HÖRMANN SCHÖRGHUBER

PORTAL 34

INDIA

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CRN, SKIDMORE, OWINGS & MERRILL, HAFEEZ CONTRACTOR, PLANET 3 STUDIOS

CHHATRAPATI SHIVAJI INTERNATIONAL AIRPORT IN MUMBAI

“The majestic roof provides shelter to travellers and their friends and family, as well as adequate space for the ceremonial send-offs that are part of Indian culture.”

HIRANANDANI UPSCALE – RESIDENTIAL APARTMENTS, CHENNAI

“Because space is tight in Chennai, project developers for the real estate company, House of Hiranandani, decided to venture about 30 kilometres south of the city centre, where they constructed a whole new district: Hiranandani Upscale.”

CHHATRAPATI SHIVAJI INTERNATIONAL AIRPORT IN MUMBAI

“The architects drew inspiration for their plans from the design vocabulary of Indian pavilions. Many elements of traditional local architecture such as the latticework of jali windows were adapted for the building.”

HIRANANDANI UPSCALE – RESIDENTIAL APARTMENTS, CHENNAI

“The architecture is neoclassical and thus contains many decorative elements such as tympana, cornices, capitals, and columns.”

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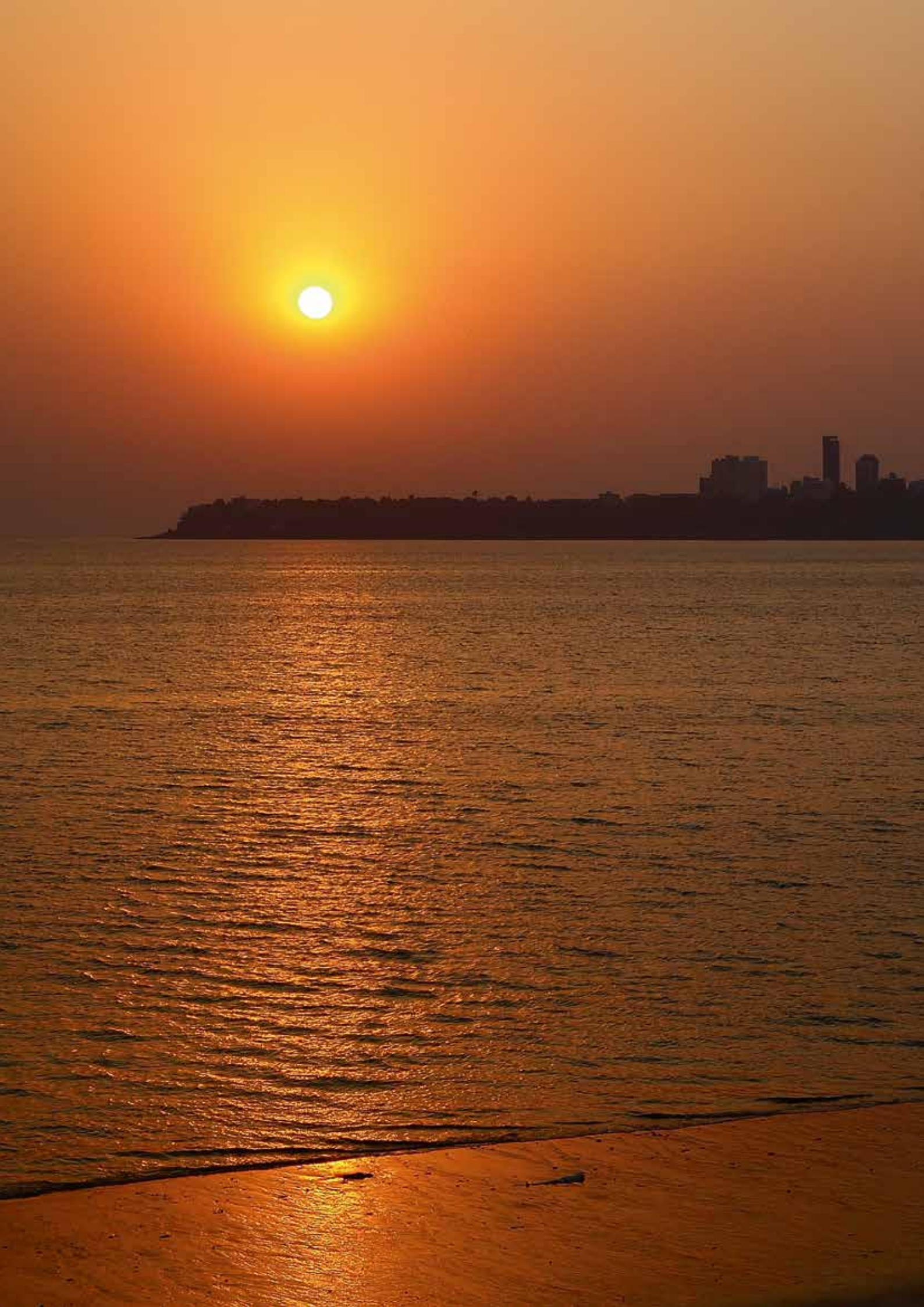
Title photo: Mumbai, IN
Photographer: Christina Dragoi, Stuttgart, DE

