have not moved to other cities that beckoned with larger opportunities from time to time, this city is subcutaneous... it lives under our skin.

It almost defines everything that we are. So we needed to create something that was worthy of its people living here.

We had by this time realized that only going tall might not be adequate to serve this purpose. Our quest ended with the idea of a sculpture floating in the sky which takes its inspiration from a descending cloud.

Sometimes, architects have approached a building like an "object de art". This has mostly been done for art museums, the logic being that art must reside within art. Kolkata is the cultural capital of India. What better form of an icon than a sculpture suspended in the sky?

Thus *Deya* was born on the drawing board. In the Bengali language *Deya* means cloud. It also means 'to give'.

While, any other sculpture only has to regale its audience with its presence, 'Deya' is art balanced with pragmatism. Deya will house the exclusive shared amenities for its residents. Other than great personal living space nestled in the sky, the inhabitants will enjoy a never before experience of using shared services tucked in this hanging sculpture. Deya will become the most exclusive club in the city, for the exclusive use of the families of Atmosphere and their invited guests. We wanted the experience of living in Atmosphere, be a constant high both literally and metaphorically!

As a proud citizen of this great city, I like to think this city and its people will be happy to have a modern skyline, few landmarks and a few iconic structures. These will be tiny steps in the right direction to put Kolkata on the international architectural map. We begin this journey with our contribution in Atmosphere and Deya.

This prologue would be incomplete if I did not mention my friends, the lovely couple Khoo Peng Beng and Belinda Huang. They are the architects of Atmosphere and, of course, Deya.

I came to know this Singapore-based husband–wife team as friends before they captivated me with their vision and, perhaps more importantly, their mindfulness of the lives who will be experiencing the spaces that they

"If you look at how life in Kolkata will change, it is difficult to find a place better than this to have your home for tomorrow."

create. A few years ago, their firm, ARC Studio Architecture + Urbanism, won an international architectural competition to design Singapore's first 50-storey public flats, The Pinnacle@Duxton, that actually triggered the trend for sky gardens in Singapore, and possibly in the world. This amazing residential project has almost two hectares of sky gardens, woven through its seven 50-storey towers and has won them the "Best Housing Development" award at the World Architectural Festival 2010 and the "Best Tall Building in Asia/Australasia by the Council on Tall Building and Urban Habitat. Recently, they also won the most prestigious design award in Singapore, The President's Design Award 2010.

Their process-driven approach to design allowed me to participate fully in the creation of Atmosphere and Deya. I cherish their friendship and am truly delighted that they could be the architects of our most ambitious project so far.

It is after thousands of hours of conversations and sketches that Atmosphere was born. The journey has been exhilarating for me and I was inspired to try to capture the many wonderful ideas and inspirations, into a book, that you now hold in your hands.

I am also thankful to Cheong Suk-Wai, an author and much-awarded journalist with Singapore's national newspaper The Straits Times, for agreeing to edit the text of this publication, capture the thoughts in our conversations as well as pen an essay and poems for it.

My sincere thanks,to the other technical members of the team of Atmosphere and to my colleagues at Forum for all their support, thoughts and for accommodating my gruelling schedule with smiles.

If you are still interested to know my answer to that summer's evening bar room question "What would you want to be if you were given a chance to go back 20 years in time and start your life all over again?", well, it would be this: I would like to be what I already am. A developer of spaces where individuals live their lives and dream their dreams. And I wouldn't change this for anything.

RAHUL SARAF
FORUM PROJECTS

ART FOR THE AGES

BY CHEONG SUK-WAI

> "An architectural work needs the interaction, a dialogue with society for its beauty to come alive."

When Peng Beng first broached the idea of documenting the process of creating Atmosphere, I was crouched over my computer in my brother-in-law's study in Kathmandu, Nepal. "Would you be interested?" he wrote, in a shrug of a note that is so like him, sanguine and sagely at once.

Would I be interested? Would I! Peng Beng and I go back 20 years, when he directed musicals for which I wrote the songs. He was my mentor for all the four years I lived on campus at the National University of Singapore. But what he did not know until very recently was that my first love had always been designing, not writing songs and stories. And, specifically, designing buildings. But without a head for geometry, as my mother likes to say, I might make houses of cards at best.

But I digress. I told him, yes, I would very much like to learn more about his new venture in that chummy City of the Mind, Kolkata.

Two weeks on, I met Rahul Saraf, a favourite son of Kolkata, and one of the most trail-blazing developers in India today. He is the mastermind behind massive commercial and technological nerve centres all over India. I met him close to Christmas, and so he, Peng Beng, Belinda and I thought and talked amid much laughter. Over drinks that were a cool pink, Rahul sketched out his gut feel about Atmosphere, the one project in 20 years which has led him to call the past year "the best period of my life". He talked about a builder's moral duty to the families he would, effectively, be sheltering. He talked about helping a newer, fresher, richer town blossom. He talked about helping turn houses into homes for generation after generation. In all the time we had, he did not once talk about generating profits, as most others would. I thought then: Humanity is Humour + Man + An Entity. And I also thought: Compassion is Community + Passion. And I concluded: The denizens of Atmosphere are in good hands.

Thus was I intrigued by what the trio were trying to do. Moshe Safdi had stressed humanity, humanity and more humanity in designing spaces when I interviewed him right after he won the bid to design the Marina Bay Sands in 2006. And I saw humanity stamped across every plan they had. Rahul shares Safdi's focus on humanity, but he covets the poetry of Frank Gehry's titanium-clad Guggenheim Museum in Bilbao. Gehry, as it turns out, also prefers people to profits. Atmosphere seems on the right track then.

The process documented in this book is what Rahul, Peng Beng and Belinda call poetry and pragmatism, for this is the balance in architecture. As architect Peter Zumthor explains: "Poetry is

unexpected truth. It lives in stillness. Architecture's artistic task is to give this still expectancy a form."

The articulation of poetry and pragmatism in concrete form is also quintessential Khoo Peng Beng, a hyperactive hyphenate who is a stellar success in his field today because he is humble, counts his blessings and forgives the world and all that ails it. Together with his wife and anchor, Belinda Huang, they are a powerhouse of ideas. They have given Singapore an icon for posterity, The Pinnacle@Duxton, also known as the city-state's tallest public flats to date. Now, together with Rahul, husband and wife are giving Kolkata an icon that will endure the test of time.

What Rahul wants is no less than an icon for his beloved city. His intention seems apt for is not Kolkata, Cultural Capital of India, a city of people whose heads have long been in the clouds? Tagore leaps to mind, of course. So does Ray. Then there is Amartya Sen, who tells me that his life's work came from meeting, at the age of nine, a beggar who was near mad from hunger. Cancer tried to silence Sen at 22, but he has gone on to pioneer the idea of measuring humanity's progress not by numbers, but by how power provides for the powerless. And the world thanks him for that. Kolkata is also home to Mother Teresa's Mother House, which exudes a calm and charm that is the perfect foil to Kolkata's rambunctious nature - yet at the same time, stands as the symbol of the city's infinite capacity to love all. As a paean to this huge intellectual and compassionate footprint on earth, Rahul wants to give it an icon of a captured cloud, in the form of a mega-sculpture within which people chat up, chat with and care for one another day in and day out.

But can such architecture also be public art? Why should this question even arise?

The answer lies in millennia of distinctions, made by those who fancy that a work could only be fine art if it was pure, in that it emanated from the creator and that it was purposeful without a purpose; such is the arrogance of art. Alas, an architectural work needs the interaction, a dialogue, with society for its beauty to come alive. The late Argentine writer Jorge Luis Borges once wrote that the taste of an apple lies not in the fruit itself, but in its contact with one's palate. Such, too, is the case with architecture. What is essential in any aesthetic act should be the thrill, the almost physical emotion of interacting with created spaces. However, it is this very dependence, this dialogue, that has driven a wedge between art and architecture. Will never the twain meet? Somehow, architecture's prime prong, that is,

carving out spaces that are useful to society, has somehow cheapened its inherent art in the eyes of artists. A rare dissenter of the need to divorce architecture from art was the Austrian philosopher Ludwig Wittgenstein who said: "The meaning of architecture lies in its use." Thus is architecture rooted in purposefulness. Thus is it rooted in insight, in understanding, in truth.

The forms of our buildings shape our lives. And think of how architects have had to weather the *Sturm und Drang* of the marketplace, from deliberating life's many contradictions to diffusing tensions. If overcoming such necessary challenges does not purify the process of creation, what else could? Does the truth, the essence get lost or found amid such purification?

Indeed, for so long, anything Man had made of wood, stone or steel to dominate society's spaces has often been seen as a way to champion capitalism. Some even argue that all public art promotes social agendas such as materialism which society itself does not always condone.

In this sense, the creators of Atmosphere should not angst over whether or not their cloud captured between two towers is public art. It is more than that. It is better than that. Best of all, in time, the people of Kolkata will claim it as their own, for their own aspirations.

If art is selfish, then it may be better if architecture craved no part in it. In this, I doff my hat to the Japanese architect Shigeru Ban. In the aftermath of the 1995 earthquake that hit Kobe, Japan's main port, Ban devised paper tube structures, each tube 108mm long and 4mm thick, which anyone could use to make a house that was waterproof. Thus were quarter of a million Japanese able to leave the 600 evacuation centres and start their lives from scratch again. This was building in the truest sense - the building of communities, the building of possibilities, the building of hope. Ban wanted occupants of these paper tube houses to take over the making of their own spaces and, in so doing, take control of their lives again. What matter if this very public act of architecture were not also public art?

Likewise, with Atmosphere, Rahul, Peng Beng and Belinda are enabling 80 families, and their offspring, to retreat, reflect and ultimately regain their sense of purpose in this world again, within a fresh slice of Kolkata on the fringe of its evergreen wetlands.

For all these reasons, Atmosphere is a project for our age. It fulfills so many needs and wants of high-rise living. It will be an icon, a public sculpture. But it will also be more than that. It is an icon of all that is possible in our time. It will

change Kolkata's game. So why should we want it to be just public art? Like a cloud, it is everything at once and nothing at once. It is art for the ages, and Kolkata will never be quite the same again.Long may this icon add colour to Kolkata's sunsets.

"I thought then: Humanity is Humour + Man + An Entity. And I also thought: Compassion is Community + Passion. And I concluded: The denizens of Atmosphere are going to be in good hands."

CHEONG SUK-WAI is Malaysian and a senior writer with Singapore's The Straits Times. A former Thomson Foundation Scholar and ASEAN Scholar, she is a construction lawyer by training and journalist by inclination. In her 12 years with The Straits Times to date, she has won more than 30 national and regional writing awards, including the 2004 Society of Publishers in Asia (SOPA) Honourable Mention for her coverage of Singapore's SARS crisis. She currently anchors her paper's popular Table Talk column, for which she has interviewed such luminaries as Amartya Sen, Rajendra K Pachauri, Gautam Desiraju, Shashi Tharoor, Tony Blair, John Howard, Paul Wolfowitz, Raghuram Rajan, Kofi Annan, Lech Walesa, Peter Mandelson and Joseph Stiglitz. A lover of clouds and architecture, she has also had long conversations with Frank Gehry, I M Pei and Moshe Safdi and done a retrospective of the earliest works of Le Corbusier in his hometown of La Chaux-de-Fonds, Switzerland. Suk-Wai is also the author of RODYK: 150 YEARS, which is the definitive history of Singapore's first law firm, Rodyk & Davidson.
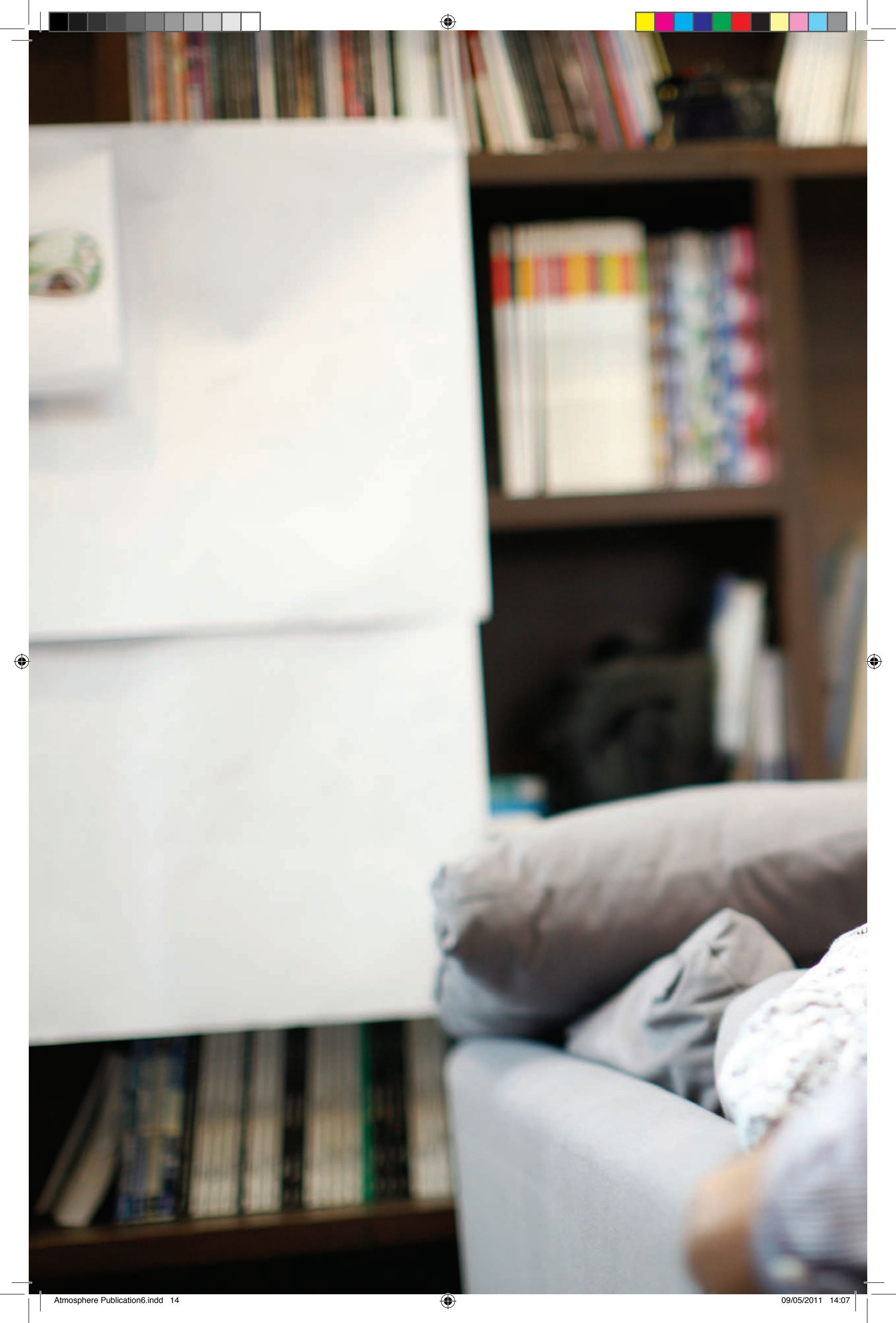
KHOO PENG BENG
ARC STUDIO

BELINDA HUANG
ARC STUDIO

PREGNANT WITH PROMISE

———————————————

Inspired
By the humour and hubbub of The City Whose Head Is In The Clouds
By the heft and grace of an Airbus A380 skimming the clouds
By the healing and trust of warmth, water and wind

Inspired
They call it Atmosphere

"The challenge we set for ourselves was that in this one development, every single unit must be great."

—
KHOO PENG BENG

IT BEGAN WI

As a journalist for 12 years now, I have been fortunate to have had quite a few conversations with the great and the good, be they game-changers such as Amartya Sen, Rajendra K Pachauri, Raghuram Rajan and Gautam Desiraju, or shape shifters such as Frank Gehry, I M Pei, Moshe Safdi and Tyler Brule. So it is saying quite a bit when I tell you that I found few conversations as electrifying as those I had with Rahul Saraf (RS), Khoo Peng Beng (PB) and his wife Belinda Huang (BH).

Rahul is a true visionary whose ambitions for the city he loves are made noble by his huge heart, which pulses through his care and concern for everything that goes into every one of his developments to date. There are few in Kolkata who embody this little big city's hug-worthy humanity as surely as he does. You can well imagine just how charged with passion Rahul's chats are, especially with Peng Beng and Belinda who, happily, share his wisdom and zeal in carving out spaces where one can truly feel at home.

Such a meeting of minds would be delightful enough without the added fillip that Peng Beng and Belinda have that rarest of marriages – an optimal balance of cool and warmth, of head and heart, of order and chaos, of poetry and pragmatism. Would that the rest of us could be so in sync – and talented.

It was ultra-hyphenate Peng Beng, my former mentor at the National University of Singapore, who brought me in to help them articulate Atmosphere and Deya. In turn, I came to marvel at the artistry of Belinda, who ineffably sees patterns in puzzles and enables the unreal to be real with her sure grasp of the big picture and what matters most in life, and not just architecture. And I continued to be bowled over by her husband's practical magic.

With the exacting Rahul in the equation, Kolkatans are now poised to embrace Atmosphere, born out of the trio's commitment to bettering lives with much humour and empathy.

Let them tell you more about it now:

Suk-Wai (SW): How did all of you first meet?

RS: I first visited ARC Studio with a friend in 2006. Peng Beng and Belinda were then designing a hotel for him. While I was there, this couple was working on other things. One of these was a project in the conceptual stage, which meant it was a panoply of graphics and since I was waiting for my friend, I studied these graphics. The other thing I noticed was their preparations for designing the interior of someone's house. That included a palate of materials, including their suggested 10 to 15 ways in which to cut a particular kind of stone to create a pattern for a feature wall. Now that caught my attention completely.

SW: But what about their ideas for your friend's hotel?

RS: Well, that left me very impressed as well. I had accompanied my friend to ARC Studio because he wanted my opinion on their presentation. I had no plans to give any assignment to ARC Studio but when I saw what they had done for my friend, I asked them, "Would you be interested to do a very small project in Kolkata?" That was

ITH A HOUSE

PB: Which would actually need greater consideration of the quality, and not just quantity, of developed spaces so that the community can best benefit from these.

RS: Exactly. So my growing interest in what makes a house a home dovetailed perfectly with Forum's progress in creating vibrant quality developments and townships.

PB: So back to Rahul and his own house. For the first time, he was exposed to this whole world of people whose business it was to think of what goes into a home. He fell in love with the whole process of making a home, and not just a house.

RS: In the process of designing my house, Belinda had taken me around showing me a whole plethora of products - from modular kitchenettes, expensive tap fixtures to tiles and stones etc. For the first time, I was exposed to these big brands, fancy fixtures and so on.

BH: As we progressed in designing Rahul's own home, I felt that for the first time, he was sitting down and pondering, "What about Mum and Dad's needs? What about my sons? Where in the house should we put them so that they would be happiest? What if their friends came over – where could we best entertain them?"

SW: And did learning about what went into a home help your ambitions to build high-rise residences?

RS: While I'd always wanted to get into the residential sector, I also recognized from working on my home that there was an opportunity to bring about a substantial change in what was available in the market to Kolkatans. I felt that there is a space for us to make our product relevant.

SW: What exactly is the change you wanted to bring to the market?

RS: The residential sector in Kolkata is a very crowded market, but my interactions with ARC Studio convinced me that Forum can still create a place for itself in this crowded market.

because I had recently bought a plot of land to build my house – and now I had found just the right people to design it.

BH: We took Rahul on, and while we were designing his house, he would sometime mention his desire to do Forum's first residential project with us.

SW: First residential project? Why was Forum such a late entrant into this market?

RS: Well my dad had done a few residential projects prior to my joining the business. Since the time I joined the

business we have mostly been on the asset side of the real estate business – we build to lease rather than build and sell. That's because we preferred the annuity income rather than a one-time profit from selling what we build. When you build to lease, you actually build for yourself. And that thinking has gone into our DNA, and will be there for generations to come. Of late, we are working on the development of residential projects. Moving forward, we see ourselves moving into mixed use developments and township developments.

SW: So how did all of you go from there to imagining a project as ambitious as Atmosphere?

BH: Rahul had identified this beautiful piece of land in eastern Kolkata, which would guarantee anyone living on it a perennial view of the beautiful wetlands and lakes there. Plus, it would be adjacent to the city's upcoming elevated highway, which would speed up commuting across the breadth of the city. So, one day in late 2009, Rahul told me resolutely, "Belinda, I've made up my mind . I'm going to get the land, whatever be the cost." On 21 December 2009, Rahul called me to say that he had succeeded in his bid and was flying into Singapore later that very day to discuss the project with me and Peng Beng.

"When you build to lease, you actually build for yourself. And that thinking has gone into our DNA, and will be there for generations to come."

—

RAHUL SARAF

THEN HOUSE B MA HOMES

SW: How did you feel after acquiring the land, Rahul?

RS: I was excited at the prospect of finally getting an opportunity to launch the residential segment of our enterprise. We had been searching for an appropriate land parcel for a fairly long time, and we could not have asked for a better land to launch our residential project. We were conscious that our past knowledge and experience was inadequate as far as this project was concerned.

As a company, we have always believed that our role is actually to design and

ONE BECAME MANY

SW: What was your inspiration for the project you now call Atmosphere?

RS: Most of Kolkata's affluent families prefer to buy small plots of land to build their own bungalows. However, finding such a plot in this city has never been easy, let alone finding something that complied with Vastu principles. Some of my friends who did manage to buy such individual plots of land would then ask me, "Which architect should I go to?" or "Can you please help us with the plans for our new home?" And so on. So my inspiration for Atmosphere is high-rise living which gives you the feeling of being in your own bungalow, a master of your private universe, if you like. Everybody should get a penthouse. Everybody should get a great view regardless of which unit one buys in Atmosphere.

SW: Rahul, why do you get so involved even at the imagining stage, as it were?

RS: To me, the imagining stage is the most vital part of the process for any development. It is the genesis of what will actually be built. So I am one who is very involved in the design process for all our projects. To me, that is one of the most important roles I play within our organization. In the case of Atmosphere, after bidding successfully for the land

build spaces in which life resides. When one looks at it from that perspective, one's entire sense of responsibility changes. With Peng Beng and Belinda, we are creating an environment, an atmosphere, which will become home to 80 families. So, together, we had to understand how different families live and interact. It wasn't as simple as just deciding on finishes and amenities! And let's not forget that whatever we build adds to the skyline of our very own city. Hence, it is in our own hands to make our city more beautiful and livable.

BH: We make it a point always to have a research mindset as we live day by day. And through our many projects to date, we've also observed how different people live, how different the nature of their lives, as well as their characters, are. Through observing all this, we're reading how trends develop and how living styles change.

SW: What do you find most enjoyable about working with Rahul?

BH: He enjoys pushing boundaries. If Rahul is unsure, he will tell you he is unsure. Every time we brought out a new plan, he would discuss it with us long into the night.

PB: Rahul is a person who dares to dream and that really resonates with Belinda and me. As a client, he has incredible energy and, as a friend, he pushes us to deliver our best work.

SW: And how did you find working with Peng Beng and Belinda?

RS: We went back and forth with the designs. The designing of each unit for Atmosphere took us six months to complete. Our focus was: What kind of volumes are we talking about here? What kind of flexibility would buyers of Atmosphere have? If some of my residents wanted to knock down walls to enlarge some of their rooms, could they do so? We went through the make-up of different kinds of family environments, different family sizes and the kinds of units for these different families. And then we worked on the sky garden I wanted. You know, we ended up trying to design the longest suspended sky garden in the world.

BH: So when we went about designing Atmosphere, it was an interesting proposition, that is, how could you take a villa that could accommodate multi-generational living and turn it into a high-rise unit? And what new kinds of opportunities might arise from what we were trying to do, that you could not get from a single villa on the ground? We had to exploit the opportunities available now in designing this, and how could these opportunities actually enhance the quality of life for a family living in their home as well as within a select community?

SW: Peng Beng, as a very committed exponent of the Japanese martial art aikido, did its philosophy play into your designing of Atmosphere?

PB: Aikido is about the resolution of forces in a harmonious and peaceful manner. In a way, it's soft compared to most martial arts, whose premise is based on aggression. Aikido teaches one to be very gentle and loving and, in the making of home spaces, there

and flying into Singapore, Peng Beng showed me his groundbreaking Pinnacle@Duxton. I was amazed to see 12 sky gardens suspended between its seven tall towers. The landscaping there was just about to be completed, and people were in the process of moving in. It was there, as I stood with Peng Beng, in one of the sky gardens on the 50th floor, that he said, "Rahul, just imagine – life in the sky!" My spontaneous response to that was, "It would be superb to have a huge sky garden for our project. With that and the vast wetlands surrounding the plot of land that I'd just won, residents would have a never-ending green vista!" Through such imagining, we have since achieved bungalows in the sky and, what's more, a Sky Garden in the form of a suspended cloud sculpture. But more on that later.

SW: Peng Beng, how did you and Belinda see yourself fitting into all that was envisioned by Rahul?

PB: We have visited Kolkata many times since we first met Rahul. One of the most interesting aspects of designing Rahul's house was that we came to understand how a family in India lives – or perhaps more importantly, would like to live. So we started thinking. What environment would we create that would enhance their desires and dreams and sense of well-being.

SW: Which all sounds nice, but what does that mean, really?

PB: It means focusing on people's needs. It means empathy. It means looking at things from the viewpoint of the people who will operate in a home, and enjoy its surroundings. It means looking constantly for the sacred as well as the pragmatic in the architecture. Belinda and I live in a high-rise home ourselves with our three sons.

are also a lot of soft aspects. That's why Belinda, Rahul and I always have very interesting conversations – we're constantly shifting one another's viewpoints, which then evolve and change and, as a result, the work goes through many iterations to make it better and better. Each of us brings very different ways of looking at any situation or problem; we encounter each issue very differently.

SW: What do the three of you have in common, then?

BH: The three of us are extremely passionate about what we do and because we are so passionate, we respect one another's point of view. Each of us struggles to find perfection in whatever we do. Whenever there is a comment or suggestion which will take us two steps forward, we do not resist it.

RS: With Peng Beng and Belinda, I've realised that they are open to changes. They'd even start from scratch again, if so required. They measure each suggestion by only one yardstick: Does it make our project better?

PB: I would say that we share an enthusiasm for life. The desire to see life expressed in our work. That our work itself is a celebration of a deeper desire to create a better environment for all.

SW: But in trying to make it better, did you at times overreach yourselves?

RS: I have a problem. At times, when I receive a plan or a set of drawings, I request a change without stating the problem. So I actually tend to become the designer myself. For example, I'd ask a designer, "Can you shift this wall by one foot?" and, sometimes, complying with these changes would disturb the architectural side of the design because it might change the elevation, move the line away or generally disturb the control of the design. But then Belinda would ask, "But why do you want this change, Rahul?" Which means that she will go right to the heart of the problem

"As a company, we have always believed that our role is actually to design and build spaces in which life resides"

— RAHUL SARAF

and solve it from there. Whereas other architects would say, "No, we can't do that. Otherwise, my window, my line will move." And it would stop there. But not with Belinda and Peng Beng. That is what is unique about them. And that can only be because they are struggling for perfection.

SW: Rahul, what have you found harder to do – shaping commercial buildings or residences? And if so, how?

RS: I've always believed that hotels, hospitals and shopping malls are the most complex projects to design within the real estate business. But in designing my house, I realised for the first time how designing one's home is actually the most difficult process of all.

SW: And why is that so?

RS: You see, in India, at least two or three generations live under one roof. So there exists an obvious generation gap among the various members of a family. Imagine! A generation gap divides the people in your life who are closest to you. To live happily. It is important for individual members of the family to have their space, to have privacy. At the same time, it is important to control their privacy so that each member of the family is encouraged to meet and interact so that they can spend quality time together. If my son wants to be left alone to read a novel, that's fine, but that shouldn't stop me from gazing upon my son reading a novel without him being disturbed. He could read a novel on the terrace and through the glazing, I can see him while I remain indoors, watching sports or the news. This concern is reasonably sensitive. That is why it is different from designing public spaces. If you don't like what is done to a public place, you can reject it. But you can't reject your own home.

HOMES IN THE

SW: Tell me more about your vision about villas in the sky?

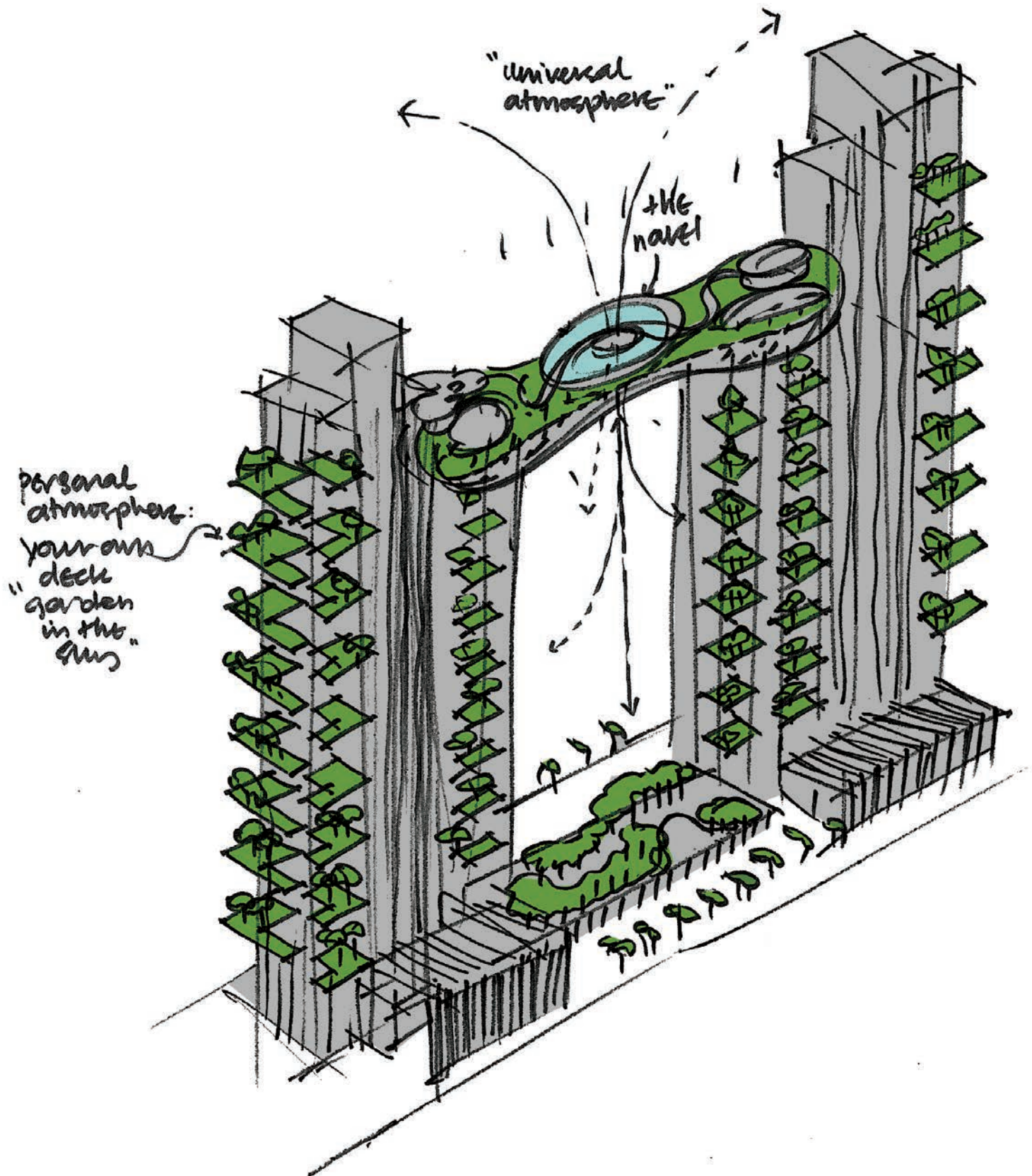RS: Atmosphere is on a site from where its pristine surroundings are guaranteed for the life of your apartment. My brief to Peng Beng and Belinda was that I wanted homes in the sky with large open terraces. Our strategy is: Let's give them a bungalow in the sky, where they can have their privacy without their next-door neighbours watching over them while, just a lift ride away, there is some of the finest community living you can only hope to have anywhere else in the world. The disadvantage of living in one's own bungalow is that one loses the warmth that comes from living in a close-knit community. Elderly parents for example, would want a community around them. So would many of the women who are homemakers. And children would want friends to play with.

BH: Rahul thought that it would be good if we could have big terraces. He said, "Every resident should have a terrace." But, that said, Rahul also wanted every unit to be a premium one, and we embraced that challenge. We never felt that we were working on a developer's project – it was as if we were still designing a home just for Rahul.

PB: So in Atmosphere, there is exclusivity as well as inclusiveness.

> "Atmosphere is on a site from where its pristine surroundings are guaranteed for the life of your apartment."
>
> —
> RAHUL SARAF
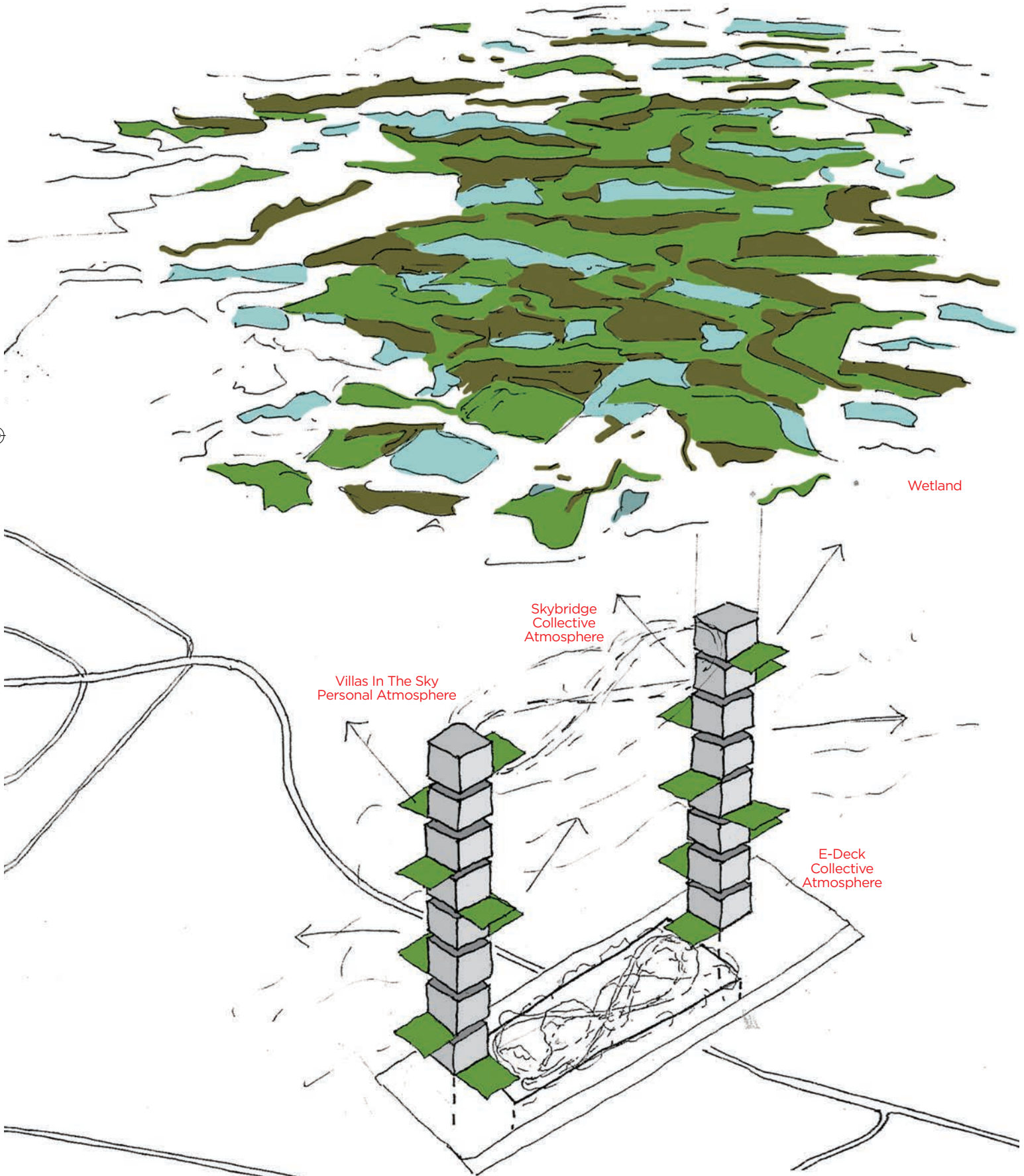
Villas In The City

: SKY, NO LESS

Wetland

Skybridge
Collective
Atmosphere

Villas In The Sky
Personal Atmosphere

E-Deck
Collective
Atmosphere

"universal
atmosphere"

+he
navel

personal
atmosphere:
your own
"deck
garden
in the"
ans

"Beyond just the building's form, the heart of the project is really the family and the community. It is about how one could connect in big and small ways. With oneself, with the city and perhaps with the universe."

—
KHOO PENG BENG
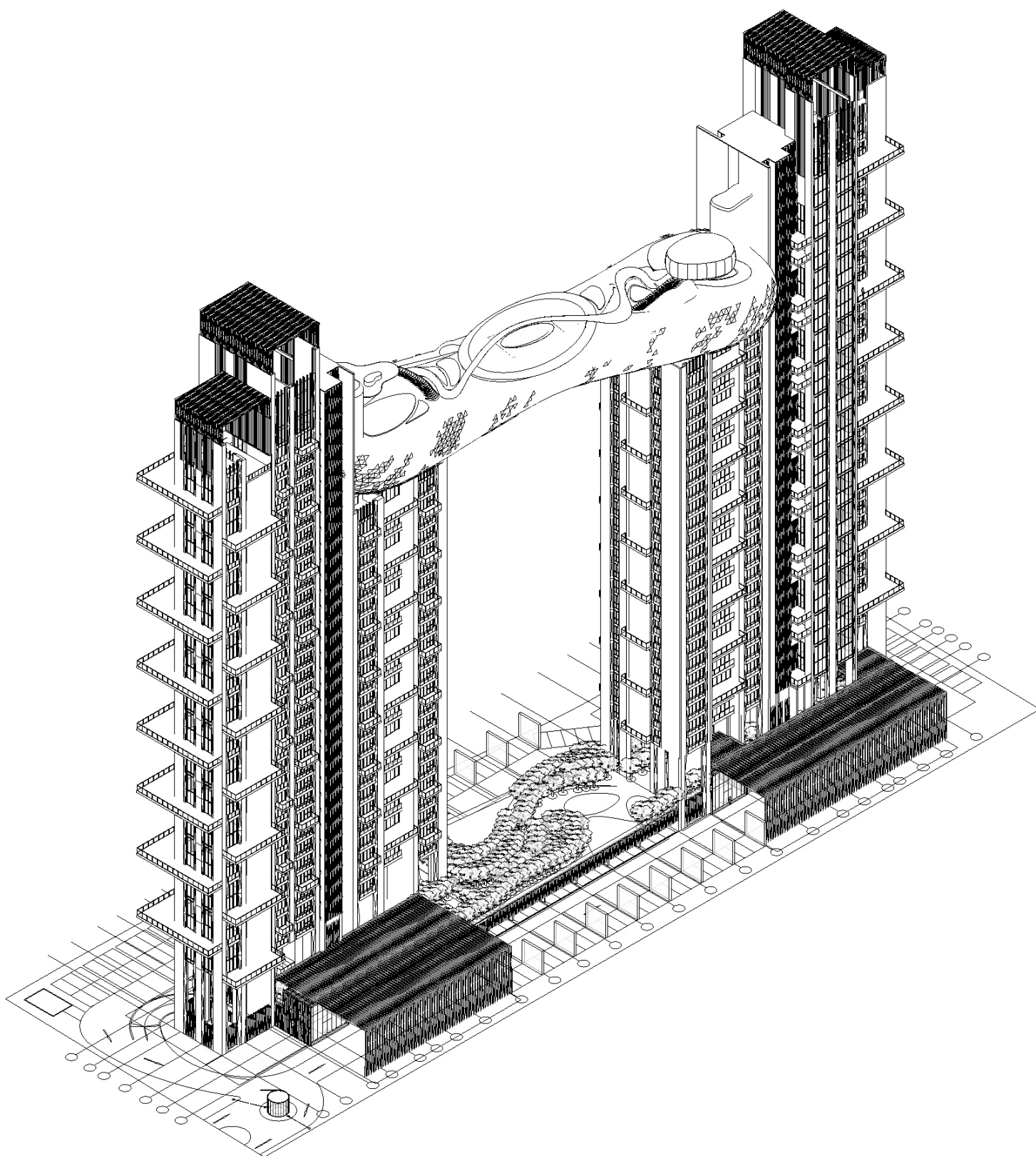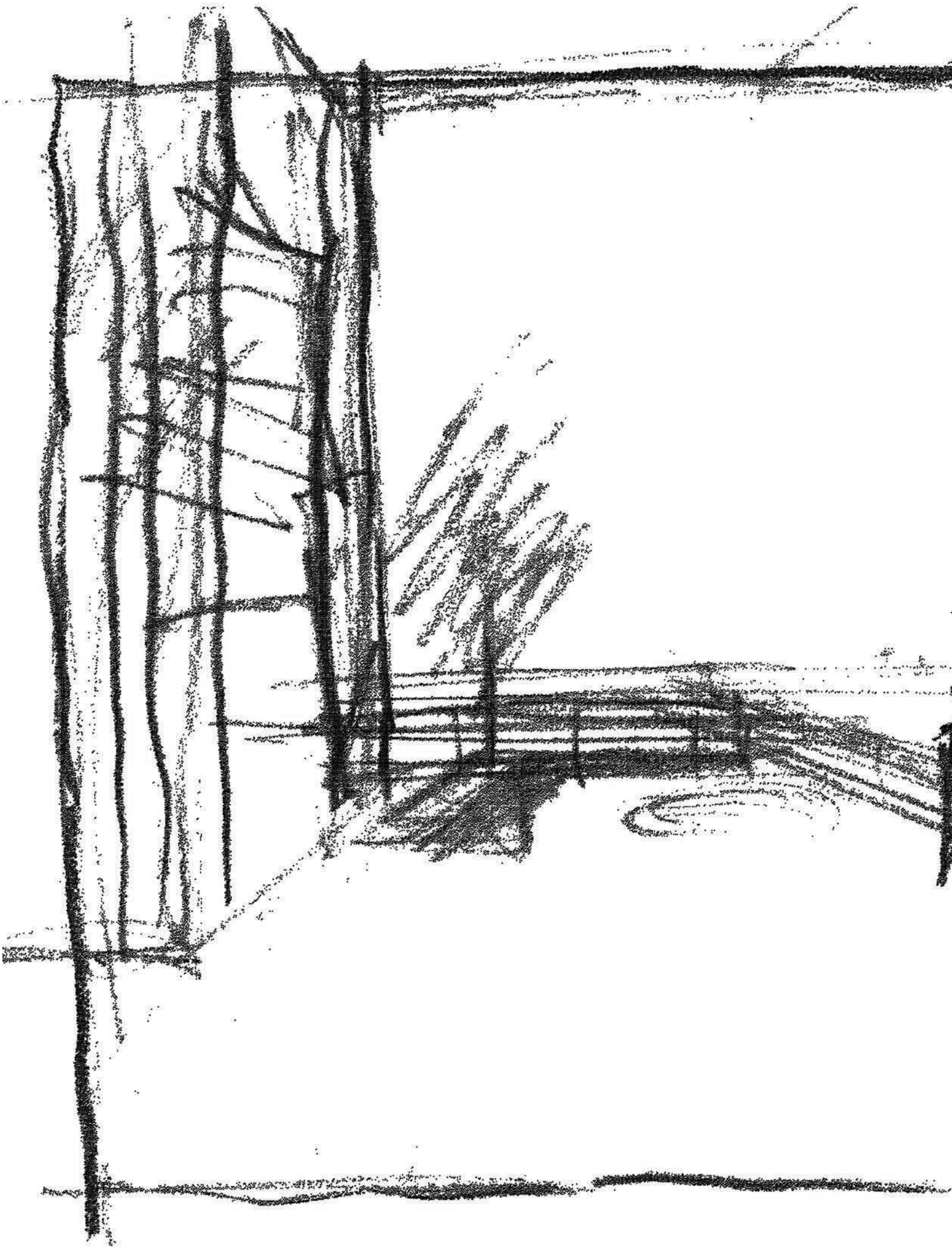
PERSONAL ATMOSPHERE

"When you are in
the moment, time
and space start to
expand. That connects
you to the greater
atmosphere, beyond
yourself."

—

KHOO PENG BENG
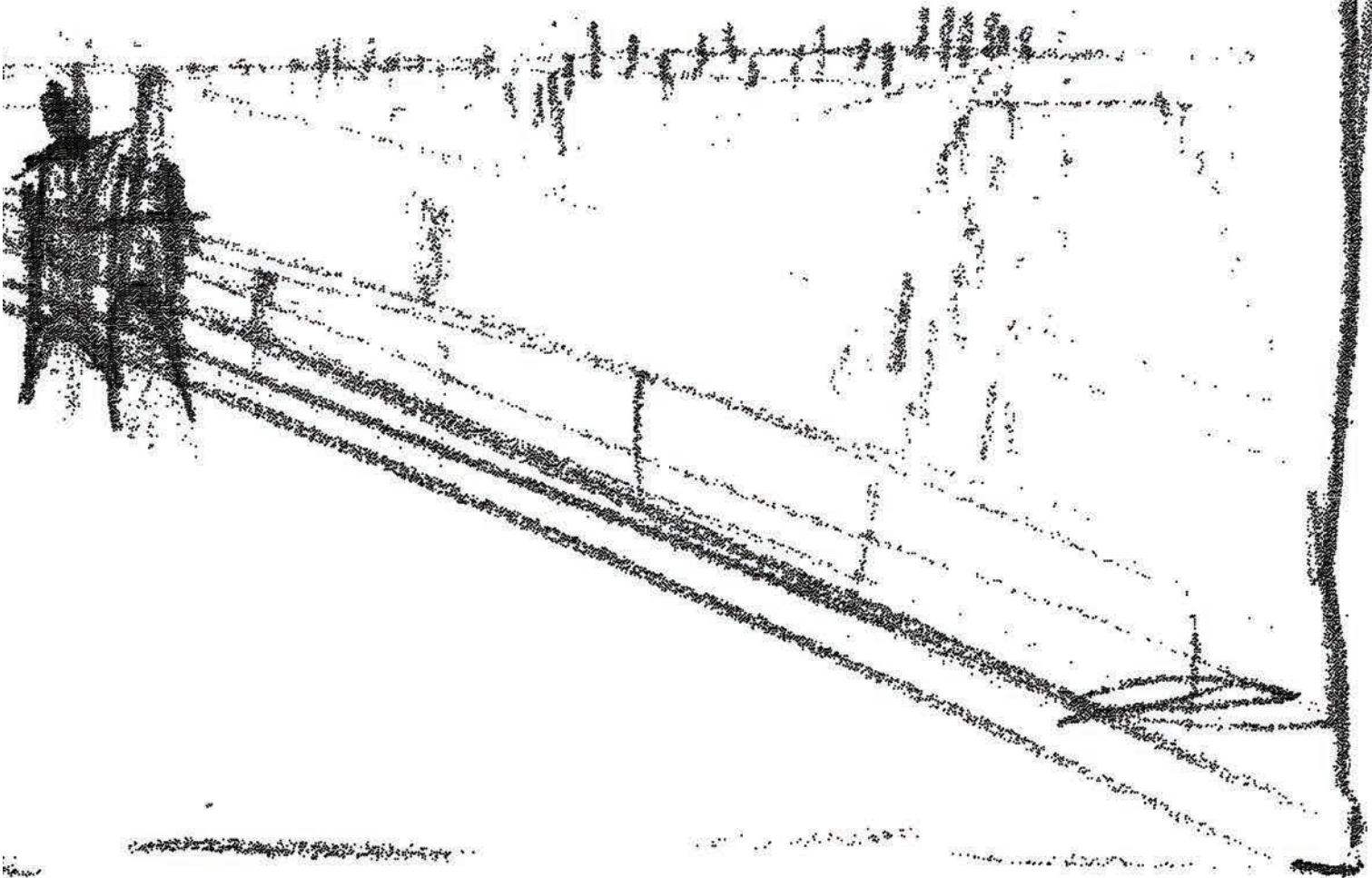
"Everybody should
get a penthouse.
Everybody should
get a great view
regardless of which
unit one buys."

—
RAHUL SARAF

"We build houses with minds; we build homes with hearts."