EDITORIAL

Dear Readers,

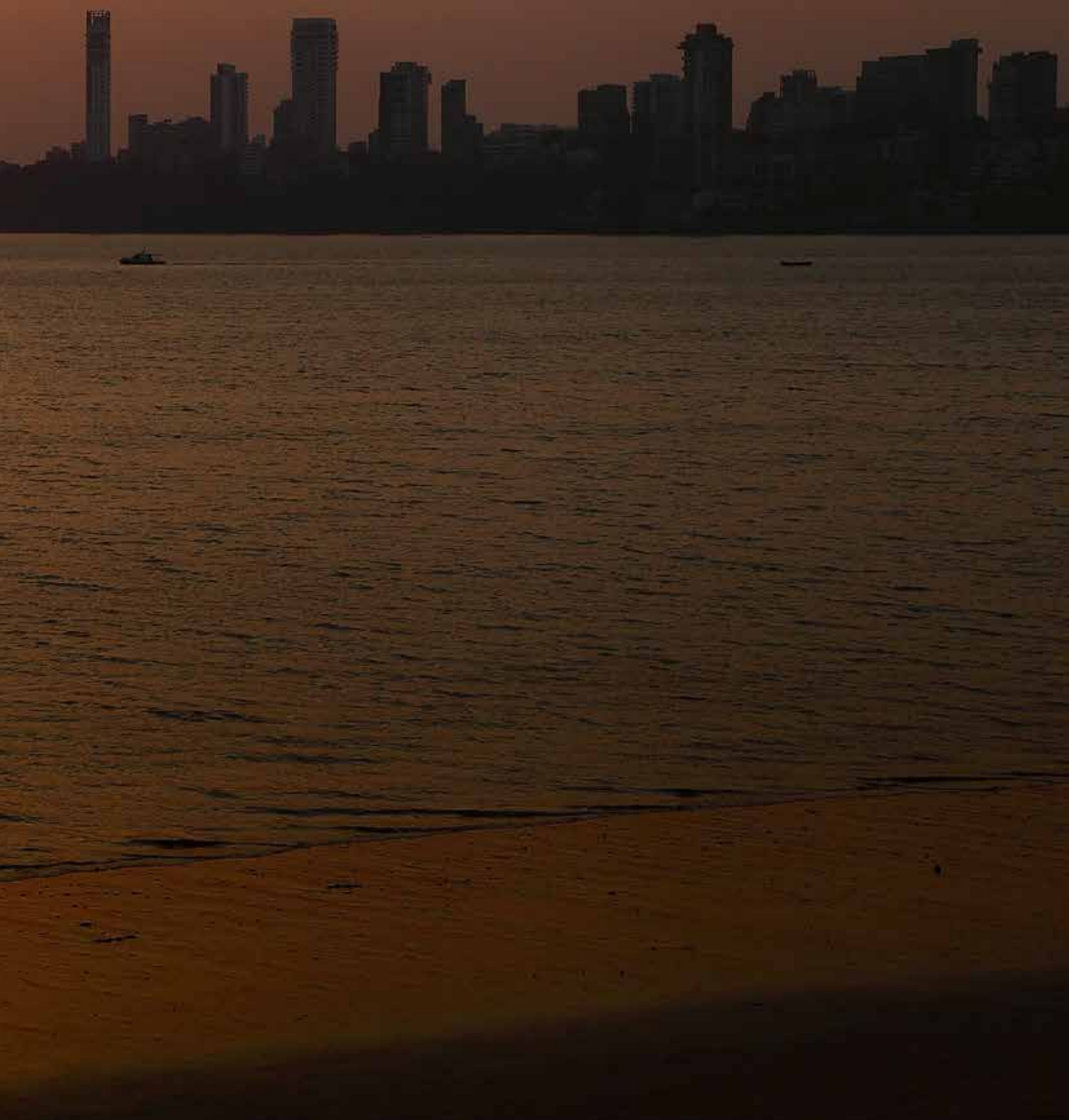
Be honest: Can you name an Indian architect off the top of your head? How about typical features of modern Indian architecture? For many architects, India remains a closed book. Just about everyone can recognize the Taj Mahal; many know about the buildings by Le Corbusier or Louis Kahn in India. Just how did Indian architecture develop after this period of modern masters? Dr. Dietmar Danner gives us some clues in this issue's essay. He travelled to Chennai for an interview with Indian architect C. N. Raghavendran. In the second part of his essay, Danner examines ideas from the interview by comparing the "Grand Chola Hotel" in Mumbai with the "Hotel am Steinplatz" in Berlin. We also feature two Indian projects: the first is Terminal 2 at Chhatrapati Shivaji International Airport in Mumbai by Skidmore, Owings & Merrill. The second is the large-scale residential project Hiranandani Upscale in Chennai by Hafeez Contractor, which illustrates how Indian investors respond to the nation's growing population. Hörmann is active on the Indian market as well and recently expanded its site there to include industrial door production. For more details see our corporate news. Finally, Kalhan Mattoo and Santha Gour Mattoo at the offices of Planet 3 Studios, talk about their hometown of Mumbai and give us an insider's glimpse into future developments. We then return to Europe to look at art. Natalia Załuska is a young yet astonishingly successful artist from Vienna whose work merits recognition.

Christoph Hörmann Martin J. Hörmann Thomas J. Hörmann
Personally liable general partners



ARCHITECTURE IN INDIA

India's economy only knows one direction: forward. The country's architecture, however, is less focussed. It meanders between forced and even compulsive internationality, and the constant search for national identity. A visit to the architectural firm CRN in Chennai illustrates the demands and challenges currently faced by India's architects.



ARCHITECTURE IN INDIA

C.N. Raghavendran is an affable older gentleman. He represents a generation of highly educated Indians whose origins go back to British colonial rule; Indians who made this gigantic country into one of the world's leading industrial nations. The speed of this transformation was – and is – simply breathtaking. When Raghavendran, who is the CEO and owner of the architectural firm CRN in Chennai, a city of millions, browses through his catalogue of works, it becomes clear that his part in building up this nation has been substantial.

India's economic boom

When asked about his recent project, a large business centre in Bangalore, the world capital of IT service providers, Raghavendran asked: "Which one?" There were, indeed, many in recent years. Which was the most important automotive plant on his roster? Toyota or Hyundai? Or could it be General Motors or Maruti Suzuki? More than 300 employees are working to meet the construction requirements of the nation's economic upturn, and Raghavendran knows all too well that India's architecture is still struggling to come into its own. This state of affairs could be easily criticised from a haughty European perspective. But where would Germany's architectural identity be without its hectic post-war reconstruction phase? Like the devastated cities that needed rebuilding in Germany, the growing metropolises in India are being transformed in a matter of years – although it's clear that new cities are being needed.

British influence

Raghavendran's CRN is one of the most tradition-steeped architectural firms in the country. It was founded by his father in the early 1940s. In those days, companies had to work with British architectural firms to secure projects. The colonial rulers only trusted their own, and these British architects shaped the continent and established various types of infrastructure crucial for the modern nation-state. The architecture they created was a crude mix of British and Indian Mughal architecture. Even the Brits were incapable of imposing a national architecture on the country – India as a nation is still largely an ideal. 22 different languages are spoken between the Himalayas and the southern tip, all of which are officially recognised by the Indian constitution. Depending on the politically motivated counting method, there are up to 200 others that few can name in a single sitting.

The British seal of quality

In addition to Hindus, Muslims, and Christians, India is home to every religious minority imaginable. Brahmins or Sikhs from northern India have little in common, genetically speaking, with the Tamil people in the south or Parsis from Iran living in Mumbai, formerly Bombay. English is the smallest common denominator in terms of language. In the field of architecture, the RIBA served this function until quite recently. Even after the departure of the colonial rulers, it was difficult to secure projects without this British seal of approval. This continued to be the case despite the somewhat resolute retreat of British architecture to its origins. The larger firms sold their shares to their Indian partners, leaving behind an architectural heritage that had little to do with India.