—
RAHUL SARAF
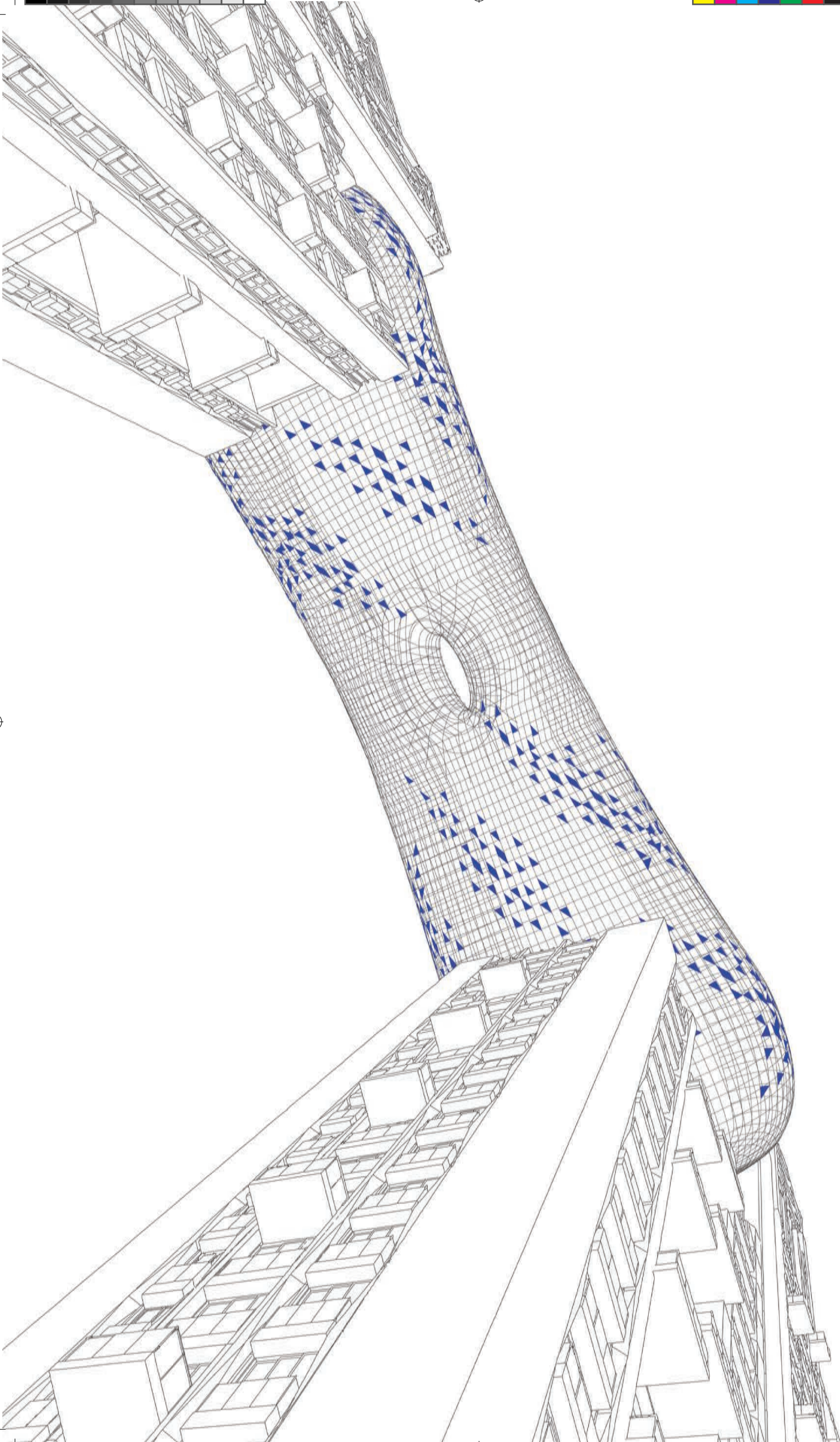
A cloud is a cloud is a cloud is a cloud

Light and heavy at once
Air and water at once
Alone and together at once
High and low at once
Feast and famine at once
Hue and hollow at once
Real, ethereal at once
Simple, complex at once
Silver lining and gray mood at once
Everything
And
Nothing
At once!

HOW WE C A CL

SW: What inspired your idea of giving Kolkata an icon in the form of a cloud sculpture?

RS: By around August or September 2010, we had more or less completed the design of Atmosphere's two towers - with the longest suspended sky garden in the world! I remember that on one of my subsequent visits to Singapore, we discussed how we would treat the different cabanas on top of the sky garden, and how the facade of the sky garden would be done according to such things as the Golden Ratio and the Fibonacci sequence.

PB: As I recall, we had actually already designed the villas and had the first cut of the sky garden, which was originally an extension of the design and the geometry of the two towers. Belinda and I felt that the sky garden could be something more, but we had not yet found the right form for it at that time.

RS: Given the location of the site, I wanted Atmosphere to be iconic in its look and form. In India today, the race among developers is to build the tallest towers in the city. We wanted Atmosphere to be tall because families today prefer to live in high-rises so that they can live away from the dust and noise pollution that surrounds our urbanscape. But being the tallest was never on the drawing board. We wanted a form, an icon that was more tasteful, not bashful, because that is what Kolkata stands for. That was Peng Beng's idea. What I now understand from him and Belinda is that they'd always wanted something light.

PB: Then, on one of Rahul's visits here, we were inspired to take a totally different approach. Instead of the sky garden being an extension of the apartments we were building, the sky garden became a cloud sculpture, to be held between the two towers.

RS: One day, when I was about to leave Singapore for Kolkata again, Peng Beng called me and said, "What time is your flight? I have a new sky garden design that I would like to show you.' I went back to his office and he showed me his concept sketches. They depicted

something that was like the inside of an Airbus A380, that is, a cavity within which residents could rest and relax. He was now talking about something voluminous, as opposed to a platform. Then Peng Beng told me what he had in mind: "Rahul," he said, "I've found the iconic form that we have all been searching for. Rather than a sky garden, we should give Atmosphere a sky club." And that, to him, meant a sky club shaped like a cloud that seemingly floated between Atmosphere's two tall towers.

BH: We looked at each other and said, "Let's go for it."

SW: But that was hardly the end of it, right?

RS: Oh, hardly. After two weeks, I had a Skype conference with Peng Beng, during which he showed me further details of the cloud. He started off by telling me about the chink in a woman's cheek when she smiles, her dimple, as it were. He proceeded to show me the dazzling facade of this sky garden, nay, captured cloud now, with moving parts that shimmered as the wind blew. "This," Peng Beng told me, "is the silver lining to your cloud." With this chat on dimples and silver linings, our Skype conference went on for more than two hours. I was stunned. After Peng Beng explained the entire design process, there was such a long silence at my end that he had to ask, "Rahul, are you there? What do you feel about it?"

CAPTURED CLOUD

SW: And what did you say?

RS: Well, what could I say? I have been involved in the design of so many projects over the past 25 years, but Atmosphere is the one that will always remain special to me. This past year has been a journey full of excitement and trepidation – excitement because we are creating something so unique in my very own city and trepidation because doing something so unique is also very daunting. You see, the site for Atmosphere lies at the entrance to Kolkata, in a location that is there for all posterity.

SW: Posterity? How is that possible?

RS: It's possible because the site is framed by the wetlands and a water body as well as already developed sites such as the Science City and the ITC Sheraton Hotel, which are low-rise developments with large open grounds. Now, there aren't many tall towers in Kolkata; most of its developments are very low-rise. So if we did something tall and also put something at the top, it would be visible to everyone in the city.

SW: How could you be so sure that a captured cloud would work as an icon for Kolkata?

PB: Through our meditation on height and openness at the site. Belinda and I had visited the site many, many times and each time, we got a great sense of openness, that is, we could see the horizon as well as the entire expanse of sky. The view is so grand that if you have two towers rising from Atmosphere's site, it would be as if these towers were piercing the clouds.

SW: But how would you achieve that effect?

RS: Kolkata has two big green patches – the Maidan opposite the Victoria Memorial and the wetlands. In winter, before the sun rises, we have this dense fog that actually falls over these two big patches of green, thanks to the humidity. So when the sun rises and shines through this fog, the effect is as if a cloud is sitting on these two two massive green lungs. Similarly, when residents of Atmosphere wake up on winter mornings, they will feel as if they are floating on a cloud, an experience which cannot be had by anyone who is not within Atmosphere. Moreover, during monsoon season, we have overcast skies for months.

PB: I recall sunrise at Lake Batur in Bali, Indonesia, when the clouds had actually descended very close to the ground and Belinda and I were atop a volcano. This carpet of clouds just opened up before us. It was a truly poetic moment and the clouds were a huge part of that moment. And this is what Belinda and I love, walking on clouds.

BH: We thought it would be amazing if we could express that as architecture; a cloud descending onto our terraces.

SW: Poetry it may be, but why were you so convinced that the icon of a cloud would work for Atmosphere?

PB: I love the idea of contradiction, such as the sky garden Rahul wanted would have to be made of steel and so would be a really heavy object. But in its manifestations, it would be transformed into something light, something amorphous and dynamic. Of course, what we are creating is physically static but, in doing so, we are also trying to create a new kind of dynamism. So we used the idea of water droplets, which form a cloud, or particles lending a form to our dream. And we thought of how our facade would change – how it could become dynamic, ephemeral yet solid. We wanted to embrace all these contradictions.

RS: When Peng Beng showed me a sketch of the sky garden, he told me, "Kolkatans would want to live as high as they possibly can. And, to my mind, the best expression of something that is tall is towers that pierce the clouds. So why not go further and think of a cloud floating – or captured – between the two towers?" To my mind, this was the first such attempt to suspend a sculpture in the sky. The club within a cloud would be for residents of Atmosphere and their friends and family, yes, but the cloud itself would be for Kolkata's denizens and visitors.

BH: Besides the fluid spaces and the curvy form and the sheer joy of being in a totally new space, this cloud sculpture also gives one a poetic type of reference. It lends it an intellectual and emotional dimension.

SW: But will the cloud suit the cultural fabric of Kolkata?

RS: Kolkata is not a seat of capitalism but a city of culture . So a sculpture, an object d'art, will be symbolic of its heritage, history and culture. So much so that we have given this cloud sculpture the name *Deya*, which is an evocative Bengali word for "cloud". *Deya* in Bengali also means "to give".

SW: But how do you soften that which is essentially hard?

PB: The core concern for us was: How do you make something so solid and heavy look as light and airy as a cloud? How do you add softness to something that is inherently hard? We liked the idea that the cloud is formless. It is soft, ever-changing and full of the promise of life-giving water. But all forms of clouds are formless. So we broke a cloud down to its elements, digitized these so that they became particles. Partlicles are what break form down, so with this in mind, we could begin to conceive of lending lightness to something that would, as a whole, be solid.

BH: We had to unravel the puzzle of the complex surface of the form. We had to work very closely with the structural engineers. We created multiple models to study how this three-dimensional puzzle could be put together in the simplest way possible. We then used the same sort of swirling forms from the clouds to shape the landscaping of this captured cloud. So anyone entering this cloud can have a sense of walking in, as well as on, a cloud.

SW: And how do you think Deya will evoke Kolkata?

RS: As Peng Beng put it, a cloud is formless. And Atmosphere will soon be surrounded by the longest elevated road in the city. So when people finally get to commute on this elevated road, which is being built around Deya, they will get to experience Deya from different angles and will, indeed, see different facets of Deya. Similarly, as the sun moves in the sky, Deya will seemingly change with the sun's reflections on its glittery facade. Then, at night, Deya will glow like a beacon in the sky. And like everything else in Kolkata, there will be an air of mystery about Deya, this silver-lined, seemingly captured cloud in Kolkata's sky.

PB: There is the idea, poetry and concept of Deya and then there is a physical aspect to it. While working on our cloud idea, and in developing the sky garden, we pulled ideas from anywhere and everywhere. And in doing so, we were very inspired by these words by Kolkata's own, Rabindranath Tagore: "There is a point where in the mystery of existence, contradictions meet; where movement is not all movement, and stillness is not all stillness; where the idea and the form, the within and the without, are united; where infinite becomes finite, yet not."

RS: Wow, Peng Beng! You know, in Deya, we should have a feature wall where we inscribe these words of Tagore's for posterity. Maybe somewhere near Deya's lobby, for visitors especially. In Bengali as well as in English.

SW: And how are you a teacher to Peng Beng and Belinda?

PB: Let me tell you what sort of teacher he is. He drills. He will drill you with an issue all the way to the end.

RS: But I am a brick-and-mortar man, Peng Beng. It is my job to move with a drill!

BH: Rahul is relentless in his search for perfection.

SW: Perfection is not necessarily a virtue, though.

PB: Well, if any one of us comes up with any idea, it will not be left just like that, at a lower level. Rahul will take it all the way, question it, flip it upside down, and see it from different angles. And all of us give it the due observation, at every level.

SW: Why do you think that is the best approach, Rahul?

RS: When I am dealing with international architects, I am conscious of the fact that however much they research my city, my knowledge of it will still be far greater than theirs. At the same time, I respect their knowledge and the international experience they bring to the table.

PB: I think this is where Rahul is very profound and his powers of observation very sharp. There is modernisation and modernity and there is history and heritage – and more so for a city like Kolkata. What Rahul brings with his powers of observation is his perspective on his city in relation to the world.

BH: Rahul is a bridge linking a deep understanding of the psyche of Kolkatan heritage with modernisation and contemporary culture. I think that provides a fantastic anchor for our project.

SW: And how has Atmosphere benefitted from that advantage, Rahul?

RS: When I see a plan that I think is jarring to an Indian's lifestyle, I try to point that out to Belinda and Peng Beng. I think this role I play is extremely important in the design process; this is what I need to bring to the table for this couple to deliver the most apt designs. For example, luxury living in India is about having four or five maids, servants, cooks and other helpers. They don't go back to their homes at night; they actually live right next to you and serve you at all hours. So when you are planning a home, you have to take into account these live-in helpers as well.

SW: Sure, but doesn't all this prove that architecture is functional and so not art?

PB: Architecture has an extremely pragmatic side to its practice. One can start from its poetry or from its pragmatism. But eventually, one would want to find that point where both coincide. For us, one without the other will not be enough. It will not be architecture. If you can imagine a figure of eight, one loop could be the poetic and the other the pragmatic. Architecture happens when both loops meet.

BH: Exactly. For example, when we are thinking of Deya's infinite loop, we are simultaneously thinking about how families will use the deck spaces, including whether or not we have sufficient space for deck chairs and cabanas. Or how the circulation of people attending a chic party should not clash with that of a person doing his evening 5km run.

PB: We were interested in how our movement through the space became formless and how we could move seamlessly from the outdoors to the indoors along the same path. At the same time, we were also thinking of all the functionality of the different programmes and practical aspects of safety and maintenance.

SW: How have you captured the purposefulness and the purposelessness of such a walk?

PB: In this, we were inspired by the gardens of Kyoto in Japan. Within a fixed space that is not extremely large, the Japanese garden exhibits a sense of the monumental. Space was made to expand and time to dilate. And with that sense comes the experience of timelessness or being in the moment. It is like how time stops when you are experiencing something intensely or time dilates and slows down when you are waiting for something to happen.

SW: Just like when you are watching a kettle boil?

PB: Exactly.

BH: When Peng Beng and I visited the gardens of Kyoto, we felt as if we had been walking about in the garden for minutes when actually we had been walking about for hours. When you are in the moment, time and space start to collapse in on one another. It is what Rahul calls "fiza". That moment connects you to the greater atmosphere, beyond yourself. This is how we imagined the captured cloud of Atmosphere, organised around a pathway that is an infinite loop, a Mobius strip, a closed loop winding over three varying levels that make up this cloud.

SW: Tell me more about fiza, Rahul.

RS: I don't know if fiza can be translated precisely in English, but it is a state in which all is sublime. It's basically the moment in which you belong. Without fiza, one is dead. It is at the core of your existence, when you are right at the heart of a larger entity and where you can become one with that entity. It is a state in which you can be romantic. Intimate. Lyrical.

"The view is so grand that if you have two towers rising from Atmosphere's site, it would be as if these towers were piercing the clouds."

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KHOO PENG BENG
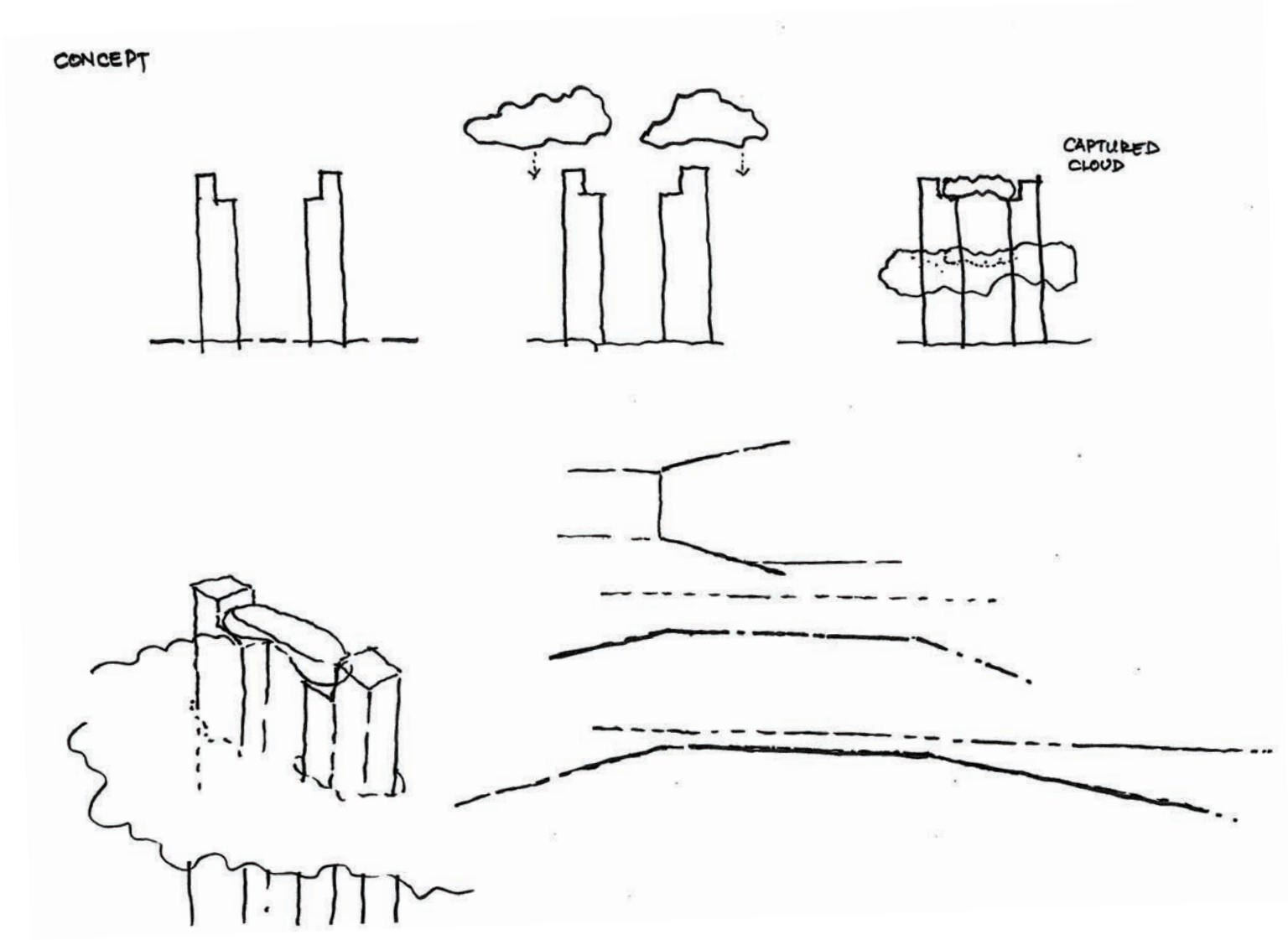
SW: Why did you settle on designing Deya as an infinite loop?

BH: The loop allows one to experience the cloud seamlessly, from above, into, out and beyond. We wanted the residents of Atmosphere to experience the flowing, soft, swirly movements of clouds even as they realized within this community space, even as they interacted with everyone else and the facilities there. We wanted to introduce them to the views from different perspectives and different elevations.

PB: In doing so, one might experience a moment, an inspiration, a connection – fiza, perhaps. The changes in directions and framing of views along a path would create changing moments, scenes, and events. We hope to embody what Tagore was referring to – a moment when the infinite becomes finite.

SW: How did you prevent ideas and things from clashing with one another in and on Deya, your cloud sculpture?

PB: In designing it, we thought of the facilities as pearls on a necklace coiled loosely, with its strands going over and under. And each strand has its own specific functions. But, together, they form new relationships. For example, a squash court being right next to the swimming pool, or a lounge with views of snooker tables, or a jogging track that coils around itself, dynamism upon dynamism. There is a kind of specificity to our architecture, but there is also freedom in it.

BH: This allows people to interpret the spaces within the cloud for themselves and use these accordingly to their own creativity. We want people to experience something unusual, something extraordinary, which will inspire them. In doing so, they will be creating their own atmosphere.

SW: What should an outsider gazing upon your captured cloud make of it?

PB: We've always had in mind the view of the wetlands and the big water bodies that Atmosphere's residents should enjoy to the maximum. So the way our captured cloud loops, and the sequencing of these loops, direct and frame their views of these ancient wetlands.

BH: As you move along within this cloud, you will experience Deya in different ways, thanks to the varying densities of the mesh encasing this cloud. Here, we are designing with shadows. The shadows cast by the mesh, with all its different densities, will give the cloud's entire interior dappled lighting. We will actually play with the blending of varying mesh densities to lend a calming effect to everything within Deya.

PB: Then, over this mesh, will also be layers of different types of panels, what we call kinetic cladding, which will respond to the caresses and lashes of the wind. There is also unexpected glitter from the mesh. Deya's silver lining, as it was, which will allow it to respond to wind and light, lending it a new quality. In this way, Deya will respond to nature and, indeed, become nature. Deya will come alive!

"The loop allows one to experience the cloud seamlessly, from above, into, out and beyond."

—
KHOO PENG BENG

"How do you make something so solid and heavy look as light and airy as a cloud? How do you add softness to something that is inherently hard?"

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KHOO PENG BENG
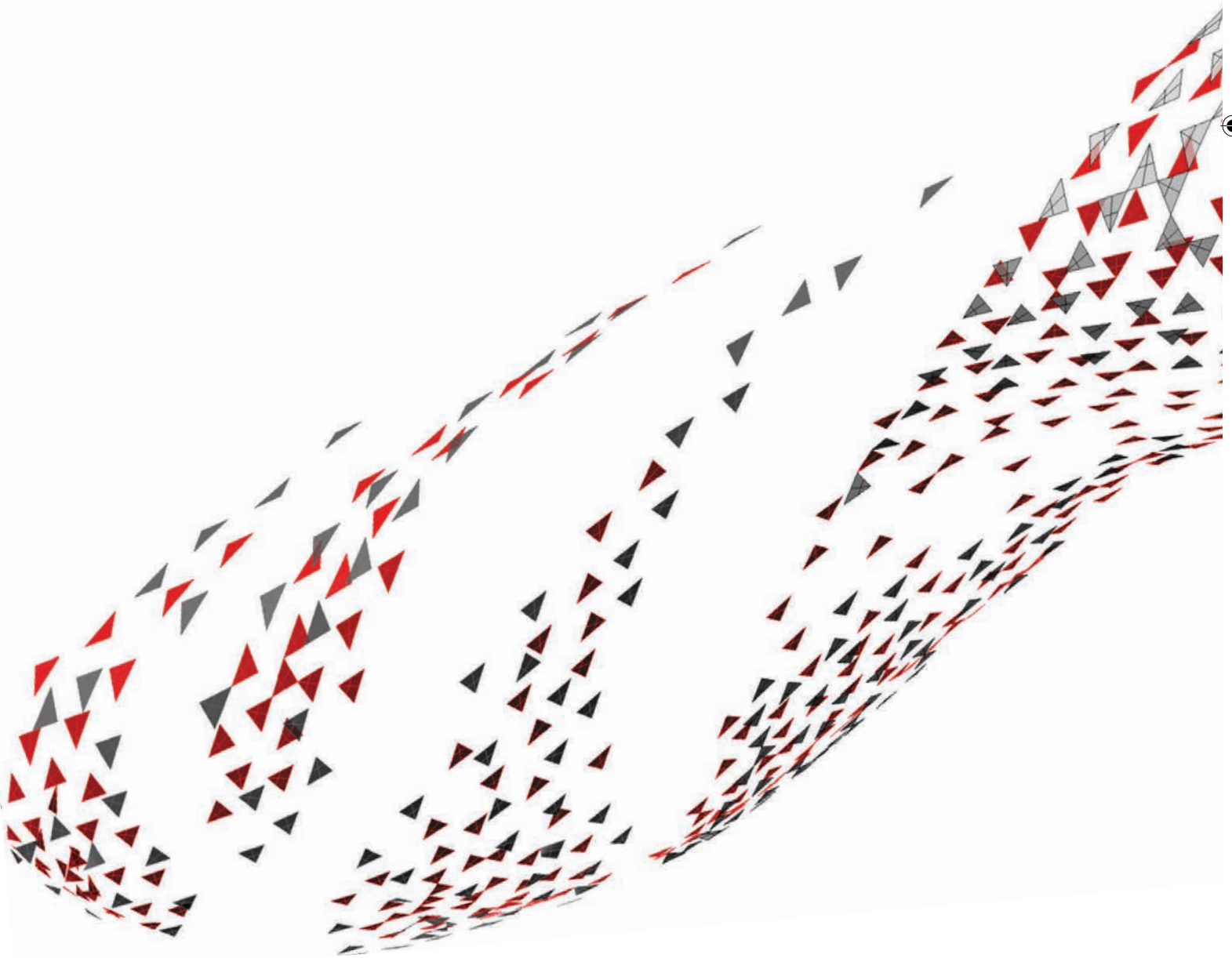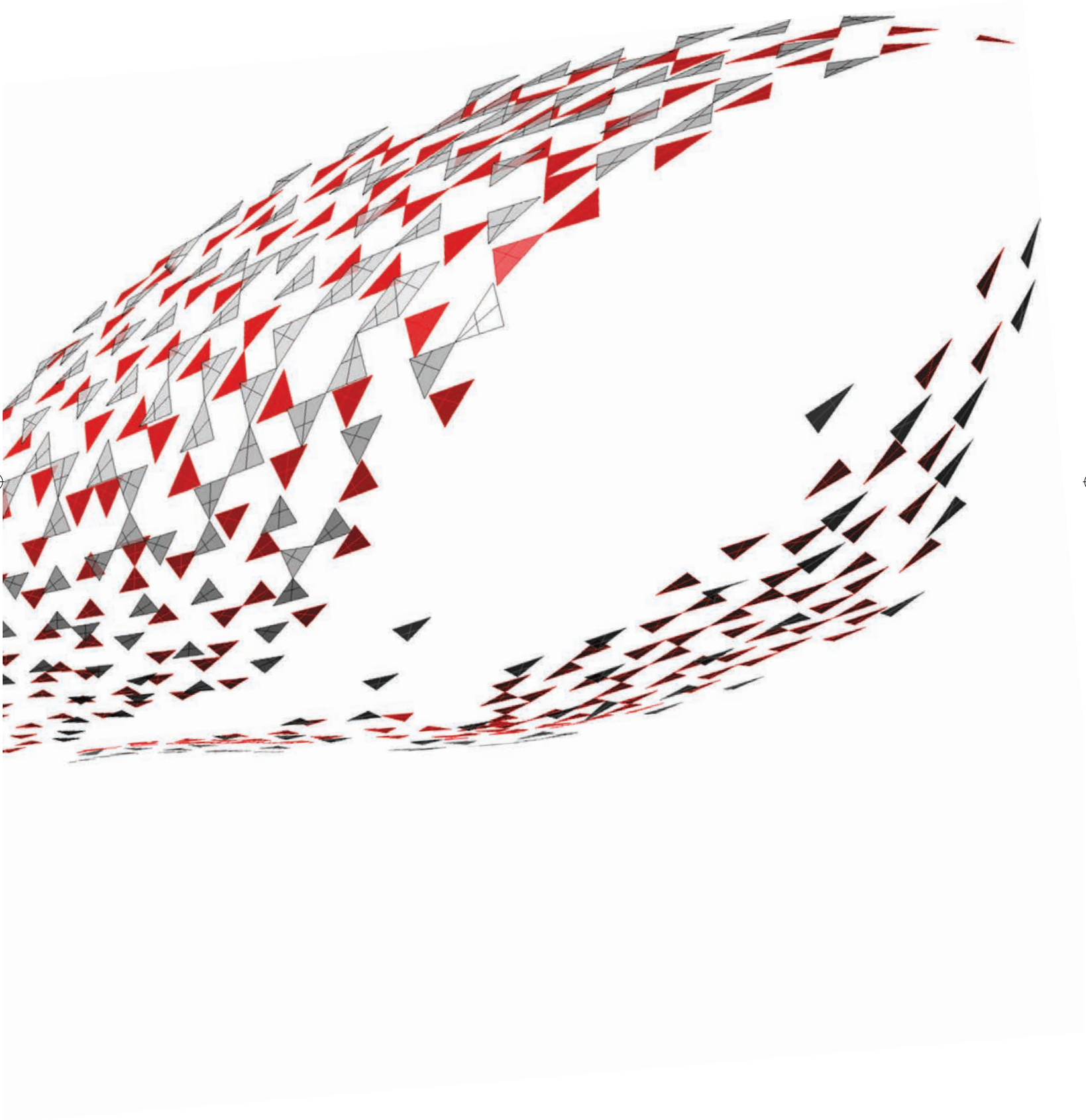
CLOUD PARTICLES

Topographic Levels
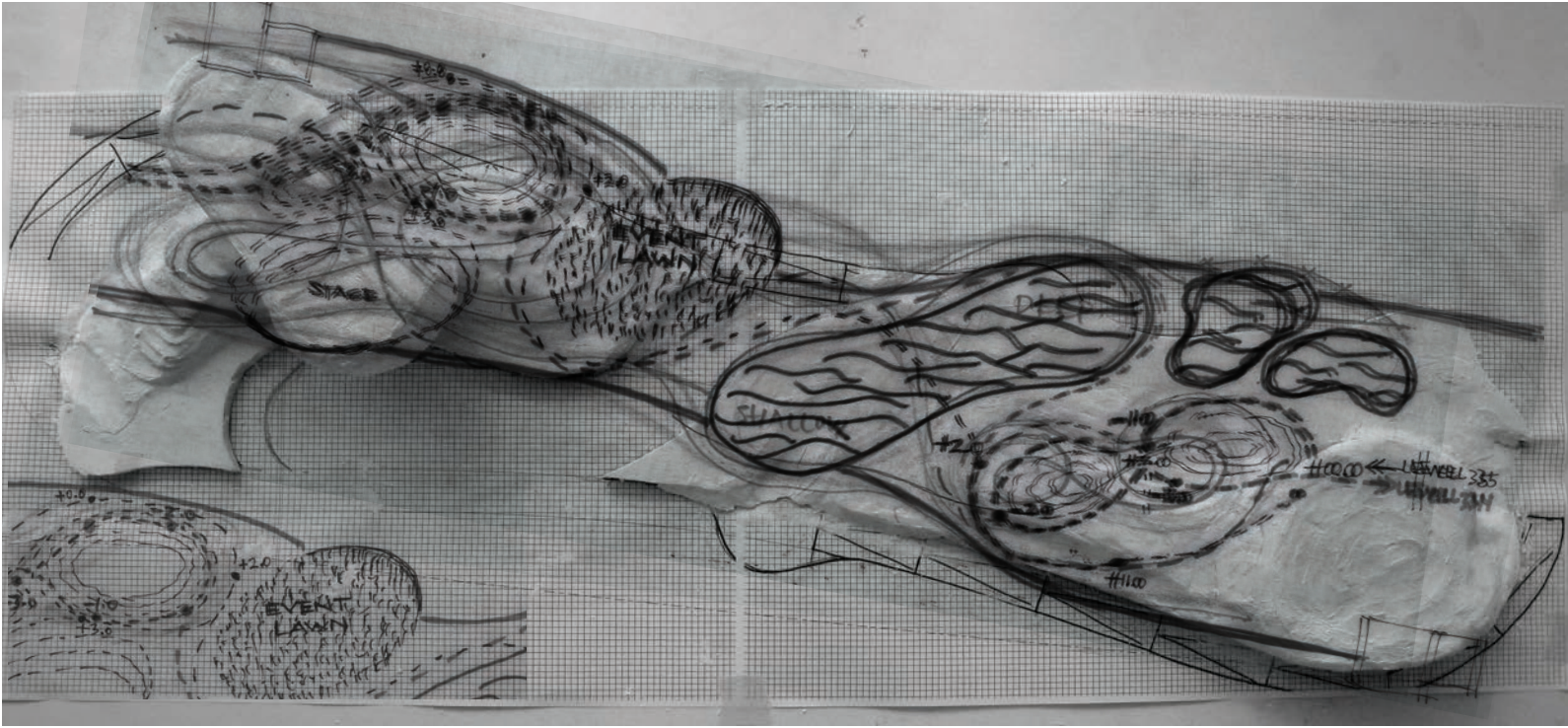
Programme Views
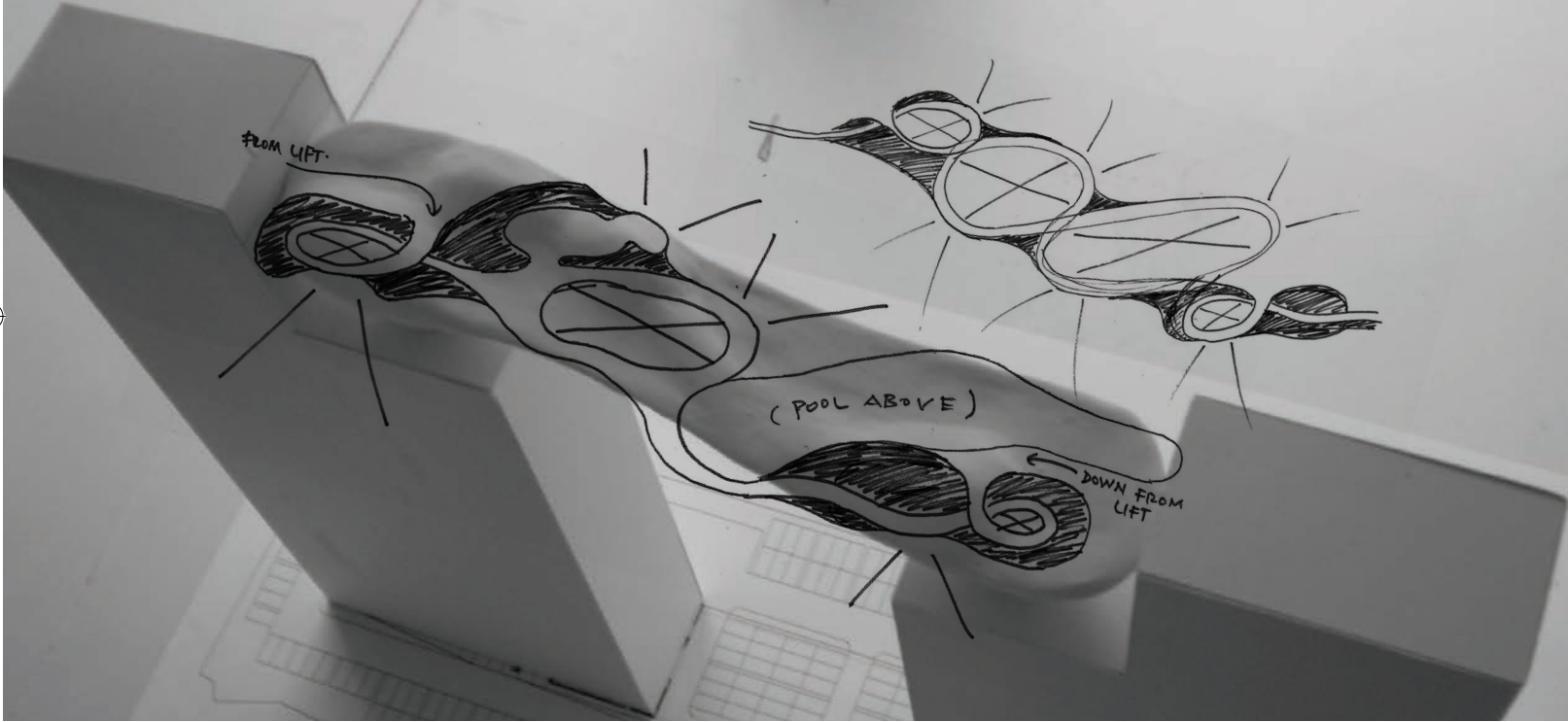
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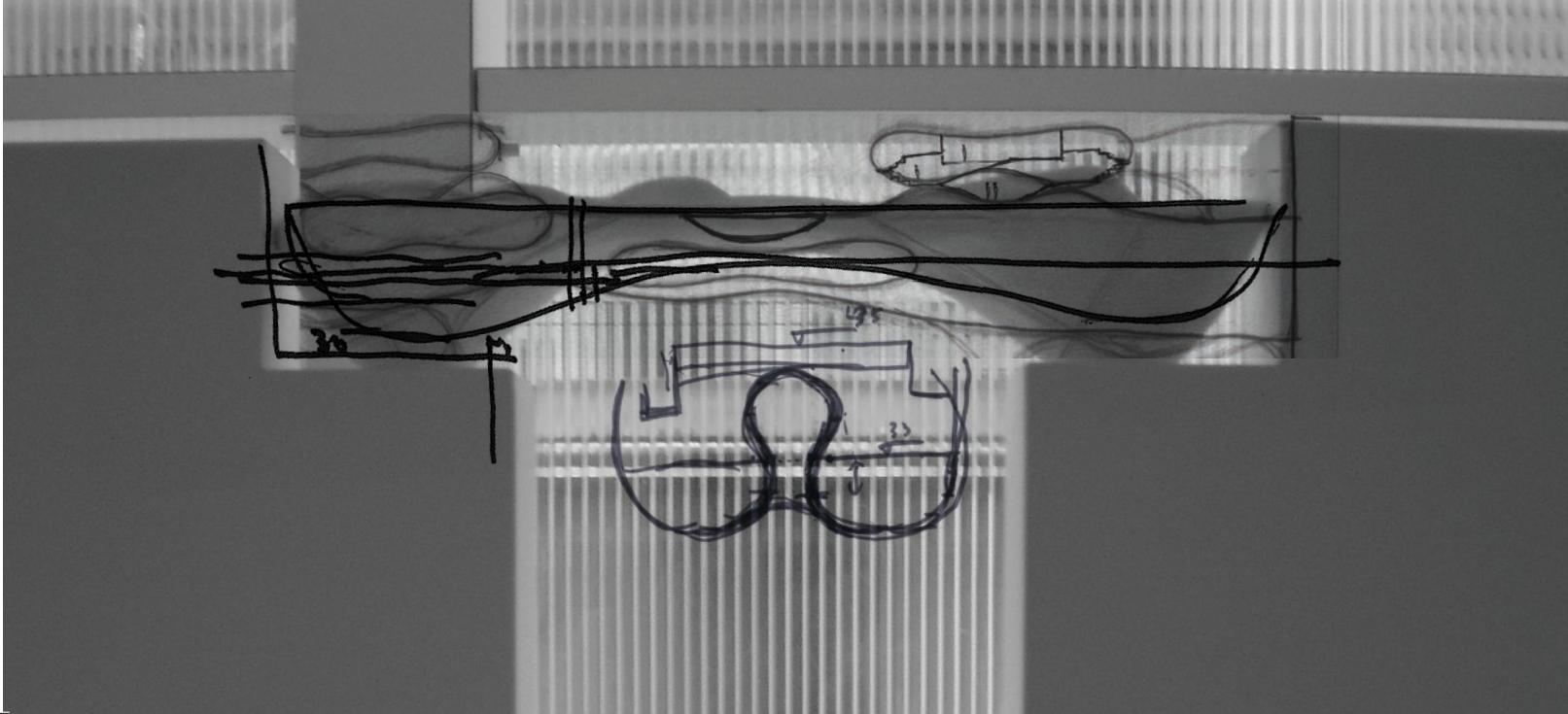
Deya's sky garden is experienced as a series of continous loop, seamlessly welding large and intimate pockets of spaces. The winding path takes one from the outdoors to indoors, through various views, landscape and activities. We also intentionally choreographed multiple smooth transitions in elevations allowing one to experience the city views and Deya itself from as many different angles as possible.

FORMS OF CLOUD
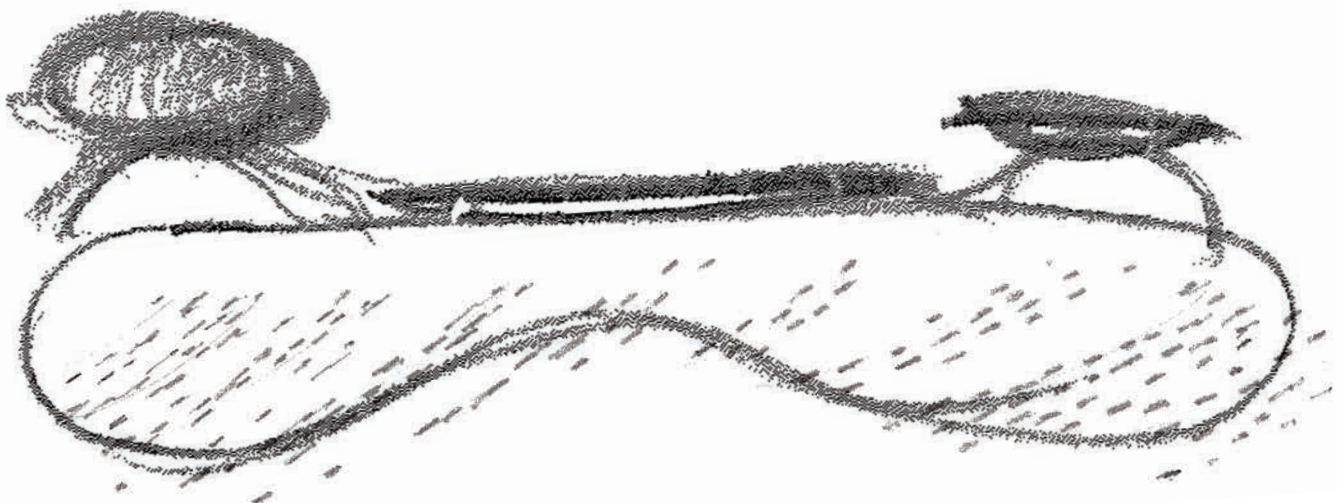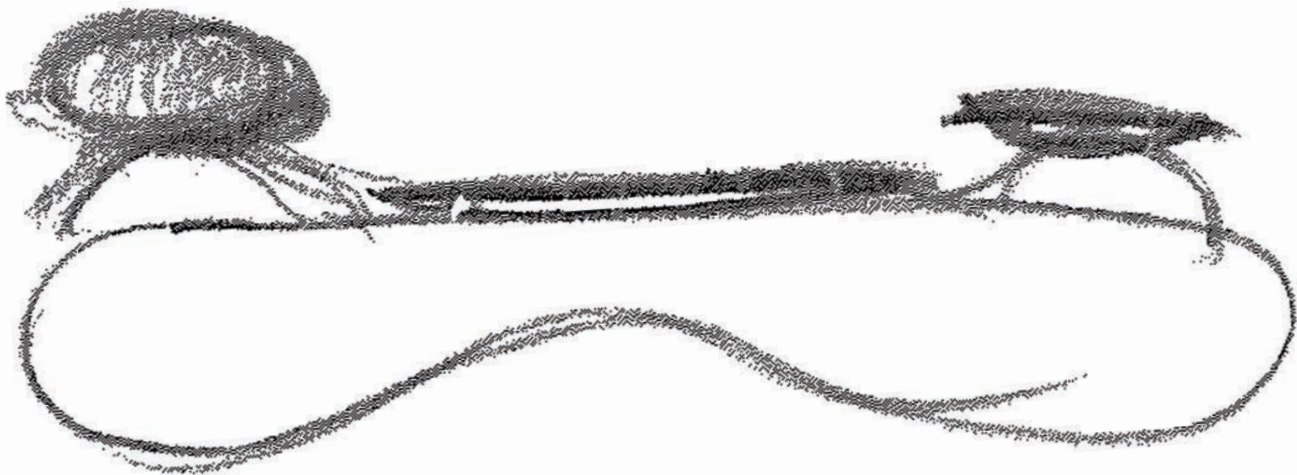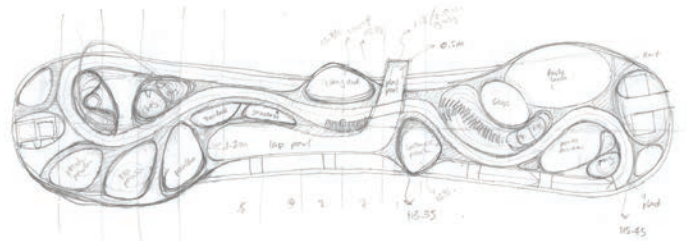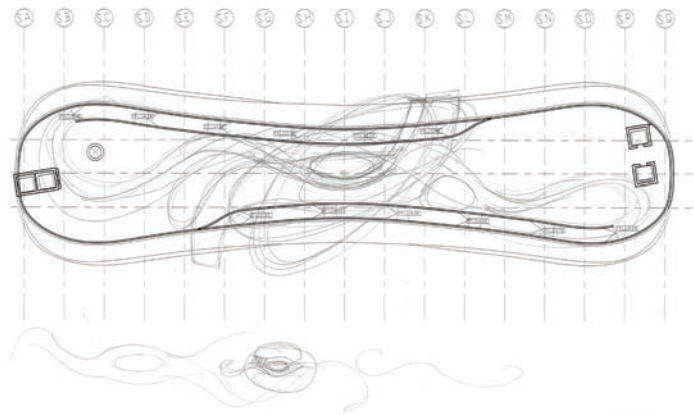
"We thought of the facilities as pearls on a necklace loosely coiled, the strands going over and under."