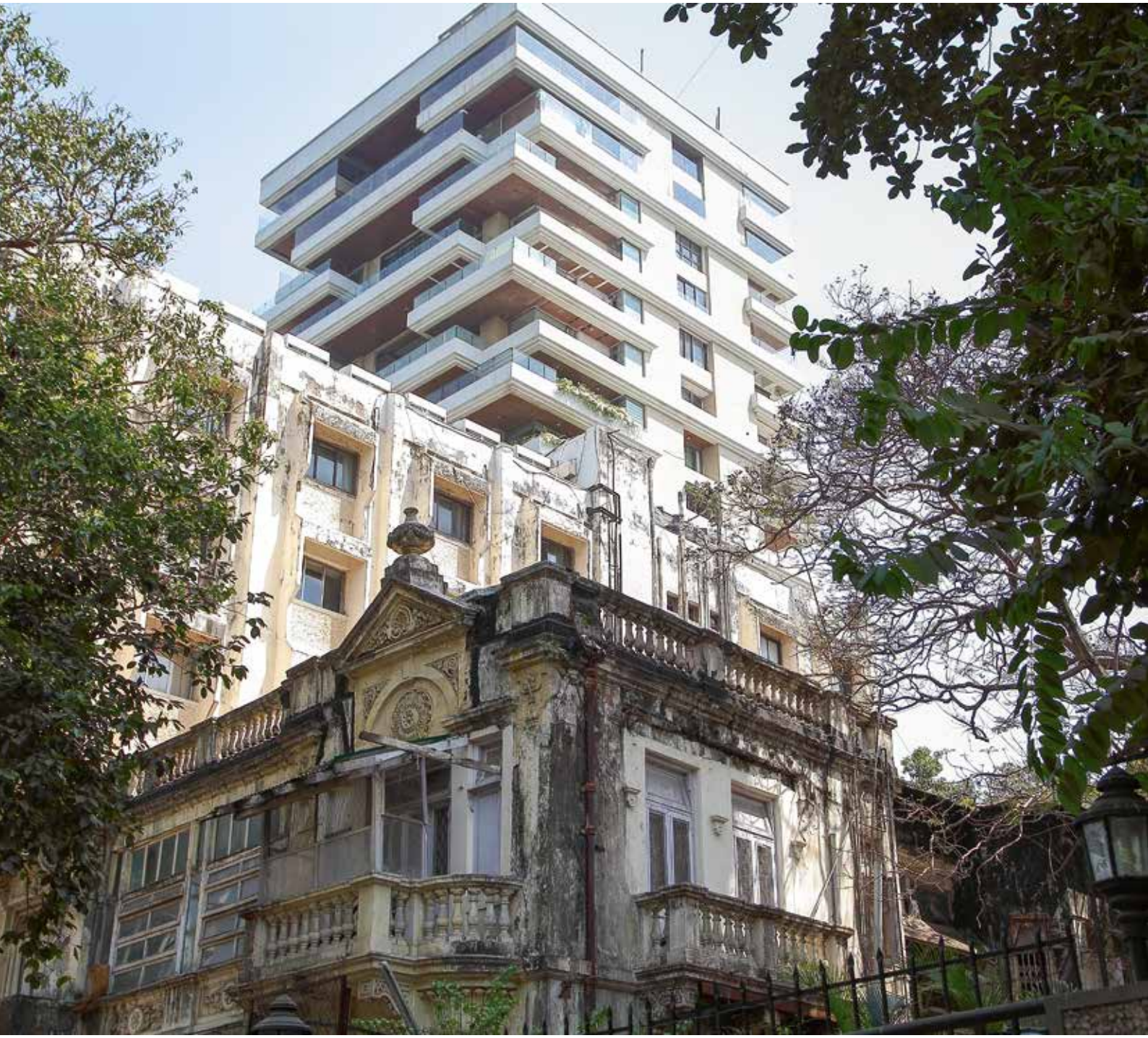
The Gandhi of architecture

One exception was the Indian British architect, Laurence Wilfred "Laurie" Baker. He only used local materials in his buildings, applied local techniques, and hired local craftsmen. The architect who died in 2007, at the age of 90 in the southern Indian state of Kerala, devoted his lifetime to giving the Indian people a voice in architecture. His approach: sustainability, affordable designs, and a truly Indian design language. The "Gandhi of architecture" got his nickname for a reason. He enjoyed a significant reputation in his adopted country. He, however, was an exception.

The following generation focussed on the USA. It became popular for students to complete their bachelor's degree

Mumbai is the largest city in India and its economic heart. Over 12 million people live within the urban area. Add in the periphery and the number rises to nearly 20 million. (previous page)
More than half of Mumbai's residents live in slums. This is also where they work, mostly in the textile industry. (left)
Crumbling British colonial architecture stands side by side with modern Indian architecture. The government has shown little interest in its architectural heritage. Dedicated architects often need to organise and lobby to raise awareness for the decaying colonial architecture. (below)

Photos: Christina Dragoi, Stuttgart, DE



ARCHITECTURE IN INDIA

Public space is a rare commodity in Mumbai; this includes the coast. Some architects advocate intentional design instead of leaving the development of these spaces to chance. Until that happens, children use them as playgrounds. (below)
Sumitra Ravindranath is a partner at CRN. She speaks with CRN founder C.N. Raghavendran about the history of Indian culture and architecture, current developments, and a national architectural language. (right)

Photos: Christina Dragoi, Stuttgart, DE

at one of approximately 20 Indian institutions – and then to complete the master's degree in the United States. Raghavendran's sons studied in Berkeley and Chicago, his niece in Austin, Texas. Currently there are about 200 training centres in India that churn out thousands of young architects each semester. Many relocate to Dubai or Singapore, or they disappear into other niches; several young Indian architects turn to computer-based visualisation. Raghavendran was hardly surprised to see a perfectly rendered 3D visualisation of the Florence Cathedral in a computer game. It was created by an Indian architect who found his calling in the booming computer game industry. Action-packed games ultimately need well-designed urban backdrops.

Unfiltered architecture transfer

The last turn of the century marked the kick-off for India's computer and construction industries. The Y2K scare resulted in many new start-ups and a booming demand in the Indian IT industry. American software companies created new local headquarters for Indian programmers – modelled after office buildings in Los Angeles or Seattle. The result was an unfiltered transfer of architecture. The US replicas did, however, result in an update of the Indian fire safety guidelines from the 1930s. What they also did was import materials that were particularly ill-suited for construction in tropical regions. Large-scale windows were a poor fit for both the Indian culture and the climate in India. These obvious aberrations never would have lent themselves to culturally and climatically well-adapted buildings. While Raghavendran denounces the "mindless use of glass", he is aware that the solution cannot be to simply return to historic Indian construction forms and techniques. Large companies and government institutions are in fact clamouring for revivalist designs, but the task of finding the "Indian" style is not an easy one. The hotel group ITC has therefore proposed to model buildings in the style of the local rulers: The Maharajas in Rajasthan, the Mughals and Mauryas in Delhi, and the Cholas in Chennai. Indian regional governments are following the example of private builders and are commissioning public buildings based on regional preferences. It is a permanent quest to create an Indian identity that reflects the nation's awakening pride.

Neo-historicism and other curiosities

This process expressed itself in Neo-historicism and in a number of curious architectural imports, such as a regional parliament's request to build a replica of the Sydney Opera House for its sessions. What should be done when a construction requirement does not coincide with a traditional canon of forms? What should a Mughal conference centre look like, for example? Raghavendran's criticism of a project of an Indian smart city was immediately followed by yet another power outage in Chennai. The lights in the conference room went out. As long as the current infrastructure remains ill-equipped to meet basic needs, intelligent cities of the future continue to be a far too remote possibility for him. Especially since India's public developers have a history of sudden changes of heart. The parliament building in Chennai is an apt example: von Gerkan, Marg and Partners submitted the winning bid and executed the monumental construction. In an unfortunate turn of events, the building's inauguration coincided with the election of a new parliamentary majority whose members no longer wished to identify with the German project. What to do with an unwanted parliament building? Make it into a hospital whose imperial habitus balks at its new function. The choice of German architects to design a built embodiment of an Indian federated state, comes as no surprise to India's architects. "Brand material" – of this they are well aware – still eludes their reach. Special projects call for foreign stars to deliver the plans. Perennial favourites include SOM, HOK, or Perkins & Will from the USA, as well as firms from Singapore that are complete unknowns in Europe. Local specialists have the job of executing the plans.

ARCHITECTURE IN INDIA

Prominent European and American architects brought modern architecture to India. In the wake of this external influence, an independent architectural vocabulary slowly emerged based on regional traditions. Many famous works of architecture from the last century are imports – like the law courts in Chandigarh by Le Corbusier. (below)
As for Indian architectural exports, the "Champalimaud Centre for the Unknown" in Lisbon is the product of India's most prominent architect, Charles Correa. (right)

Photo: duncid, Wikipedia CC BY-SA 2.0 (Chandigarh) / jaime.silva, Flickr CC BY-NC-ND 2.0 (Lisbon)

Finding Indian architecture

This makes Raghavendran all the more proud of his international projects. In the 1970s he already had his own office in Dubai, and later in Nigeria. He built a cricket stadium in the South American nation of Guyana, as well as a large IT centre on Mauritius that was awarded a Smart Building Award. Raghavendran created the master plan for the Signature Tower in the city centre. The French not only rely on this former colony as a holiday destination, but also as a phone-based consulting centre. The world's call centres are located in English-speaking southern India, where the French do not feel properly understood. So it makes a certain amount of sense that the French-speaking island, formerly reserved for holidays, is now home to a host of call centres. And who is in charge of building them? Indians, of course.

Indian architecture as a brand

Raghavendran is certain that Indian architecture will soon make a name for itself and become an export product. India's optimism remains unbroken. Many will attest: the country is clearly poised to edge out China as the most significant Asian nation. In case the Europeans failed to notice: China is yesterday's news, India is the future. The country's inhabitants are banking on it.


Hotel am Steinplatz

BREAKING CHAINS – A HOTEL COMPARISON

The era of chain hotels is coming to an end. More precisely: The individual links in these chains are searching for distinctive attributes, for their own personal genius loci. What follows is a comparison of hotel trends in Berlin and Chennai, two locations which could hardly be more different – both culturally and architecturally – but are facing similar challenges.



For a long time, hotels were being rated on a star system. Business travellers wanted a reliable standard wherever they went. In a world full of unknowns, with travel being the source of many surprises, at least hotel rooms could be a safe haven. The result was international hotel chains that guaranteed continuity around the world – including the bible in the bedside cabinet, no matter where you spent the night. Business meetings in Mumbai or Mali were stressful enough as they were. Isolated safe havens simulated Milwaukee or Manchester by night. This was a globalisation of the hotel industry based on Western ideals; the cultural transfer in the form of architecture was a one-way street. But the world has changed. Now, travel is routine, and travellers no longer seek the familiar; they are looking for the local flair. Travellers want an "authentic" experience, at least from a certain price level and among a certain customer segment. Chain hotels are picking up on this trend.

Venerable constructions

In Berlin, Marriott opened the "Hotel am Steinplatz", which makes a conscious departure from the norm. In India, ITC Hotels decided to take the same approach. The motives were the same, however, the starting point and the means varied considerably. The Berlin-based hotel is steeped in history. Together with its competitor, the "Hotel Adlon", it was the first address in the city at the turn of the 19th century. Socially and historically, it is a part of Berlin; not just because of its architecture but also because of the illustrious guests that stayed there. When the Marriott chain bought it, it not only inherited a house, but a story. One of the challenges was that this story had been forgotten. It therefore needed to be unearthed and retold. The second challenge was to integrate the functional demands of a modern luxurious hotel into the infrastructure of a historical building. The Berlin-based interior architect Tassilo Bost found a solution for both of these problems. He retold the hotel's history with contemporary materials, distinctive products and numerous details that served as a constant reminder to visitors that they were in Berlin and not in an anonymous bubble. These new hotels were given the label "Autograph"; their guests are no longer confronted with the same monotonous rooms and floors everywhere they travel. Instead, each hotel is unique and captures the spirit of the respective city perfectly. The hotel in Berlin mastered its challenges – not least thanks to an ample reserve of cultural identity and genius loci.

National pride

The billion-dollar Indian conglomerate ITC was originally founded as the Indian Tobacco Company and later expanded its portfolio to include the luxury hotel trade, among other businesses. ITC knows that the growth potential of anonymous hotel chains is at best limited to the budget segment. In addition, like its demographics and gross national product, India's national confidence has experienced a sizeable boost. "Western" hotels no longer fit this new identity; there's too many of them anyway. ITC therefore devised a strategy of celebrating India's new status with hotels that pay homage to the respective dynasties. Because India was shaped by numerous ruling groups, architects have an abundance of cultural riches to draw inspiration from when designing these luxurious buildings.