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KHOO PENG BENG

XRAY OF STRUCTURAL ANATOMY
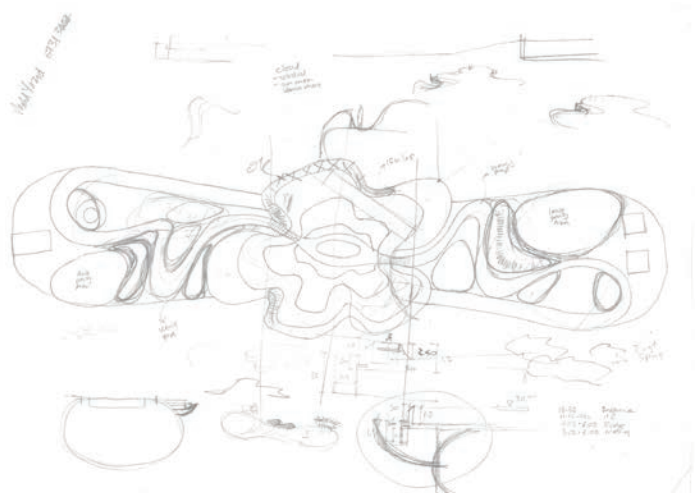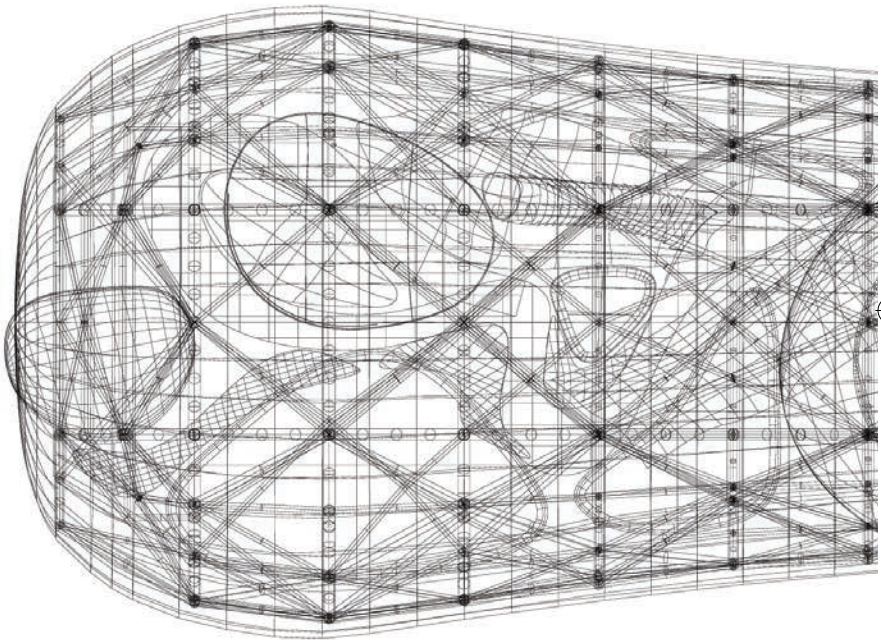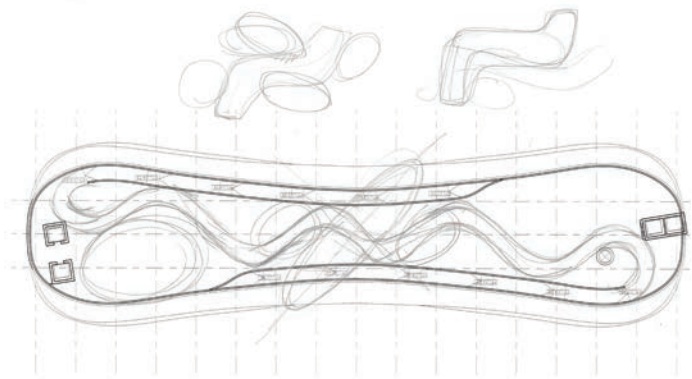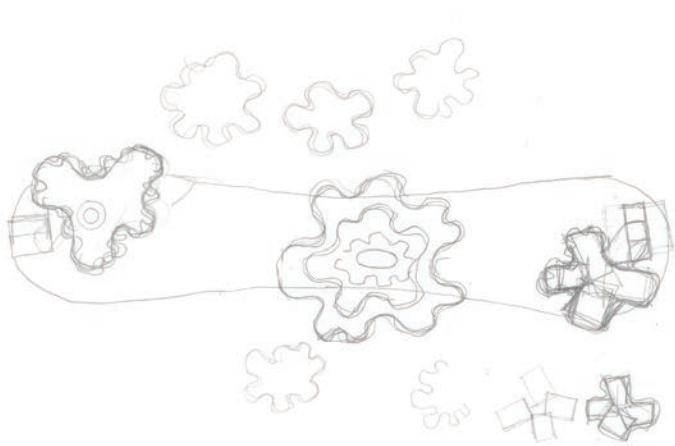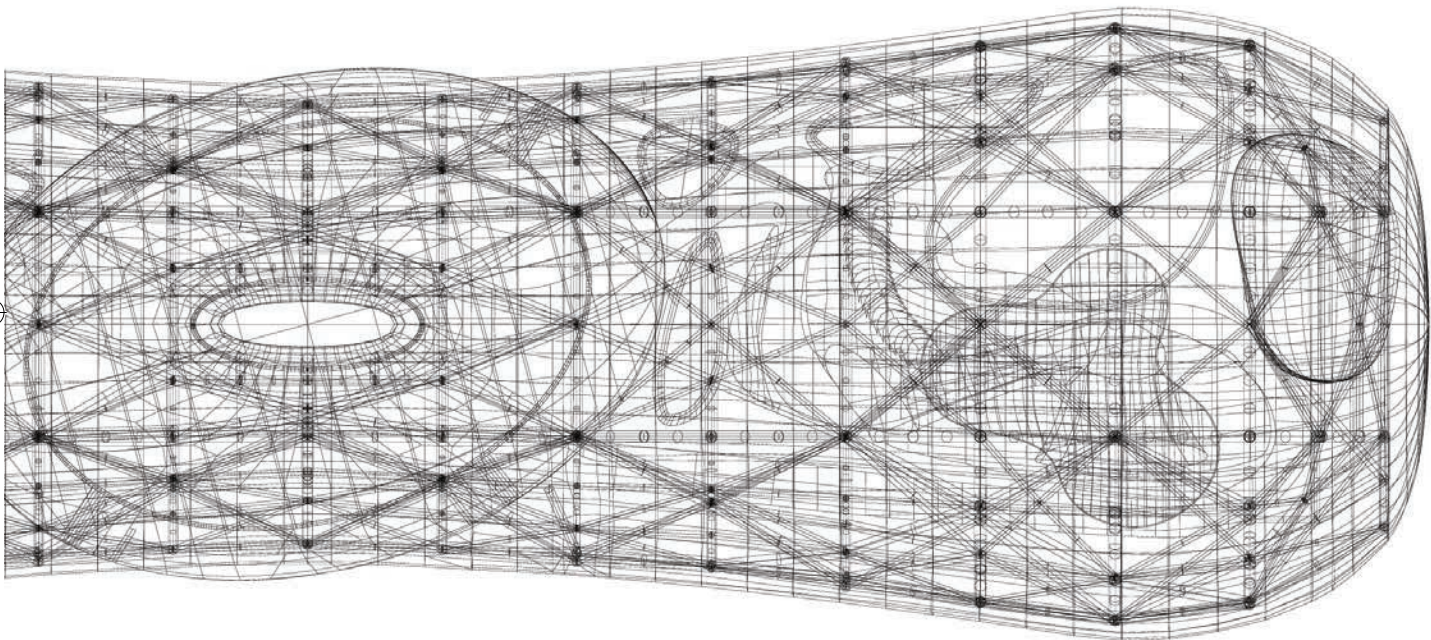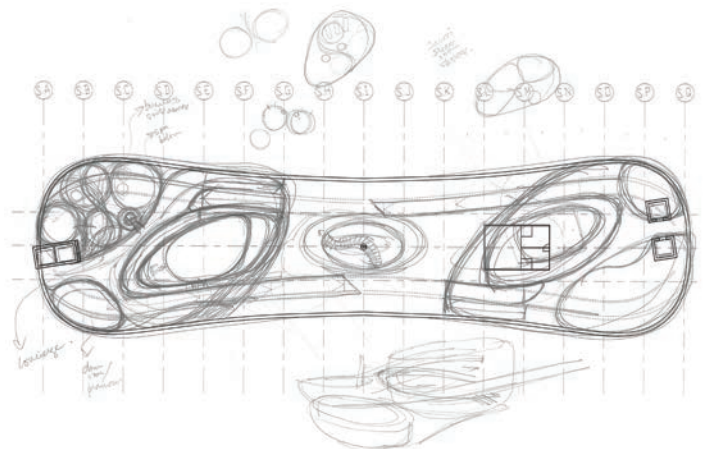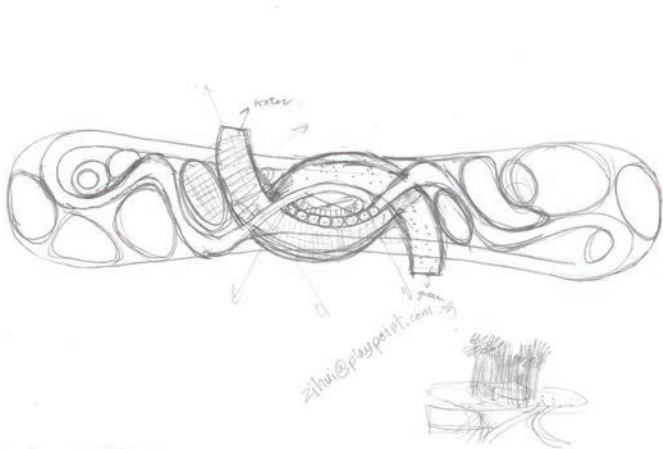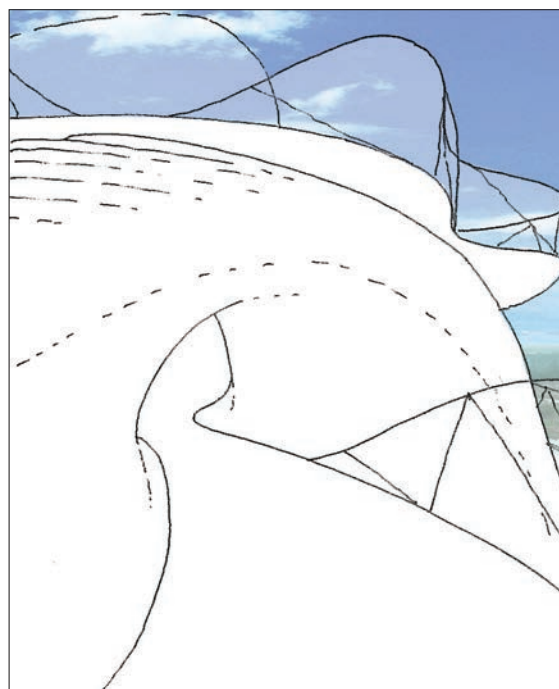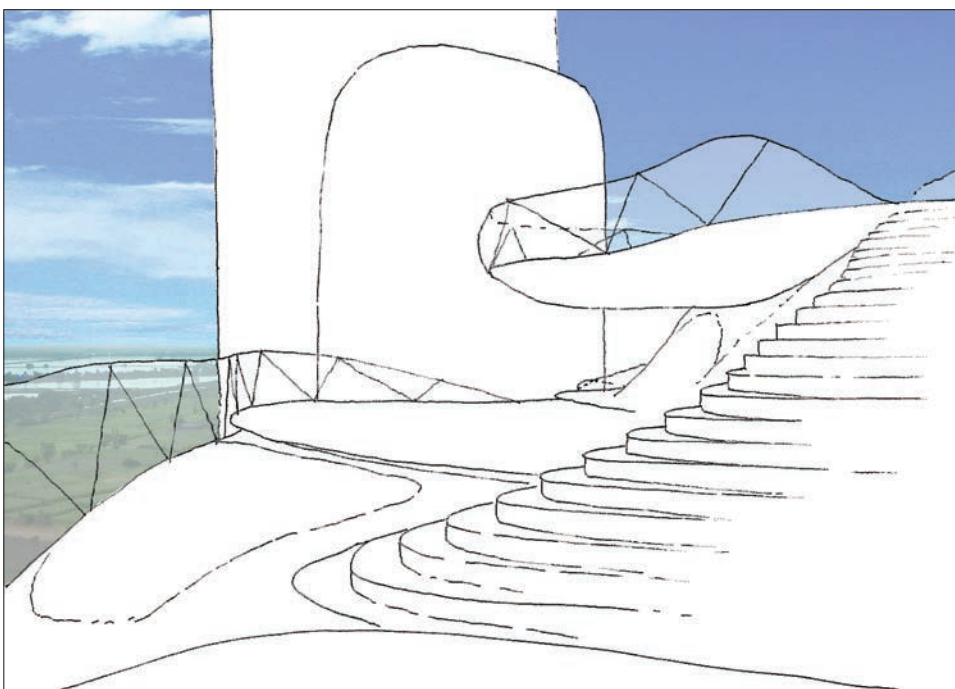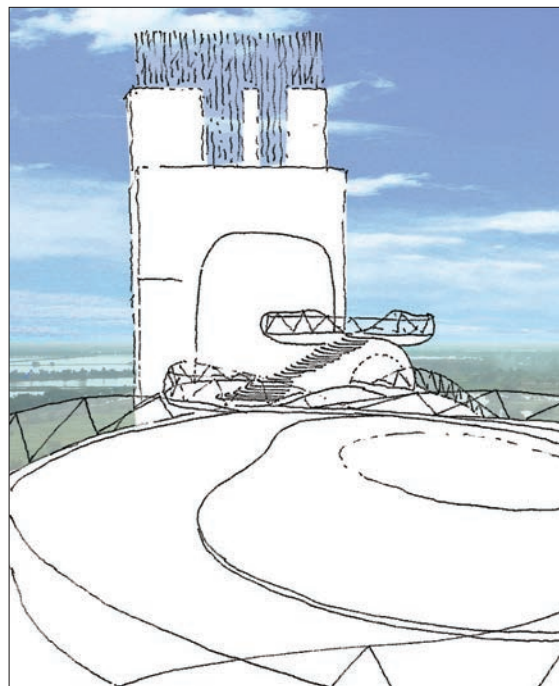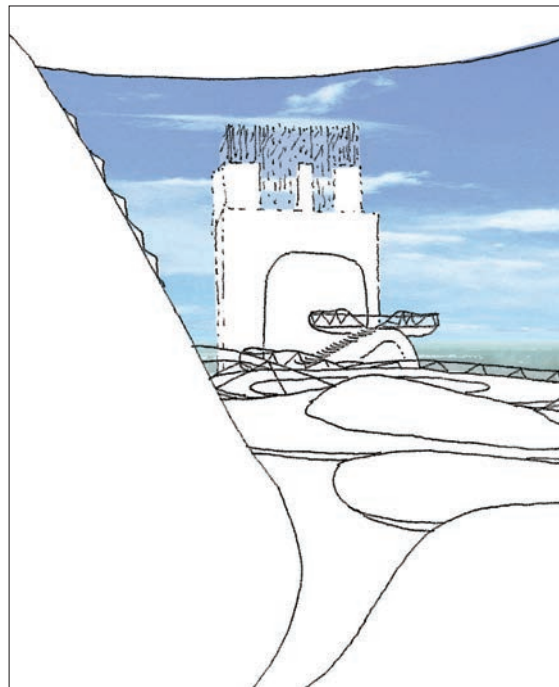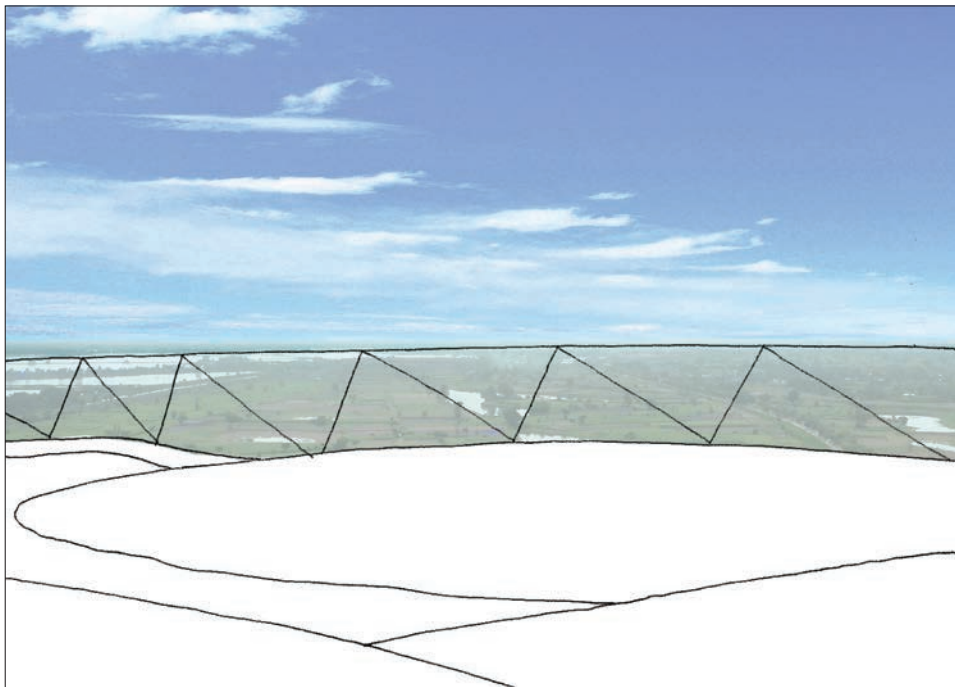
".... The way our captured cloud loops, and the sequence of these loops, directs and frames their views of these ancient wetlands."

—
KHOO PENG BENG
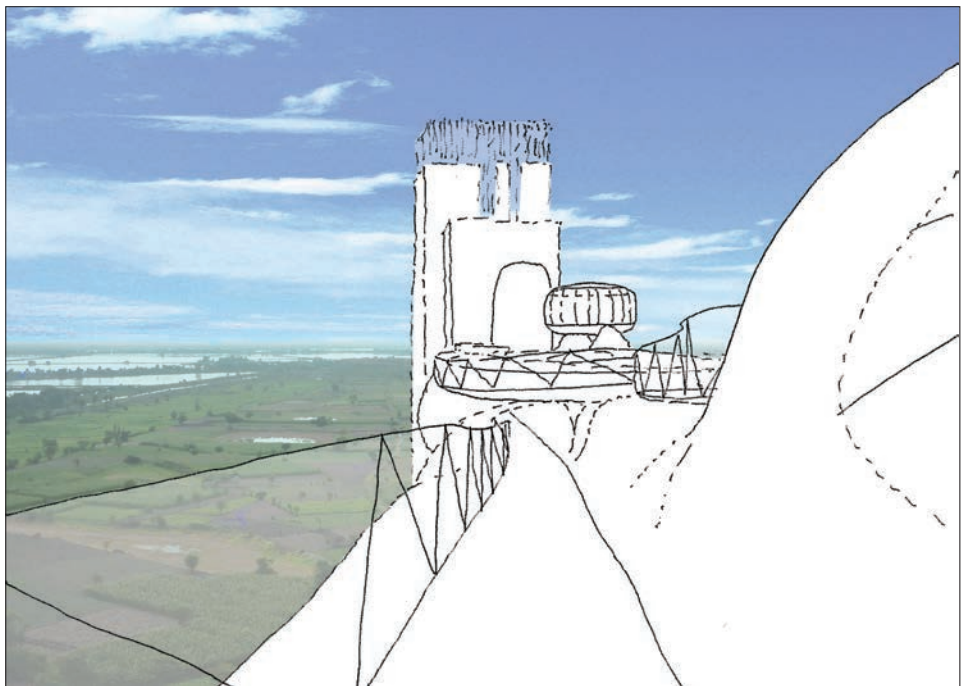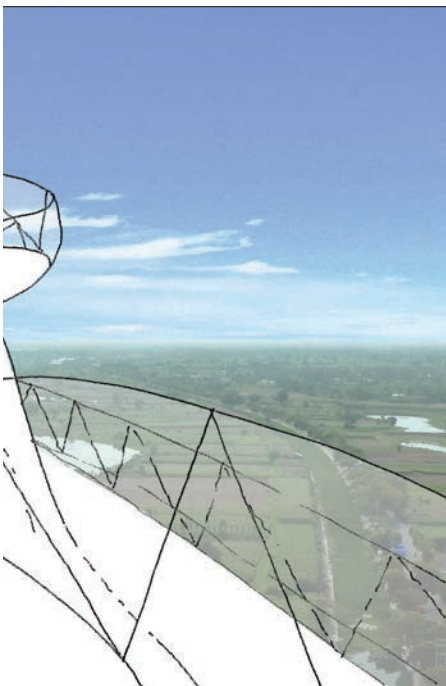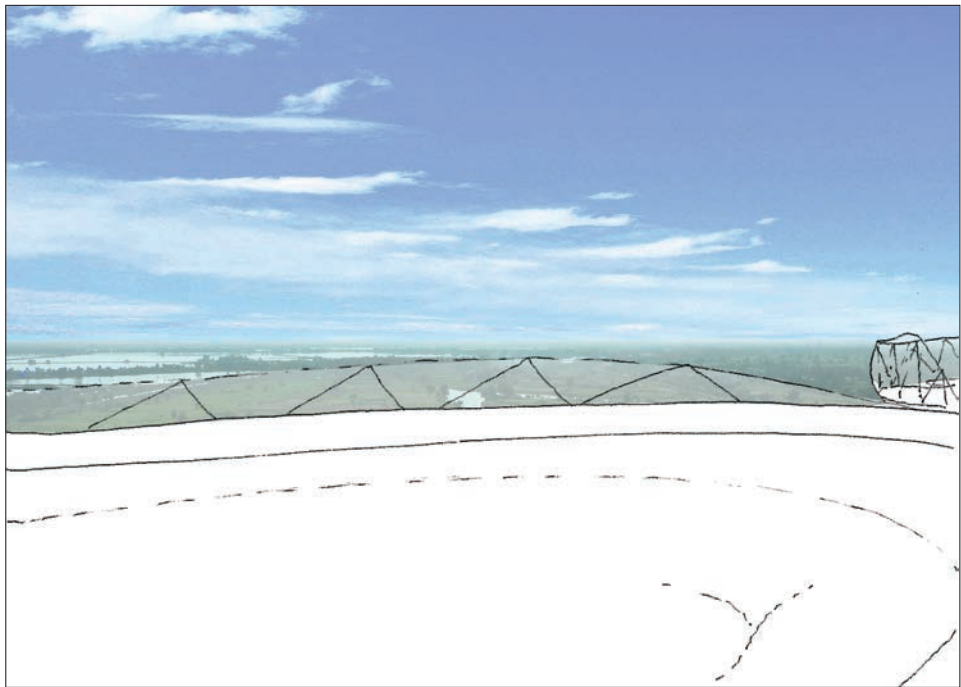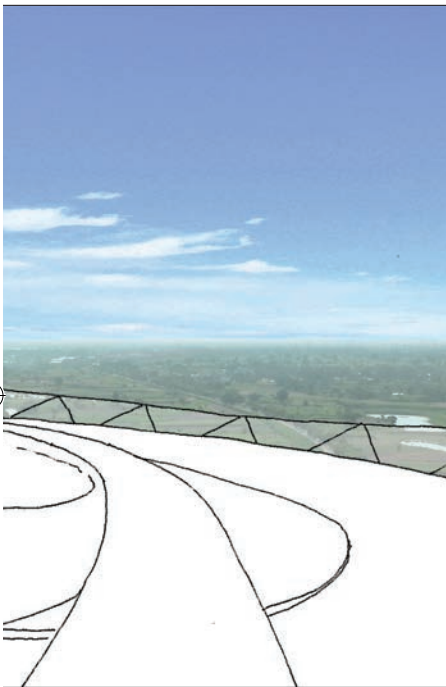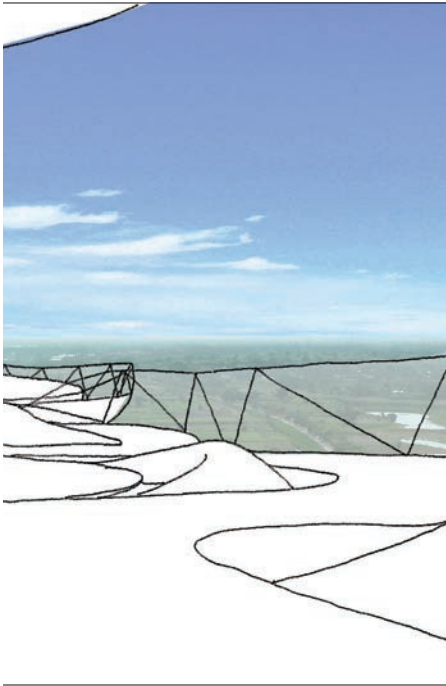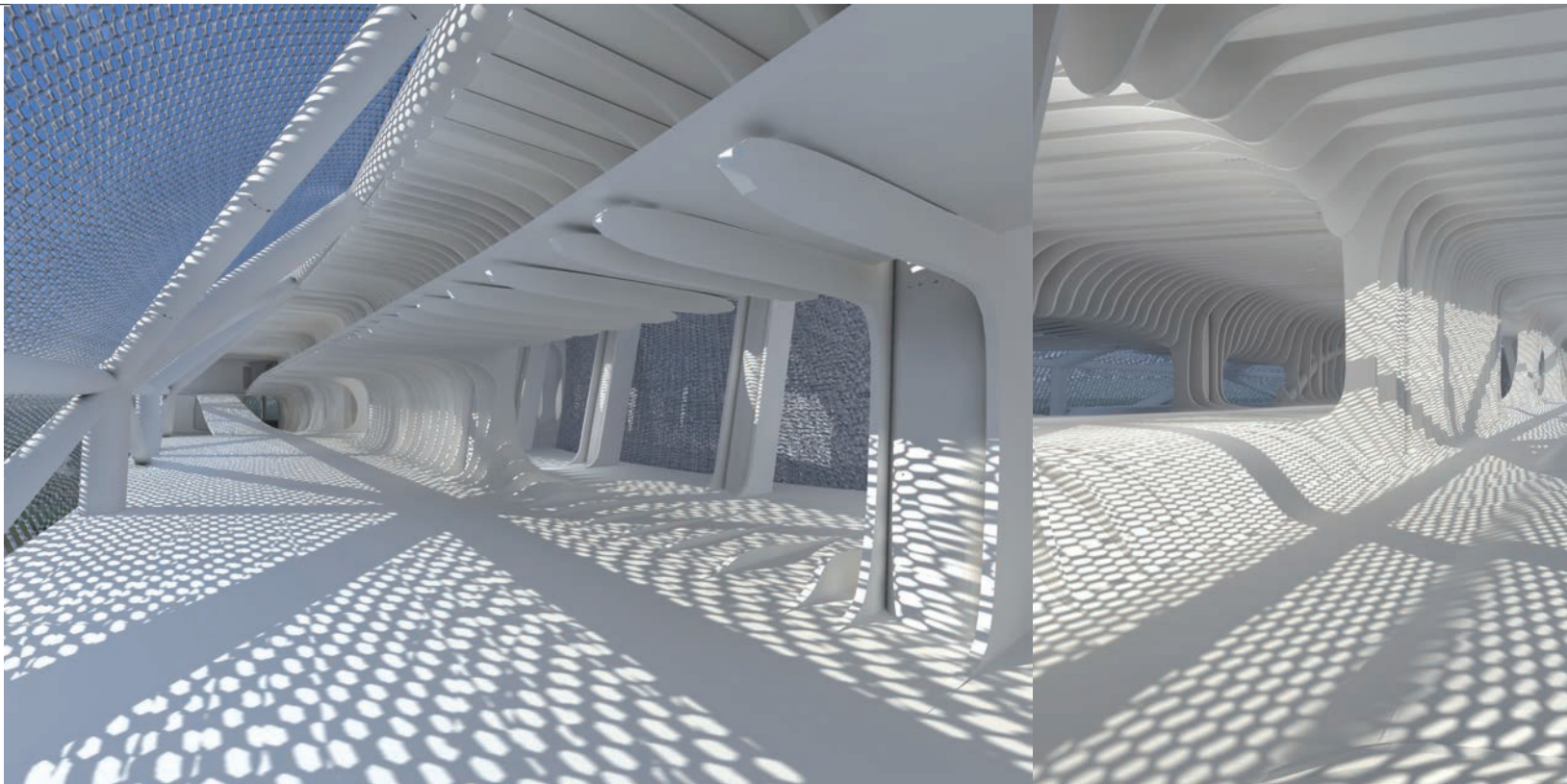
"When we are thinking of Deya's infinite loop, we are simultaneously thinking about how families will use the deck spaces, including whether or not we have sufficient space for deck chairs and cabanas. Or how the circulation of people attending a chic party should not clash with that of a person doing his evening 5km run."

—
BELINDA HUANG
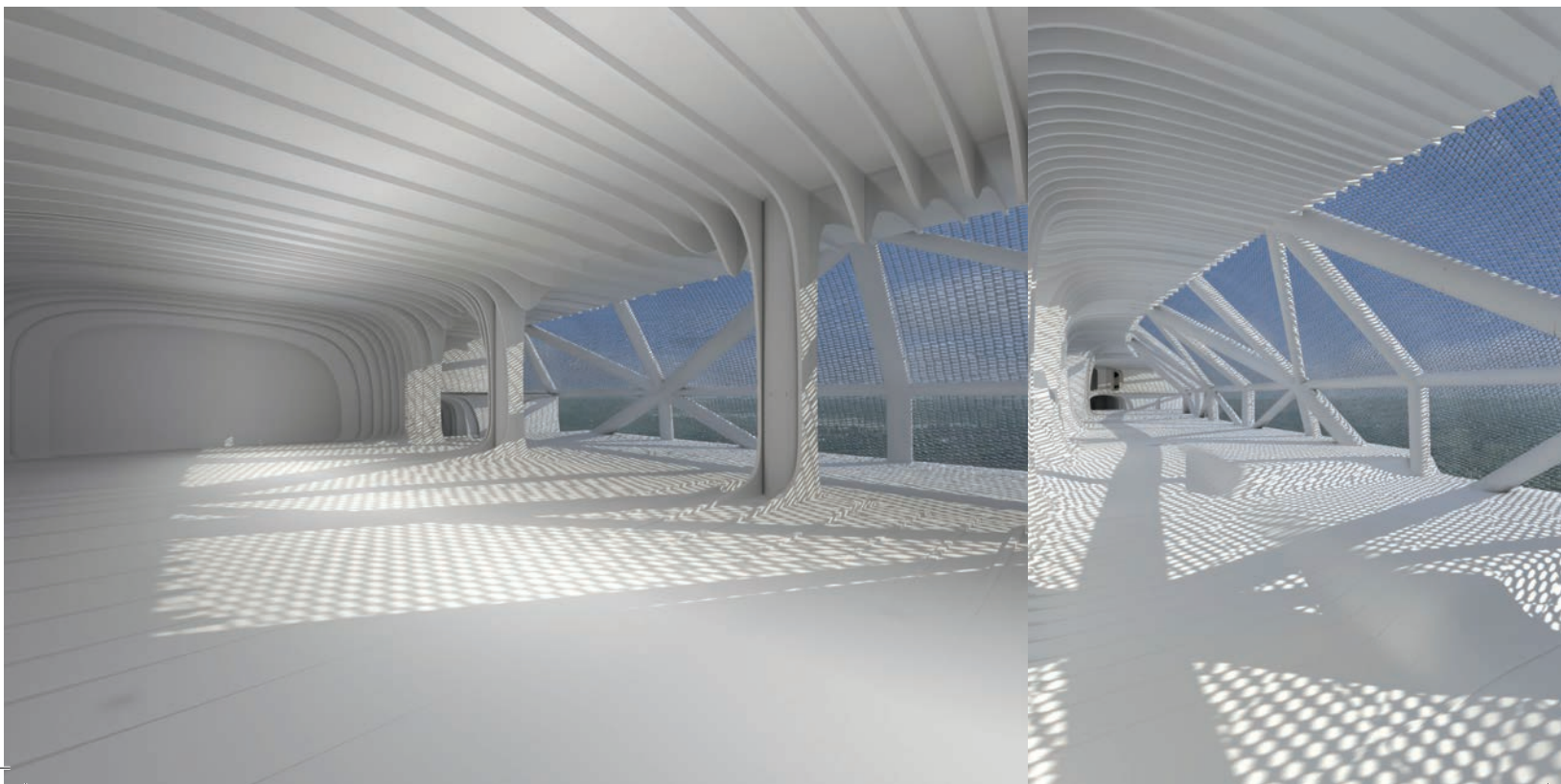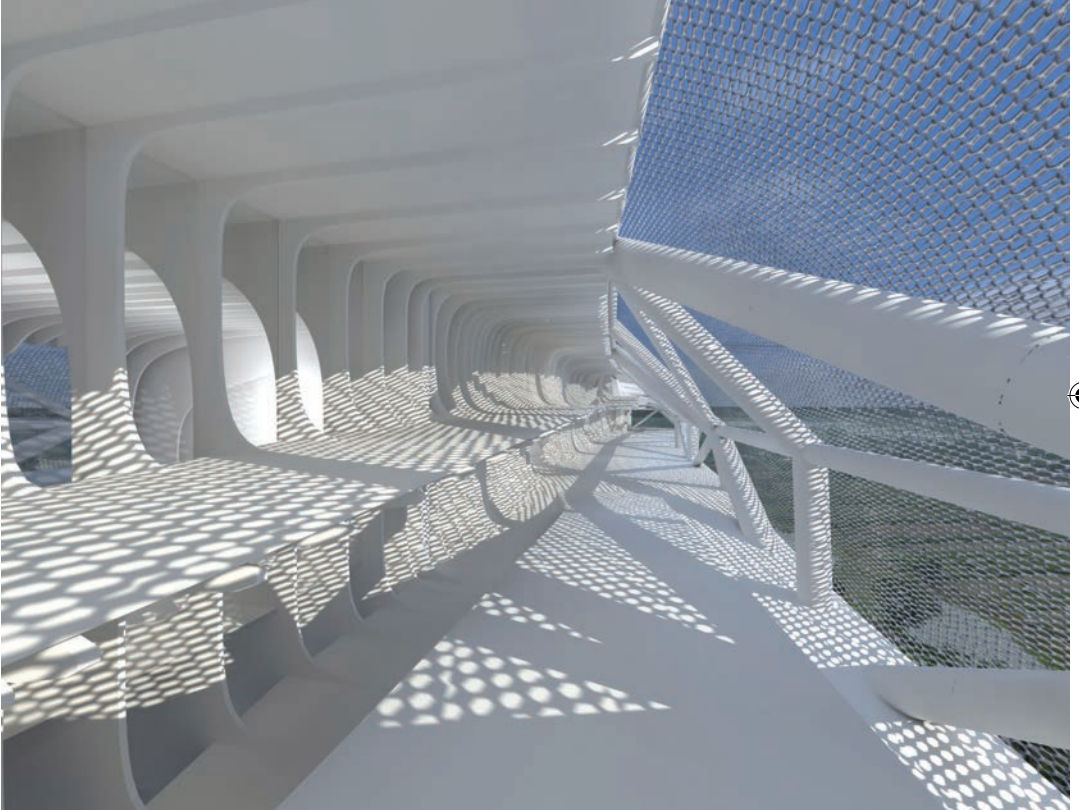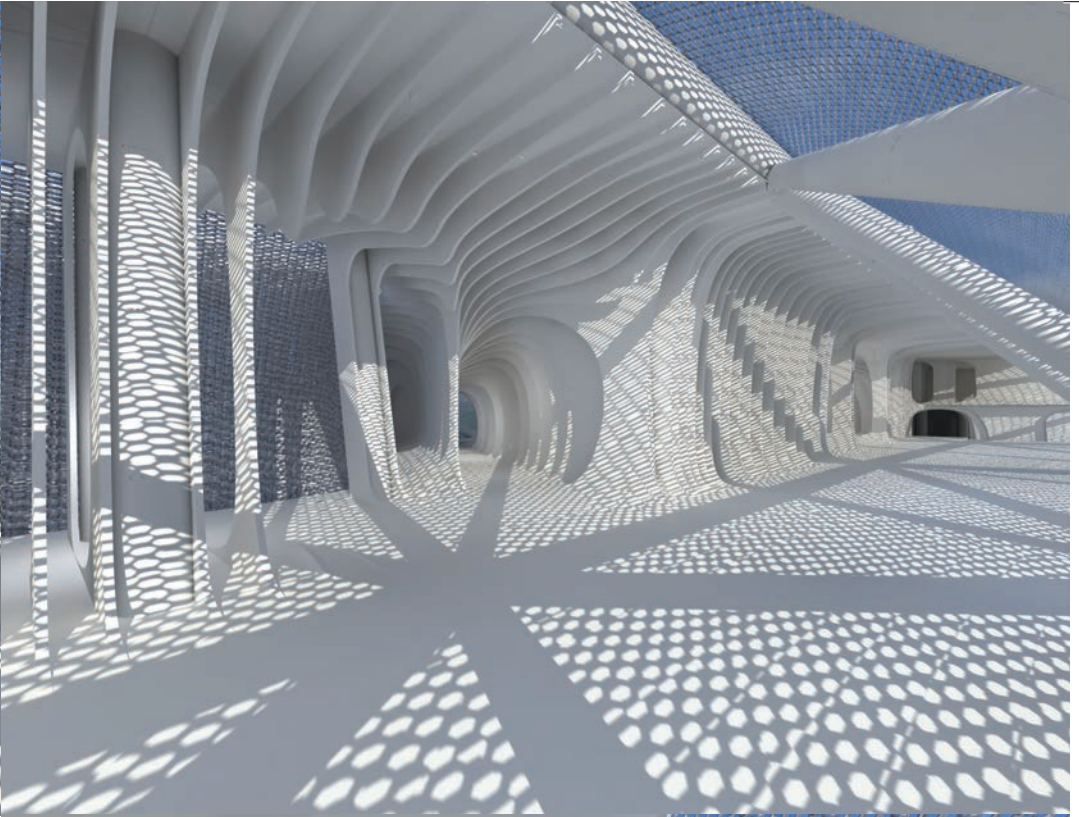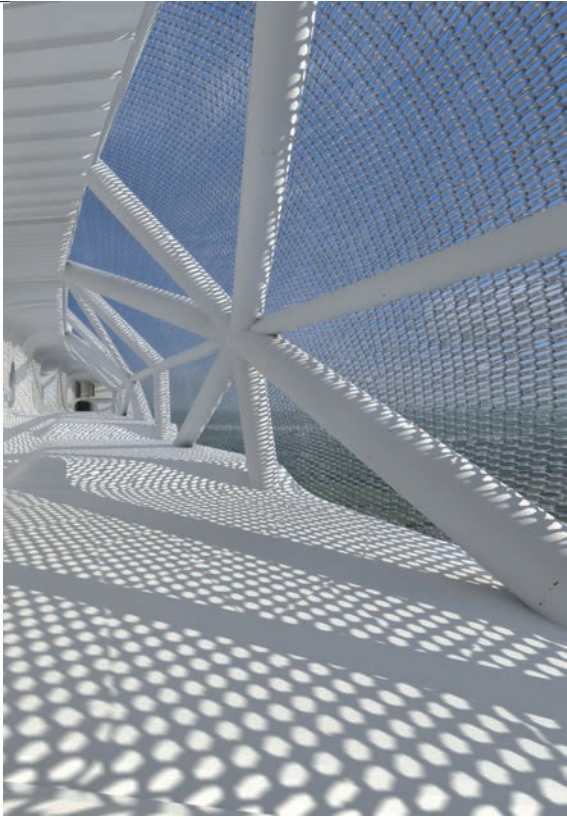
A WALK IN THE CLOUD
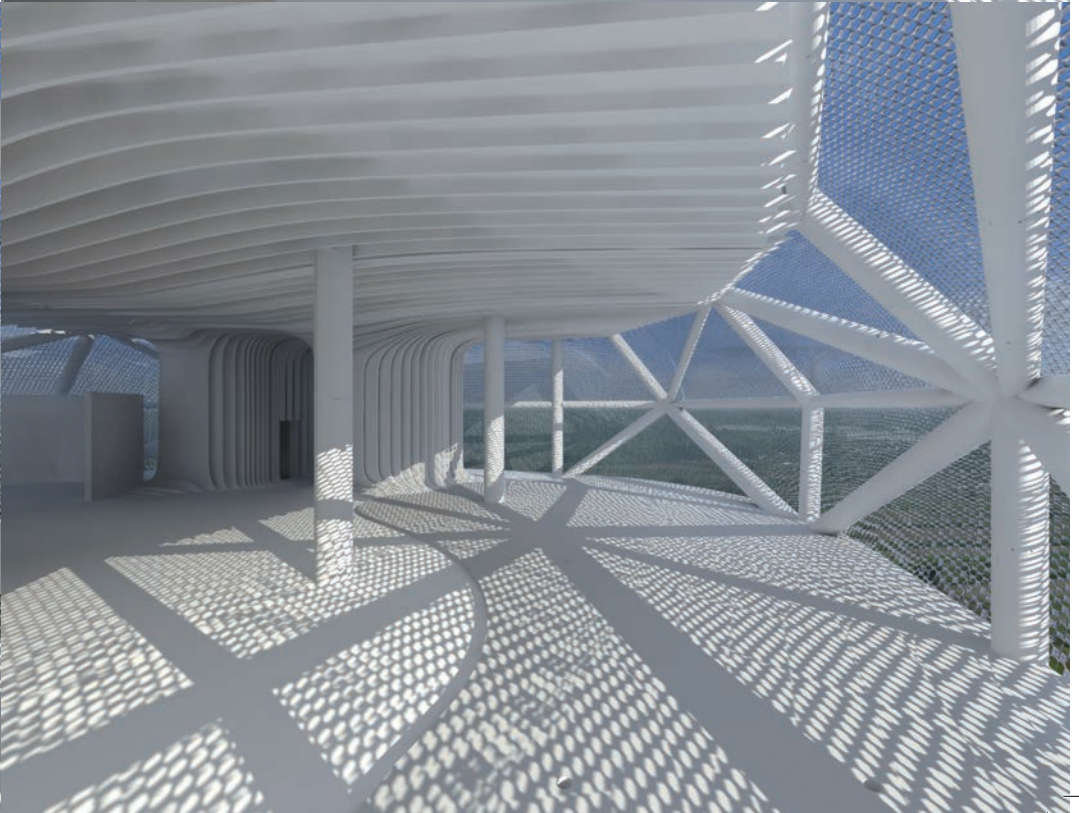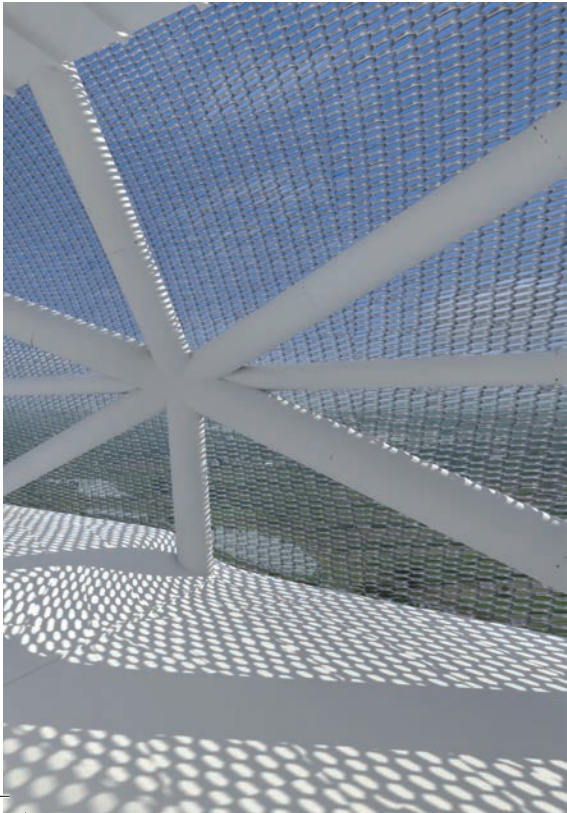
"One might experience
a moment,
an inspiration,
a connection
.... Fiza perhaps."

—
KHOO PENG BENG

L 32
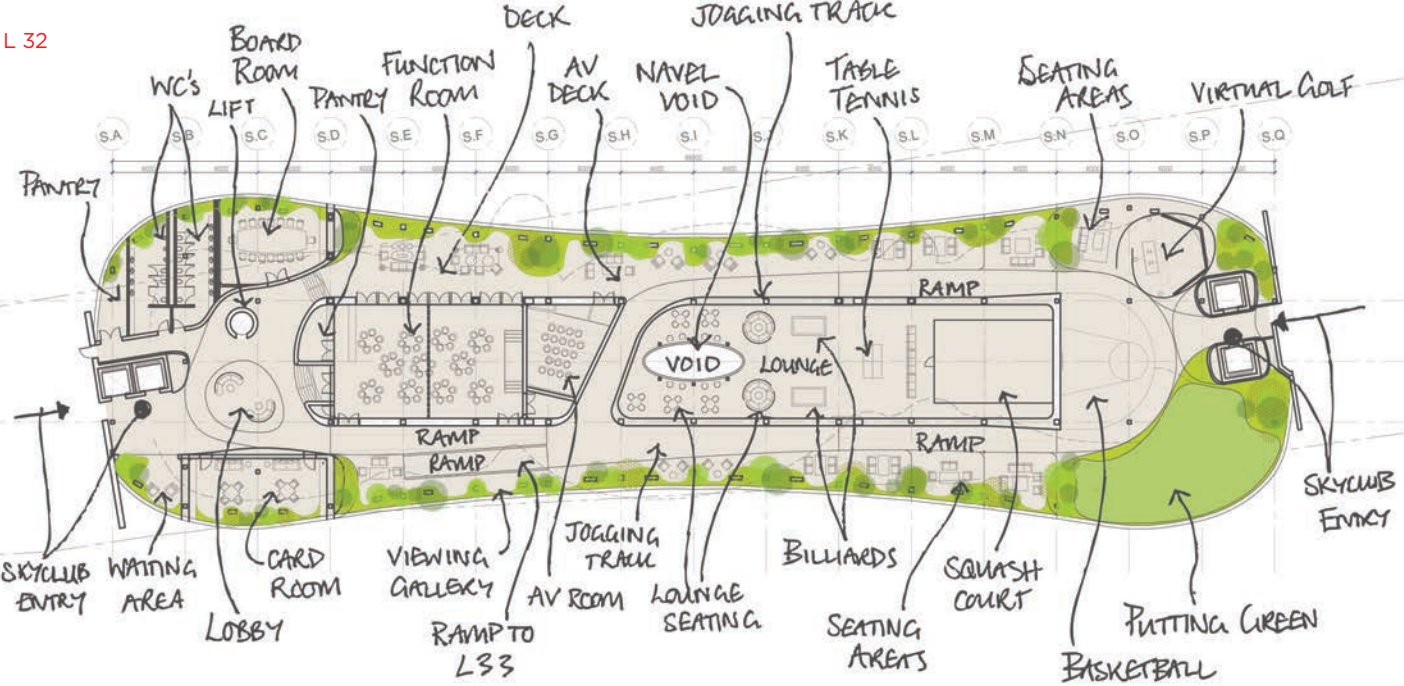
UNDERBELLY OF BRIDGE

PLANS OF DEYA

L 34

LEVEL 35 SKYGYM

LEVEL 35 PARTY DECK.

RAIN FOREST PAVILION

SKY PAVILION

NAVEL VOID

MEDITATION PAVILION

LOWER PARTY DECK

PERFORMANCE STAGE PARTY LAWN

POWDER ROOMS

STEPS TO GYM

WET SEATING SAFETY ZONE

SUNBATHING DECK

STEPS TO PARTY DECK

LIFT TO GYM

SKYCLUB ENTRY WEST

S.A S.B S.C S.D S.F S.G S.H S.I S.J S.M S.N S.O S.P S.Q

S.1
S.2
S.3

KIDS POOL

VOID

LAP POOL ZONE

SKYCLUB ENTRY EAST

MULTIPURPOSE DECK

OUTDOOR LOUNGE

SUNBATHING DECK

KIDS PLAY

WET SEATING & SAFETY ZONE

RAIN PAVILION

RAMP DOWN TO L33

POWDER ROOMS

PANTRY

L 33

STEAM ROOM

PLUNGE POOL

HOT TUB

SPA AREA

LOUNGE AREA

MASSAGE ROOM

SAUNA

CHANGING

VOID

VOID

LOBBY

VOID TO L32

VOID TO L32

VOID TO L32

VOID

SAUNA
STEAM
CHANGING
PLUNGE POOL
MASSAGE ROOM
SPA AREA
HOT TUB

RAMP DOWN TO L32

RAMP UP TO L34

"Eighty extremely lucky owners will come together to own a totally unique lifestyle infrastructure – an artwork, a sky garden, a new kind of architecture."

—
KHOO PENG BENG

gym

outdoor deck

outdoor living

games room

conference room

spa

virtual
golf

outdoor
bar

party
deck

gold class
cinema

children's
pool
zone

stage

pantry
lawn

function
room

jogging /
walking track

squash

half
basketball

pocket
gardens

lounge

meditation
pavilion

navel
lounge

lap pool
zone

putting
green

yoga
pavilion

jogging
track

billiard

continuous
ramp
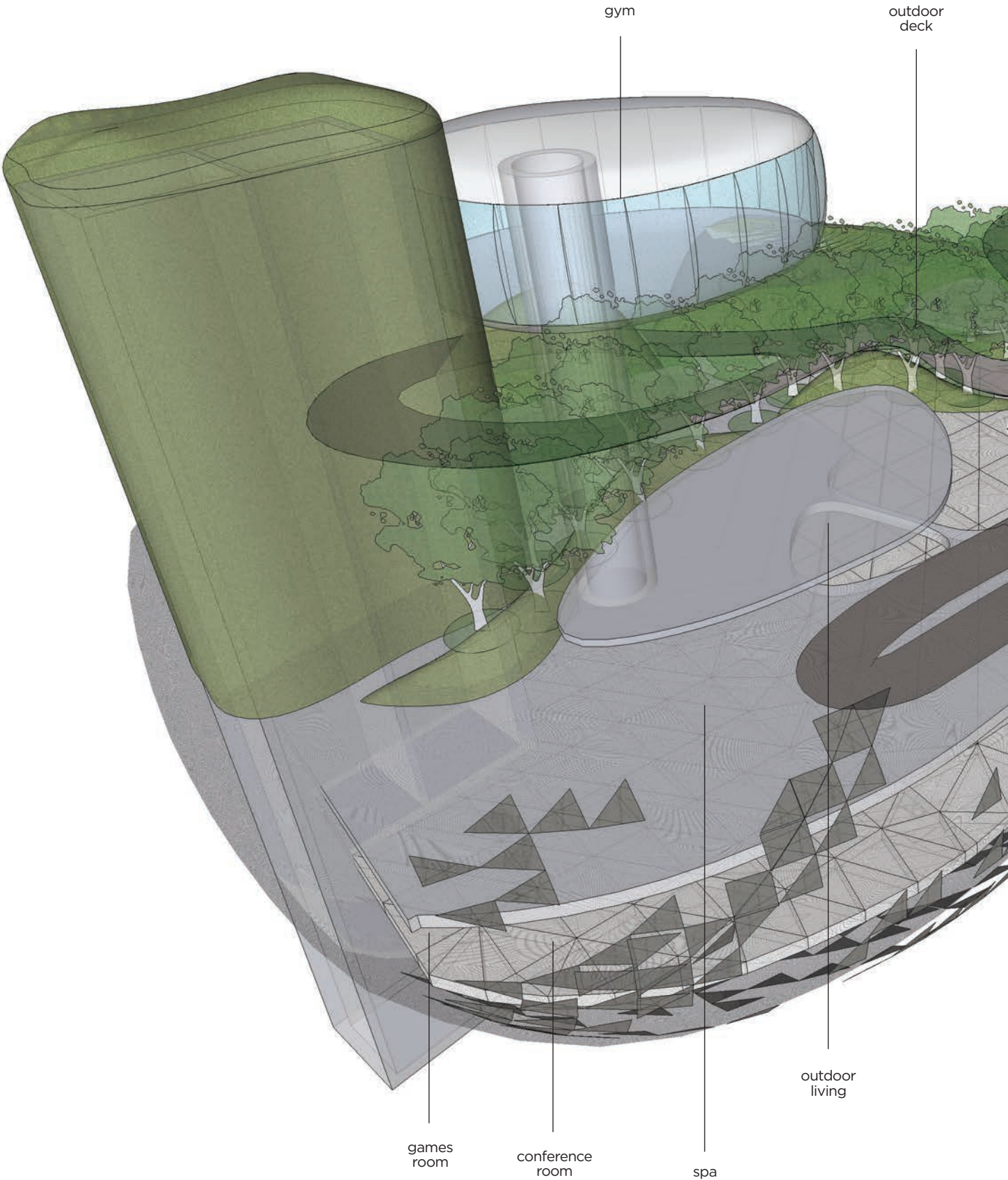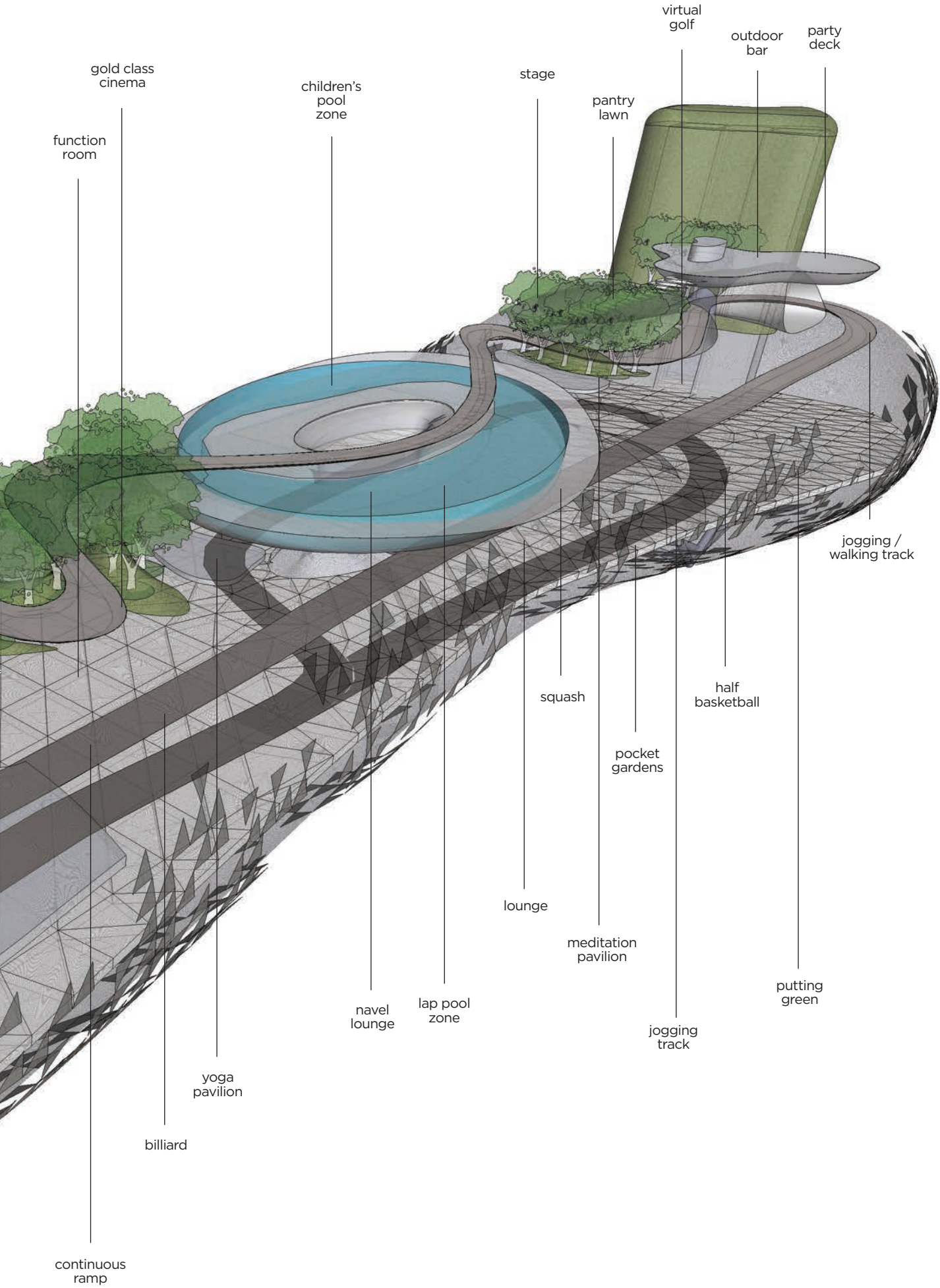
AMENITIES

"Everyone entering Deya will have a sense of walking in a cloud and on a cloud."

— BELINDA HUANG
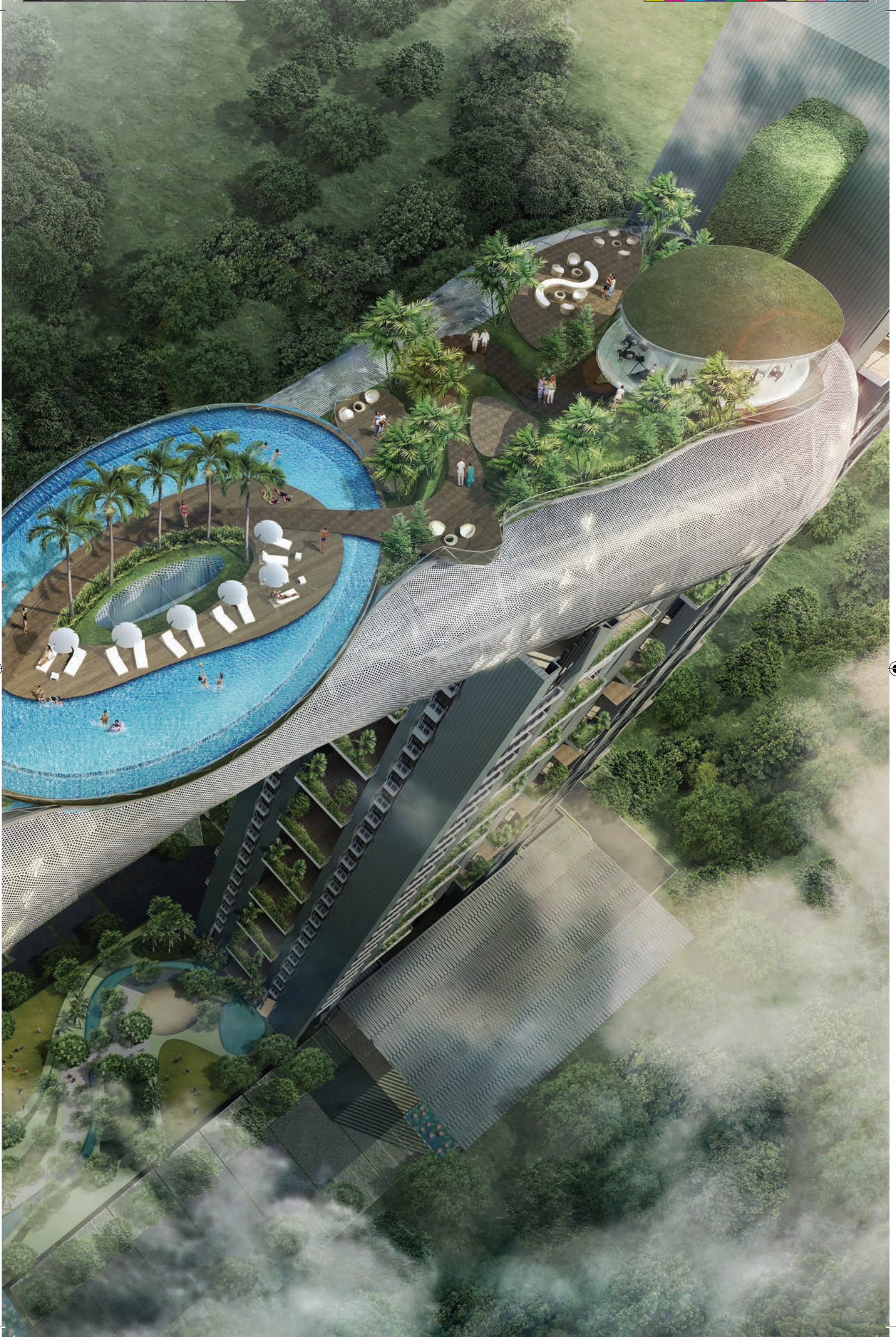
WHEN was the last time you looked at the sky?
I mean, really gaped at the clouds drifting by?
A cloud is a cloud is a cloud, you might say
Just as a day is a day that you soon while away

But is a cloud just a cloud just a cloud just a cloud?
Don't its ripples, wisps, tresses make you gasp out loud?
Behold, on God's canvas of fleeting azure
Magnificent munificence, hour on hour

I see swirls of saris. I see bouncy balls. The wings of a thousand birds flying free.
And when Brother Sun glares and flares mightily, the sky - oh! - it becomes a gem sea
Awash in this brilliance are plump cushions of fun
Have you hugged your cloud today?
Have you hugged your loved ones today?
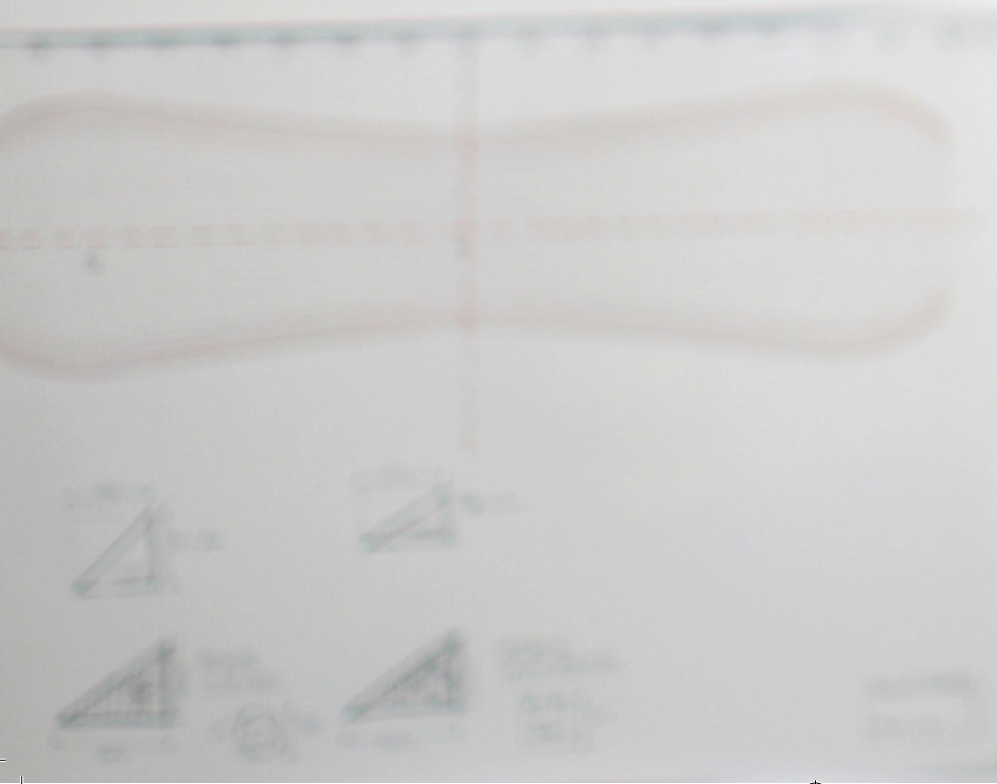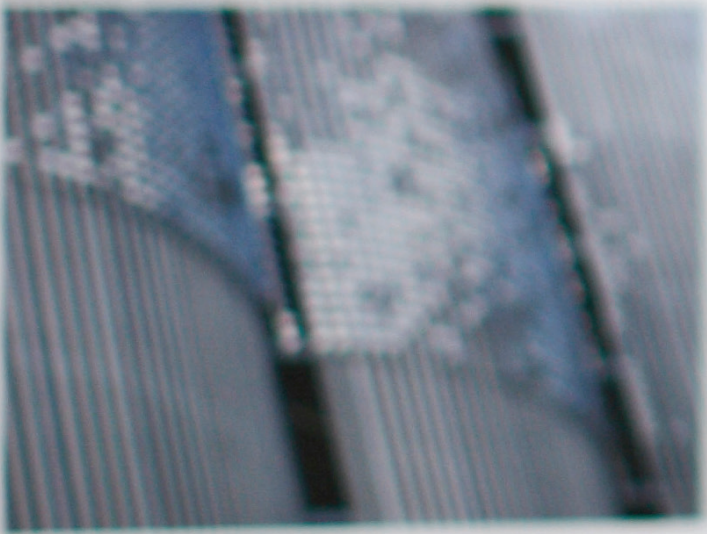
DR HOSSEIN REZAI-JORABI
WEB STRUCTURES

(skyclub level 35) +120.10m
(unit level 35) +118.60 , skyclub 1.5m deck

level 34 +115.20m , skyclub reception

(skyclub level 33) +112.80 , skyclub rooms
(unit level 33) +111.80

(level 30) +101.60m , space for M&E, transfer beam / slab support for skybridge structure

Section @ Midpoint.
1:200.
20101109

(skyclub level 35) +120.10m
(unit level 35) +118.60 , skyclub 1.5m deck

level 34 +115.20m , skyclub reception

(skyclub level 33) +112.80 , skyclub rooms
(unit level 33) +111.80

cladding subframe (R.T05)

(level 30) +101.60m , space for M&E, transfer beam / slab support for skybridge structure

Section @ widest
1:200
20101109

SECTION + LEVELS

SW: Might all your talk about its complexity be just so much smoke and mirrors?

BH: At first sight, an onlooker may see Atmosphere as two simply supported towers. But because of this development's aspect ratio, each tower is actually a very slim block. This made it quite difficult to design structurally and to make things more difficult, we had designed the tower such that it had been broken down to columns within overall massing. Given this, in a typical structural design for tall buildings with an aspect ratio like this, you will end up with very slender walls supporting the building's entire load.

SW: So what about Hossein's design was different?

BH: In Hossein's design, a prospective buyer would have the flexibility in ordering his unit - for example, you will be able to knock down whichever walls you like within your unit to expand some rooms.

PB: We enjoyed the entire process of coming up with solutions to these concerns. And when Hossein hit upon the solutions, we worked the rest out very quickly, breaking up into two teams - one for the cloud, one for the towers.

SW: Where was Hossein's magic needed most?

PB: All the units have large open terraces that needed to be cantilevers which seemingly float in space. Furthermore, these sprawling terraces

Section @midpoint.

Section @widest

Key Plan
1:400 .
20101109
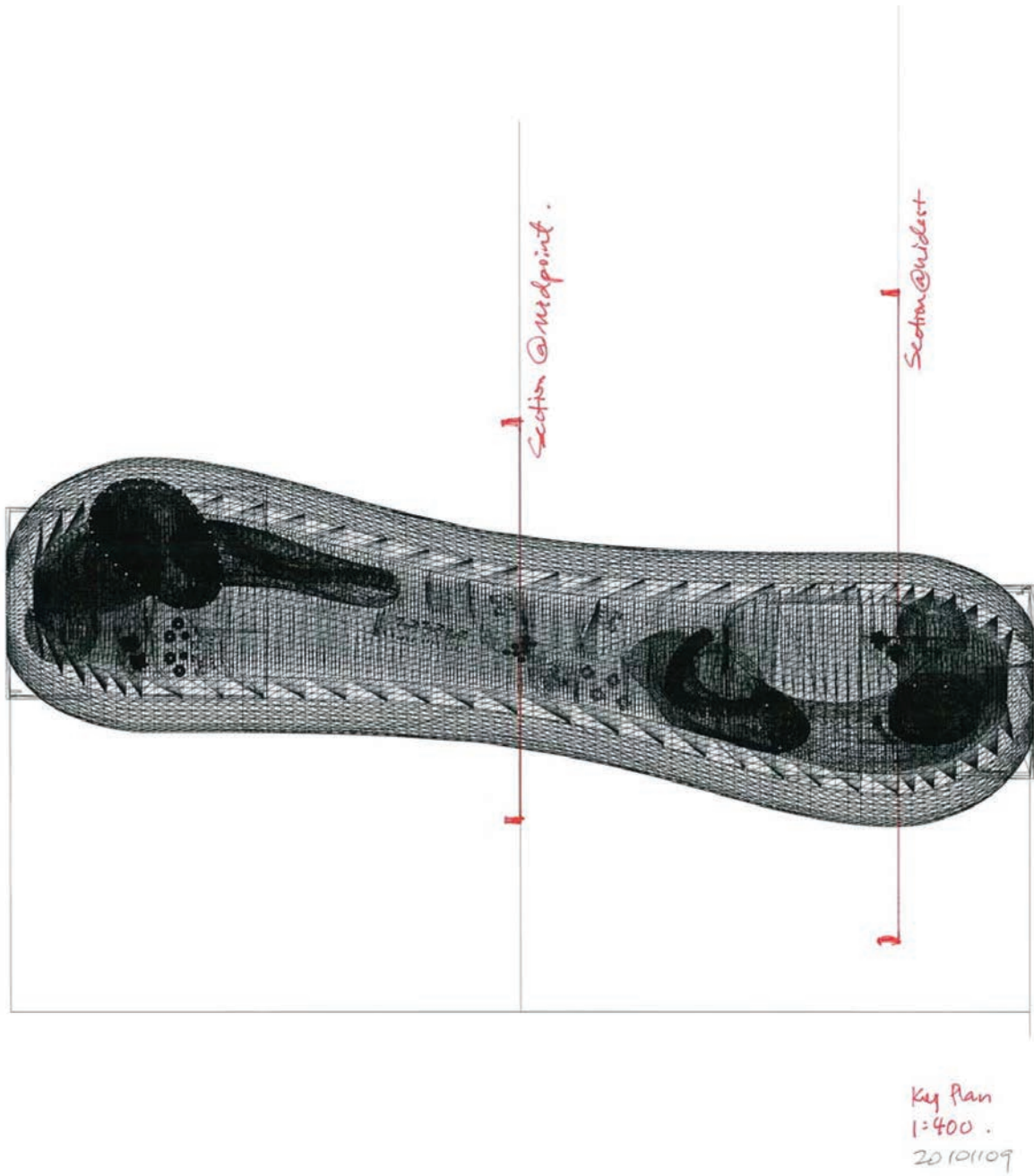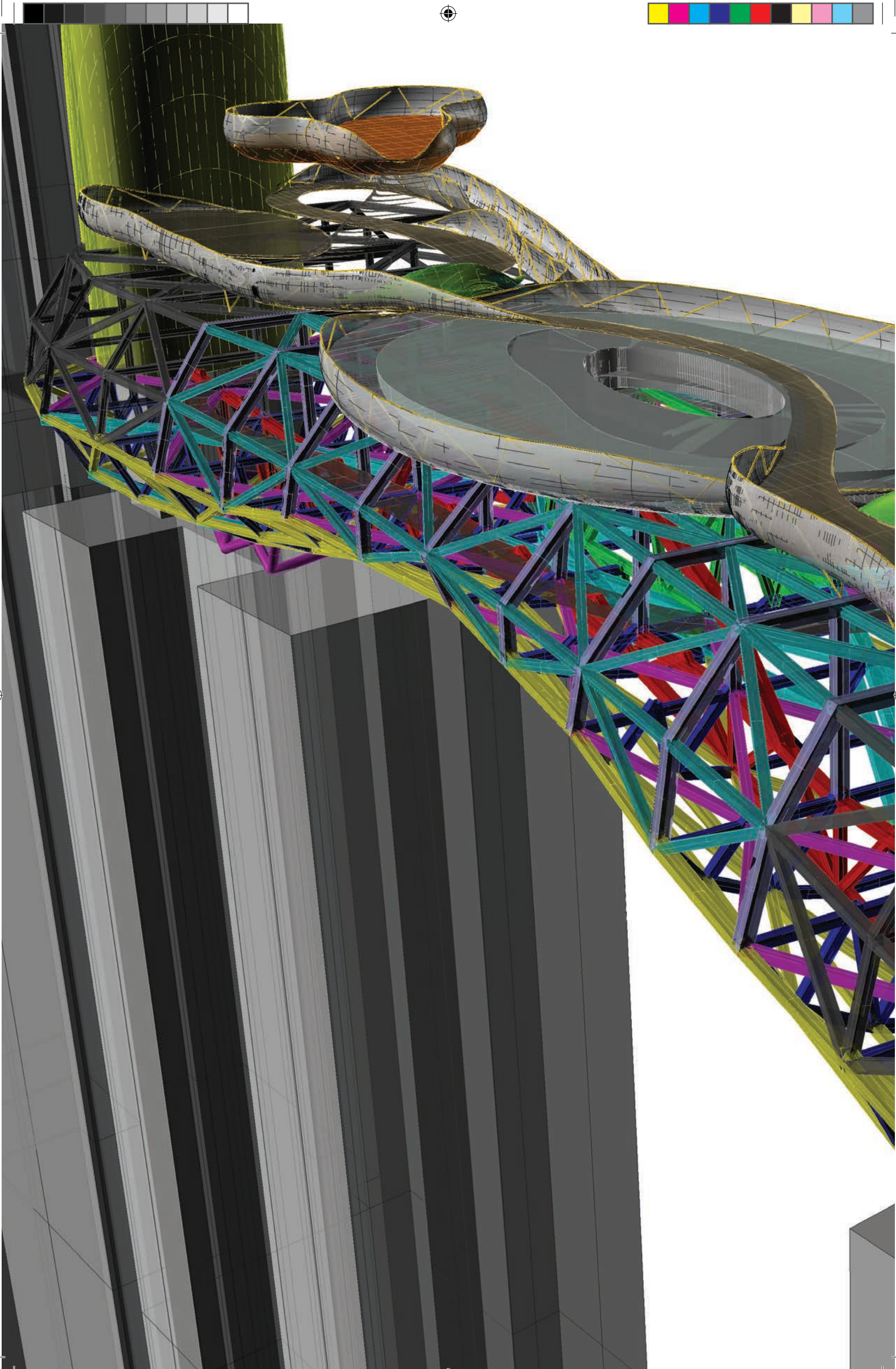
"Whilst Belinda and I are the muscles and make-up of the project, Hossein is about the bones."

—
KHOO PENG BENG
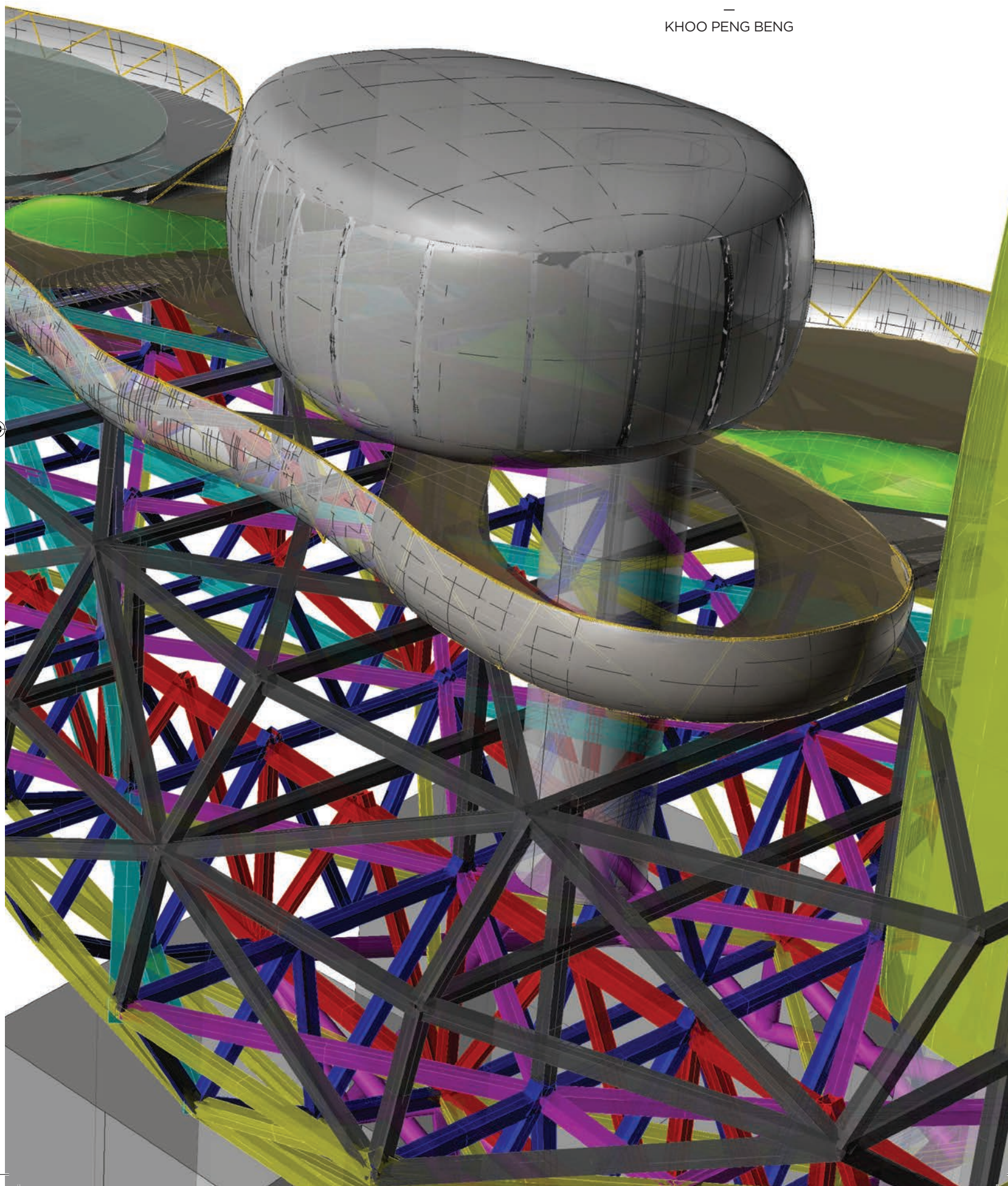
How would Deya, Atmosphere's cloud, be installed on the roofs of the two towers?

The many parts that make up Deya's structure will be sky-lifted, piece by piece, and then placed on each shoulder of the two towers to form Deya.

ARC Studio imagines Deya as two discrete clouds, each of minimum depth, merging in the middle. Structurally speaking, this requires the cloud sculpture to straddle the two towers using a beam-like as well as a catenary system. These two apparently contradictory system are coming together in Deya, resulting in a fusion of architecture and structure.

Also, to frame Deya as ARC Studio has defined it, Web Structure's solution is a complex, three-dimensional structure which, all in all, is made up of 1,500 steel sections. It weighs a total of 1,500 tonnes - to be assembled 100m above ground.

As Hossein and his team saw it, ARC Studio's development of the design process has led to the identification and definition of a structural hierarchy in which discrete components of the structure perform tasks which enhance the performance of the overall structures to required levels in a clear and simple manner. In particular, the structural anatomy of the final system comprises a total of nine different components, each of which has a distinct role in ensuring that the structure as a whole responds appropriately and holistically to Atmosphere's structural needs.

These nine components that shape Deya, Atmosphere's cloud sculpture, and their primary roles are as follows:

1   Longitudinal Truss: This is Deya's spine and so spans the two towers.

2   Transverse Truss: This is Deya's floor, and spans out from its spine.

3   Floor Diagrid: This keeps Deya's floor firm.

4   Horizontal Arches: These keep Deya from moving too much laterally.

5   Well Truss: These frame and shape Deya's mid-span, giving the cloud a big belly button.

6   Vertical Arches: These strengthen Deya's mid-span even more and stiffens the shape of the cloud sculpture.

7   Roof Arches: These complement the vertical arches.

8   Crown: These are the prime supports for Deya's roof and floor at each of its ends, which rest on the shoulders of the two towers.

9   External Diagrid: This binds 1-8 together to give Deya its final shape.
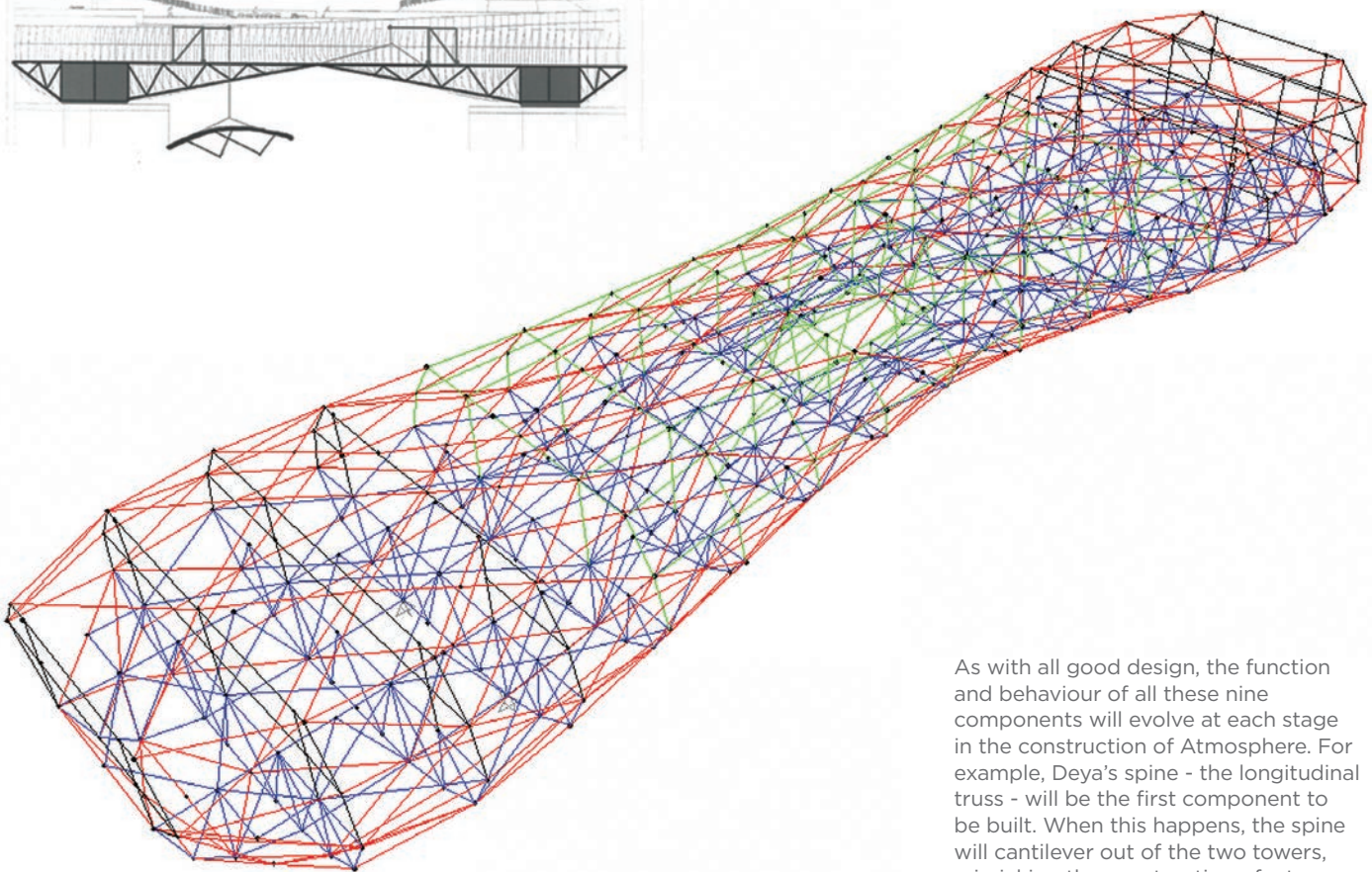
As with all good design, the function and behaviour of all these nine components will evolve at each stage in the construction of Atmosphere. For example, Deya's spine - the longitudinal truss - will be the first component to be built. When this happens, the spine will cantilever out of the two towers, mimicking the construction of a tower crane, which extends away from a tower as it lifts its two arms from the ground. It is only when these arms meet in the middle, 100m skywards, that the truss will form a safe working platform from which the other components will be lifted and assembled. Metaphorically speaking, the construction and connection of the two arms of the longitudinal truss will give us the critical mass of the cloud sculpture. It will then draw in Deya's remaining eight elements to shape the body of the cloud. When everything is completed, the longitudinal truss will become part of Deya's entire structure.
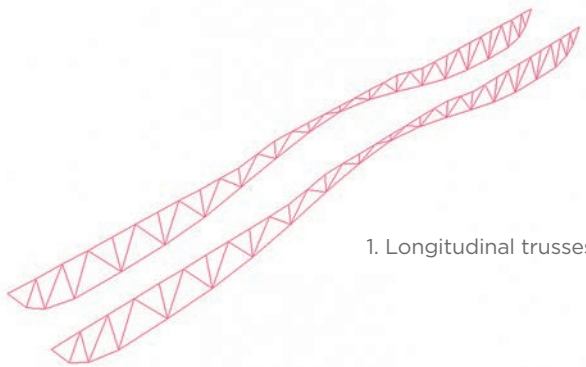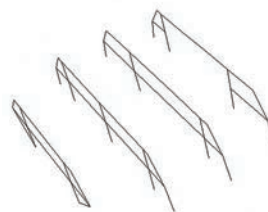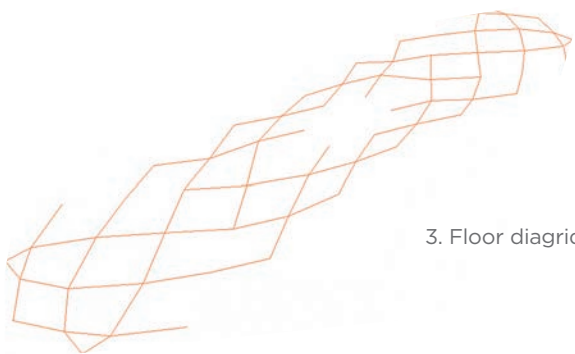
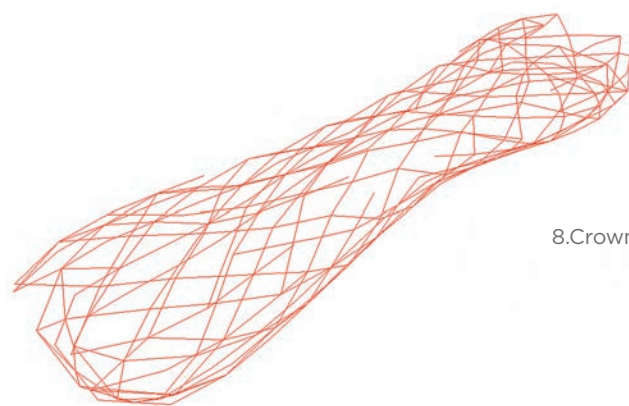1. Longitudinal trusses

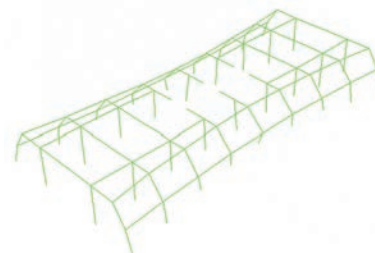6. Vertical arches
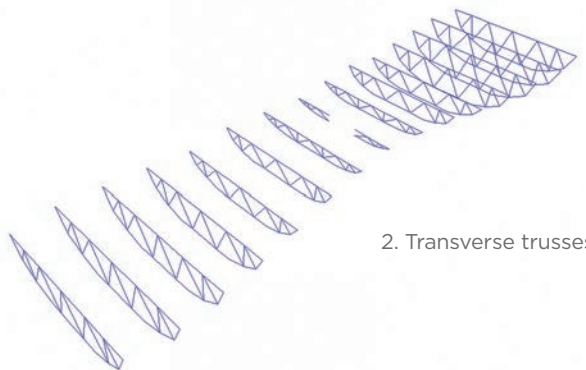
2. Transverse trusses
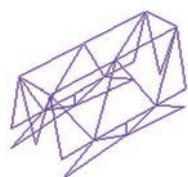
7. Roof arches

3. Floor diagrid
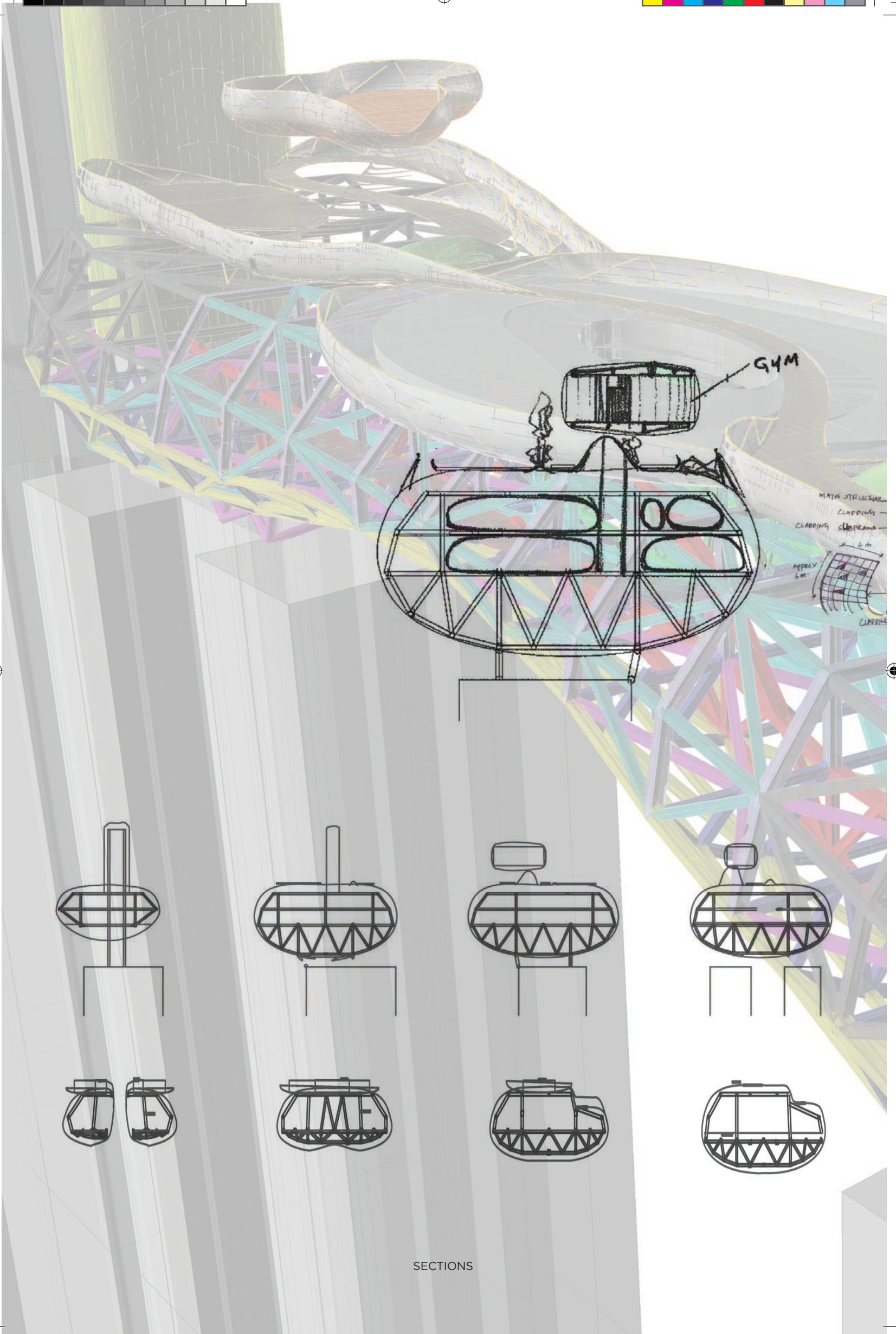
8. Crown

4. Horizontal arches

9. External diagrid

5. Well trusses

"Hossein and his team ingeniously created a series of trusses that supported the thin mid span of Deya."

—
KHOO PENG BENG

GYM
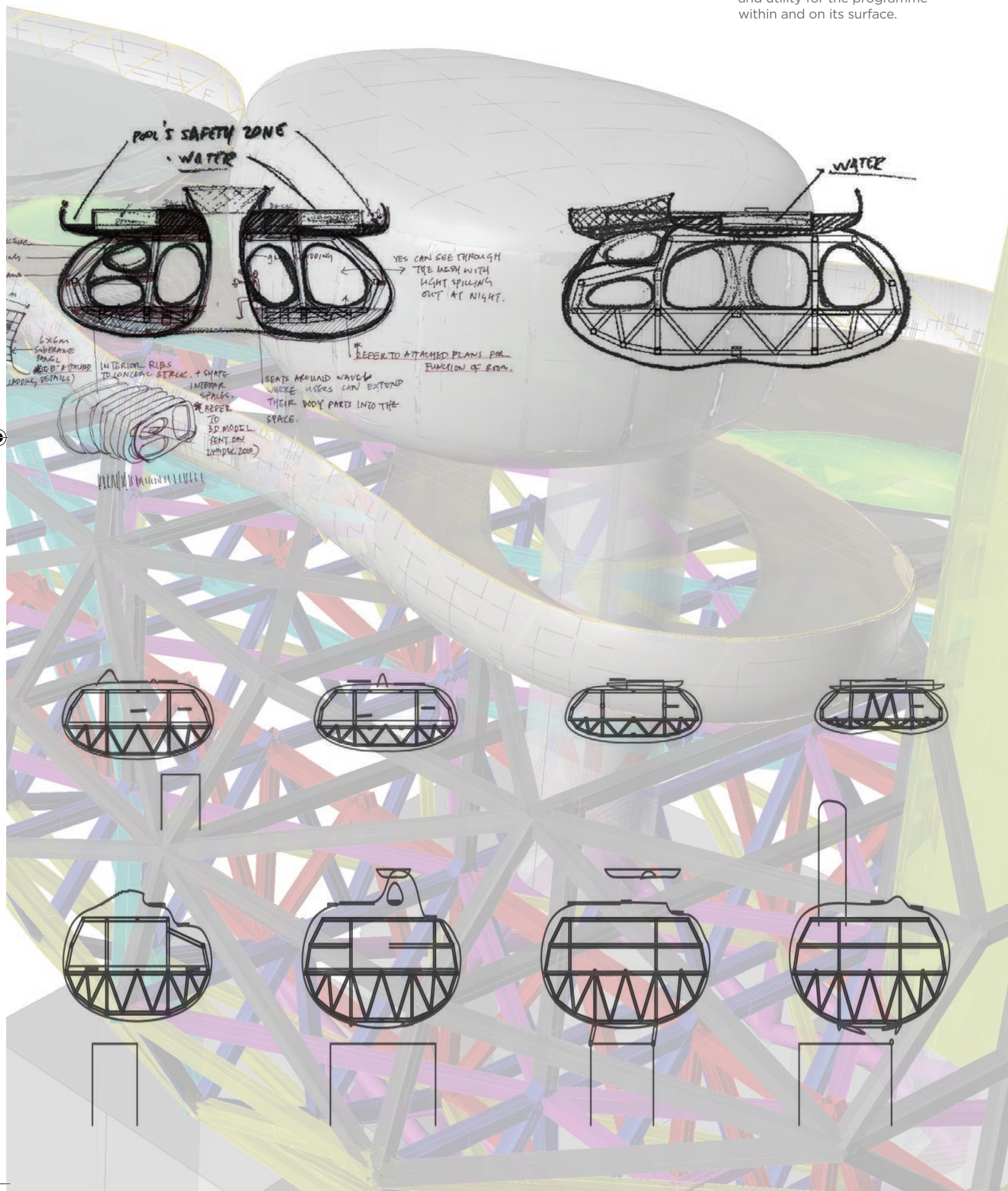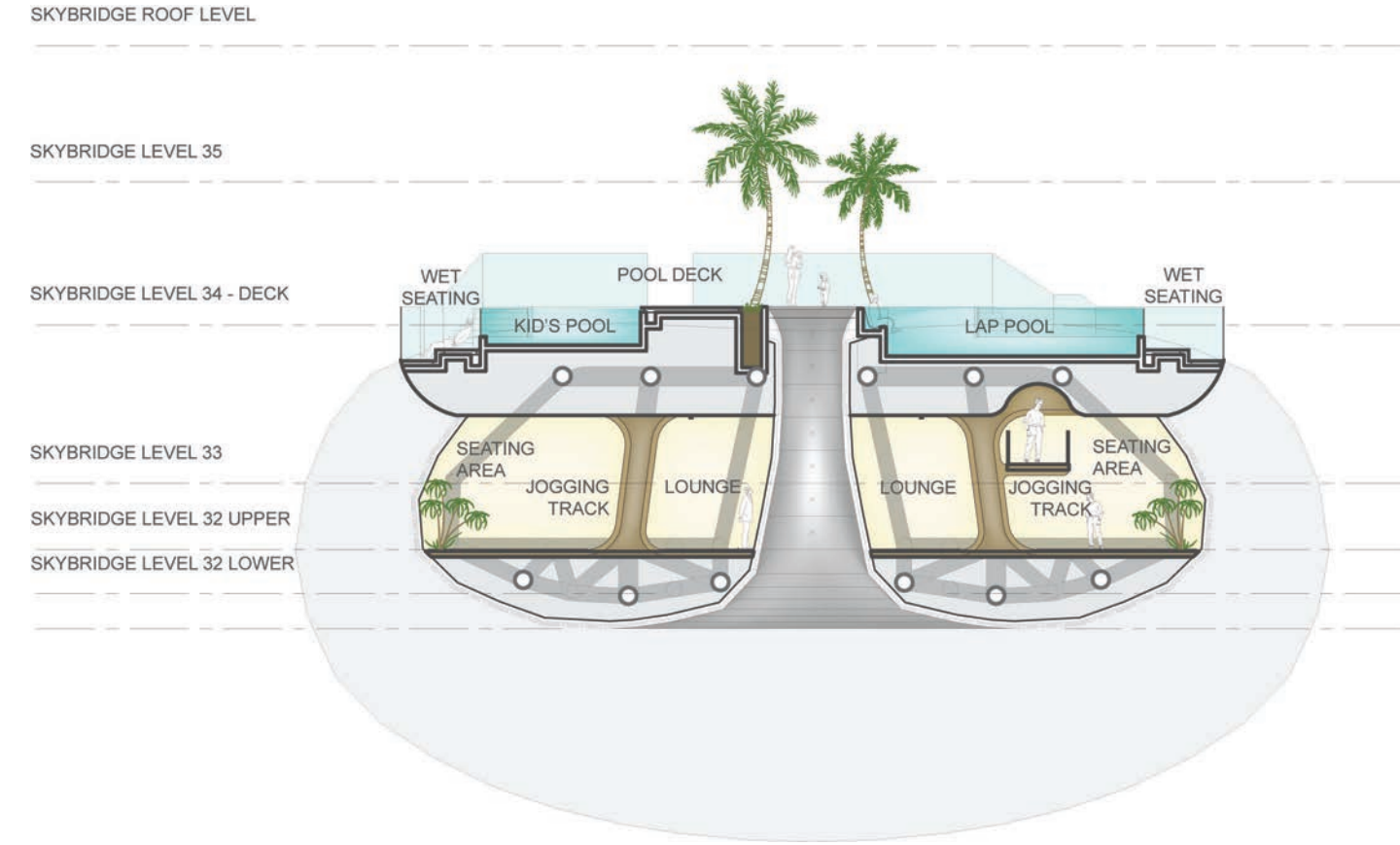
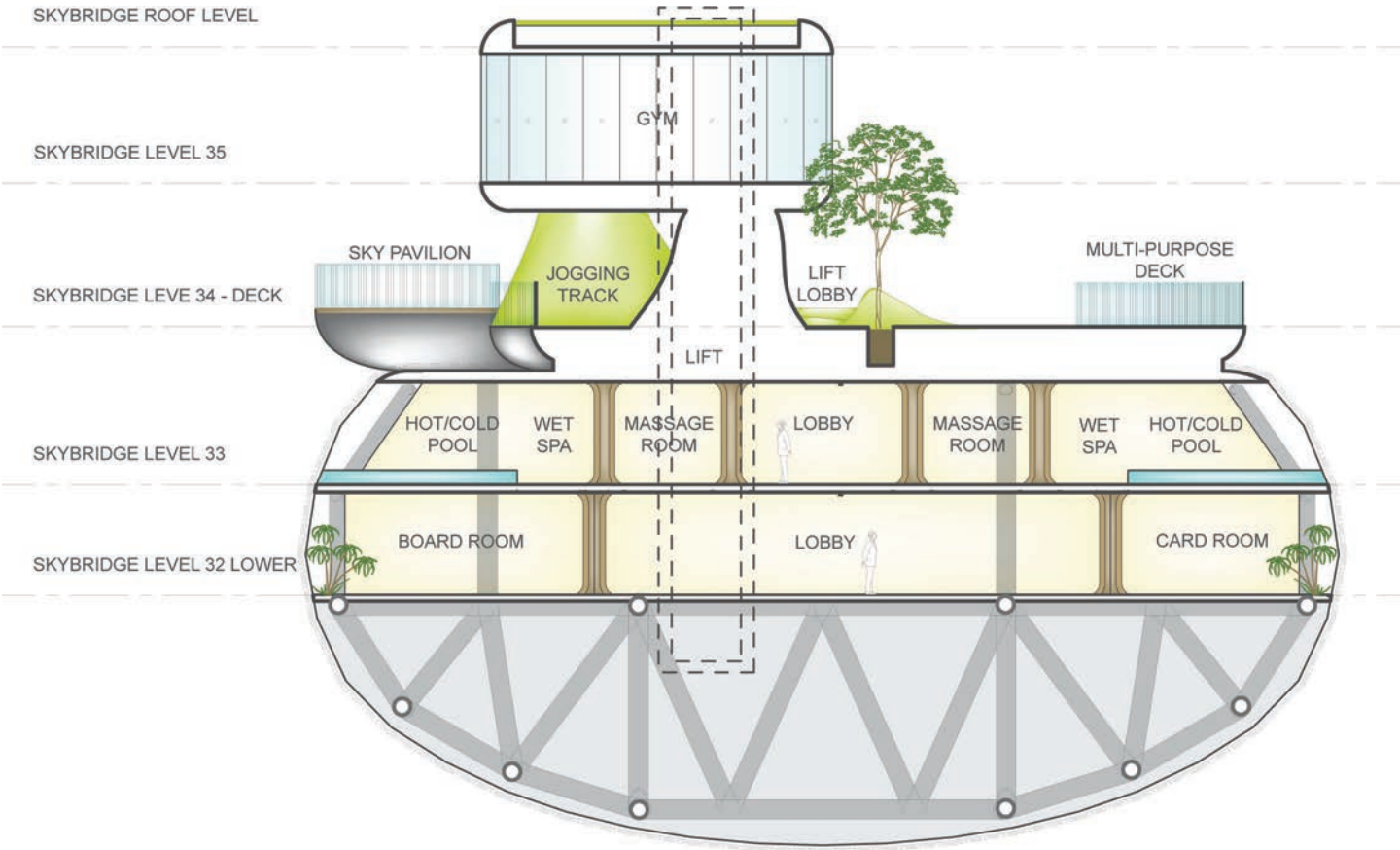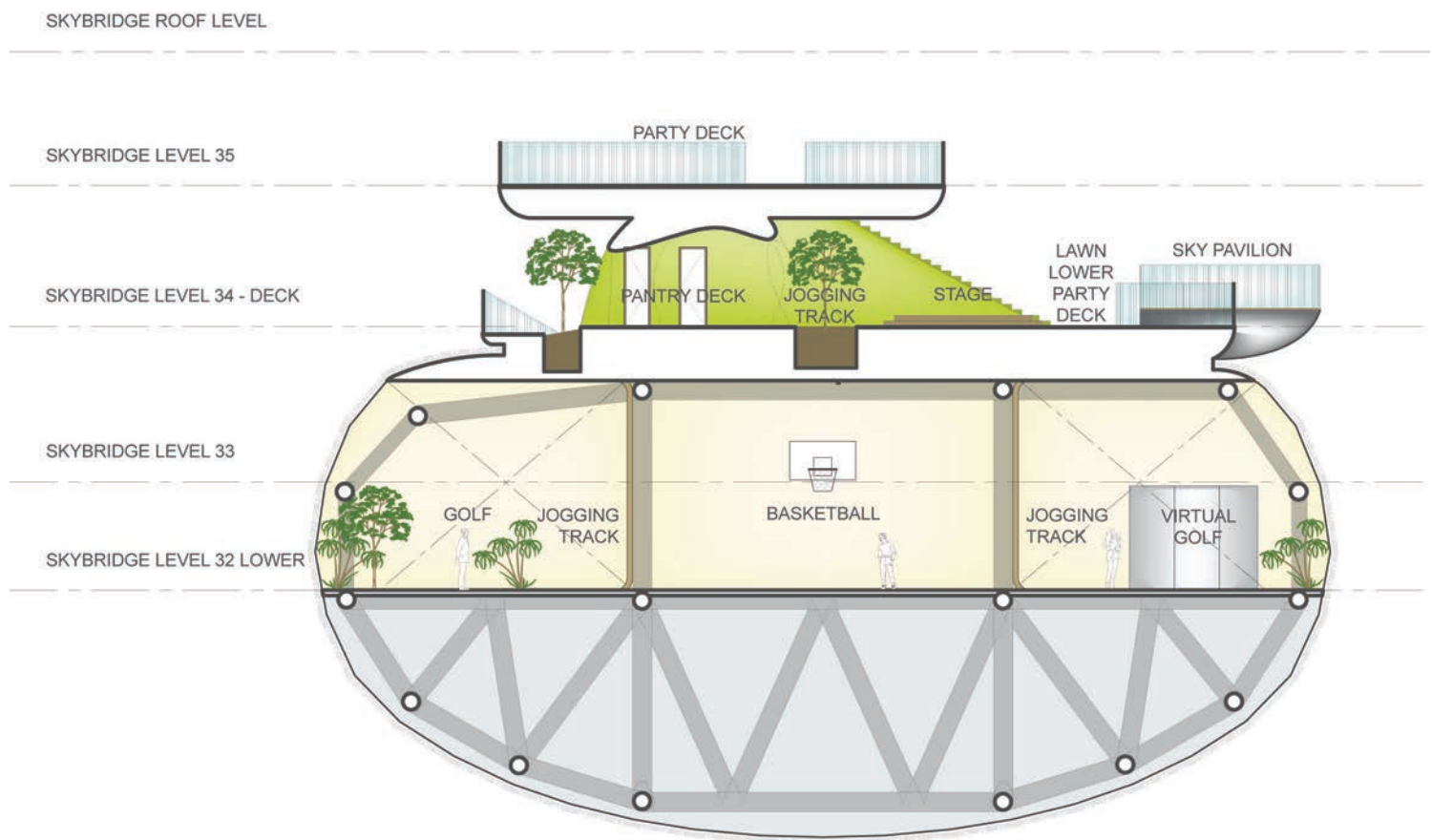MAIN STRUCTURE
CLADDING
CLADDING SUBFRAME
APPROX 6m.
6 m

SECTIONS

The complex shape of Deya required ARC Studio to study multiple sections. Each section will provide Hossein's team with the exact definition of Deya's form.