Monolithic temples

From the 9th to the 13th century, the Chola dynasty reigned in southern India. This Hindu culture developed highly advanced works of architecture. The Cholas resisted Islamic conquests and established a Tamil empire that extended to Ceylon and even made its influence felt in Indonesia. The ITC hotel in the regional capital of Chennai (the modern-day designation for the former colonial city of Madras) was therefore named "Gran Chola"; a tribute to the imperial power of said Tamil empire. Their earlier Dravidian style was initially characterised by imposing temples chiselled from granite cliffs. Later, the vimana became a central element in every temple. It was a

Located in Berlin, Germany, the “Hotel am Steinplatz”, steeped in local tradition, is the first hotel in the Autograph Collection, a global group of individual boutique hotels. It was completely redesigned by bost group berlin in 2013. (lead story)
The Hotel am Steinplatz contains fire and acoustic-rated doors from Schörghuber. (previous page)
An awe-inspiring rock-cut solitaire surrounded by a huge green park: the luxury hotel Grand Chola by the architectural office CRN. (top)
The hotel’s monumental exterior is rigorously reflected in its interior design and furnishings – as seen in the hotel restaurant, for example. (below)

Photos: Michael Meschede, Kaufungen, DE (Berlin) / ITC Ltd. – Hotels Division, Gurgaon, IN (Mumbai)

BREAKING CHAINS – A HOTEL COMPARISON

An obvious display of spaciousness and generosity. The monumental staircase is more than just a simple gesture. (below)

Photo: ITC Ltd. – Hotels Division, Gurgaon, IN

Info: Schörghuber
Especially for hotel room entrance doors, noise protection is crucial and gives guests a much-needed feeling of privacy. Schörghuber manufactures these hotel doors with a sound insulation value of up to 50 dB. Locks with noise insulation and adjustable door closers also serve to minimise possible disturbances. The design is another crucial aspect of these doors. They can be used as suite and connecting doors, bathroom and spa doors, as well as in hallways and stairwells (photo). It is this design that often is part of the hotel's brand communication. Depending on the interior, a wide selection of surface finishes are available, from traditional to modern designs.

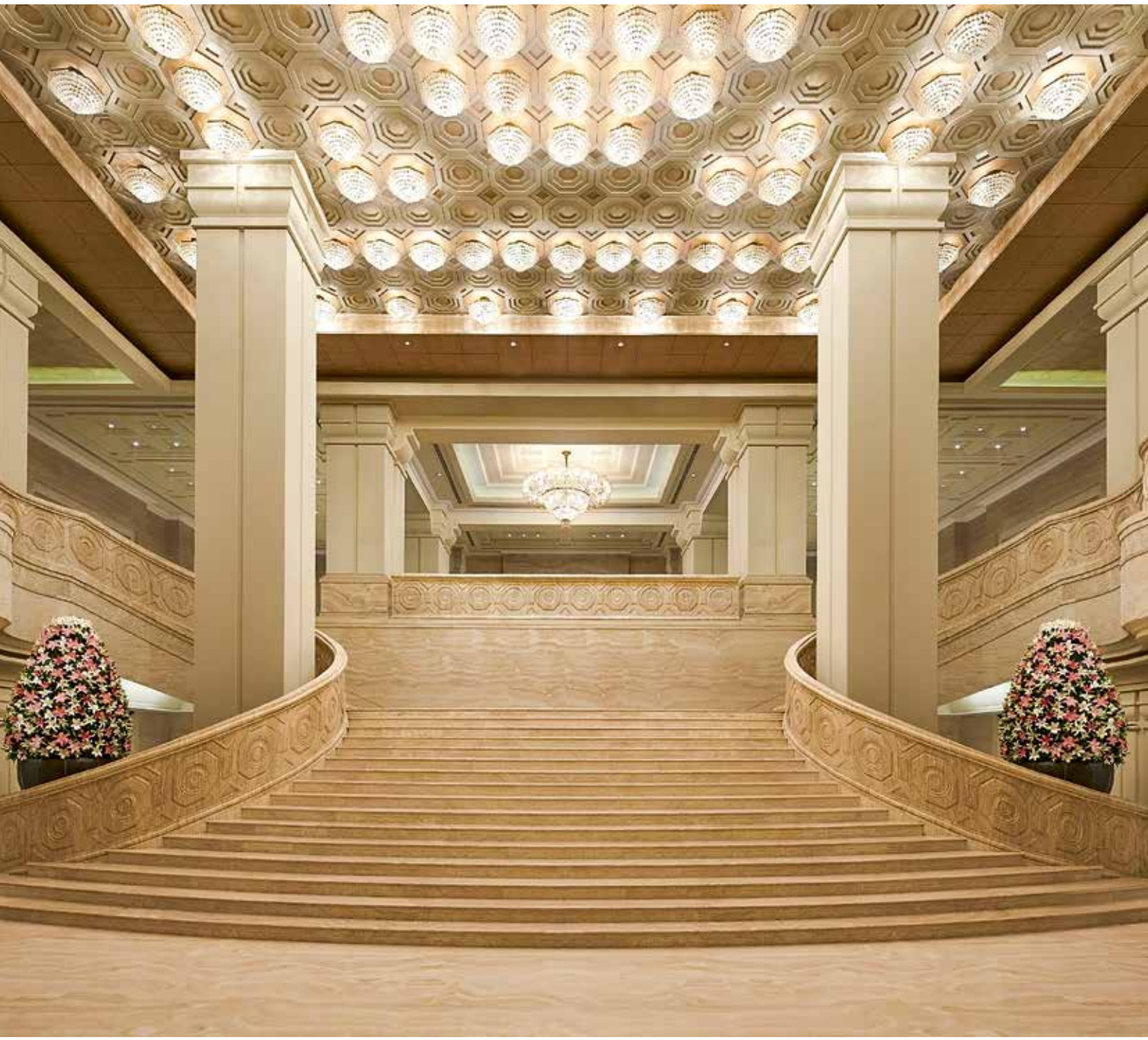


Photo: Christina Dragoi, Stuttgart, DE

Author: Dr.-Ing. Dietmar Danner
A trained daily newspaper editor; he studied architecture and wrote his PhD on the topic of taste development in architecture. He worked as an editor for various design and architectural magazines for 25 years – most of which he spent as the editor-in-chief/publishing director of AIT and xia. Conferences and workshops took him to India time and again. In 2013, he founded the communication agency Architect's Mind; he organises congresses and workshops all around the world and publishes successful architecture journals.
www.architectsmind.de