The structure is then calibrated to provide optimum efficiency and utility for the programme within and on its surface.

SKYBRIDGE ROOF LEVEL

SKYBRIDGE LEVEL 35

SKYBRIDGE LEVE 34 - DECK

SKYBRIDGE LEVEL 33

SKYBRIDGE LEVEL 32 LOWER

GYM

SKY PAVILION
JOGGING TRACK
LIFT LOBBY
MULTI-PURPOSE DECK
LIFT

HOT/COLD POOL | WET SPA | MASSAGE ROOM | LOBBY | MASSAGE ROOM | WET SPA | HOT/COLD POOL

BOARD ROOM | LOBBY | CARD ROOM

SKYBRIDGE ROOF LEVEL

SKYBRIDGE LEVEL 35

SKYBRIDGE LEVEL 34 - DECK

SKYBRIDGE LEVEL 33

SKYBRIDGE LEVEL 32 UPPER

SKYBRIDGE LEVEL 32 LOWER

WET SEATING
POOL DECK
WET SEATING
KID'S POOL
LAP POOL

SEATING AREA | JOGGING TRACK | LOUNGE | LOUNGE | JOGGING TRACK | SEATING AREA

SKYBRIDGE ROOF LEVEL

SKYBRIDGE LEVEL 35

SKYBRIDGE LEVEL 34 - DECK

SKYBRIDGE LEVEL 33

SKYBRIDGE LEVEL 32 LOWER

PARTY DECK

LAWN
LOWER
PARTY
DECK

SKY PAVILION

PANTRY DECK   JOGGING   STAGE
                   TRACK

GOLF   JOGGING   BASKETBALL   JOGGING   VIRTUAL
          TRACK   TRACK   GOLF

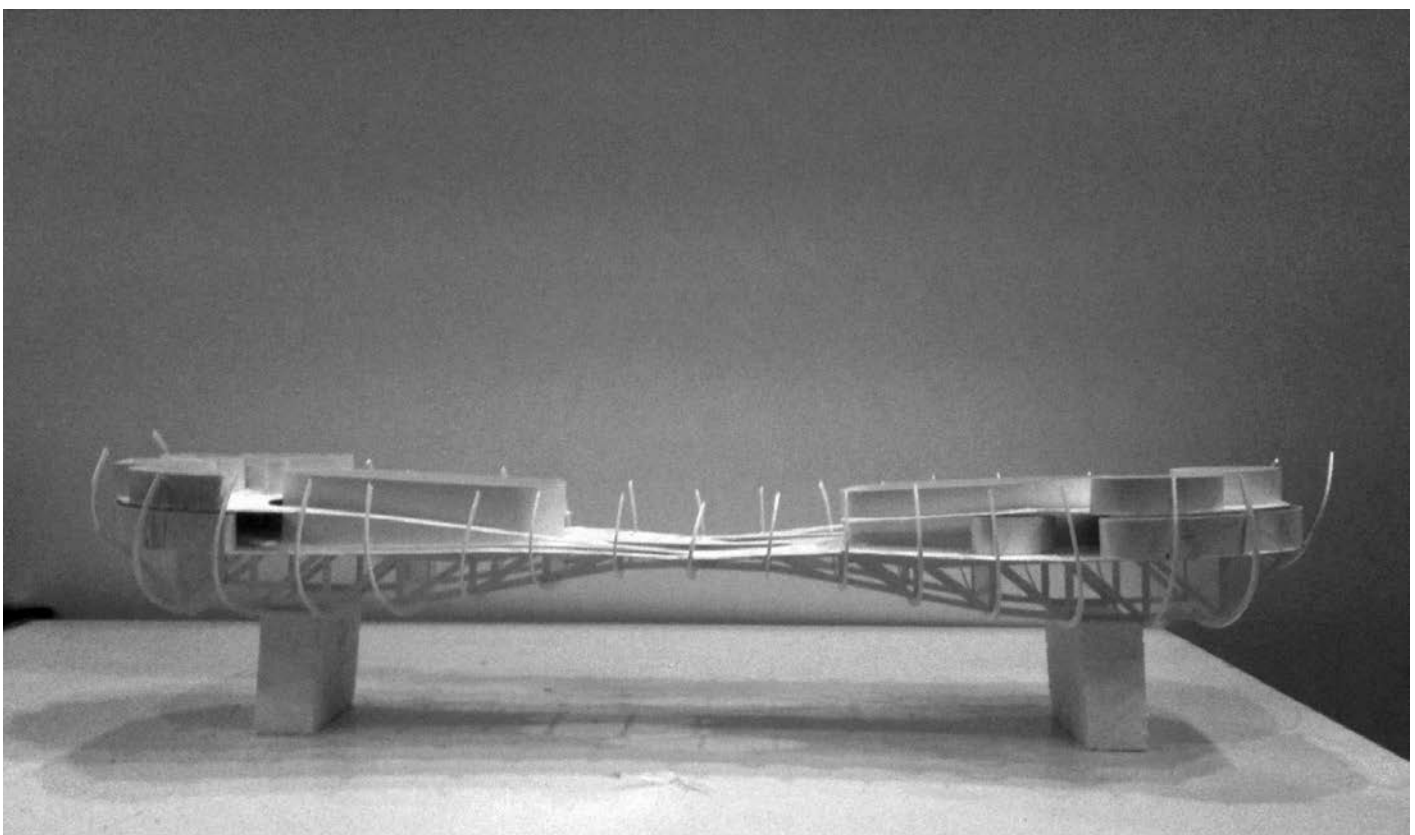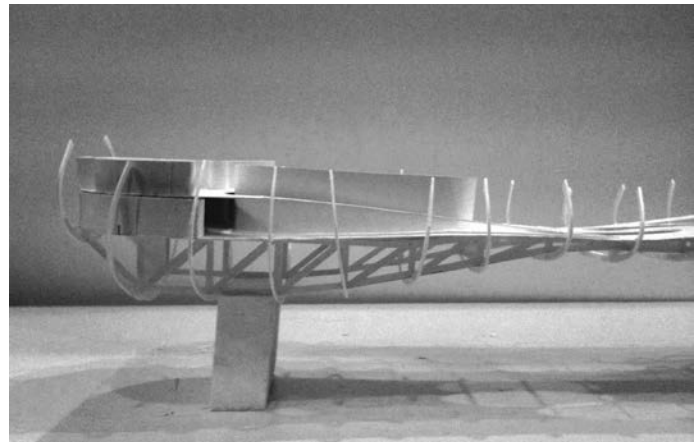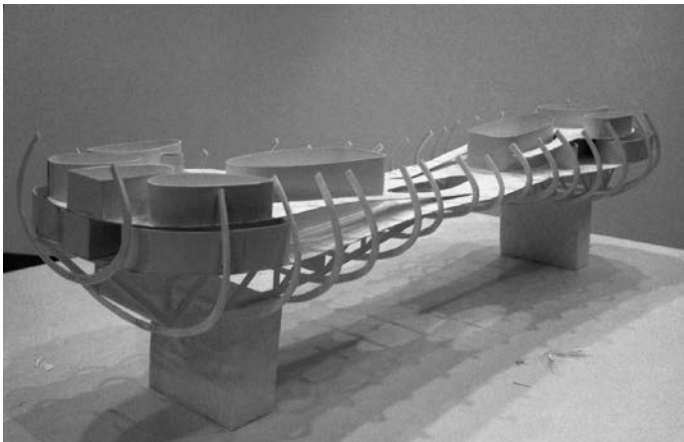# "Being first in India with a development like Atmosphere also means that people must know that the development is safe and its design well-considered, and not just a breakthrough - big though that is."

RAHUL SARAF

without support columns needed to be very firm, yet not add extra load to themselves. This was a tall order, even for the magician that Hossein is.

BH: Towers aside, the cloud is, again, a very innovative process because when you look at its looped shape, where Hossein and his men needed thickness within the structure, our design didn't give them that. Where Hossein & Company needed an arch there, there was no arch. The combined structural challenge was phenomenal!

SW: So how did Hossein and his team solve all that?

PB: They ingeniously created a series of trusses that supported the entire span of Deya.

BH: It led us to create the navel for Deya, the metaphorical centre of the entire cloud.

SW: Some may say that you are just challenging things for the sake of doing so?

PB: The most interesting part of the cloud, structurally, was that as it was inspired by an Airbus A380, it has a very large cavity. It spans 100m. So with a span that wide - between two towers, no less - we must be able to use its cavity to the fullest. Deya actually has a built-up area of almost 50,000 sqft which houses various community activities like swimming pools, spa, gym, squash court, putting and driving ranges, private and party lounges and so on. We shaped Deya such that its centre was thinnest so

as to achieve lightness in our design.

BH: In Indian cosmology, the navel is, after all, the centre, our connection to the universe. Having a centre that thin for a structure of this size also gives onlookers an interesting dimension to the cloud, when they look upwards at it. It is that visual connection that binds the environmental deck on the first floor with Deya and beyond.

SW: But what have you done that the eye cannot see?

BH: What enters the picture is also the economy of the structure. But, first of all, stability is our foremost concern. Hossein has been studying all the earthquake patterns in the South Asian region. He and his team then combined all these patterns to create a masterplan for withstanding earthquakes in Kolkata. He has even simulated digitally the movement of the towers in earthquakes and how these towers would remain standing with the structure intact.

RS: Being first in India with a development like Atmosphere also means that people must know that the development is safe and its design well-considered, and not just a breakthrough - big though that is.

BH: And that is where Hossein makes a big difference to the process, compared to many other engineers. He comes up with so many ideas and weighs in very strongly on the economy of design. This is very important because while it is important to talk in terms of building costs, it is equally, if not more, important to talk about a building's carbon footprint on earth.

PB: The Forum team worked with Hossein and his men to ensure that our design could be built in Kolkata. They were in touch constantly with India's biggest construction companies to ensure it could be built. With Hossein and India's best builders, we have started working on how to build Atmosphere safely and elegantly.
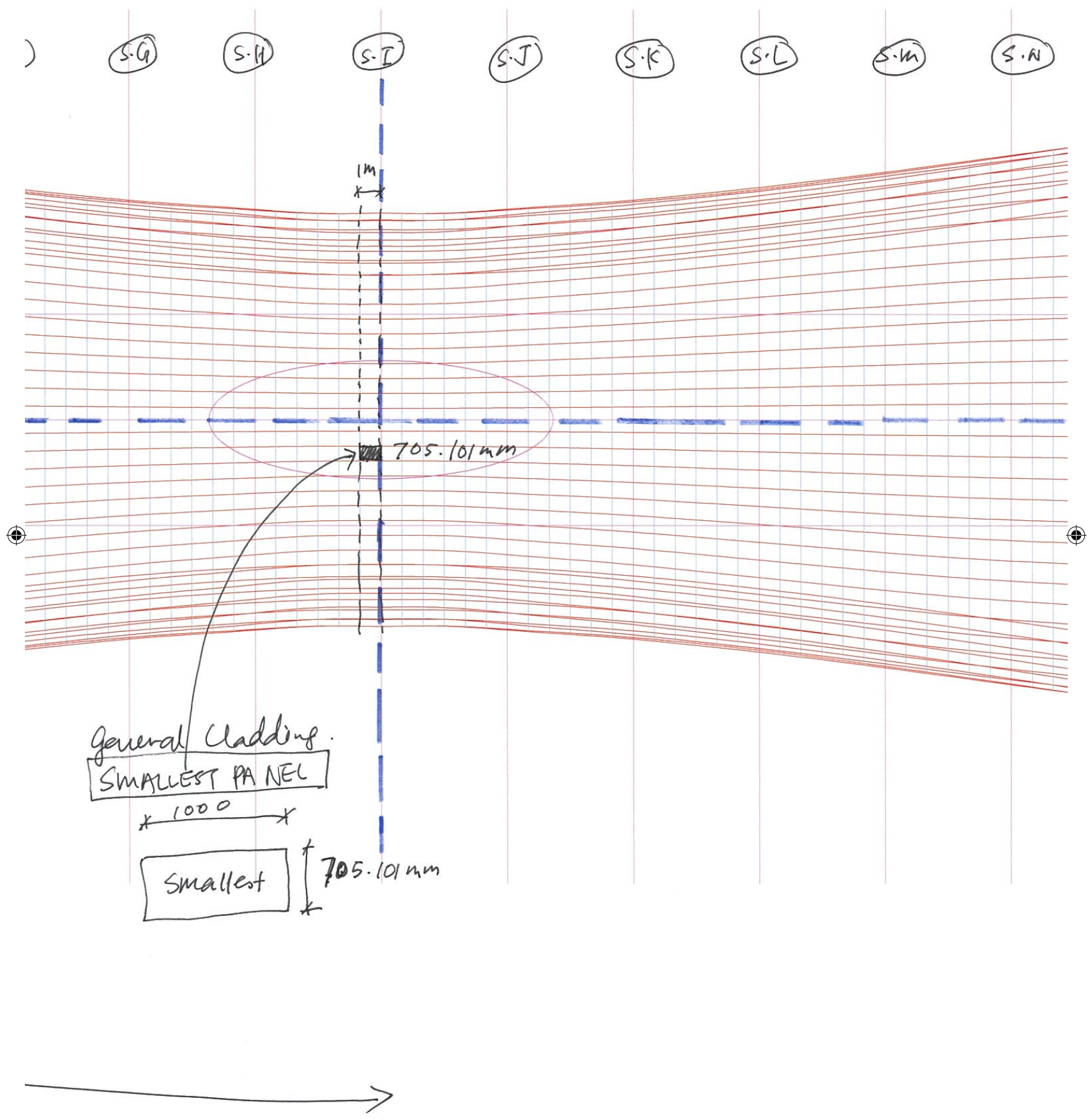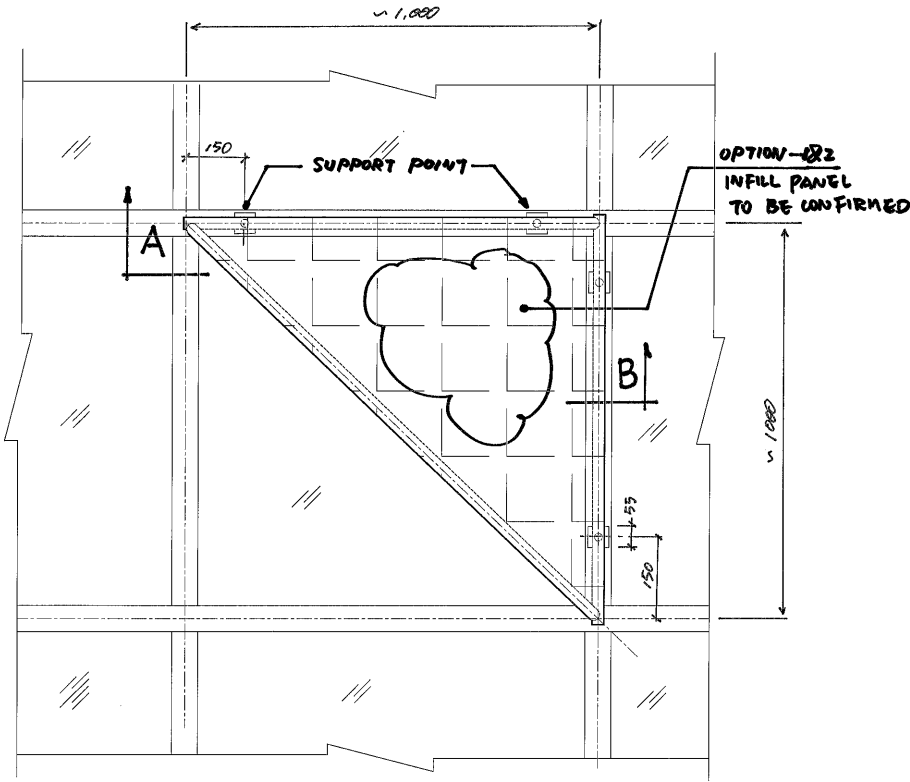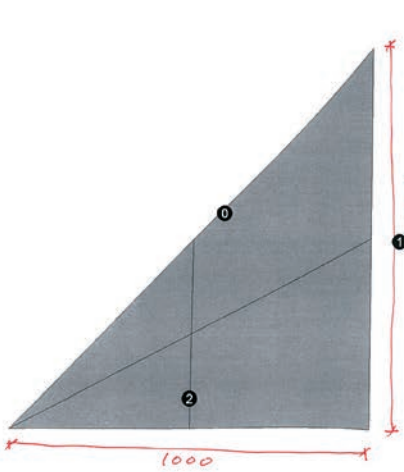
General Cladding
[LARGEST PANEL]

Largest   1032.820 mm

1032.820 mm

← 48 panel types ——

S·G   S·H   S·I   S·J   S·K   S·L   S·M   S·N

1m

705.101mm

General Cladding.

SMALLEST PANEL

1000

Smallest   705.101mm

~ 1,000

150

A

B

SUPPORT POINT

OPTION—1&2
INFILL PANEL
TO BE CONFIRMED

~ 1,000

55

150

REFLECTED PLAN

OPTION — 1

OPTION — 2

705·101 (smallest)
1032·820 (largest)

150

150

PANEL SIZE

1000

OPTION2 — SQUARE

SUBFRAME Φ5

SS sheet
140×140
HUNG ON SUBFRAME
180° ROTATION.

FRAME Φ30

OPTION1 — DISC

DISC SS Φ75
connected by
ROD Φ6×100
to SUBFRAME
360° MOVEMENT.

SUBFRAME Φ5

Special Cladding
PLAN 1:10
2010;201

5 mm thk filet weld

φ88.9 STEEL PIPE

BULB GASKET

8.76 LAMINATED H.S GLASS.

LOCKING BOLT

THREAD BOLT & TUBE

LEFT & RIGHT ADJUSTMENT

φ33.7 PIPE

SITE WELD

OPTION 1 & 2

SEC . B — B

φ88.9 STEEL PIPE

VAR

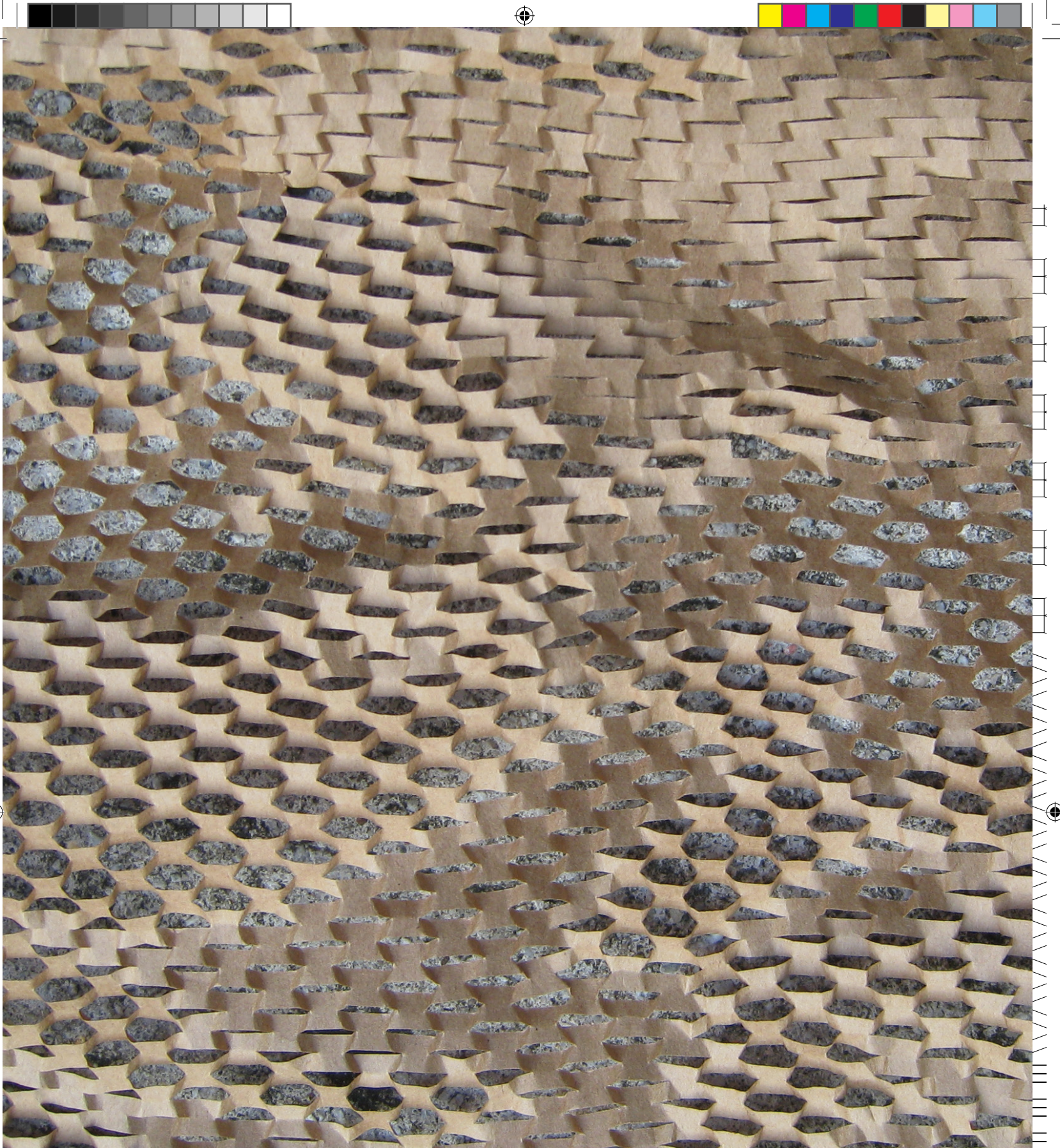φ33.7 STEEL PIPE

VAR

150

REFER TO OPTION 1 & 2

SECTION A—A

# "We wanted to achieve formlessness, something amorphous and dynamic."

—

KHOO PENG BENG
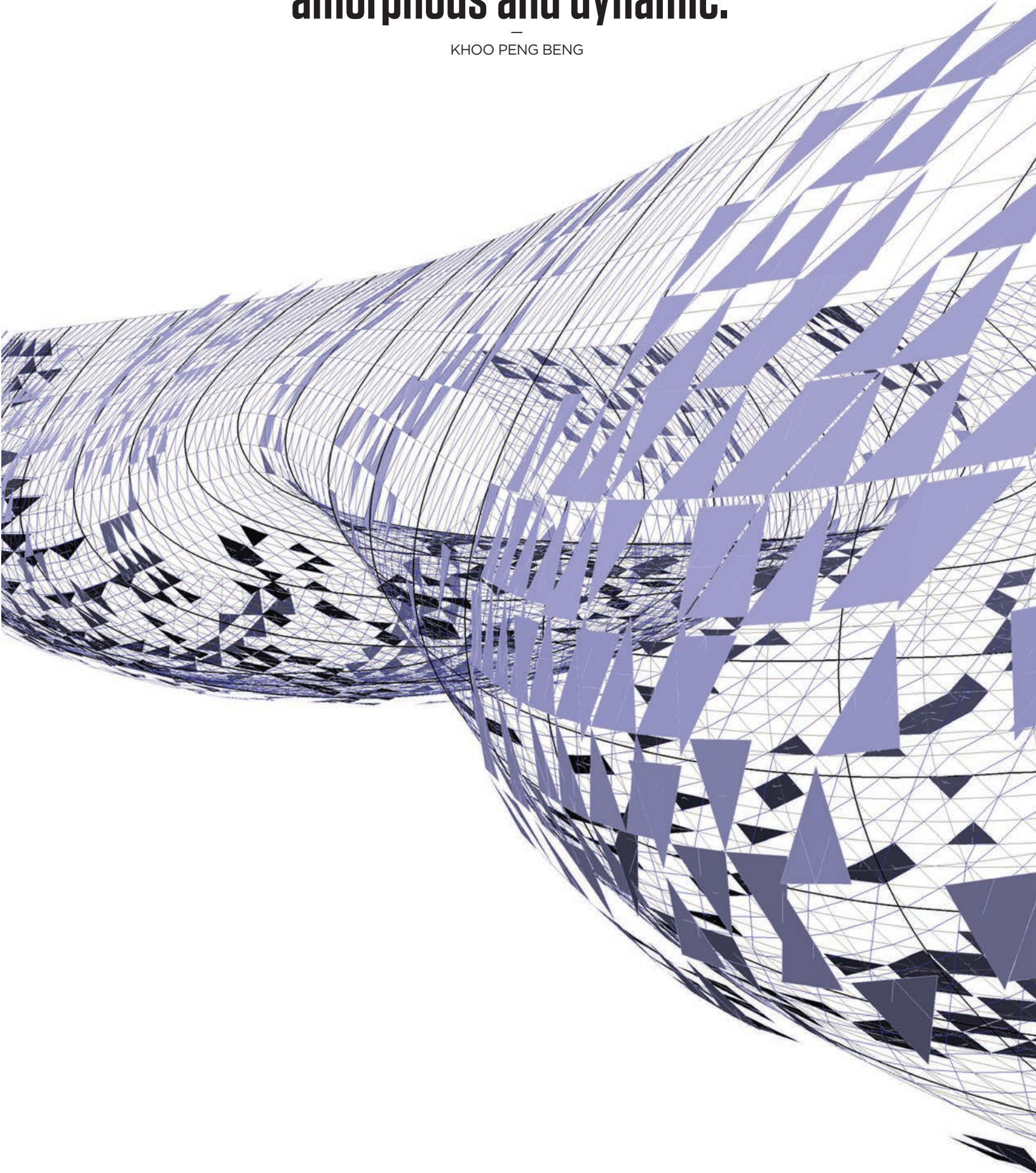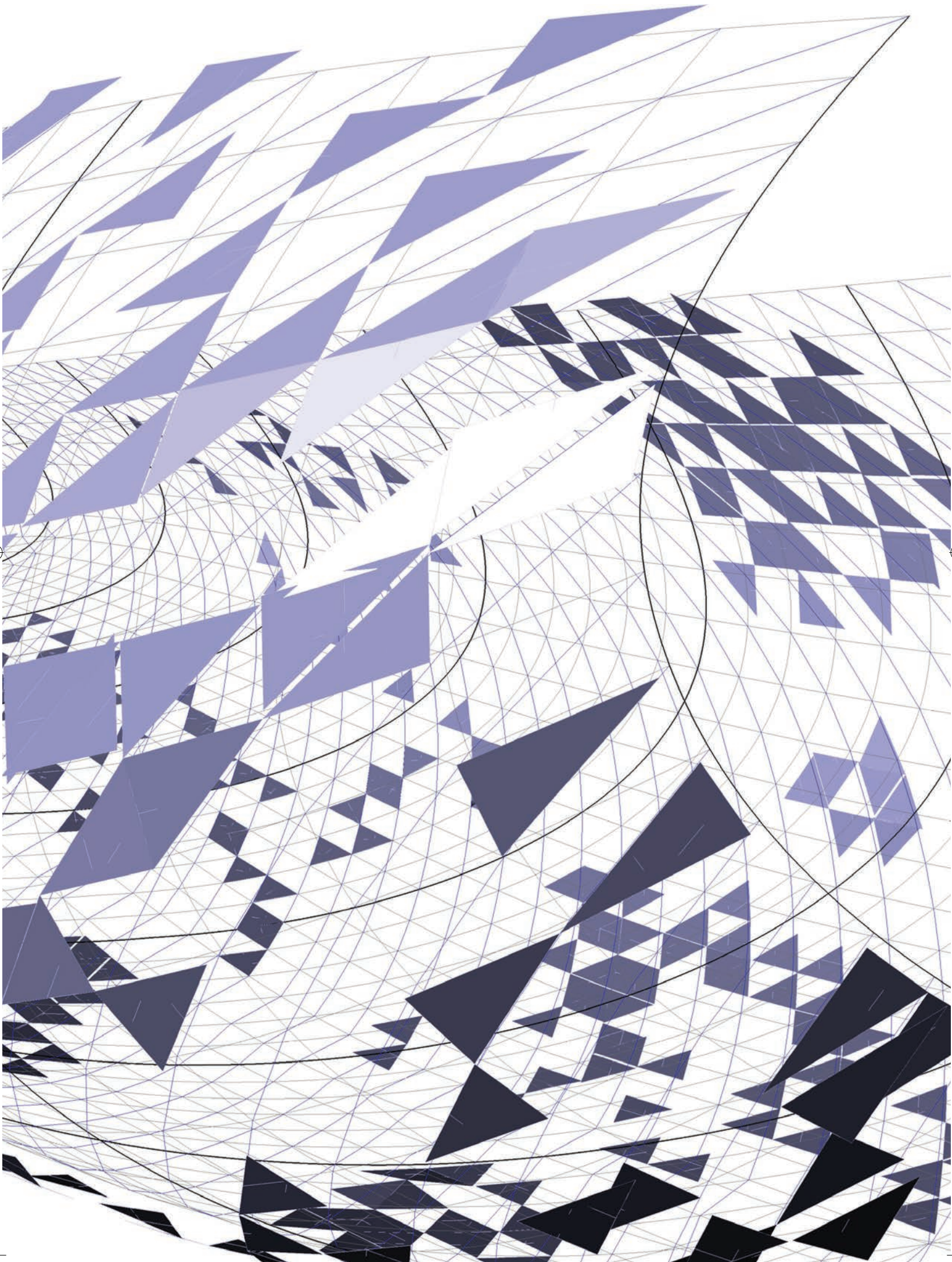
"The shadows cast
by the mesh, with all
its different densities,
will give the cloud's
entire interior dappled
lighting."

—

BELINDA HUANG

Deya's cladding is made up of expanded
metal mesh on a 1m grid. The mesh is
expanded at varying degrees, creating
4 different porosities. The varying
porosities are clustered according to
the requirements for privacy, views,
ventilation and light of the functions
within. As the surface of the cladding is
three dimensional in its modulation, its
porosity will appear different depending
on the lighting conditions and the angle
of view. This will emphasize further the
soft ephemeral quality of Deya as its
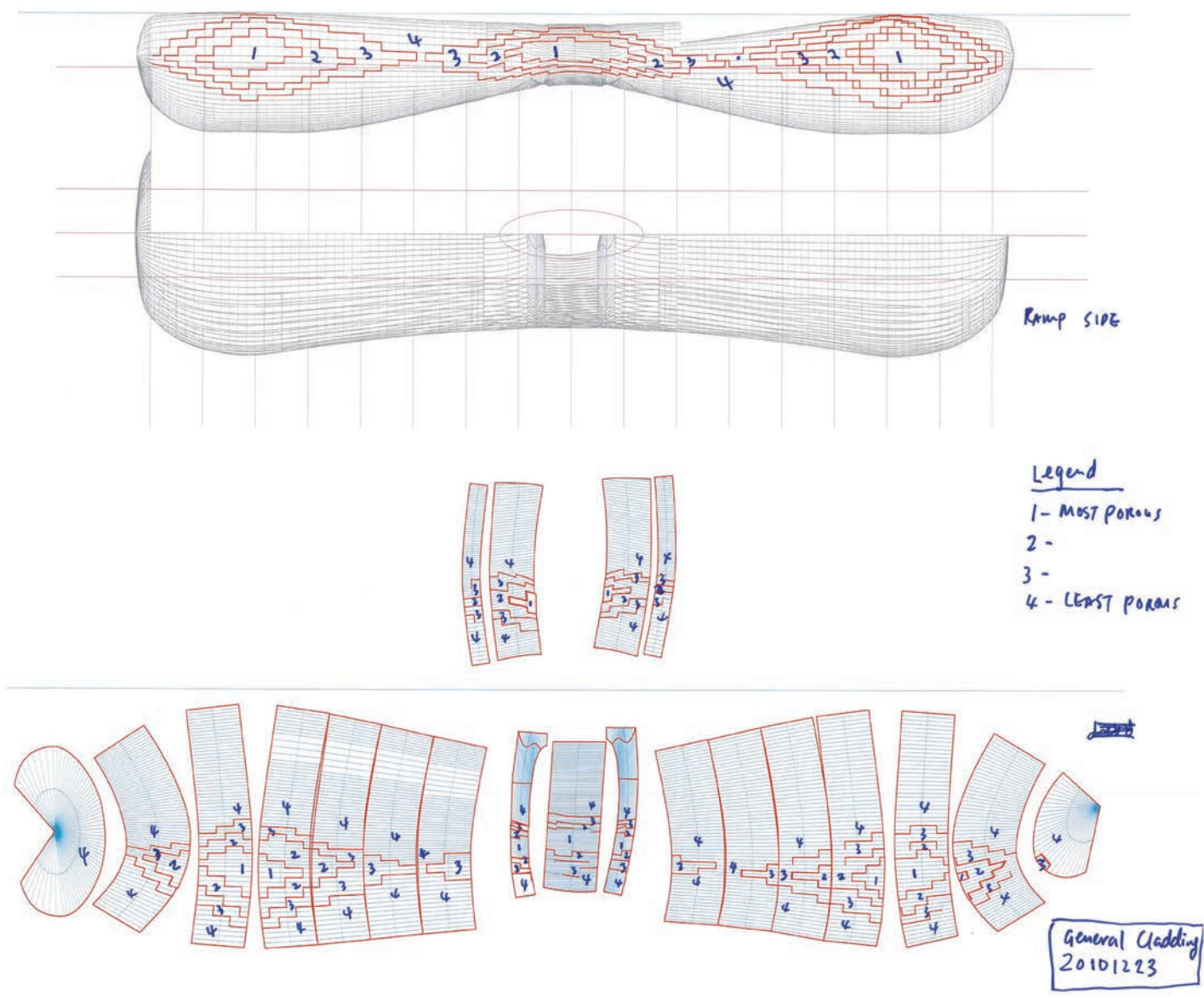solity and form is constantly changing.
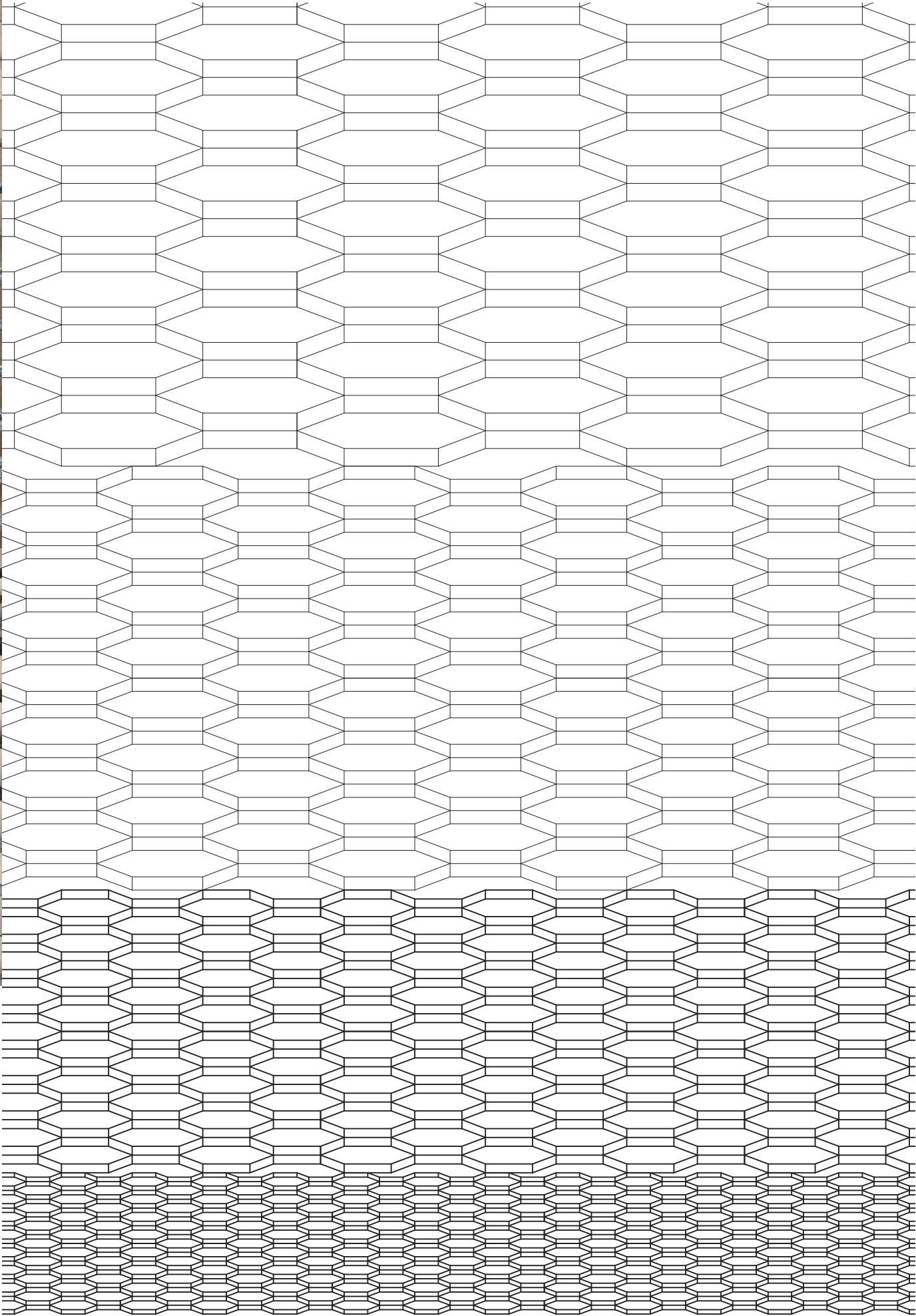
200mm

150mm

100mm

50mm

"We had to unravel the puzzle of the complex surface of the form ... how this three dimensional puzzle could be put together in the simplest way possible."

—
BELINDA HUANG

Although its form is clean and deceptively simple, the surface of Deya is actually a complex curved surface. In construction, due to its scale, we are able to develop the surface from flat panels, with each panel precisely calculated to make up the overall form.

WIND

MOVEMENT ACROSS SURFACE.

SPARKLE & SHIMMER.
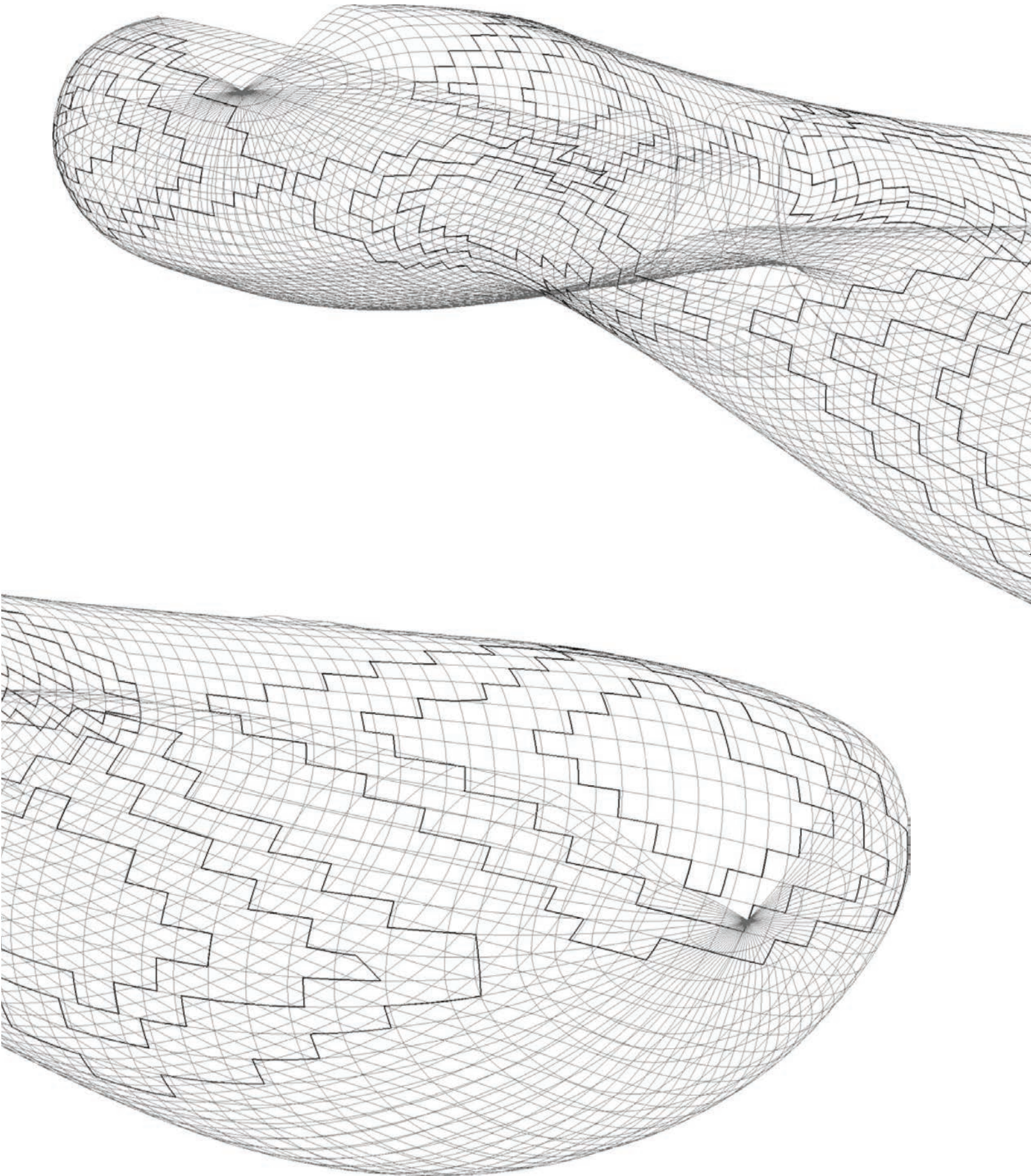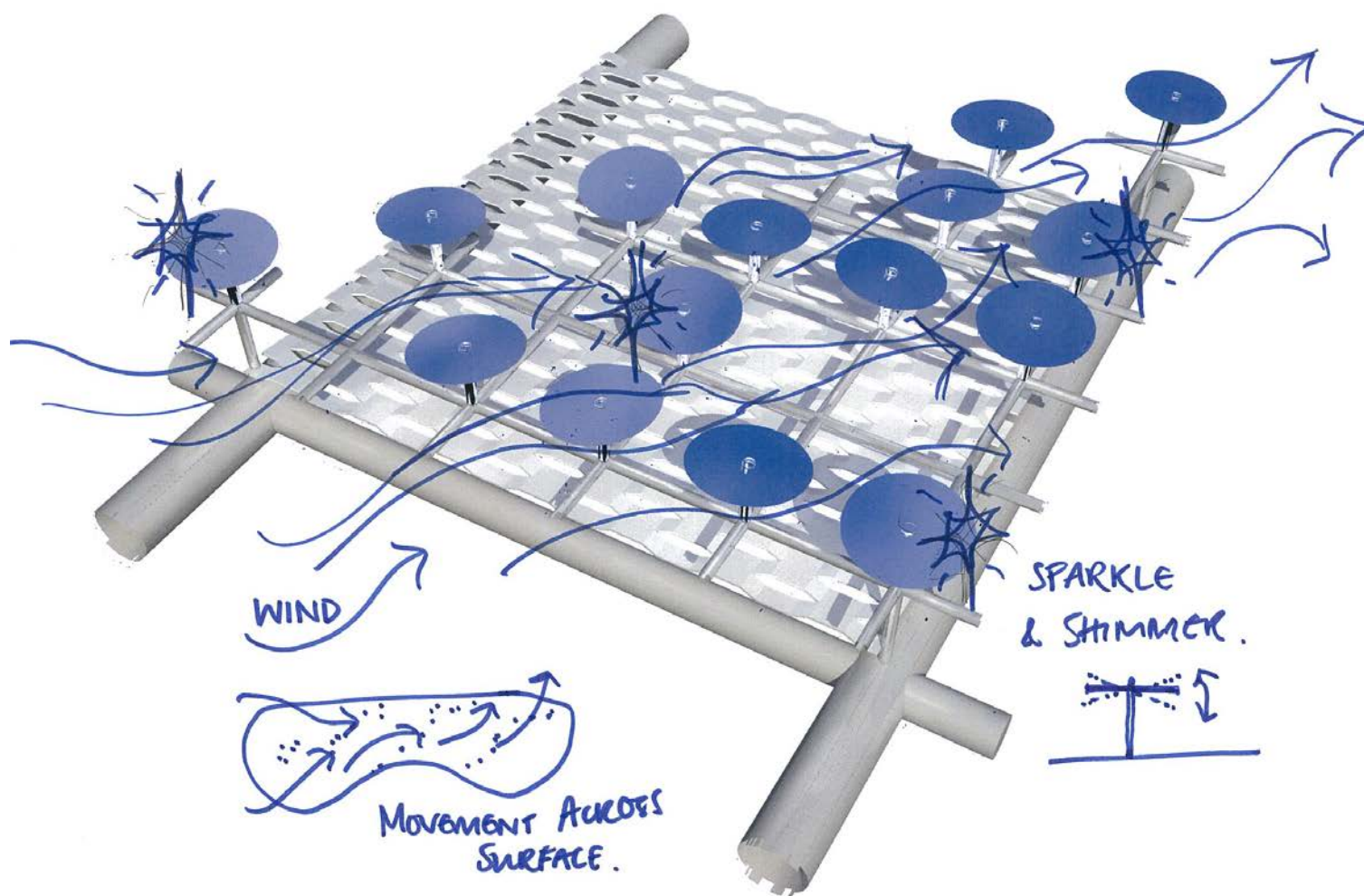
"... The cloud's silver lining will enable it to respond to wind and light, lending a new quality to it. Deya will respond to nature and, indeed, become nature. Deya will come alive."

—
KHOO PENG BENG

To lend Deya another dimension of an ephemeral quality, we have attached bands of special panels with kinetic discs to it. Whenever these discs move with the wind, their movement will catch the sunlight, they will toggle between reflecting the earth and the sky such that the articulated surface appears to be shimmering in the wind. The movement of the discs in sync with nature makes Deya come alive.
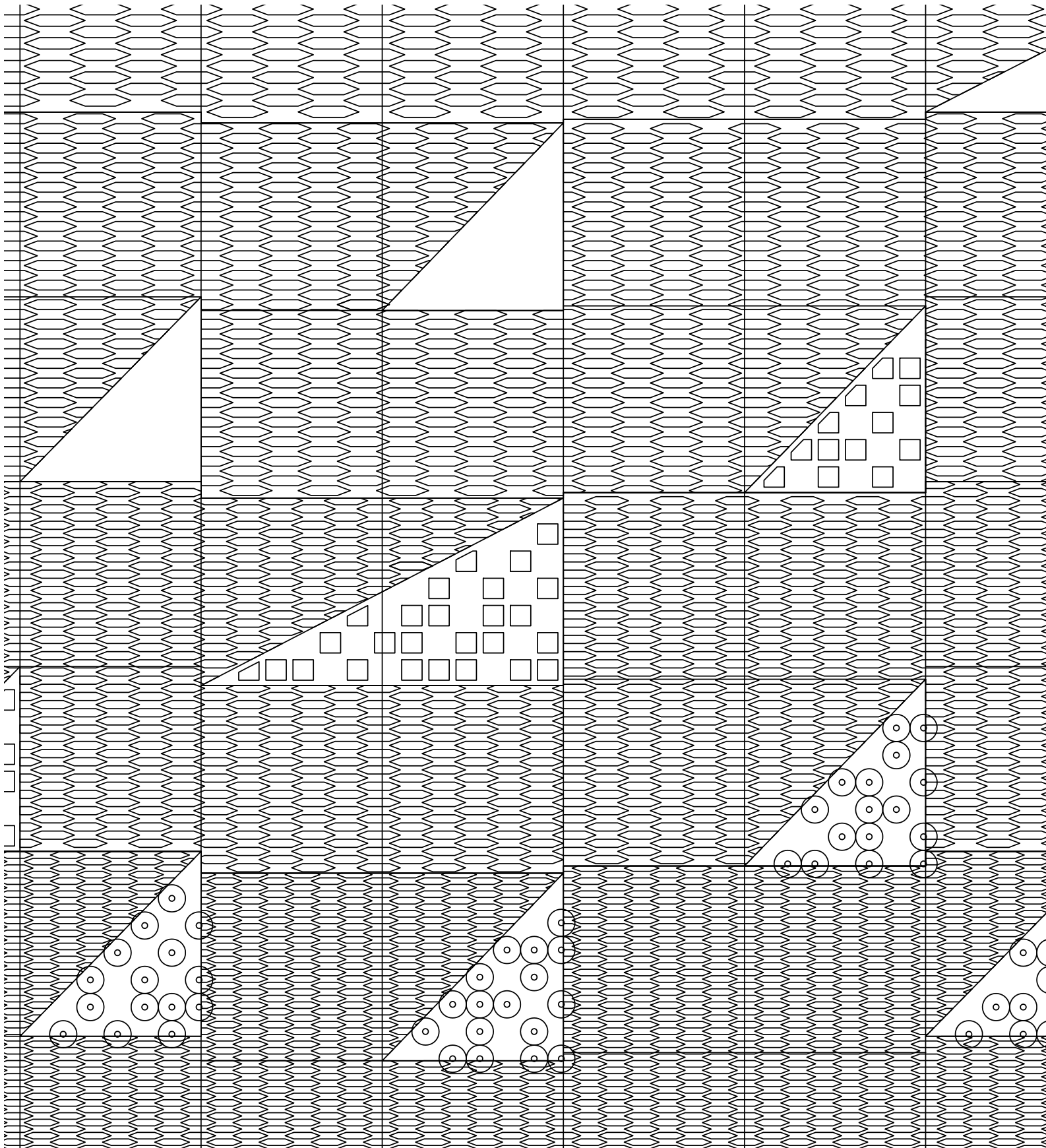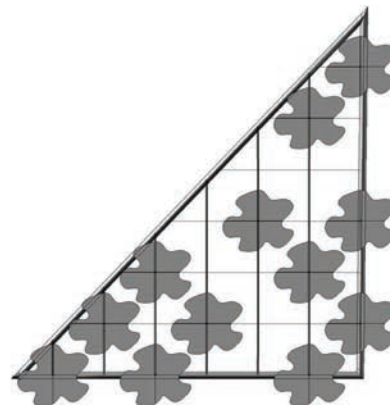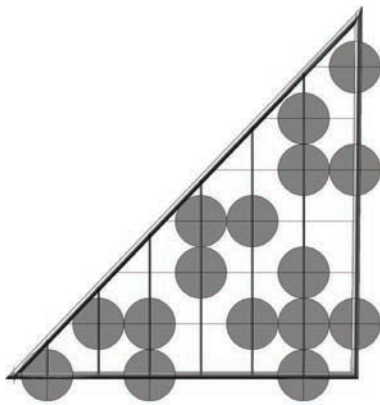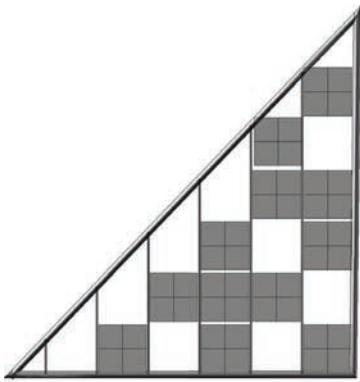
There are roughly 1,000 special panels to give this cloud sculpture a shimmering silver lining. This show of hope is possible thanks to the 15 discs - each measuring 150mm in diameter - on each special panel. In total, there are about 15,000 particles of light, individually moving and reflecting light throughout the day.

SW: You've provided great views for Atmosphere's residents but how do you propose to maintain Deya over time?

BH: Deya is designed to be a low-energy structure with as much natural lighting and ventilation as possible. We have actually conceived Deya as a structure that merges the indoors with the outdoors. And the natural lighting and ventilation actually fused naturally with our concept for Deya.

PB: All the panels and structural components are designed such that they are easy to reach for maintenance. We worked closely with our façade consultant, BFG, to ensure that Deya's facade and all its structural components could be reached easily for maintenance.

We have also run wind tunnel tests to study the dynamics of wind movement around Deya. After having designed the 12 sky gardens at the Pinnacle@ Duxton which is a public housing project demanding the highest safety and maintenance standards. So we were very confident that we would design a wholly sustainable suspended cloud sculpture for the city of Kolkata.

SW: What will Kolkata see?

PB: What we hope to achieve with Deya's very defined and definite form is the quality of softness, lightness and a kind of formlessness. We are achieving this by using a type of mesh that uses different degrees of porosity to create different levels of

transparency at different times. In this way, we will have a structure that will sometime appear very solid, sometimes translucent and sometimes even seemingly fluid.

BH: And that is why it was also very important that we conceive of Deya at night. In the day, Deya and its articulated facade will capture a slice of the sky. It was equally important that it could express this ephemeral quality at night.

SW: Who did you look to, to achieve this?

BH: We could think of only one person to help us - Kaoru Mende of LPA. Mende has done the lighting for some of the world's most impressive buildings.

And he is an extremely nice person to work with. We love the way he designs shadows and how his lighting design is layered and extremely soft. We felt that he will be the best person to create the expression of formlessness and change for Deya at night.

PB: True to form, Mende's lighting design for Deya transformed totally how we perceived its form at night. Thanks to him, Deya might even appear as if it were a colony of fireflies at night. Best of all, he has given Deya a moonlight beam from its navel that will bathe the environmental deck below in simulated moonlight, night after night. This beam literally connects Deya with Atmosphere's two green decks, turning them into one seemingly seamless element.

Deya, Atmosphere's cloud sculpture, will be located at an elevation of more than 120m above the ground. From this vantage point, Atmosphere's residents will enjoy a landscape of lakes and the city skyline to the west and the large expanse of wetlands to the east.
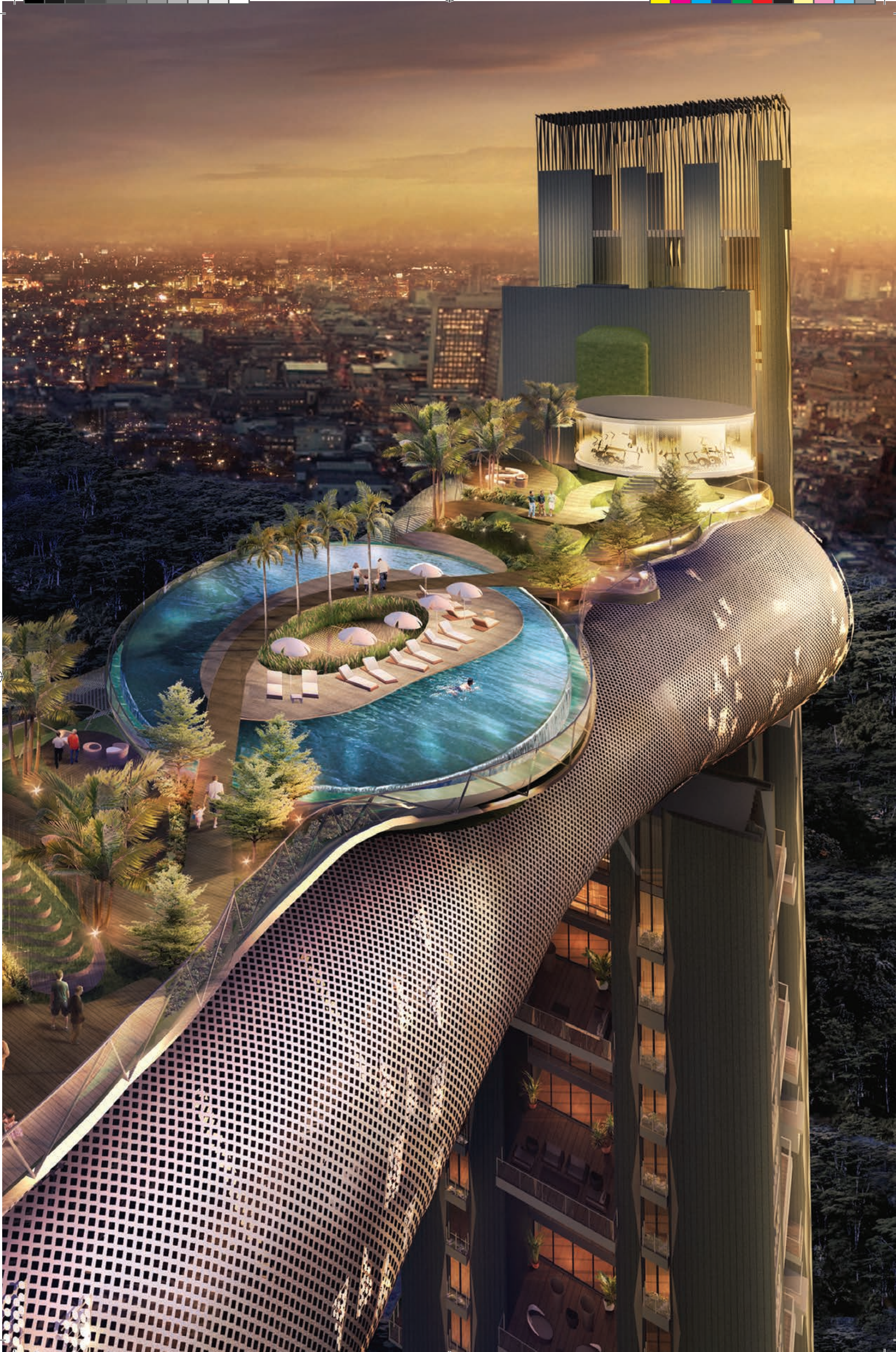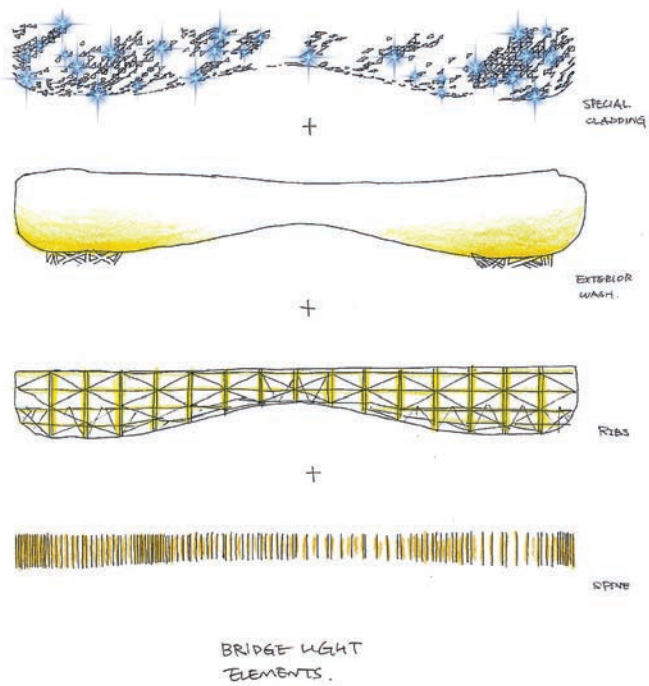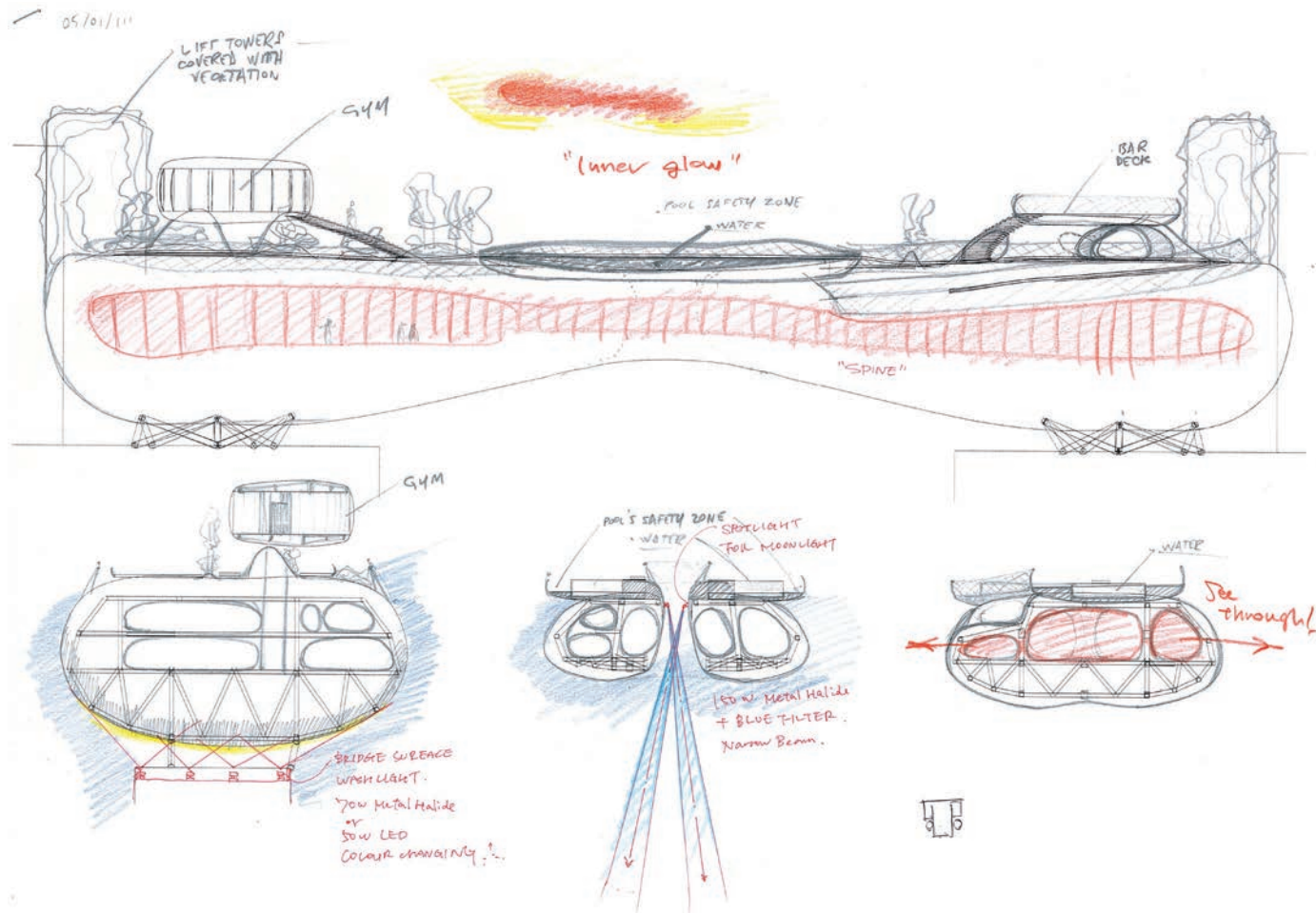
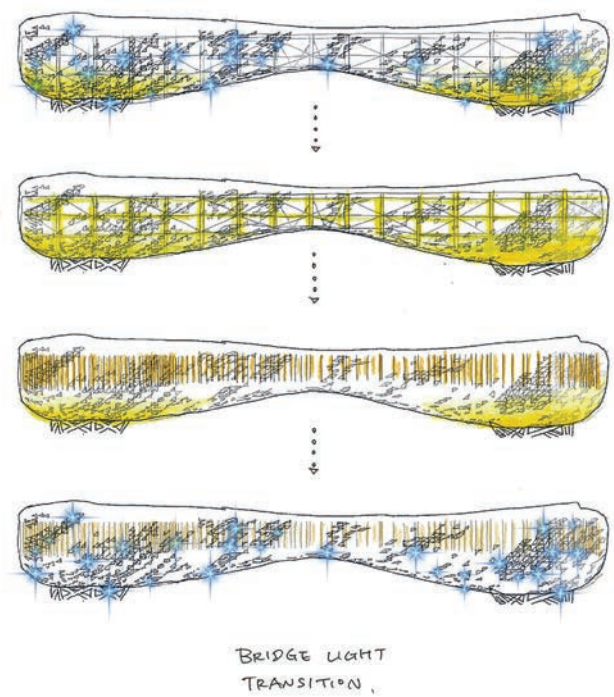KAORU MENDE
LIGHTING PLANNERS
ASSOCIATES (LPA)

"Whatever we build adds to the skyline of our very own city. Hence, it is in our own hands to make our city more beautiful and livable."

—
RAHUL SARAF

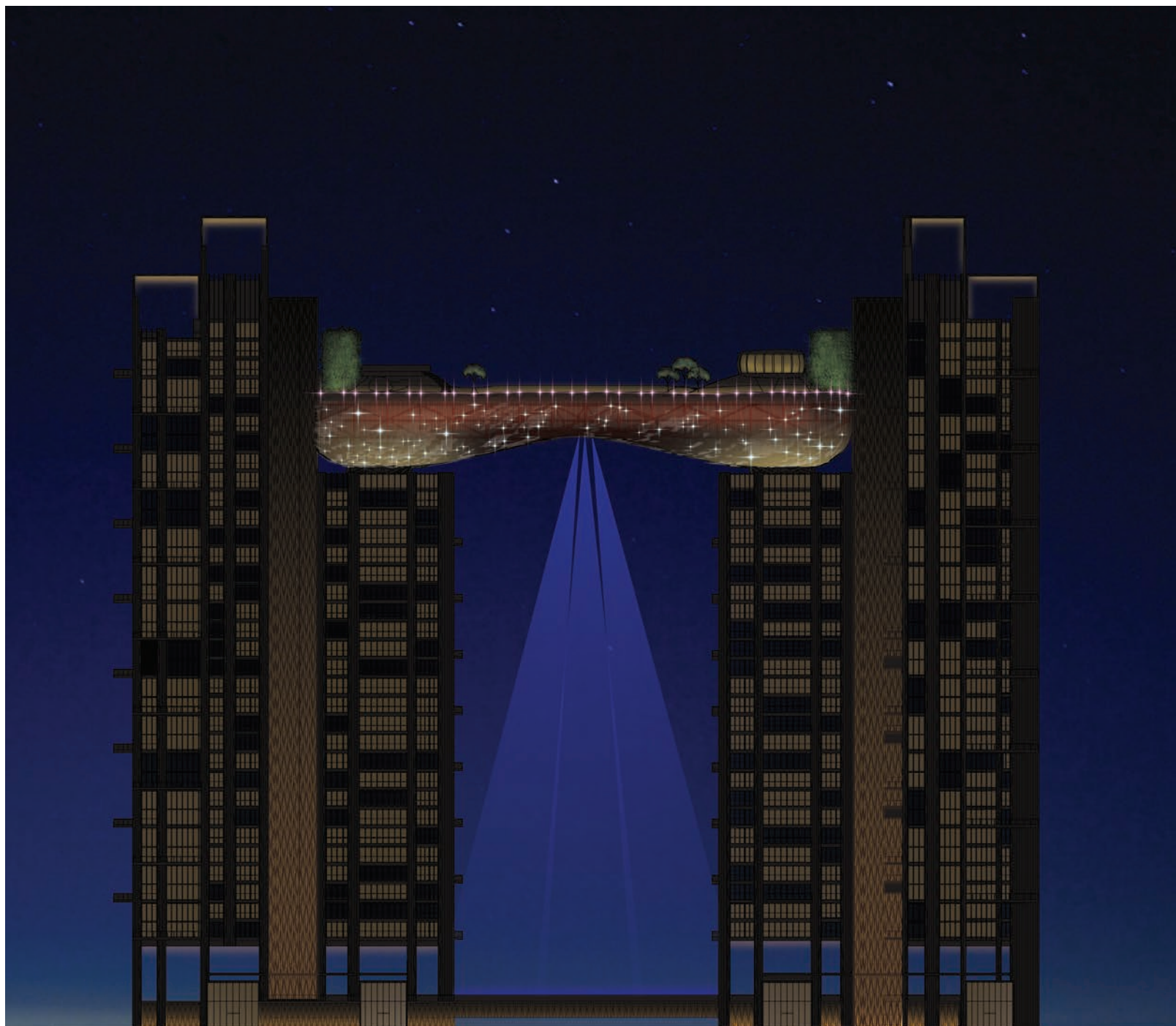BRIDGE LIGHT
ELEMENTS.

BRIDGE LIGHT
TRANSITION.

110119 LPA

110119 LPA.

While Deya is very much matter by day, it is light that defines its form at night. The porous nature of its surface allow either the solid surface or its void to be lit. This allows many different possibilities to create the appearance of solidity or transparency.

The ephemeral quality of Deya is accentuated with the use of different layers and modes of lightings. Lighting systems will highlight the exterior, interior, structural ribs, and volume. The different intensities and combinations of these lighting components will create infinite combinations and gradients that will give the sculpture an ever-changing appearance. Combined with various colour temperatures, Deya will take on a different character every night according to the seasons.

Lighting designers LPA have also thought to simulate moonlight within the grounds of Atmosphere. They have done so by beaming a narrow beam of simulated moonlight vertically from the nave of the cloud sculpture to the greenery below, thus establishing a magical connection between Deya and the environmental decks on the first storey. The lawns below will be bathed in a romantic moonlit glow every evening.

"It was also important that the ephemeral quality was also expressed at night"

—

KHOO PENG BENG
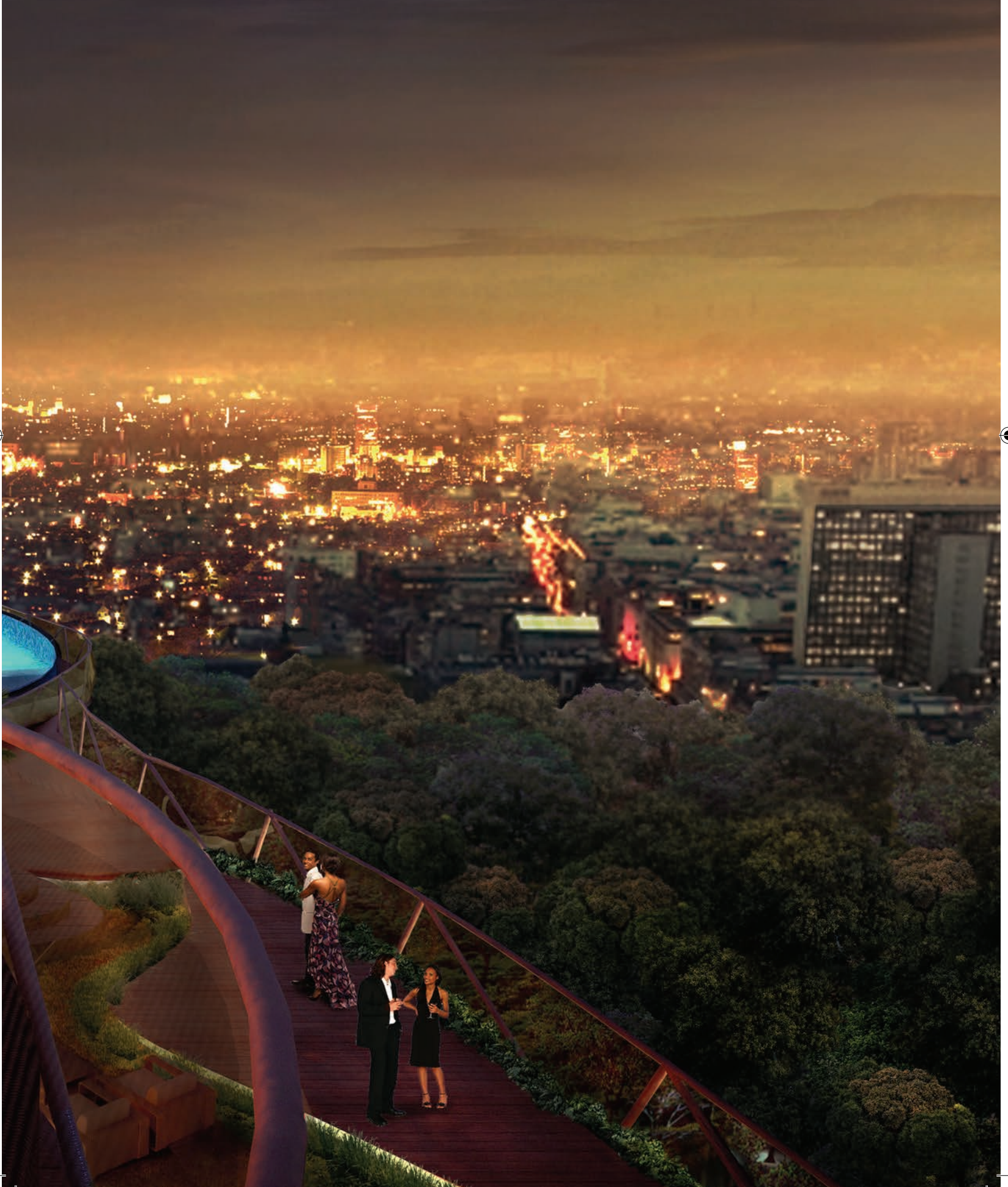
Van Gogh had his sunflowers, Monet his lilies and O'Keefe her poppies.
And O'Keefe wondered why Man was not mad with joy at such bounty.
But the blossoms of soil wither
While the blossoms of sky wax on
Sweeping and tumbling
Amassing, exploding
And lo! They build again

Such is the architecture of nature

Is a cloud only a cloud only a cloud?

Watch the parched lips of plants and planters crying out for it to burst.
Watch whole cities go white-hot in its massive mushroom while others cry victory.
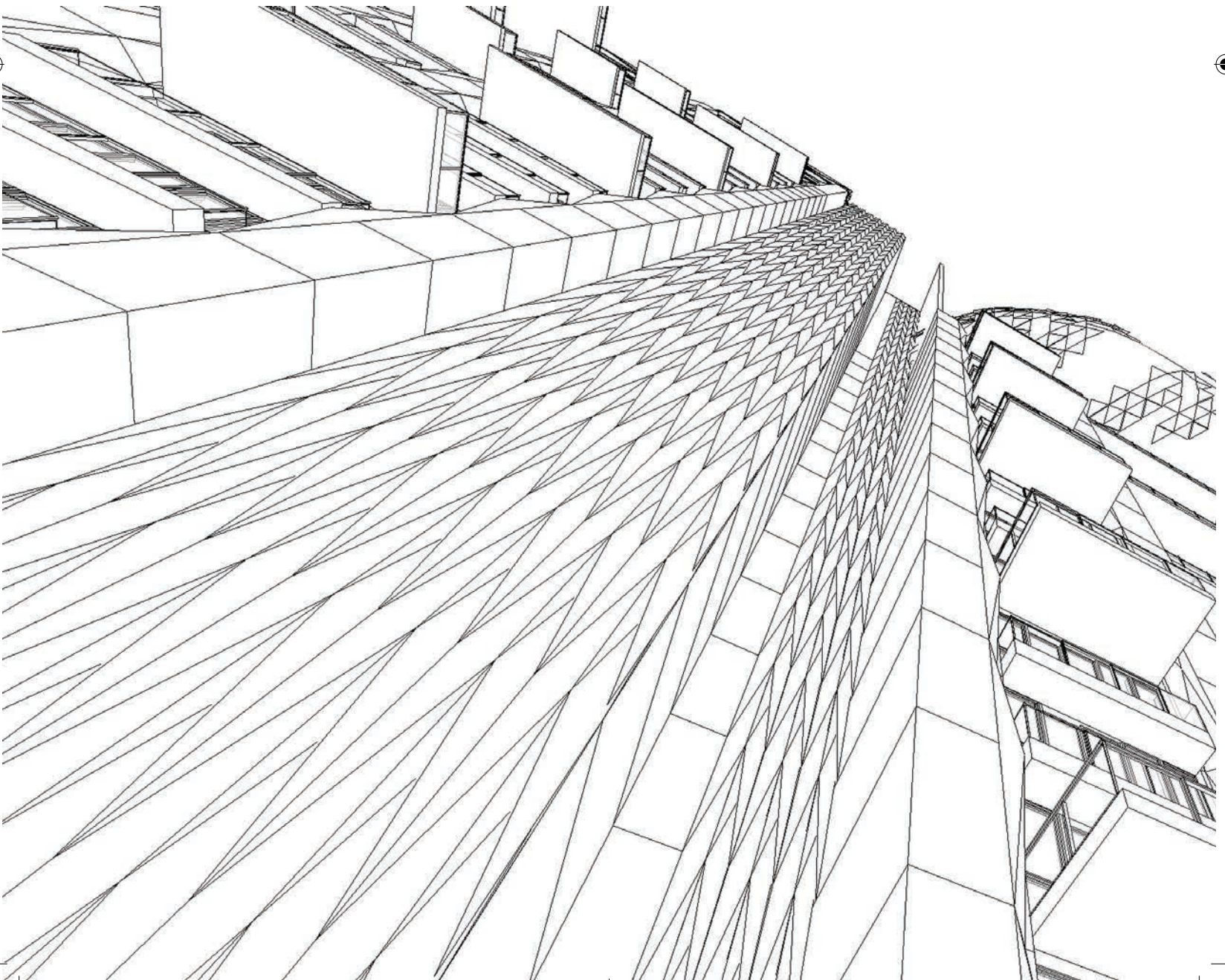
So a cloud is not just a cloud just a cloud

Not when some have captured it
And all its joys
For you to live and dream and sing
In the sky
A sculpture of humanity, community, eternity
In the sky!

Such is the nature of architecture

BEYOND

SW: What is your idea of luxury, then, Rahul?

RS: Luxury to me is about being able to live with your loved ones. It is about having a healthy family, high-income levels and aspiring towards the best lifestyle one can give to one's family. With their individual villas, which they will be able to customize to their preferences and desires, and with Deya, I want them to feel the energy of being in that environment.

SW: Why so?

RS: We are human beings and so require different kinds of spaces for different moods and purposes. Unlike a workspace, the residential environment needs to be far more dynamic. If you look at the environment in India, it is very different from that in the West, or even in developed Asian countries such as Singapore. And in Kolkata, the community is relatively more close-knit than in India's other main cities. It's a city where everybody knows everybody else. Kolkatans are people of great warmth

and kindness. Living in Kolkata, you get the sense of living in a small village, so if someone falls ill, has a baby or loses a loved one, everyone will know about it eventually. This to me is luxury - where one can amalgamate the pleasures of big-city infrastructure with the warmth of a small community.

SW: Warmth aside, I'm told that you will allow Atmosphere's residents to customise their surroundings. How so, exactly?

RS: We are currently getting proprietary software designed for the residential segment of our business. What this software will do is allow the owners of Atmosphere to design the interiors of their homes by allowing them to choose the various finishes that go into an apartment, such as tiles, bathroom fittings, home automation and so on. We see our role more as a facilitator for our buyers. This is a role that we intend to play once we have identified Atmosphere's buyers. In short, we will help them turn their houses into beautiful homes!

THE CLOUD
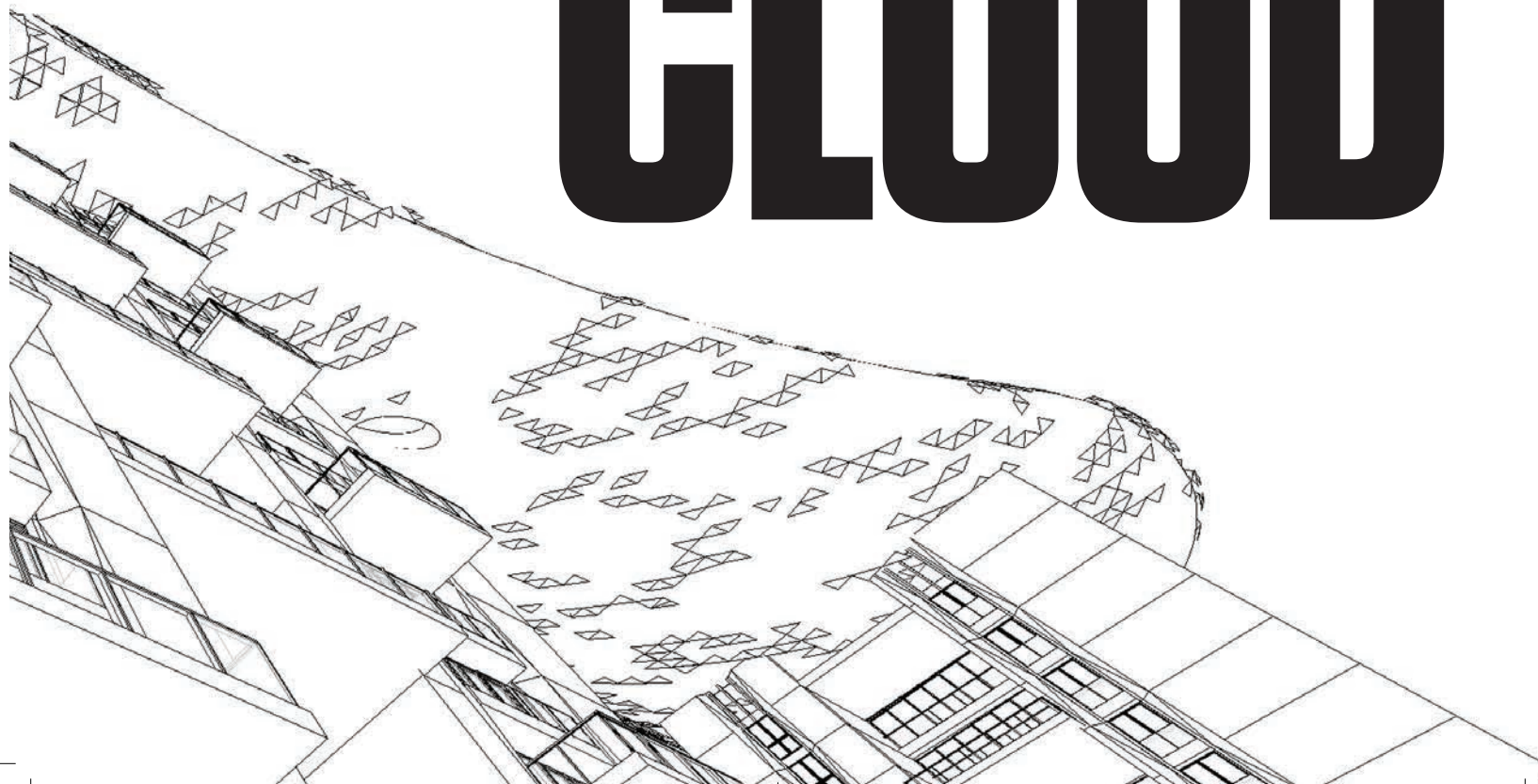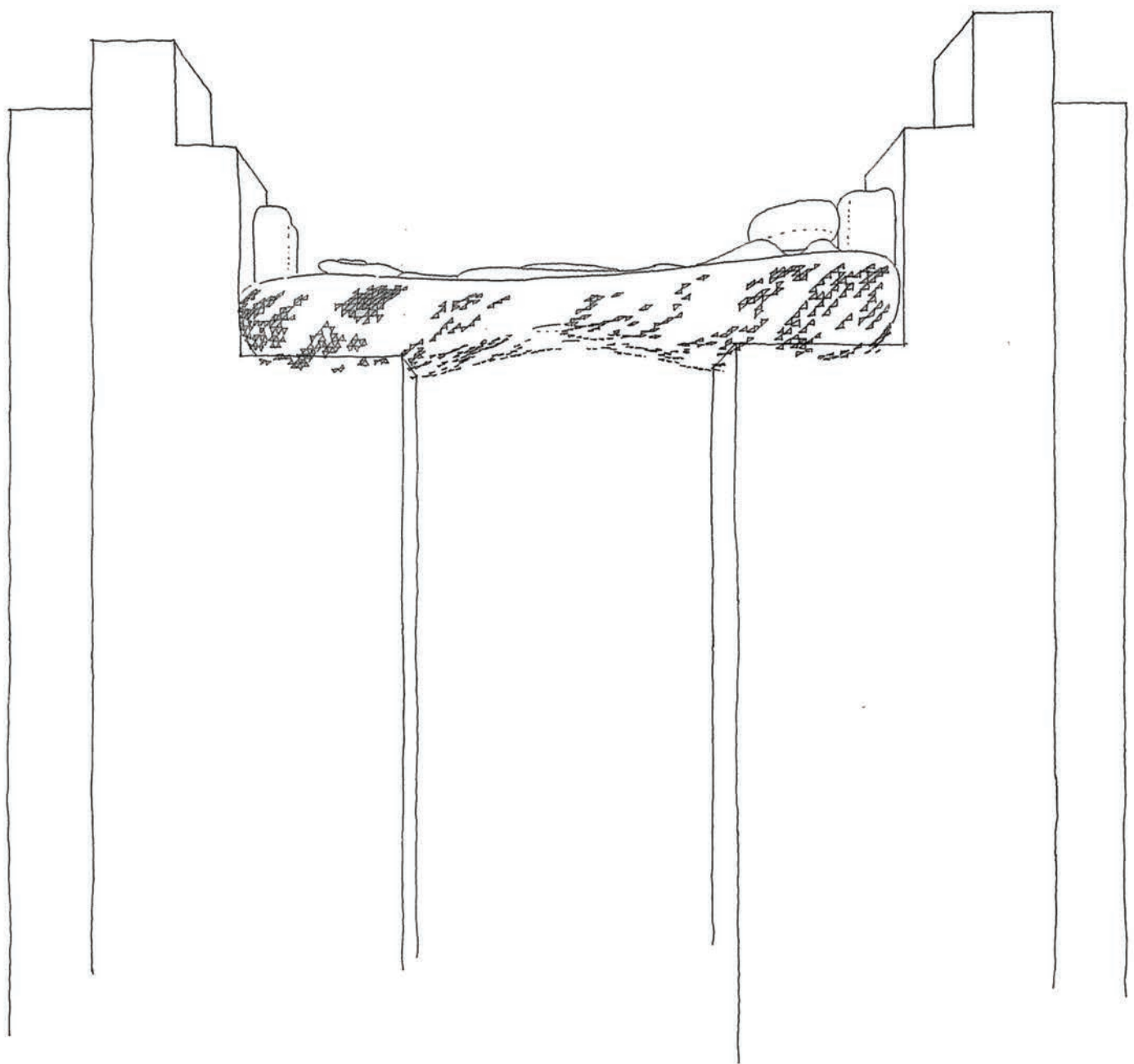
The structure of Deya, seemingly defies gravity despite weighing thousands of tonnes and spanning almost 100m across a vast void. Deya's curved surface and balloon-like form creates a perceived lightness, as if filled with air. It's centre is thin with an elliptical aperture, further amplifying its phenomenological lightness. As curvy as a cumulus cloud, Deya is a stark contrast to the verticality of Atmosphere's two towers, which are formed from seemingly effortless stacks.
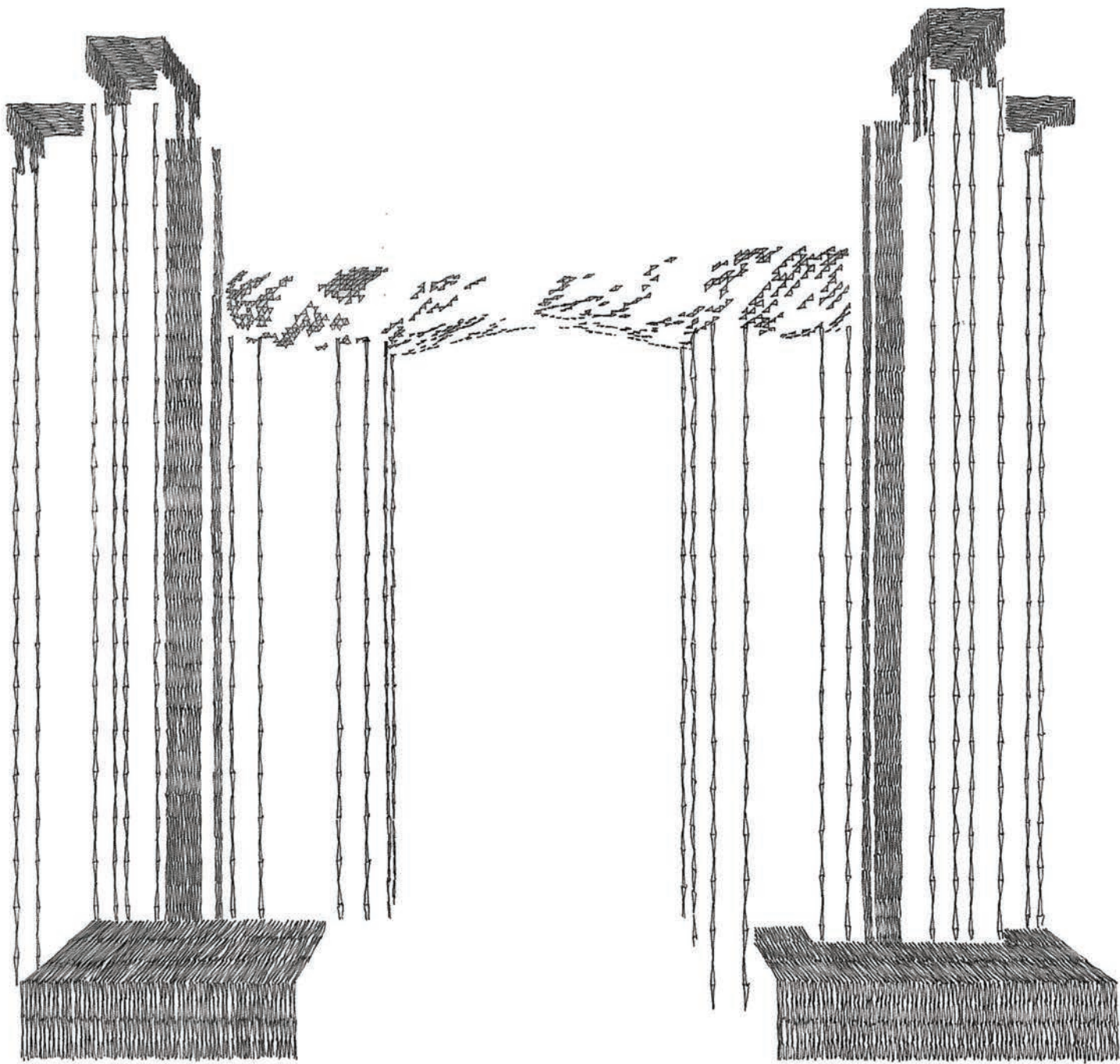
"Eighty families are coming together in Atmosphere, they should own collectively something that they simply would not be able to do if they had bought individual villas on individual plots of land."

—

RAHUL SAFAR

MACRO ATMOSPHERE:
E-DECK+WETLAND+SKYBRIDGE
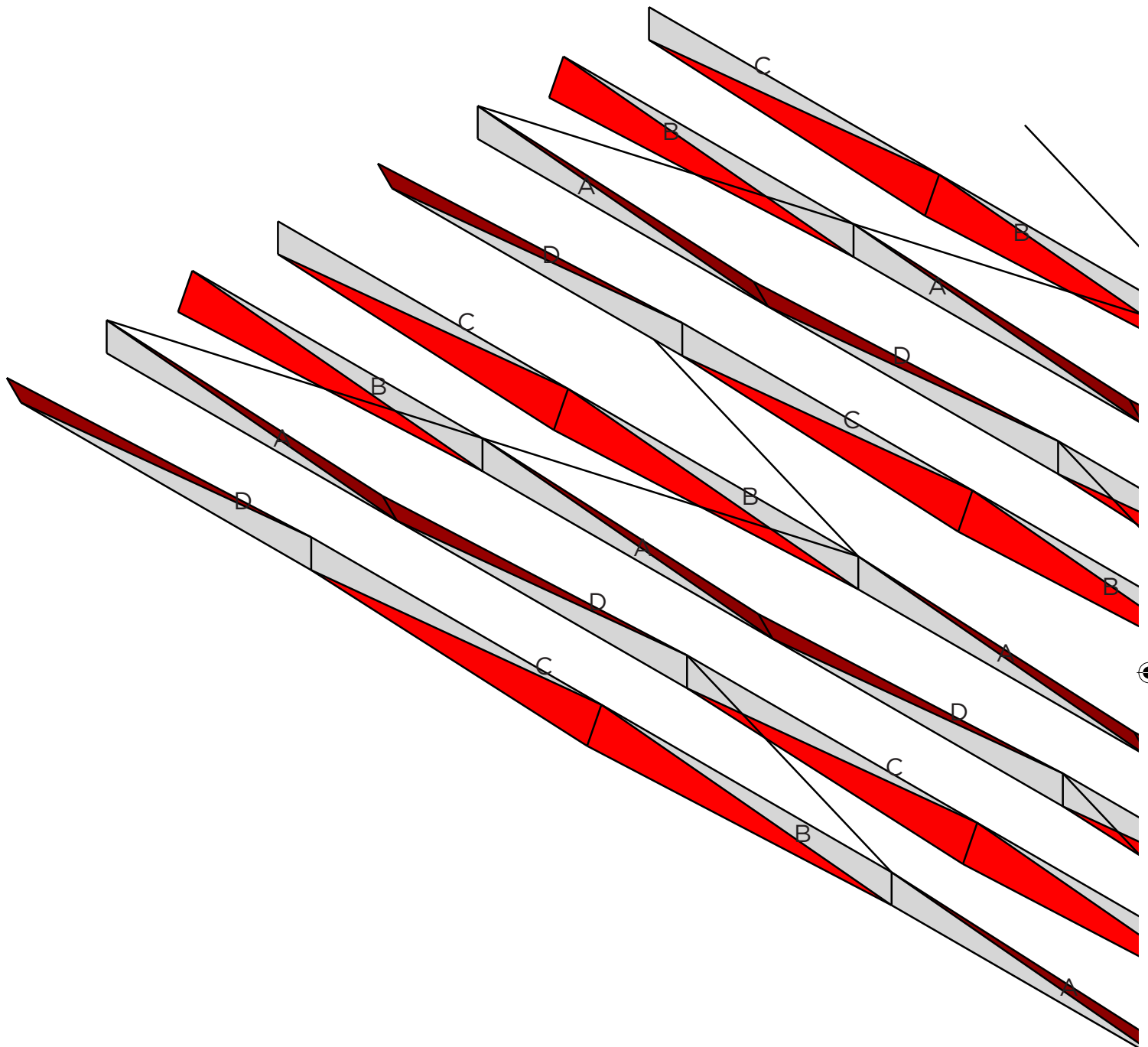
SW: How have you tried to infuse Atmosphere with Indian culture?

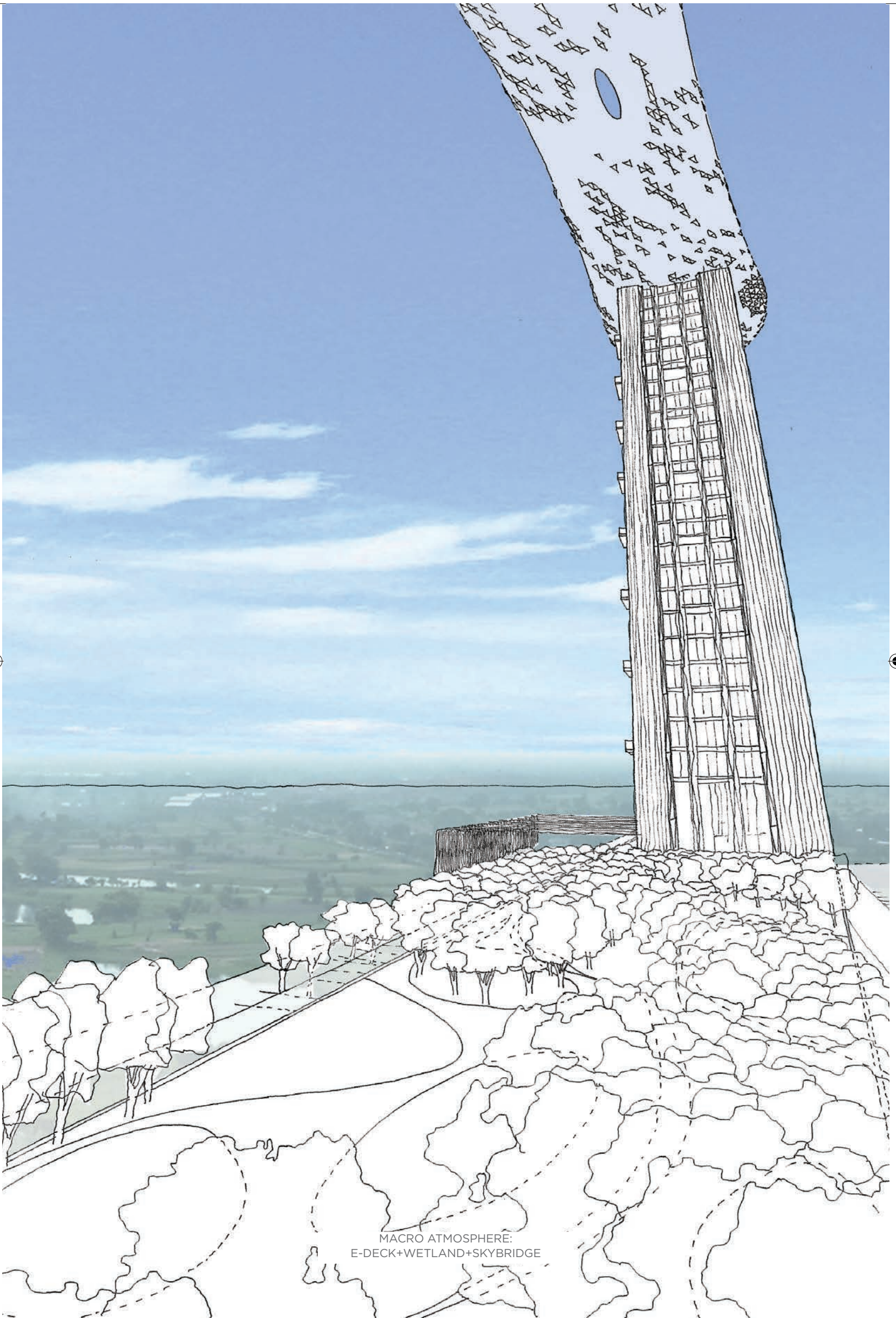BH: We have taken a leaf from the intricate carvings of India to give the two towers an effect that is rich and luxurious, but never one that is excessive or exaggerated. We've just added a bit of detail here and there that may seem precious to some, but results in a look that is priceless. From an architectural point of view, by taking extra care with the details, we are breathing architecture as life. When you have proper coordination among everyone involved in a project of this magnitude and significance, right down to its nuts and bolts, the simplicity in detailing will be carried all the way through to the smallest concern surrounding the building. That is how acute our focus is.