pyramid-shaped tiered tower with a crowning dome and symbolised Mount Meru, the sacred mountain which according to Hindu mythology is home of the gods. As the Cholas prospered, temple districts composed of several vimanas assumed monumental proportions and were grouped together by large enclosing walls. In structural terms, early Dravidian-style monolithic temples contained elements that imitated columns and beams – though with no static function whatsoever. These rock-cut elements merely provided a visual structure for the imposing blocks of stone. This exceptionally massive, monolithic effect remained intact in later Chola designs that used real supports, beams and arches.

A stone mountain

Visitors approaching the Gran Chola Hotel, designed by the Indian firm of CRN, are inevitably humbled. It's not only the size of the hotel with its 600 rooms that leaves an impression on them. The access road goes all the way around the hotel in a conscious show of magnitude. Though the pyramid-shaped vimanas of the exemplary Cholas are hardly discernible from the inside, the majestic mountain towers over the scenery. These vast dimensions quickly fade in the public areas of the hotel, where an imposing staircase represents the ideals and standards of the hotel and perhaps, even the new India. Had Romania's ruler Ceausescu seen this staircase, he would inevitably have rethought the plans for his palace in Bucharest. The excessive use of natural stone makes the building's interior appear to be carved from rock, like the early Chola temples. This objective was pursued with such rigour that trompe-l'oeil was applied to create a natural stone look for the fire-rated doors with automatic closing. While the "Hotel am Steinplatz", originally created by art theorist, architect and designer August Endell, is an example of the Berlin Jugendstil or Art Nouveau (Endell is also responsible for the first of the "Hackesche Höfe", a notable courtyard complex at the centre of Berlin), the Gran Chola is afloat in an abstract historical period spanning at least 700 years.

Neo-historicism

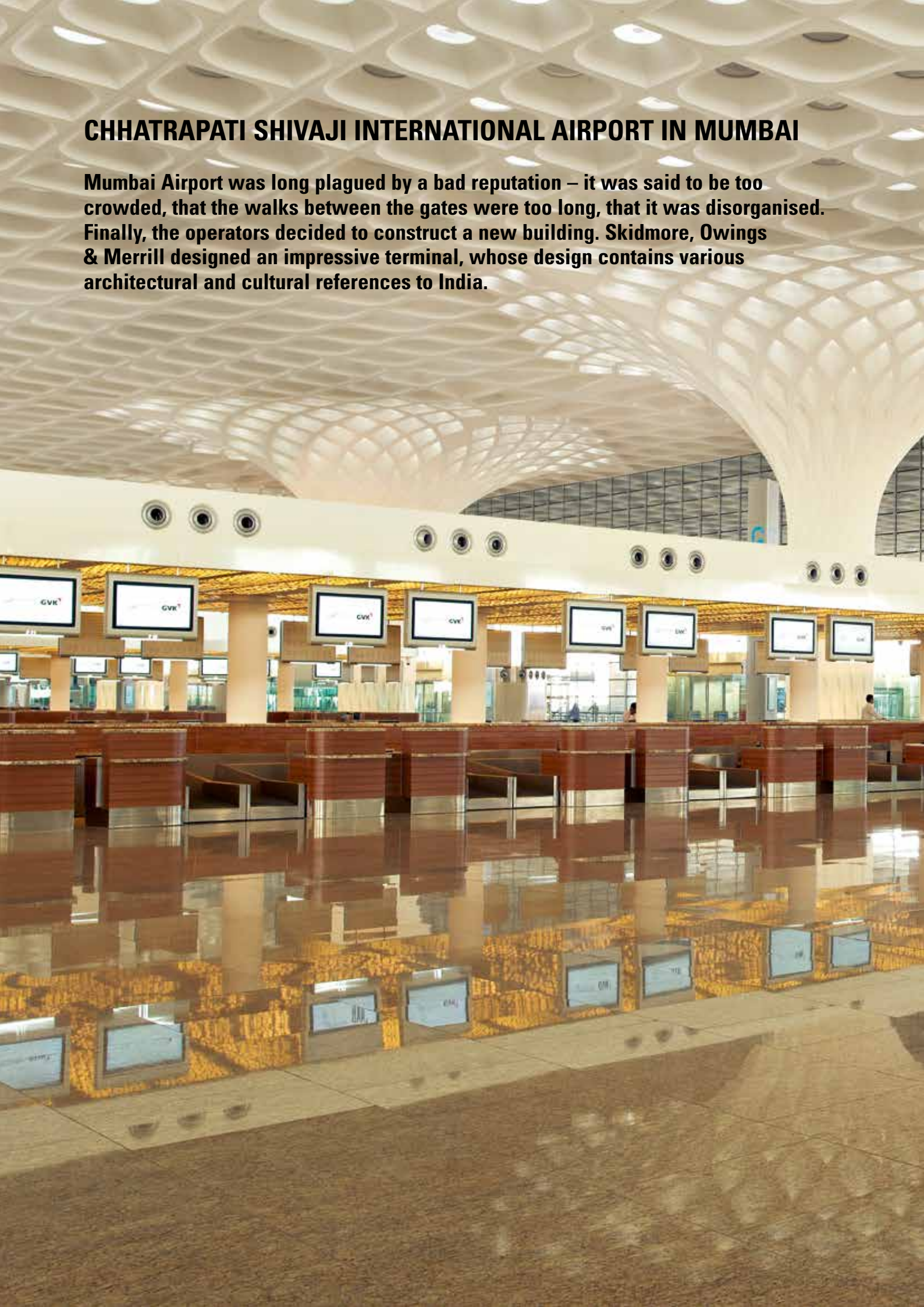
The "Hotel am Steinplatz" is a restored heritage building with a series of functional updates. It is part of a largely uninterrupted historical continuum. The Gran Chola, on the other hand, references a long forgotten time in the history of southern India and imposes a canon of forms onto the hotel as a functional unit that had previously been reserved for sacred buildings. This neo-historical architectural approach is the result of sheer desperation: At best, the region offers architectural references from the colonial period, i.e. Portuguese and above all British rule – or a rather trivial international style. Critical regionalism so far has hardly left a mark on Indian architecture, and judging by the spectacular pace of growth, it probably won't catch on. Therefore, recourse to the ancient glory of the Tamil kingdom of the Chola is understandable.