SW: What about the final feel of Atmosphere's villas in the sky?

PB: Here is where you will find Atmosphere having two different qualities. One is about geometry and being rectilinear, that is, it's all about squares, rectangles and straight lines - as contrasted with Deya, which is all about the architecture of curves. We have intentionally kept these two qualities different so that when we juxtapose one with the other, each quality will be defined more.

SW: But luxury and such subtlety do not necessarily go hand in hand?

BH: Well, it's like how a woman should not sport too many rings or necklaces if she is already cloaked in sequins. She has to dress subtly for impact, and not over-bling-blingfy, if you know what I mean.
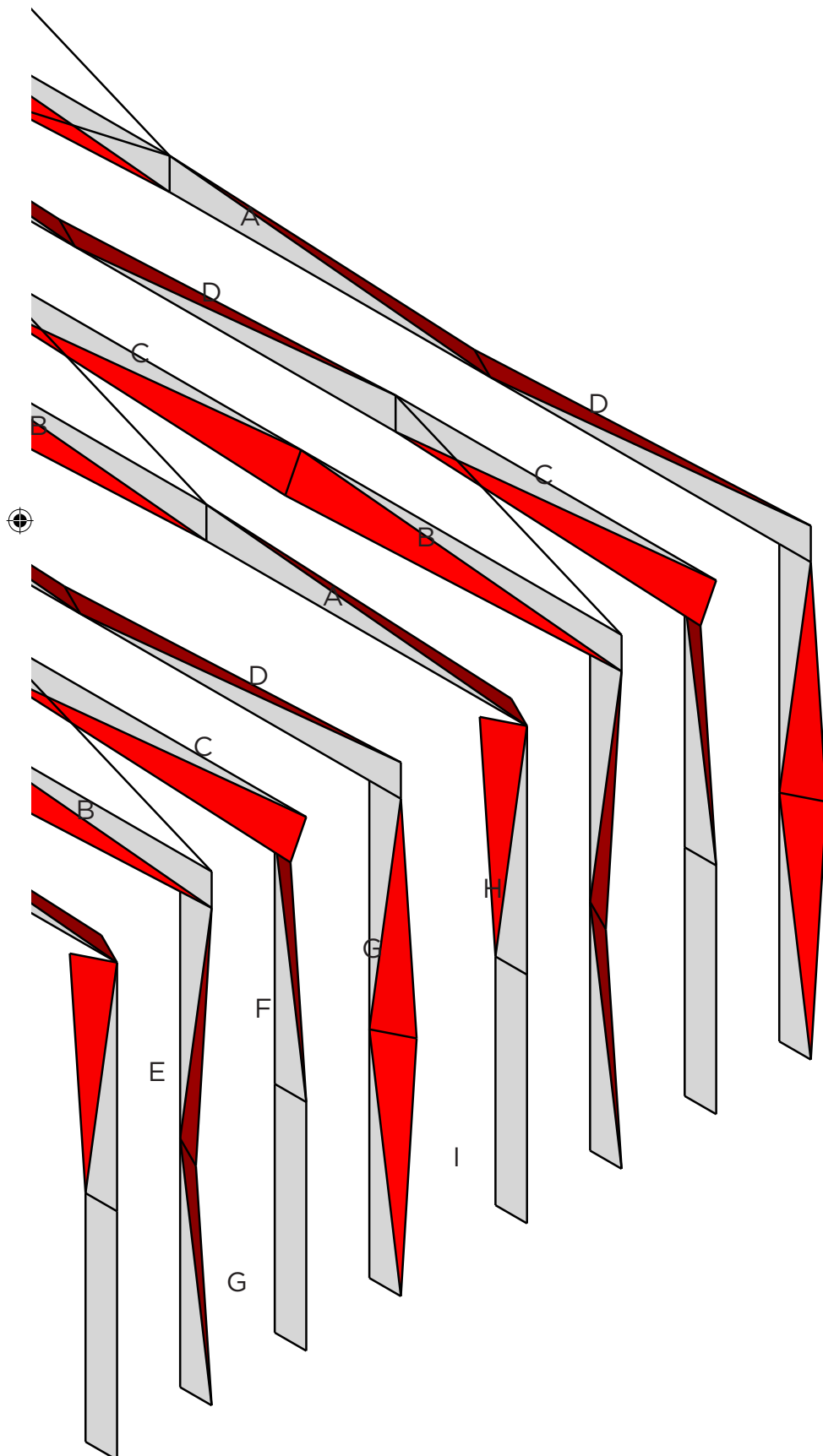
Like a Bach fugue with all its points, counterpoints and infinite rhythmic and melodic possibilities, the arrangement of the folded plate sequences gives Atmosphere a canvas of complexity against a surface of starkness. Each complex sequence, in turn, is a distinct genre serving a distinct purpose.

At Atmosphere's point of arrival, for instance, a folded-plate canopy lends one shading, privacy and visual porosity. Then, vertically, a folded-plate screen hides air-conditioning ledges while allowing maximum air-flow. And at the apex of a tower, the crown gives its imposing silhouette definition, while at the same time shading the tower's rooftop terraces.

The vertical articulations in the tower is formed from simple rectangular folded plates. Each plate is crimped diagonally to create its basic module. One can flip each module in either x, y or z directions. By combining two or three modules, each flipping in a different direction, there will be eight possible permutations to this folded plate module - M, Mx, My, Mz, Mxy, Mxz, Myz and Mxyz.

Each of these modules has two types of edging - one straight and the other the diagonal end of a folded plane. Aesthetically, this results in a choice of five edge-to-edge connections for each module, with rotational or reflection symmetry or asymmetry.

These sequences of folded plates are then arranged laterally to become a porous but continuous screen for visual privacy, or arranged transversally to become trellis, for shading and crafting of shadows.
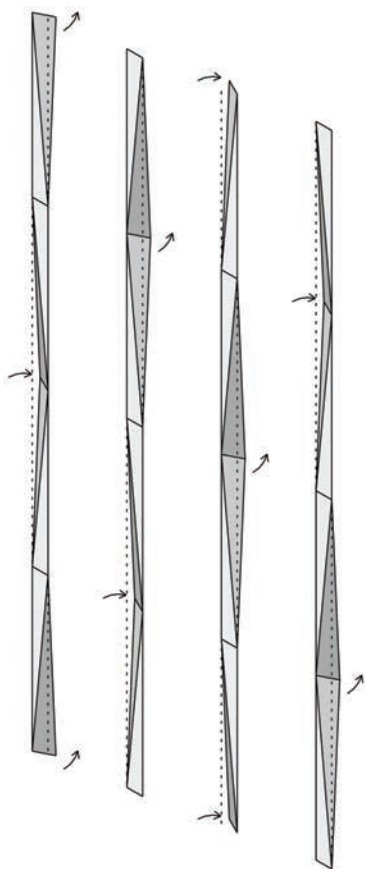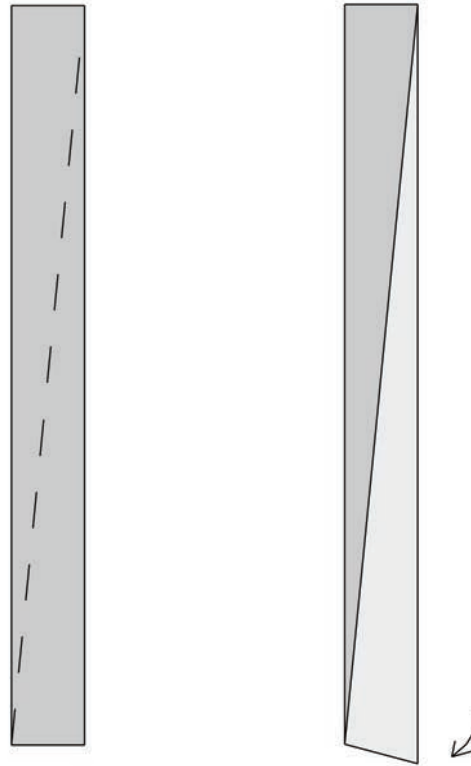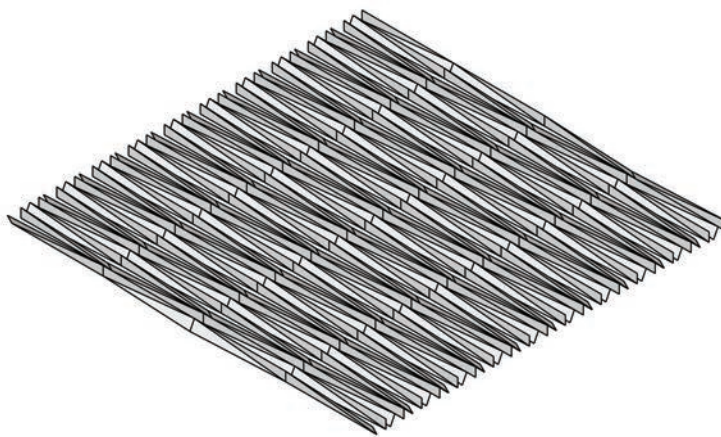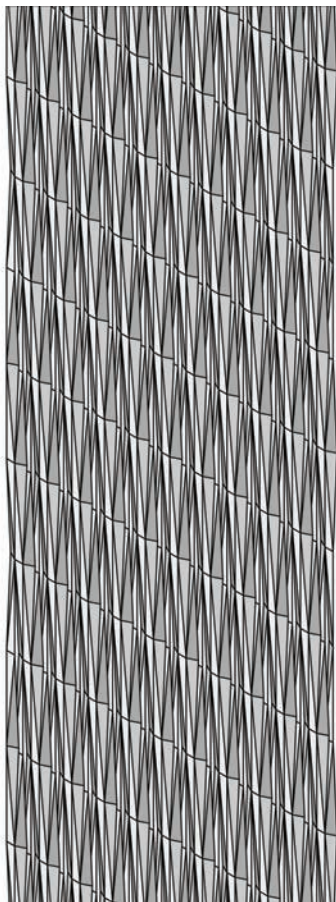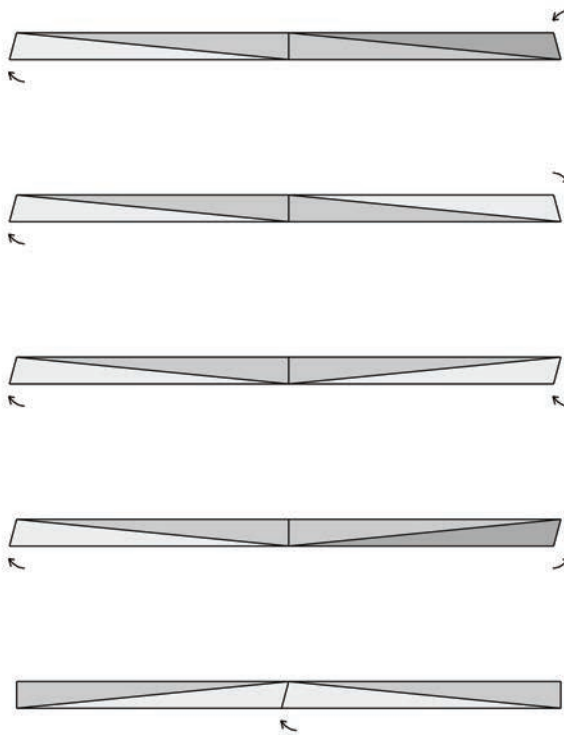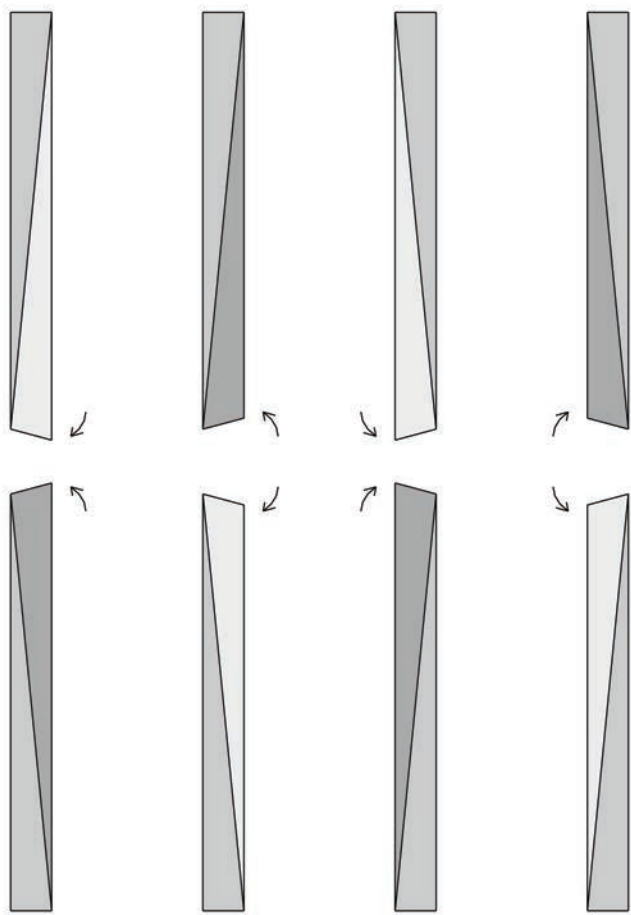
> # "The simplicity in detailing will be carried all the way through the smallest concern surrounding the building."

—

BELINDA HUANG
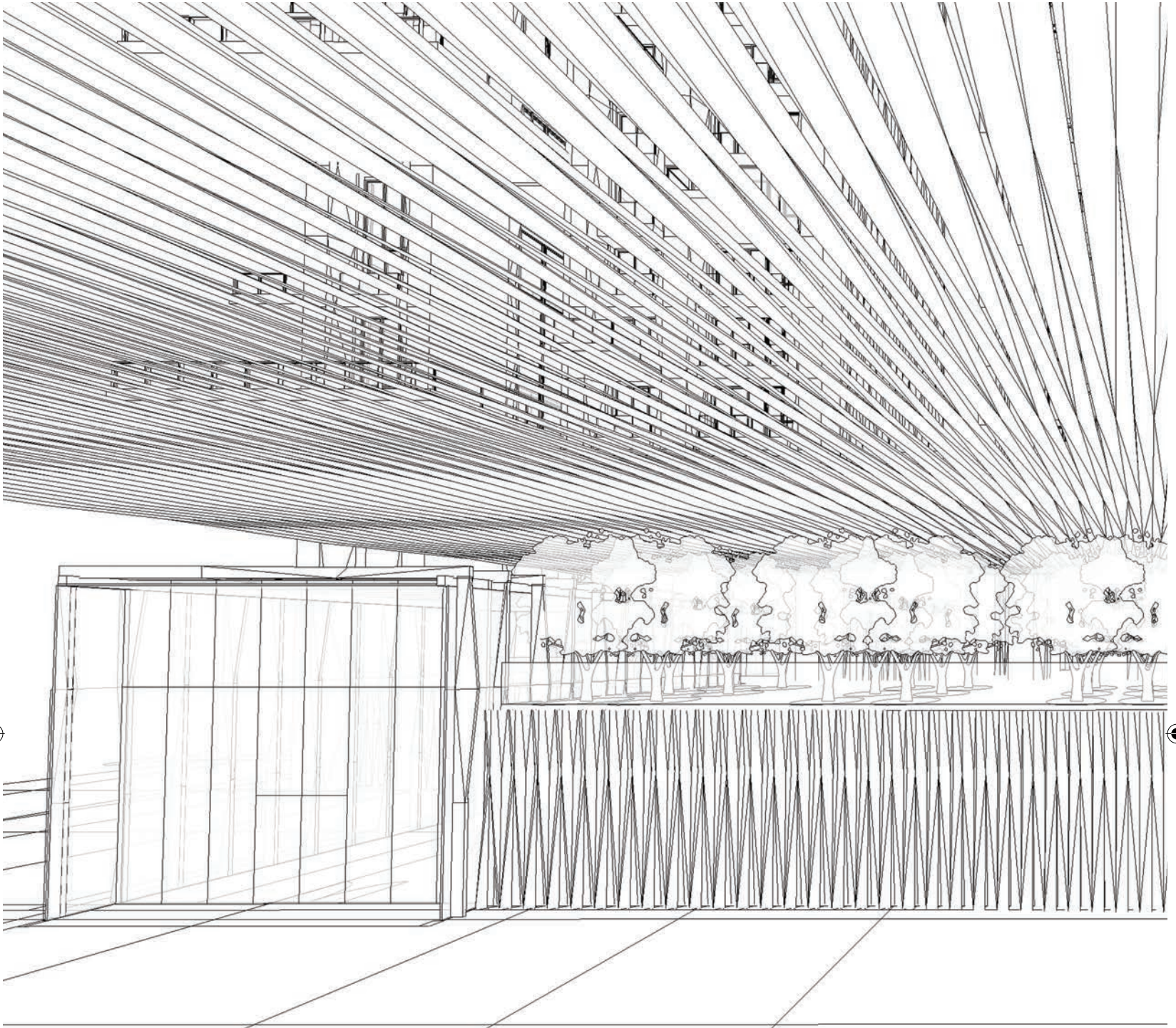
"From an architectural
point of view, by taking
extra care with the
details, we are breathing
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—
BELINDA HUANG
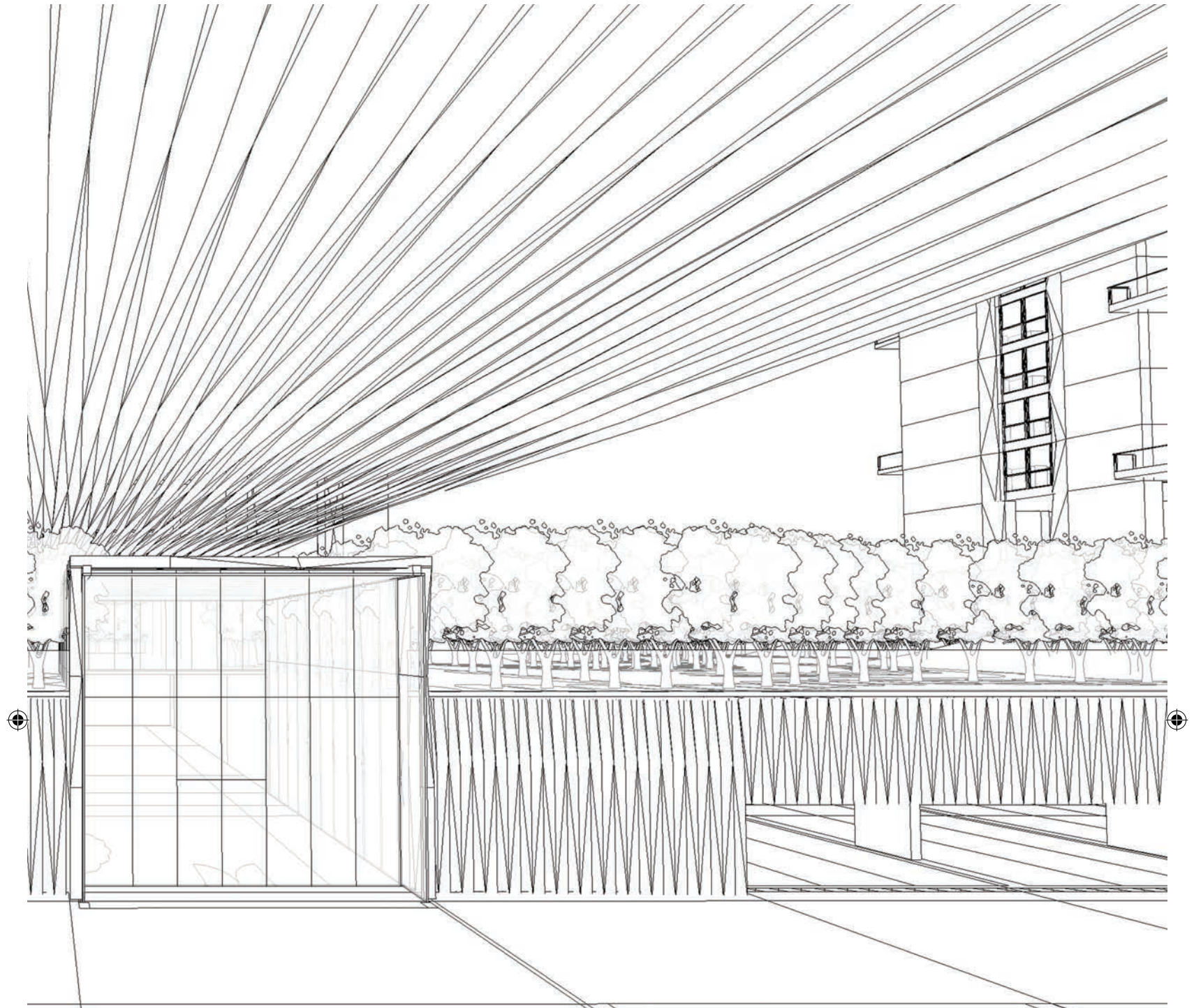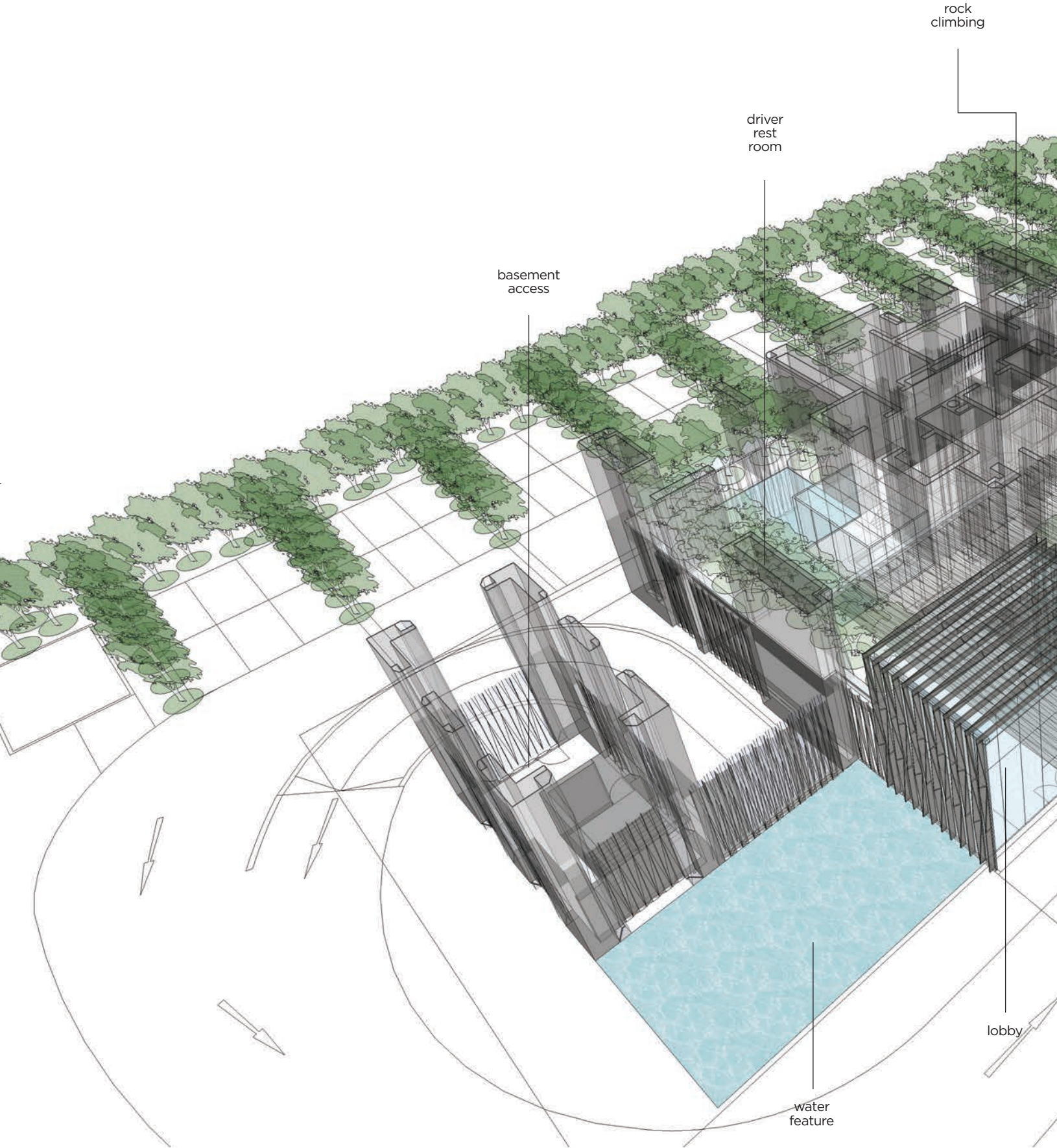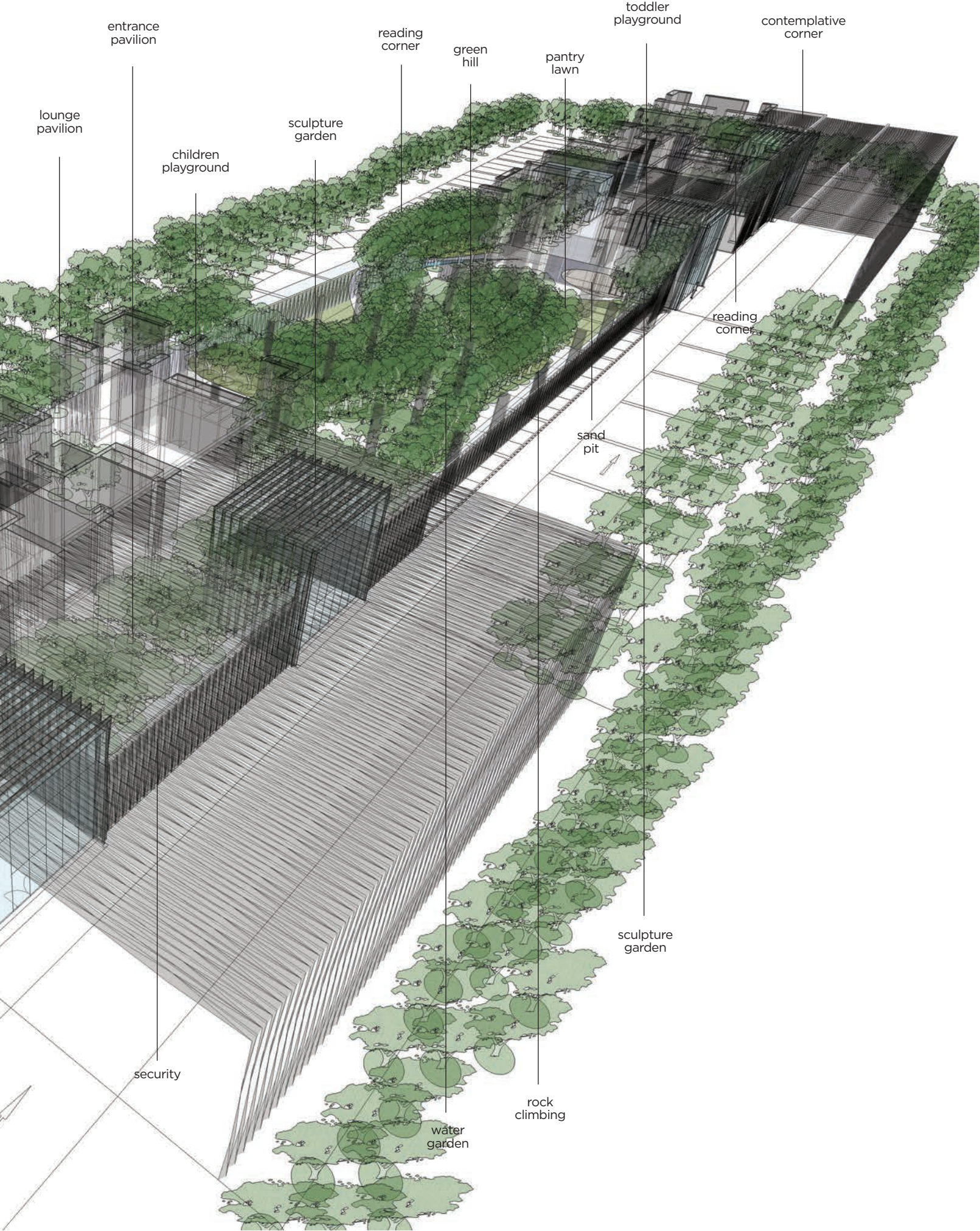
ARRIVAL

rock
climbing

driver
rest
room

basement
access

lobby

water
feature

lounge
pavilion

entrance
pavilion

children
playground

sculpture
garden

reading
corner

green
hill

pantry
lawn

toddler
playground

contemplative
corner

reading
corner

sand
pit

security

sculpture
garden

water
garden

rock
climbing

GROUND AND EDECK

"We have taken a leaf
from the intricate
carvings of India to give
the two towers an effect
that is rich and luxurious,
but never excessive or
exaggerated."
—
BELINDA HUANG
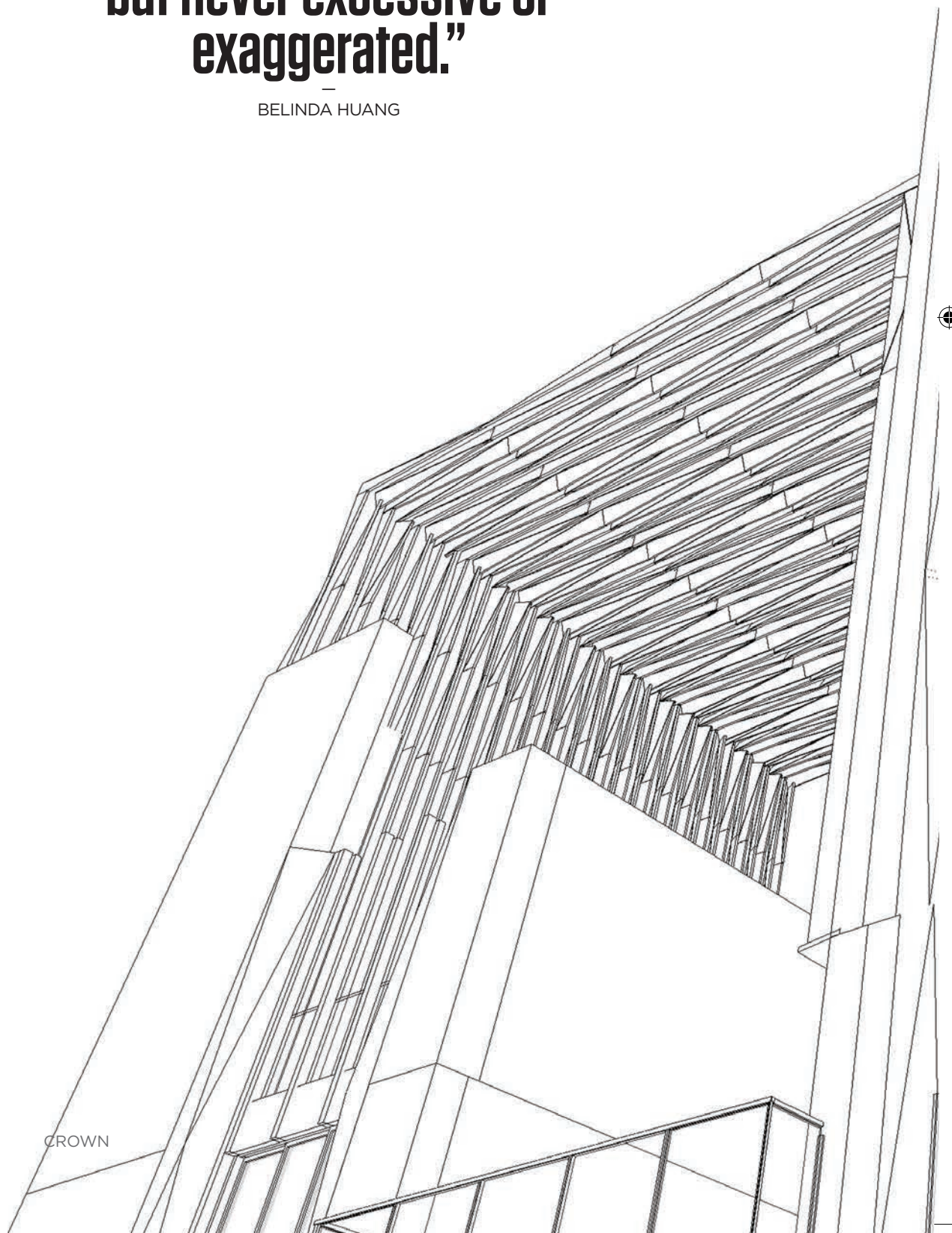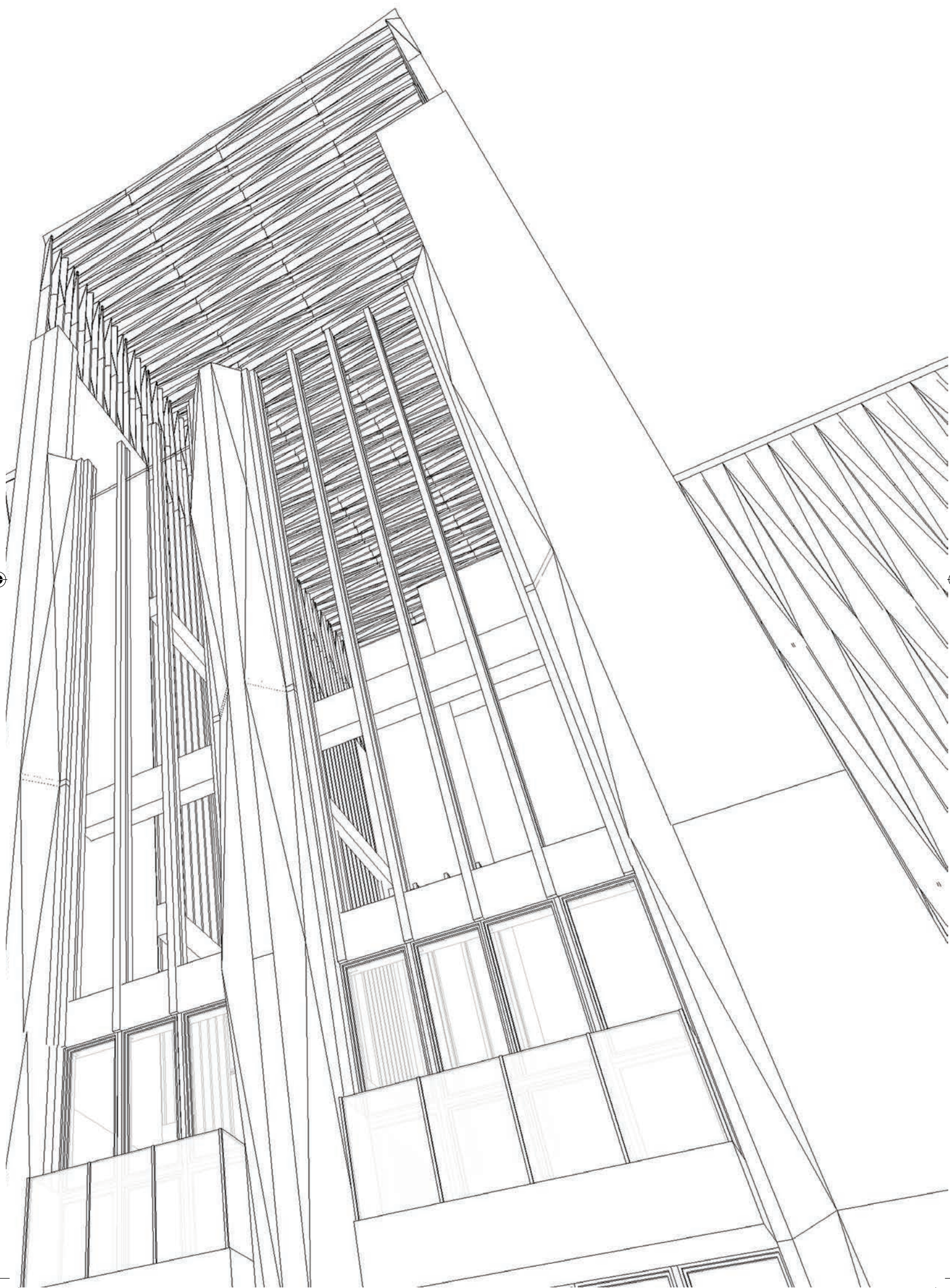
CROWN

"We constantly dance between chaos and order, always finding simplicity in that which is chaotic and complexity in that which is simple."

—

KHOO PENG BENG
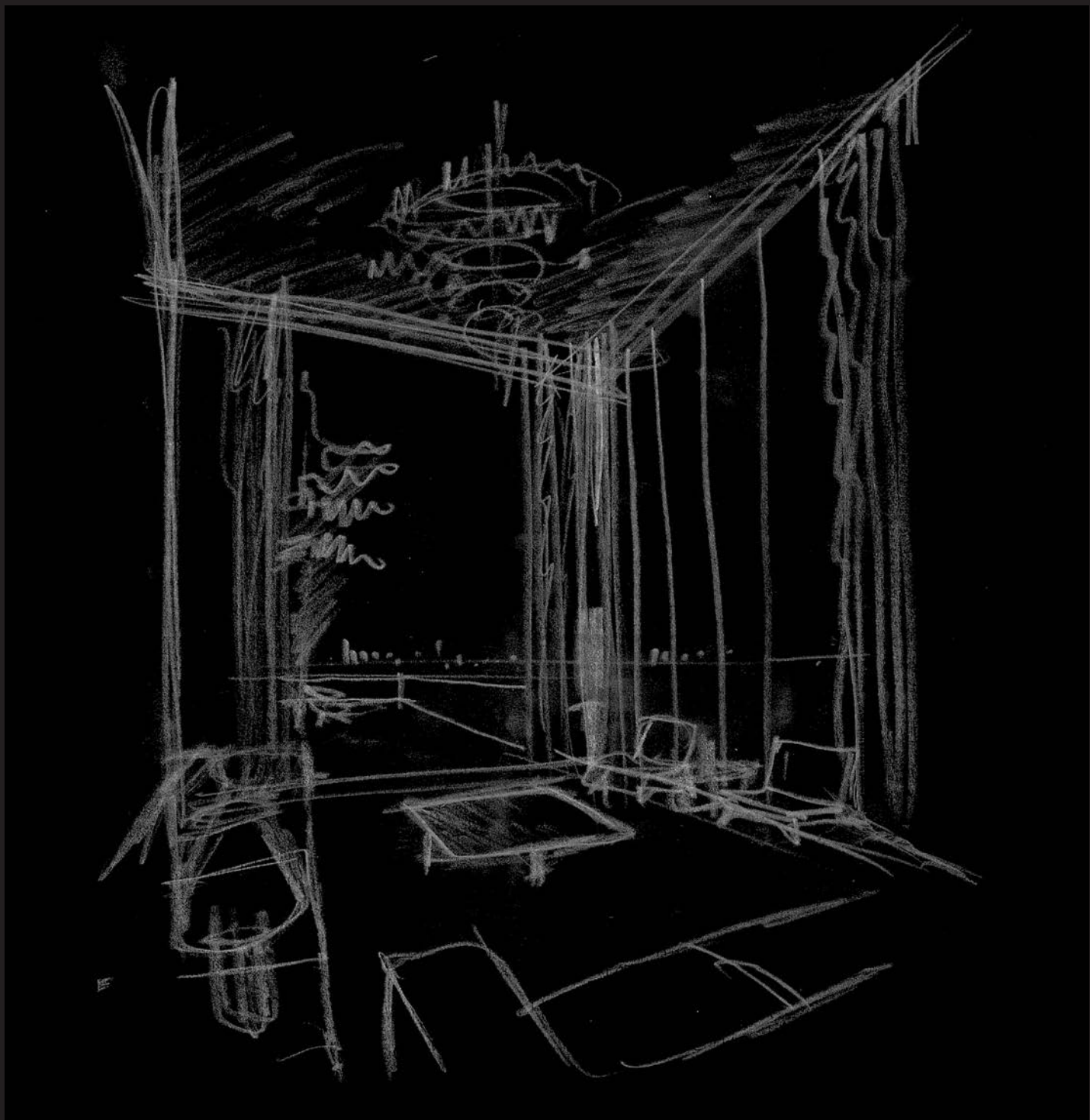
Seasons come and seasons go. And clouds are all we have
to return to days gone by.
Spring in Salzburg . A sky of shirred curd. And I remember
Paul McCartney wrote the song Scrambled Egg that
became Yesterday.
Summer in Zurich. Tufts of gray tickle a sunset of burnished
brass. As gentle as a mother bathing her baby.
Autumn in Paris. A jet slashes across a burnt orange sky.
Leaving behind an Eiffel Tower sculpted in smoke.
Winter in Pokhara. A mist of mystique caresses Everest.
Time stops.

A JOURN
PU

SW: The Vastu requirements seem to be extremely challenging. How did you make sense of it all?

BH: From what I understand of Vastu principles, the centre of the home must always be light and airy. This also makes perfect design sense. If Rahul had given us a budget and unit sizes that made it hard for us to plan, we would not have been able to come up with so many variations and options for Atmosphere's residents - and all Vastu-compliant, at that! But Rahul has been very forward-looking, daring and yet respectful of a family's ability to grow. So he has allowed us to develop his brief to this extent. And what a luxury it has been to do so! My mind still boggles even to grasp that!

PB: The challenge we set for ourselves was that in this one development, every single unit must be great. And it was difficult to do so while complying also with Vastu principles.

SW: What is your understanding of Vastu in this context?

PB: Vastu is about premium directions for all activities within a home. For example, the puja room must always be in the north-eastern corner of a home. So we could not flip units, and could not have mirror units in the other half of each tower.

BH: It was a journey of puzzles, even as most of such units sold in India are, as we understand it, not Vastu-compliant. But we wanted every single one of Atmosphere's units to comply with Vastu principles.

SW: Why set yourself such an impossible puzzle, as it were?

BH: Curiously, the interior floor plan of most Indian homes are in the shape of a horse shoe, which gives it no views as the doors to every room in the house are facing each other, with the core of the house kept vacant, in line with Vastu precepts. But because each of Atmosphere's unit is so large - ranging from 5,500sqf to 8,000sqf - each unit has openings all around, offering views all year round.

PB: We were rigorous in looking specifically at how to open up the centre of each unit to light and air, which would be honouring the best of Vastu. That in itself proved to be an incredible journey for us.

SW: How did you make it such a successful journey?

BH: I really love puzzles and the challenge of Atmosphere was a Rubik's Cube rolled into Sudoku all at once!

SW: What about solving impossible puzzles do you especially like?

BH: That it's very calming.

SW: How ever so?

BH: I have a very structured mind so, step by step, and square by square, pulling in and out, having the macro and micro view of any puzzle, all that calms me. And I challenge myself with speeding, by solving puzzles against the clock.

SW: Peng Beng, what did you make of your role in Belinda's puzzles in overdrive?

PB: Given that we needed to be Vastu-compliant, we wanted to test the idea of how it could be - and how. We launched a series of experimentations, working with designs for simplexes and duplexes as if they were squares of a Rubik's Cube. We created unit, we examined them, iteration after iteration. We lived in three-dimensional puzzles for quite a while. Through our iterations, we came upon interesting insights. We examined how families might want to live in Atmosphere, and provided for natural air and great views.

SW: But couldn't other architects have done that too?

BH: I think what we bring to Kolkata's table is our processes, that is, how we begin our designing - with the emphasis on building up, rather than breaking down, elements - how intensively we research our detail required, how we respond to our clients and their needs - and wants, of course! And last but never least, what the city and the country requires. With that process firmly in hand, we can continue to realise dreams wherever we go.

SW: How does Atmosphere rank with your other successes?

BH: It is a truly special project for us. We feel extremely privileged to be given the opportunity to create Deya and Atmosphere. To be able to conceive something that has a cosmological influence and yet is people-centered.

PB: It acknowledges fully what exactly we are selling and what Kolkata's residents are buying, that is, a conversation between one-of-a-kind units and Vastu. Beyond just the building's form, the heart of the project is really the family and the community. It is about how one could connect in big and small ways. With oneself, with the city and perhaps with the universe.

The historic science of Vaastu based on the five elements — sky, earth, water, fire and wind. To promote harmonious living within the universe this complex system of principles can be applied to the architecture of a home using the Vaastu Purusha Mandala grid. Depicting a man lying with his head in the north east, the different directions of the compass are assigned to different gods or guardians. All elements of the home should therefore be placed in accordance with this to create a home balanced with the heavenly bodies.

All the unit plans of atmosphere are vaastu compliant in terms of the alignment of the blocks and units. Placement of the main door, kitchen, puja room, living hall and bedrooms of each unit are planned as per the rules of ancient Vaastu Shastra. Vaastu is an integral part of Hindu life, the home is more than just a shelter, it has spiritual value. Vaastu compliant homes give peace, harmony and overall prosperity to the family residing within.

When designing a single unit, landed Indian home, full compliance of Vaastu principles can be achieved without too much difficulty. However, in a high rise block, where a central core links multiple units, adhering to the same principles is a complex task. Furthermore to create the quality of units envisaged, compromising on efficiency, functionality or quality of space was not an option. Over a long period of continual design evolution the desired was achieved; four luxurious fully Vaastu compliant homes.

NORTH

AIR/WIND   KUBER   SADASIVA

WEST   VARUNA   BRAHMA   INDRA   EAST

PUTNA   YAMA   FIRE

SOUTH
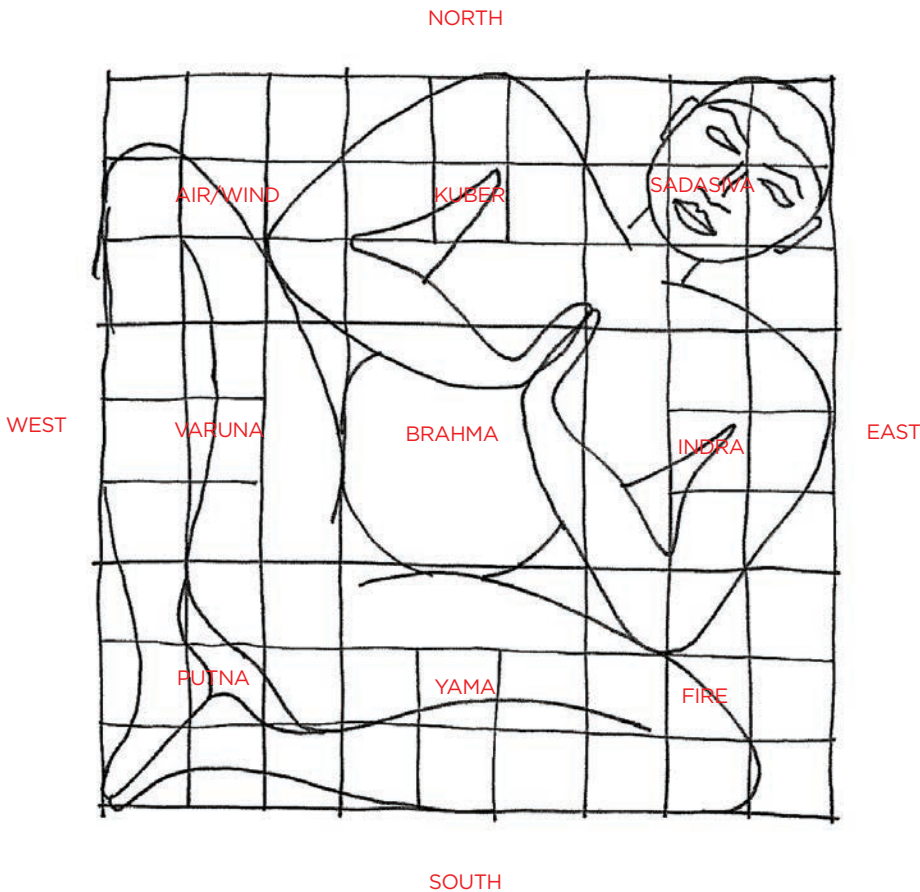
"The challenge of Atmosphere was a Rubik's Cube rolled into Sudoku all at once!"
—
BELINDA HUANG

The Mandala's central portion is occupied by Brahma meaning the corresponding middle portion of the home should always be light, open and airy. Conceptualized in the atmosphere units by using an arrangement of solid and void this characteristic of space could be created. The arrangement of 'solid' portions of the accommodation

either side of a lighter open space in the centre can be likened to a jewel being held by its casement, the jewel itself is the heart of the home.

Alignment of the form is another important principle within VaAstu. For example it is desirable for the north east corner to be extended in

form. Just as importantly the North East corner must never be cut in volume. These rules of alignment can be complex as they are applied on a macro level as well as a micro one. The north east corner of each block must not be cut, nether should the north east corner of every unit, nor should the north east corner of each room be cut.

VASTU - UNITS

WEST DUPLEX

NORTH

North east extension 1/3rd

Light open centre

WEST

EAST

West in line

South inline, central 1/3rd (terrace) extends

SOUTH

EAST SIMPLEX

NORTH

North east extension 2/3rds

Light open centre

WEST

EAST

West in line

East in line, central terrace extends

South inline, central 1/3rd (terrace) extends

SOUTH

WEST SIMPLEX

NORTH

North east extension 1/3rd

Light open centre

WEST

EAST

West in line

East in line

South inline, central 1/3rd (terraces) extends

SOUTH

WEST SIMPLEX

NORTH

North east extension through either north or east terrace

Light open centre

WEST

EAST

West in line

South inline

SOUTH

SW: Rahul, how would you feel if Atmosphere did not pan out according to your vision?

RS: Ultimately, architecture is designed for those who inhabit it, not just as an object but also as a home. What we are creating is a collection of homes, and we invest a lot of time in how different people use different homes differently, with their different levels of privacy. We've integrated some very public spaces with those which are very private. I also think that because 80 families are coming together in Atmosphere, they should own collectively something that they simply would not be able to do if they had bought individual villas on individual plots of land.

SW: What would you consider the true value of Atmosphere to its eventual owners?
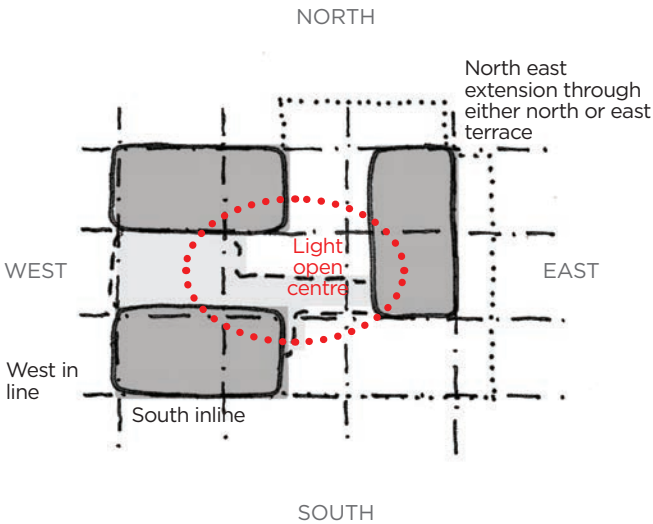
PB: Atmosphere will redefine contemporary high-rise living. Eighty extremely lucky owners will come together to own a totally unique lifestyle infrastructure - an artwork as well as a club in the sky - a new form of architecture.

RS: What would make Atmosphere's address one of true value are villas stacked on top of each other, with amenities and luxuries within its resident's reach.

SW: So how do you think you have helped them in all that?

PB: Again, we are going back to the idea that what is seemingly simple can actually be very complex and that what looks complex can actually be very simple. For example, in nature, the flocking of birds can be simulated on the computer with only three simple parameters. It's all about creating an intricate effect with the simplest elements.

SW: Aesthetics aside, how have you tried to cater to the peculiar needs of Atmosphere's residents?

BH: When we planned the units of Atmosphere, we were actually planning for the larger community, as opposed to planning for the smaller community that would often congregate, commingle and chat in Deya, the cloud club. As we mentioned earlier, different types of families have slightly different needs. So, for example, a potential resident of Atmosphere has the option of having a standalone living room, one that is very private, a space between two terraces. Another who likes to entertain will have a living room which is designed and placed such that it can be turned immediately into an entertainment zone, with the more private areas for living closed off to visitors, say, across from a unit's terrace.

NORTH
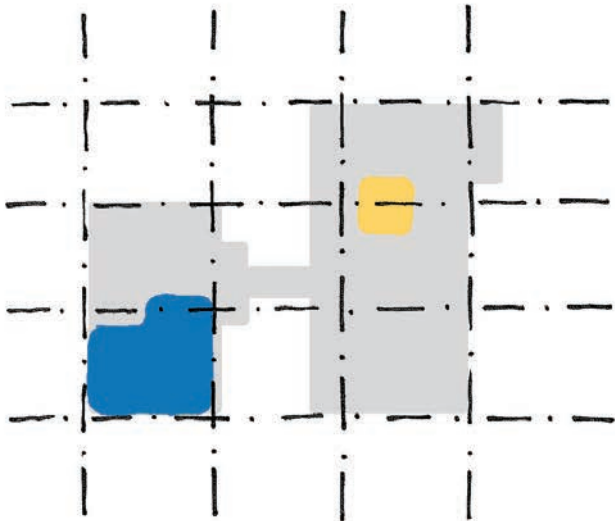
WEST DUPLEX: upper floor
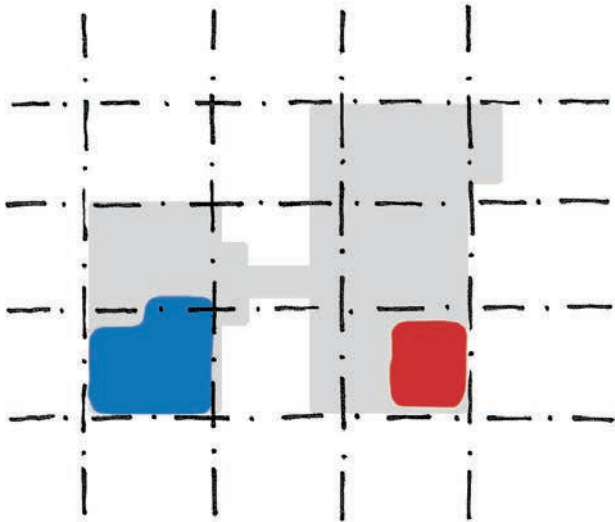
WEST DUPLEX: lower floor
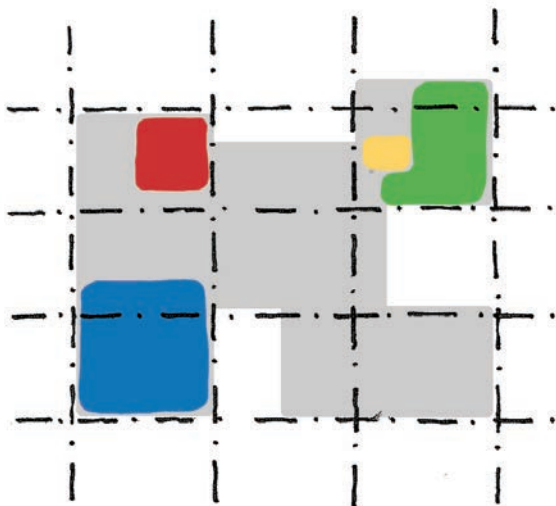
NORTH

EAST SIMPLEX

NORTH
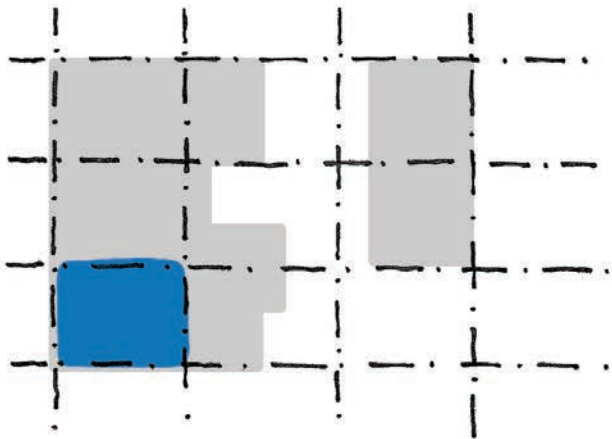
EAST DUPLEX: upper floor
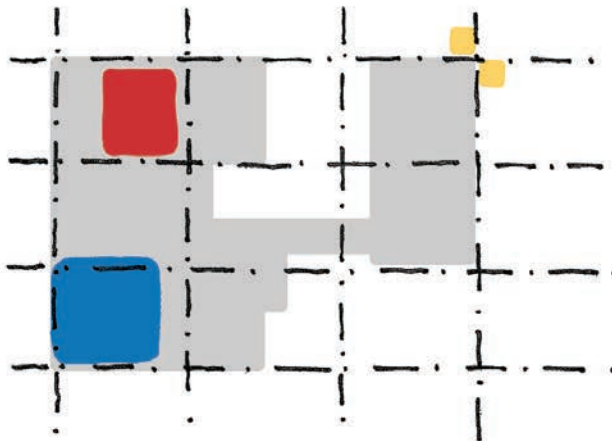
EAST DUPLEX: lower floor

NORTH

WEST SIMPLEX

VASTU - ROOMS WITHIN UNITS

The Master bedroom should be ideally located in the south west/south corner of the unit.

The junior suite, the parents, unmarried children's or guests' bedroom should be ideally arranged in the north east of the unit or the south west of the unit

The kitchen should ideally be placed in the south east/north west corner of the unit and never be located in the north east

The Puja, as a prayer room is the space with the most spiritual significance. It ideally should be placed in the north east of the unit.
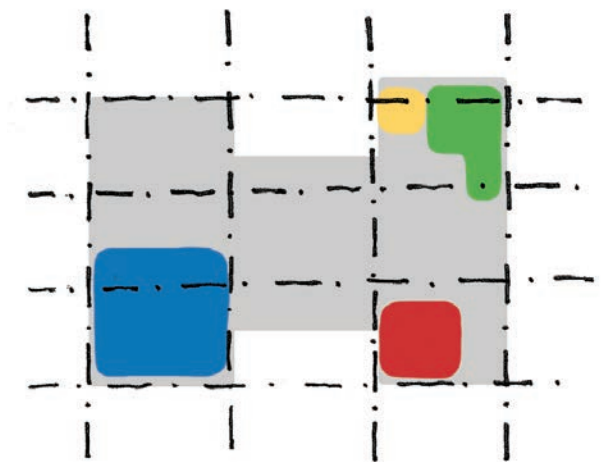
According to the location of the gods or guardians in the Mandala, each room or function within the home should fall into certain positions. The complexity does not simply dictate a one certain location but rather several possible ones. The relationship of the placement of all rooms in the home is relevant to every decision; it is based on balance and harmony.

The basic principles in terms of arrangement of rooms can be demonstrated using four key spaces of the units are documented in these diagrams.

SW: In this, what was the nub of Rahul's concern?

BH: For three-tiered families, the luxury was being able to celebrate who they are and where they are going. Besides celebrating the master of the house, we also had to ensure that the children's room would be well seen to, that families also had the option to convert a series of rooms into private suites for children who marry but still live with their parents. We would also provide these parents with a second master bedroom, of course, complying entirely with Vastu principles. We focused on the unit's second master bedroom, for the patriarch and matriarch of the family. This is how we've used the space as creatively as possible for multi-tiered living.
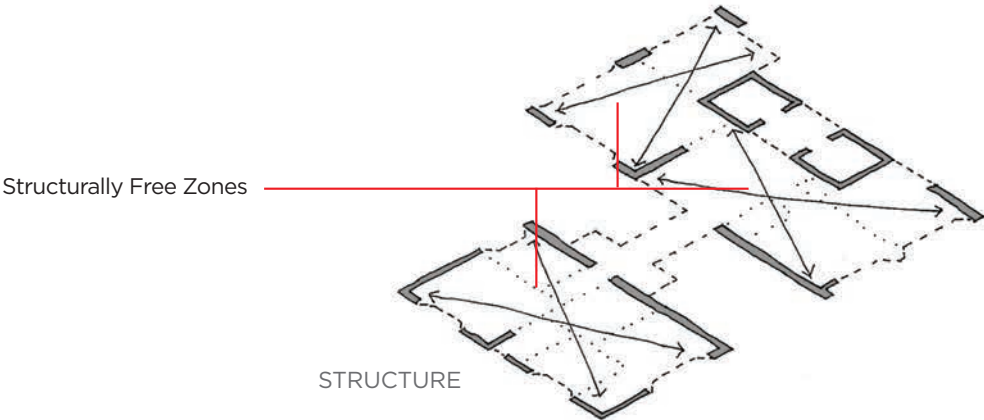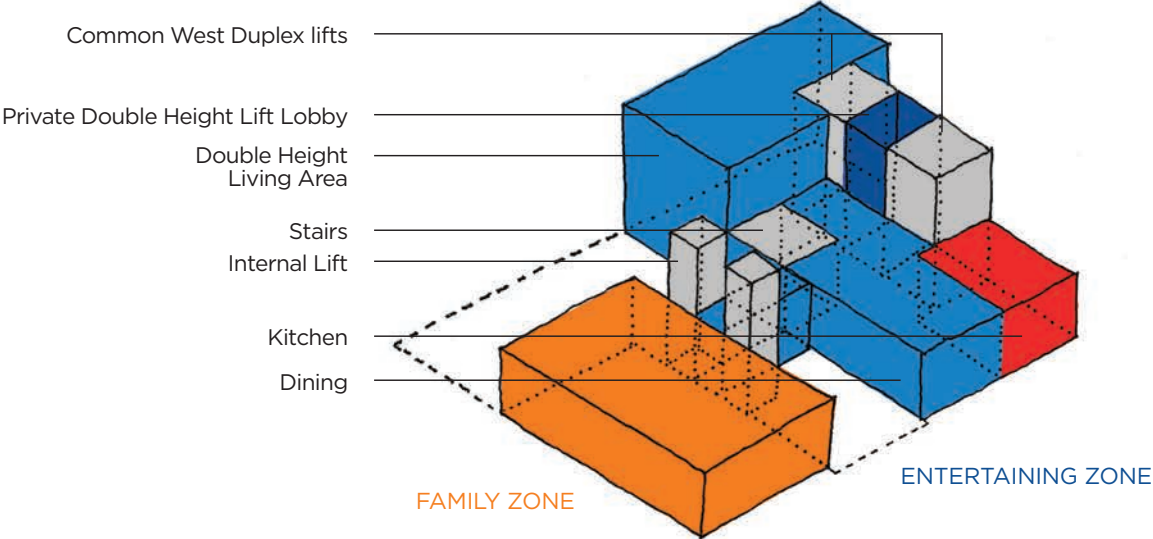
PB: Besides being family-oriented, Rahul is also very spiritual and has asked that each of Atmosphere's villas in the sky grow with each family, so that as the years roll by, each family can convert parts of its unit into mini-apartments, for each of its generations to inhabit.

The family and entertainment zones are distinctly separate in the West Duplex. Entering into the unit through the double height private lift lobby, the large foyer greets the visitor and leads through to the formal living areas, dining and connects to the terrace(s). The double height living space gives panoramic views across the wetlands through the huge picture windows. The two possible terrace positions both connect to this central space - one providing a large single cantilevered terrace, the other giving a separate terrace on the opposite side of the unit.

The family zone is accessed via the terrace walkway where the duplex's internal lift is located. The lower level of the family zone is pulled away from the entertaining zone and with the remaining bedrooms

and family living being placed upstairs the two functions can coexist but retain separation from each other. The family can easily invite guests into their spacious living, dining and terrace areas, whilst those members of the family who wish to retire, can move into their private family zone without any inconvenience.

The flexibility within the family and entertaining areas due to the structural system allows adjustments within each zone to suit the family's needs. Matching the families' way of living to the architecture of the unit is essential. Even with the two terraces options, the chosen position is entirely dependent on the way in which the family functions and public/ private relationship desired. Choice is paramount.

Puja
Stairs
Internal Lift

FAMILY ZONE

Common West Duplex lifts
Private Double Height Lift Lobby
Double Height Living Area
Stairs
Internal Lift
Kitchen
Dining

FAMILY ZONE   **ENTERTAINING ZONE**

Structurally Free Zones

STRUCTURE
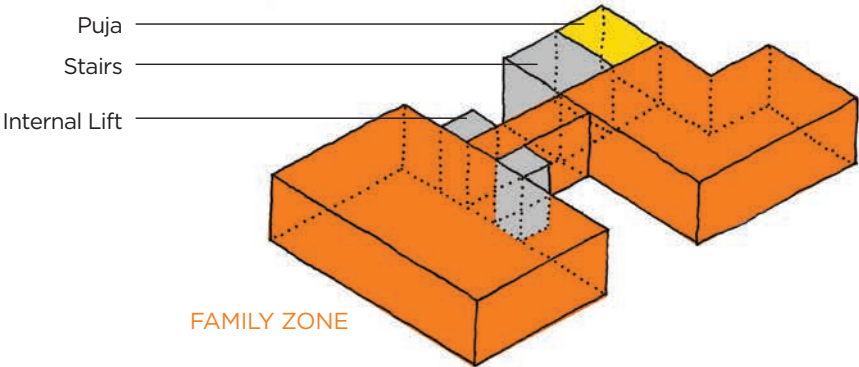
Top left:
West Duplex foyer with
views onto terrace and into
double-height living.

Bottom left:
Typical master bedroom

Right: Typical master bathroom

"There is a kind of specificity to our architecture, but also freedom. This allows people to interpret the spaces for themselves and use them according to their own creativity."
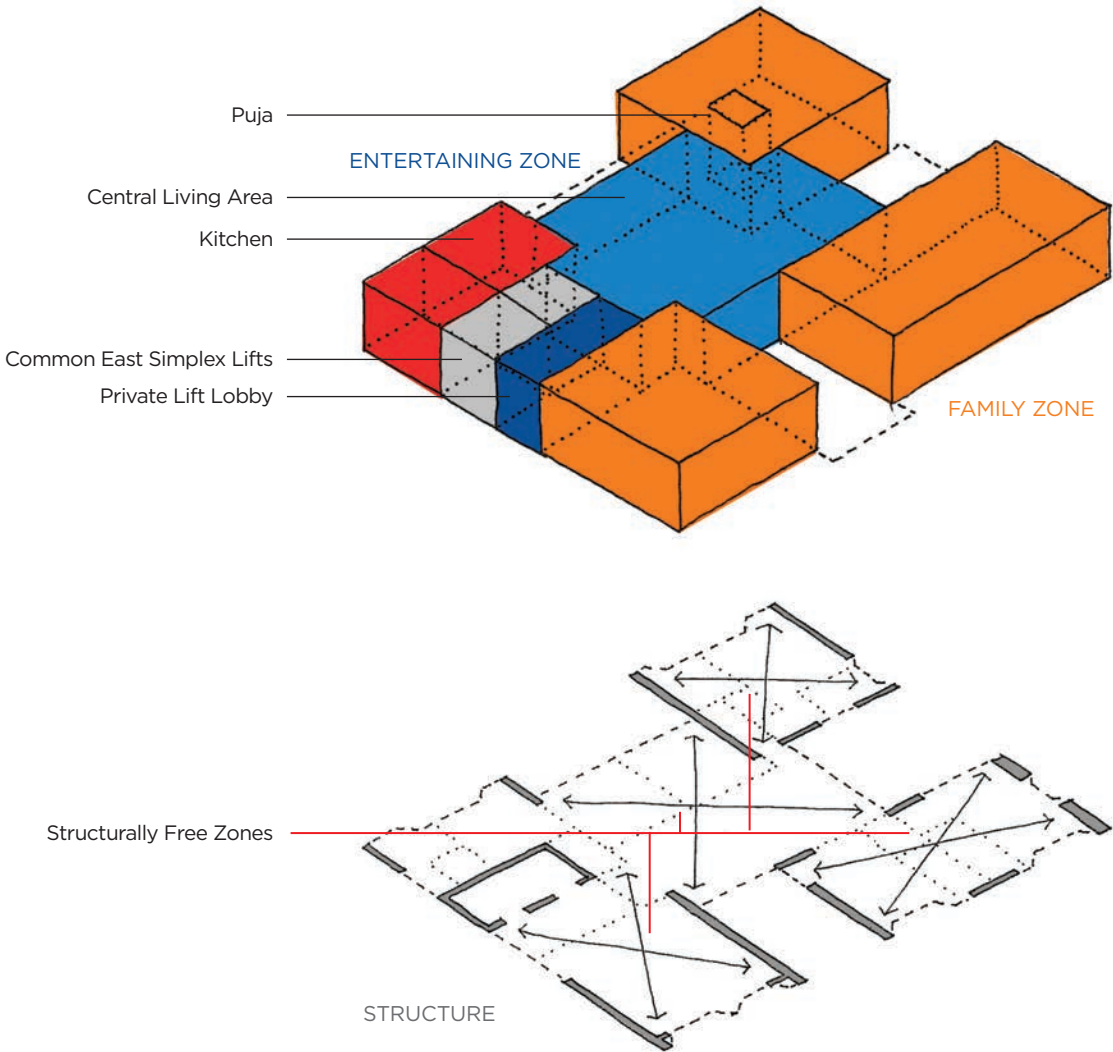
—
KHOO PENG BENG

The East Simplex is characterised by its large light open centre glazed on three sides allowing endless views across Kolkata and the wetlands. Placed at these edges are the three alternating terrace positions which allow the interior to extend and spill out into the external environment. Three corners of this central living area are inhabited by bedrooms with the remaining corner holding the kitchen and service areas. The three clusters of bedroom suites in the corners of the central space allows the master, guest and children or adolescent rooms to have their own defined location in the unit, whilst still sharing the common centre.

The East Simplex demonstrates the great flexibility that is afforded due to the structural scheme developed. The light open centre to the unit can be subdivided or kept open depending on the families preference and desire for privacy from visitors. Furthermore it allows the owners to adjust the balance of public private relationship of space within the unit if they so wish. For example to increase the entertaining zone and separate from the family areas, one bedroom could be converted into a more private formal living adjacent to, and accessed directly from the private lift lobby.

As with all four units, there is never any compromise on the quality of space for any room regardless of its function. The kitchen for example is weighted equal to any other room in terms of crafting the architecture. As an integral part of any family home, the kitchen maintains the large full height sliding doors with planter that the other rooms of the units have. The atmosphere within the room is as exceptional throughout the development.

Puja
ENTERTAINING ZONE
Central Living Area
Kitchen
Common East Simplex Lifts
Private Lift Lobby
FAMILY ZONE

Structurally Free Zones

STRUCTURE

"Architecture is designed for those who inhabit it, not just as an object but also as a home."

—

RAHUL SARAF

"Each unit has openings all around offering views all year round."

—
BELINDA HUANG

"We went through the make-up of different kinds of family environments, different family sizes and the kinds of units for these different families."
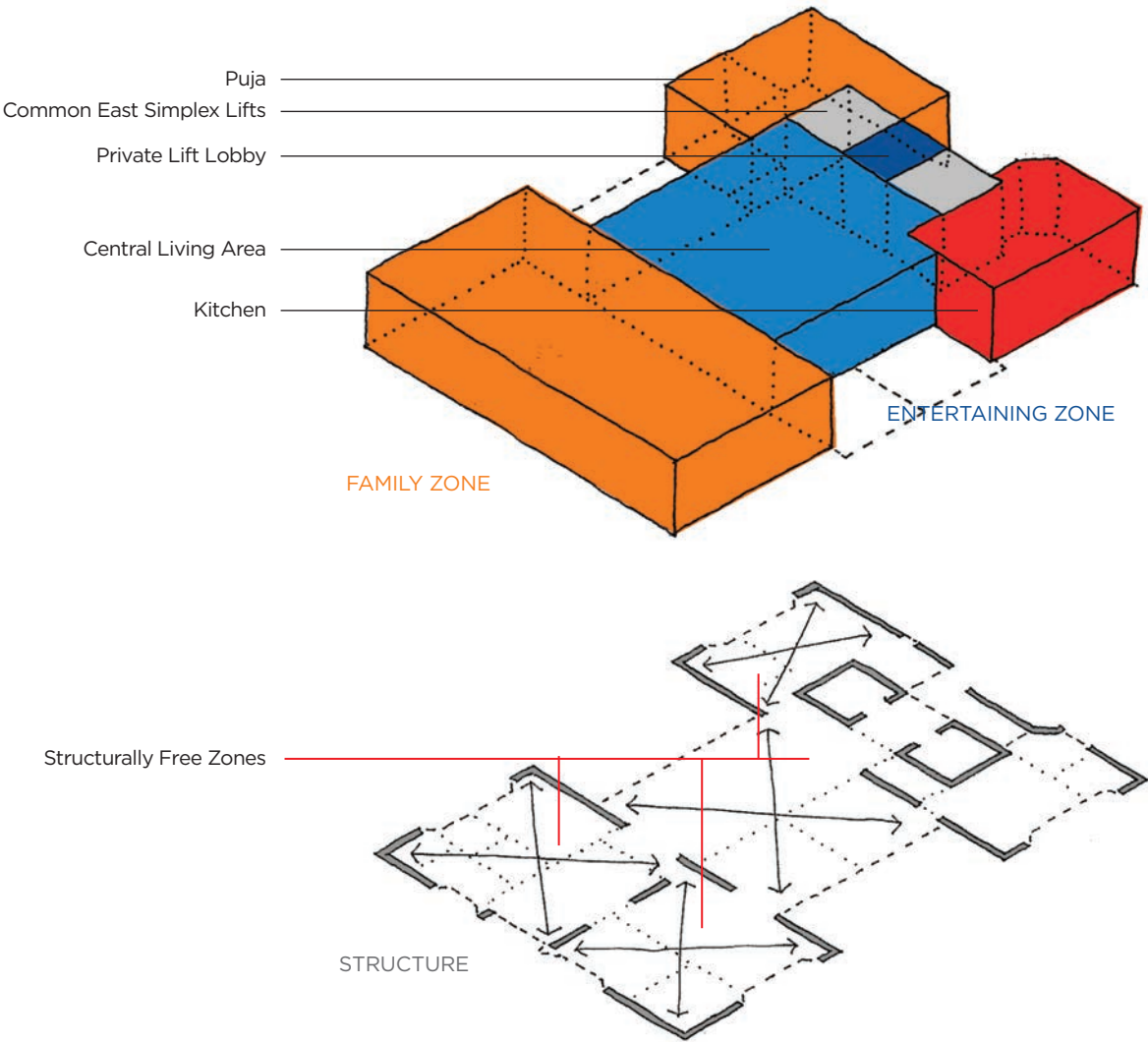
—

BELINDA HUANG

The West Simplex has a large light open centre like the East Simplex. Fully glazed on the North and South facade this central living area acts as a transparent volume encased by the two solid elements either side. Uninterrupted views across the landscape of Kolkata and the wetlands are available from one side of the unit to the other. Like the East simplex this volume is structurally free and can be subdivided to the extent the family should wish. Extending out from this transparent volume are the three terrace options. The relationship of these to the living area and the resultant nature of the terrace will depend on the subdivision of the internal volume. For example the terrace could perform as an extension of the living area or dining room depending on the preference of the family.

The Family area of the West Simplex is mainly zoned at one end of the unit creating a division between it and the main living area. All bedrooms are grouped in the west 'solid' of the unit apart from the guest or parents room which is separated from the rest of the unit in the east portion, giving a degree of privacy for the inhabitants of this room. Conceptually the arrangement of the West Simplex is very clear and simple, the finer details of the arrangement creates harmonious living for the family in reality.

Again, like all the other units, there is a degree of flexibility in the layout. For example, the Puja can be placed elsewhere within the unit and the room could be converted to create a junior suite. This may be necessary once children become adults and marry but remain within the home. This ability to change and alter the unit by combining or dividing rooms was a key design intent and is a quality which runs throughout all the units. The home must be able to grow and evolve with the family.

Puja
Common East Simplex Lifts
Private Lift Lobby
Central Living Area
Kitchen

ENTERTAINING ZONE
FAMILY ZONE
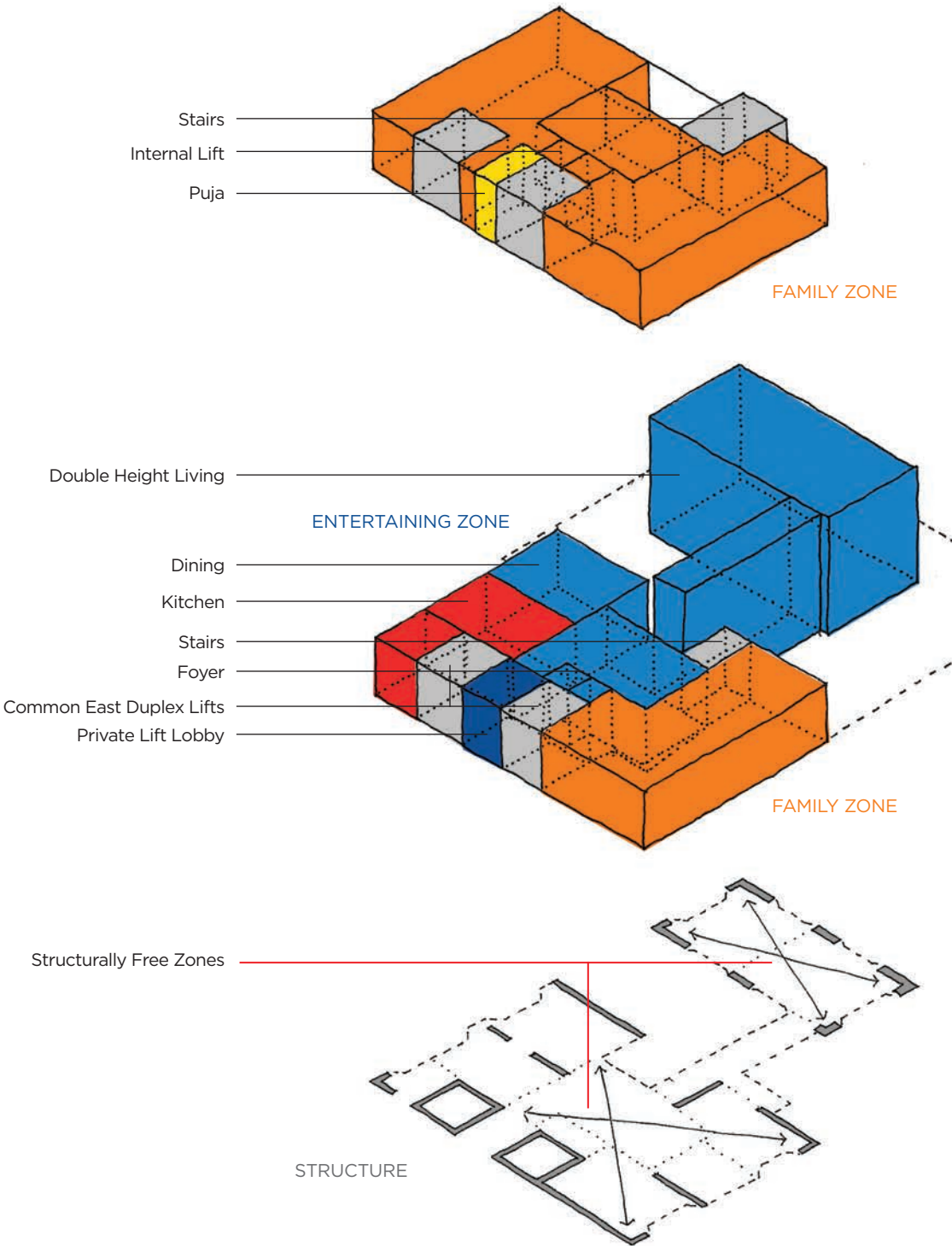
Structurally Free Zones

STRUCTURE

Like the West Duplex, the East Duplex has clearly defined entertaining and family zones. The latter is split over two floors with a large family living area in the centre on the upper floor around which bedrooms are centered. Like all the units the east duplex has two master bedrooms; one for the head of the household and the second for either parents, married children or guests. All units can cater to families at different stages of life.

The entertaining zone is separated from more private areas by the large foyer off which the dining and kitchen are directly accessed. As with the West Duplex the formal living area is a double height volume however in the East Duplex the formal living area is pulled away from the main portion of the unit. By doing so this

room has 360 degree views through the picture windows on all sides. Both terrace options capitalize on the singularity of this volume, wrapping around it creating a fantastic environment in which to entertain guests or enjoy as a family.

As with the other units, flexibility of space is available to the owner and the two terrace scenarios available are very different in character. The south terrace is the largest cantilever within the whole development and provides a very open external environment. The north terrace option also has a large cantilever however much of the terrace is held between the double height living and the main portion of the unit. The two options integrate with the unit by different degrees and allowing the buyer to choose the best option for their family's way of life.

Stairs
Internal Lift
Puja

FAMILY ZONE

Double Height Living

ENTERTAINING ZONE

Dining
Kitchen
Stairs
Foyer
Common East Duplex Lifts
Private Lift Lobby

FAMILY ZONE

Structurally Free Zones

STRUCTURE

SW: Can I have the last word from all of you?

RS: Years after Atmosphere has been completed - we would all have moved on to dream another dream. But Atmosphere will stand here and be here for life. It will reflect the sense of the sacred within you. The joy for us is to be able to develop this. Also, for our compatriots in other parts of India, we want to hear them say, "Hey, why can't I have that in my city as well?" One can tire of real estate projects but I believe that if you put your soul into a project, it will be reflected somewhere. It will not go amiss.

PB: Passion is like the sail powering the boat and reason is its rudder: Reason

"My inspiration for Atmosphere is high-rise living which gives you the feeling of being in your own bungalow, a master of your private universe, if you like."

—
RAHUL SARAF

is what actually steers the boat and the whole boat is actually powered by passion. So, in that sense, there is this drive.

RS: And you are the sail, Belinda the rudder, Peng Beng.

SW: Belinda, you don't like chaos but Peng Beng thrives on it. How do you make it work?

BH: Chaos disturbs me, but I also need it. Otherwise, I'd be living a life of banality. So Peng Beng is good for me as I am for him.

SW: How so?

BH: I find myself intuitively structuring and looking for the internal order of a chaotic situation and I work best with a structured process. Whereas Peng Beng thrives on chaos and navigates chaotic situations almost effortlessly ... always finding the flow.
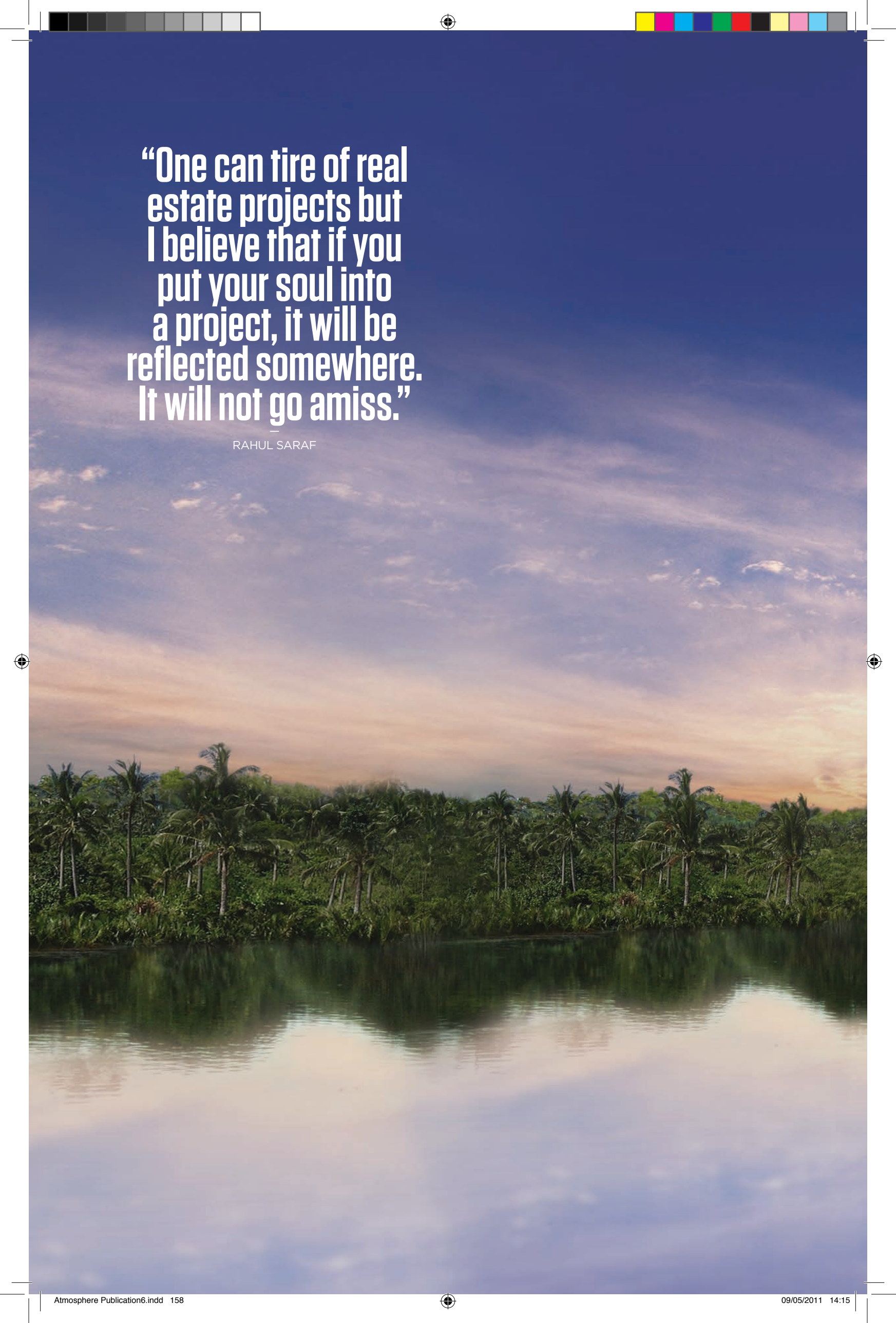
PB: We constantly dance between chaos and order, always finding simplicity in that which is chaotic and complexity in that which is simple. The process of doing so has become so natural for us that the boundaries between where we meet and don't meet, the points at which I start creating and she starts structuring, and vice versa, have really blurred.

BH: The sail and the rudder coming together as one.

PB: And you are the wind, Rahul, that powers us on!

RS: And Suk-Wai, can we have the last word from you?

SW: As I listened to all your ideas, one quote returned to me again and again. It's by Thomas Jefferson, the third president of the United States, and it goes: "Only those who can see the invisible can accomplish the impossible." And that resonates with all that you have done and are trying to do because you have the grace and conviction to understand and articulate the very invisible, yet very real aspirations of Kolkatans today. Thank you for sharing your tremendous journey with me.

"One can tire of real
estate projects but
I believe that if you
put your soul into
a project, it will be
reflected somewhere.
It will not go amiss."

—
RAHUL SARAF

ATMOSPHERE
Is a cloud is a cloud is a cloud is a cloud
Buoyant with bonhomie
Fluffy with fun
Pregnant with promise

Such is the nature of nature

When was the last time you looked at your sky?

———————————

CHEONG SUK WAI

CONSULTANT BIOGRAPHIES

ARC STUDIO

DESIGN ARCHITECT

ARC studio or Architectural Research Collective Studio was founded by the husband and wife team of Khoo Peng Beng and Belinda Huang in 1998. ARC Studio is a creative place that embraces diversity, collaboration, open-minded communication and the greatest challenge of all, change.

Analysis and strategy feature greatly in ARC Studio's method and they consider each project in a fresh light with absolute commitment to their work. They constantly balance the many different forces acting on a scheme, be it finance, aesthetics or structural integrity. ARC Studio will strive to find the most elegant and optimum solution for every project.

Nature is ARC Studio's tool, big and small, finite and infinite. Their fuel is anything that stimulates imagination. Most of all they are inspired by the interaction with their clients, their collaborators and the people who will eventually use their designs.

ARC Studio's portfolio ranges from self-sufficient eco-townships incorporating, permaculture in the highlands of Malaysia; to super high rise high density housing projects in congested urban centres; to highly customized homes and work environments.

PROJECTS
*   Balmoral – Luxury Apartments, 12 Storey, 91 units (Singapore)
*   L'VIV – Luxury Apartments, 33 Storey, 147 Units, (Singapore)
*   Petir Road – Luxury Apartments, 24 Storey, 496 units (Singapore)
*   Setia Sky – Luxury Apartments, 40 Storey, 844 Units, (Kuala Lumpur)
*   Pinnacle @ Duxton, Public Housing, 50 Storey, 1848 Units, (Singapore)

AWARDS
*   World Architecture Festival 2010 (International), Residential Category Winner: Pinnacle @ Duxton
*   FIABCI Prix d'Excellence Awards 2011 (International), Residential (High Rise) Category Runner up
*   Council on Tall Buildings and Urban Habitat 2010 (USA), Best Tall Building Award, Asia and Australasia: Pinnacle @ Duxton
*   President's Design Award Singapore 2010, Design of the Year: Pinnacle @ Duxton
*   Singapore Institute of Architects, Architectural Design Awards 2011, Public Housing Category Design Award: Pinnacle @ Duxton

WEBSITE
www.arcstudio.com.sg

EDIFICE

LOCAL ARCHITECT

Edifice Consultants Ltd is an award winning firm, working at the cutting edge of conceptual design for close to 25 years.

A headcount of over 275 design and construction personnel, make this firm one of the largest Architectural design companies in the country.

The firm brings design virtuosity into projects in diverse segments encompassing Corporate Architecture and Interiors, Hotels, Hospitals, Commercial Architecture, Retail Design, Master Planning and Urban Design. Edifice renders design consultancy in Architecture, Interior design and MEP engineering within these market segments.

Edifice's presence in 8 major cities across India has resulted in a wide spread of built and ongoing projects across the country. In addition Edifice has a presence on the international stage with projects in London, Shanghai, Hang Zhou, Manilla and Nigeria.

At the center of its work ethic, Edifice embraces the core values of Design Innovation, Processes and Systems, Client Retention, and Teamwork and transparency.

The firm, as a result, has enjoyed extended professional relationships, some a decade long, with such prominent organizations as TCS, Infosys, Cap Gemini Consulting, Goldman Sachs, Bank of America and Morgan Stanley.

PROJECTS
*   Vodafone
*   Tata Consultancy Services
*   Syntel Ltd.
*   Bajaj Ltd.
*   Tata Realty & Infrastructure Ltd.

AWARDS
*   World Architecture News (WAN) Awards 2009: design for commercial headquarters identified as one of six best entries under the Commercial sector -Unbuilt category
*   The Economic Times Ace Tech Awards: Stalwart & leader of architecture – 2009
*   Award for Design Excellence in Corporate Architecture – 2010
*   Construction World and CW Interiors Awards 2010: Selected as one of India's Top 10 Architects
*   Architect & Interiors India, March 2011: Selected as one of top 50 Architects in India

WEBSITE
www.edifice.co.in

WEB STRUCTURES

STRUCTURAL DESIGN ENGINEER

Web Structures is a pioneer of "Fusion Engineering"; fusing design sensitivity with cost consciousness through innovation and design to enable groundbreaking architecture to become building reality.

Web Structures' diverse portfolio includes award-winning suspension bridges, luxury resort hotels, skyscrapers and complex commercial and industrial projects.

Its high-quality design engineering places the practice and its talented team of professionals in the "Premier League" of international engineers.

Web Structures' Fusion Engineering philosophy is recognised and utilised by some of the largest and most acclaimed names in architecture, who have all called in Web Structures to work on cutting-edge and landmark projects.

Among these high-profile projects, Web Structures is carrying out work on New York's Freedom Tower, utilising its specialist engineering and facade consultancy services 507 meters above ground level.

Founded in 1996, Web Structures has a 60-strong team of talented experts working from offices in Singapore, Kuala Lumpur, London and Shanghai.

PROJECTS
*   The Troika, Kuala Lumpur, Malaysia.
*   Tokio Marine Centre, MacCallum, Singapore
*   Northpoint, Pattaya, Thailand
*   Capella Resort, Singapore
*   Four Seasons Resort, Seychelles

AWARDS
*   RIBA Worldwide Award 2008 – Lincoln Modern, Singapore
*   International Architecture Awards 2010 – Laemsingh Villas, Phuket, Thailand
*   10th SIA Design Award 2010 – Park Seven, Kuala Lumpur, Malaysia
*   BCA Green Mark Gold Award 2010 – Menara Binjai, Kuala Lumpur, Malaysia
*   The Institution of Structural Engineers (UK), Singapore Structural Award 2010 – Amphitheatre at the Dhoby Ghaut Green.

WEBSITE
www.webstruc.net

M N CONSULTANTS

CIVIL & STRUCTURAL ENGINEER

M N Consultants Pvt Ltd renders consultancy services in civil & structural engineering aspects, since 1983.

MNCPL is an already established name in Kolkata and Delhi and recently exploring throughout India.

The activities of MNCPL have been challenging involving prestigious projects from Residential, Commercial, Institutional, Hospitals and hospitality project to Industrial structure and bridge engineering.

MNCPL always adopt advance methodology and engineering study supported by computer aided facilities using modern technology.

MNCPL feels privileged to operate from their own office building "MNC House" in Kolkata.

PROJECTS
* Hiland Park, Kolkata
* Vatika Infotech City, Jaipur
* Westin Hotel, Gurgaon
* Apollo Gleneagles Hospital, Kolkata

WEBSITE
www.mncpl.com

WSP GROUP

MEP CONSULTANT

WSP Group plc is a global business providing management and consultancy services to the built and natural environment. Established in the UK in the '70s and listed on the London Stock Exchange since 1987, the company has grown through strategic development into one of the largest international consultancy groups in the world employing around 9,000 staff worldwide. WSP operates as a specialist in the property, transportation and infrastructure, environment and energy providing a full range of services from planning through to design, implementation.

WSP's office in India was established in 2004 catering to Building, Transport and Infrastructure sectors. WSP India is one stop shop solution provider for horizontal and vertical design development. WSP in India has over 150 experienced and skilled professional staff to carry out Building, Transport & Infrastructure design work from Delhi and Mumbai office.

PROJECTS
* Kuala Lumpur City Centre, Petronas Tower, Malaysia
* MGM Mirage City Centre, Las Vegas, Nevada
* Freedom Tower, New York
* City of Arabia, Dubai
* New Providence Whaft, UK

AWARDS
* 2011 winner of the NCE (New Civil Engineer Magazine)/ACE (Association of Consulting Engineers) International Consultant of the Year Award.
* BCSC's (British Council of Shopping Centres) Awards three of WSP's schemes won awards with St David's, Cardiff winning "Supreme Gold".
* WSP won the prestigious 'Environmental Adviser of the Year Award 2011', building on our previous success having won the award in both 2010 and 2007. The award is run by Acquisitions Monthly, the leading international M&A buyout magazine.
* WSP Environment and Energy has received a 'Project Merit Award' for work at a 10 acre site in Darlington, South Carolina, on behalf of client Vishay Intertechnology Inc.
* With fellow environmental engineers Mabbett & Associates, WSP also received a 'Project Merit Award' for our work at the $435m site of the new U.S. Coast Guards HQ in Washington D.C.

WEBSITE
www.wspgroup.com

BUILDING FACADE GROUP (BFG)

FACADE CONSULTANT

We are a specialist consulting practice offering world class technical expertise across Asia. We are group of passionate individuals experienced in facade design & engineering, contributing ideas and experience from concept design through to managing quality in site installation. Our guiding principle is to work on great projects, with great people and adding value to all. Our core strength is our experienced staff who has worked on landmark projects in Asia Pacific, who are completely comfortable working with our Asian clients and understanding their respective culture, capabilities and aspirations.

PROJECTS
* Innovation Centre P&G, Singapore
* St Regis Hotel & Residences, Singapore
* Republic Plaza, Singapore
* The Sail Residence, Singapore
* Time Square, Kuala Lumpur, Malaysia
* Fusionopolis, Singapore
* Novena Square, Singapore

WEBSITE
www.bfg-hcch.com

LIGHTING PLANNERS ASSOCIATES

LIGHTING CONSULTANT

Lighting Planners Associates (LPA) is an organization of lighting specialists established in 1990 in Tokyo, Japan by an acclaimed lighting designer Kaoru Mende. The goal of LPA is to design and build outstanding lighting environments that enrich our architectural and lighting culture.

LPA has been collaborating with internationally renowned architects and have participated in over 500 projects. The firm handles wide range of projects from residential, hotel, commercial, public spaces, landscape to full scape urban lighting projects, and have received numerous international lighting design awards.

Today, LPA is recognized as a leading lighting design firm in the world and its Singapore office has just celebrated its 10 years anniversary.

PROJECTS
* Banyan Tree Phuket
* Ritz Carlton Hong Kong
* The St. Regis Singapore
* Conrad Hotel Tokyo
* Singapore City Center Lighting Master Plan

AWARDS
* 2010: Design of the Year Lighting Masterplan For Singapore City Centre President's Design Award Singapore
* 2008: Award of Excellence Midland Square The illuminating Engineering Society of North America
* 2003: Award of Distinction OASIS 21 IIDA
* 1998: Mainichi Design Award The Mainichi Newspapers
* 1997: Award of Excellence Tokyo International Forum IALD

WEBSITE
www.lighting.co.jp

PRISTINE FOR POSTERITY

O
What do you make
Of being alive
When

Dog can be man
And man can be dogged
When repute is canned
And status is flogged
When values are bent
And living is clocked
Decorum panned
And goodness mocked
When one's mind is rent
And one's heart is locked

O
What do you make
Of being alive
Then?

There are many
Who while
The blues
Away
With luxe
Their emollient
Come what may

Their strength lies in beeswax and gold thread
Their flavour lies in well water and gold wheat
Their faith lies in interview gold and more gold

But
Lest we confuse
Luxe with luxury
Croesus with crassness
Art with artifice
Words with ends

Let us
Taste olives
As old as cold water
Smell rain
As heady as hope
Hear children cry
As shrill as bells
See the sea
As salty as tears
Touch hearts
As hard as stone

Oh, such luxuries!

What is luxury to one dying of thirst?
Drops of dew
What is luxury to one dying of loneliness?
Cold dough on hot griddle.
What is luxury to one dying?
The hum of a normal day.

And
What is luxury to one drunk with drink?
Abstinence
What is luxury to one flooded with friends?
Absence
What is luxury to one hoary with health?
Absolution

These are luxuries?
WHAT is luxury?

What is luxury to one living pristine?
What is luxury to one living in peace?
What is luxury to one living for posterity?
What is luxury to one living in this place we call Atmosphere?

The freedom to be as you please.
The freedom to be when you please.
The freedom to be where you please.
The freedom to be with who you please.
The freedom to be.

O
What will you make
Of being alive
When

Child fathered man
And Man took his knocks
When status was sand
And repute was slog
When time would expand
And values are chalked
Defiance banned
And goodness hawked
One's mind would not rent
One's heart would not lock

O
Won't you awake
To being alive
Then?