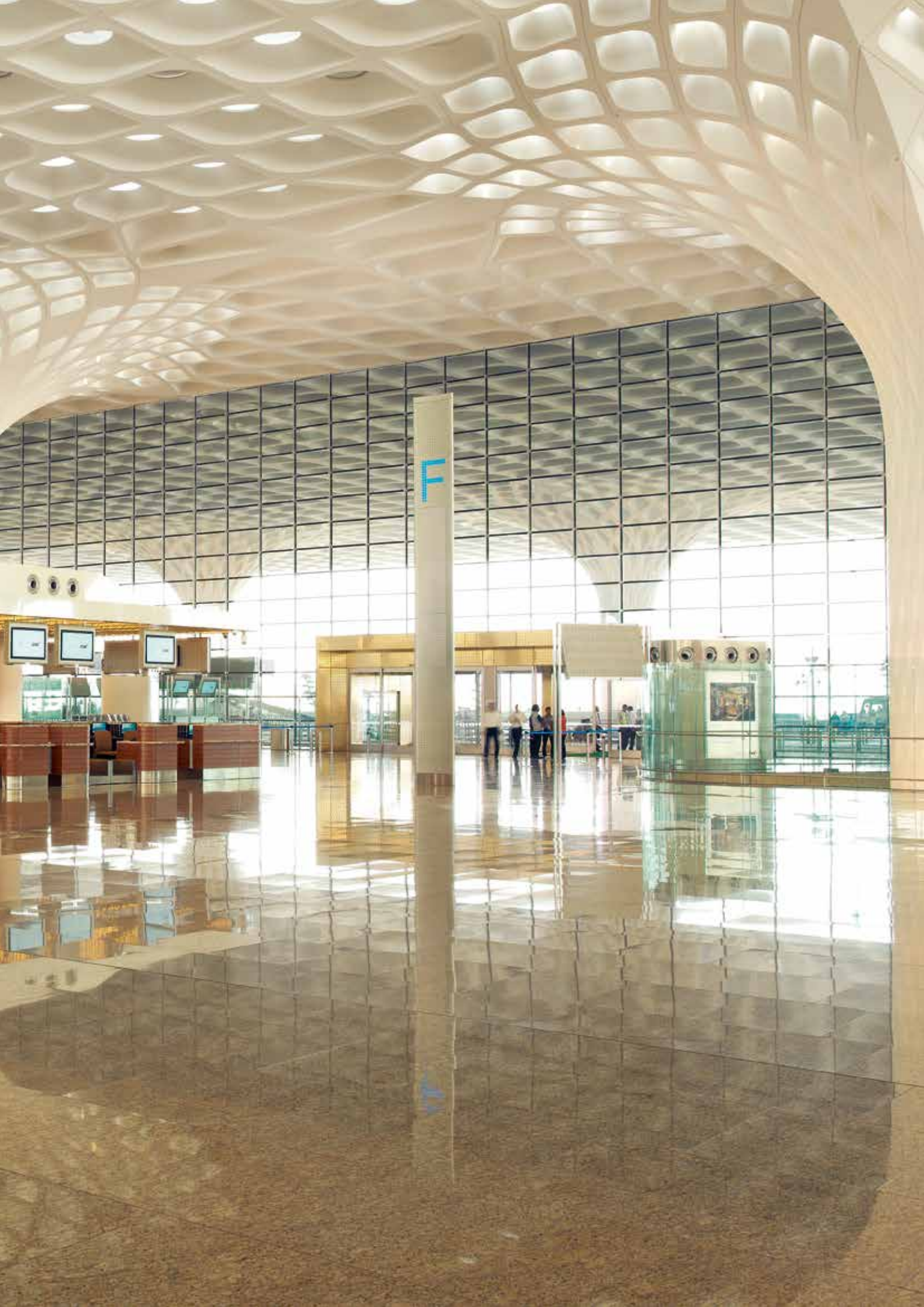
Varying results

It is no less astonishing, however, that the search for genius loci in Berlin and Chennai begun for the same reasons, could produce such disparate results: In Berlin, the "Hotel am Steinplatz" is seamlessly embedded in its urban context. In Chennai, visitors to the Gran Chola find themselves in an artificial bubble that has nothing to do with the reality of its location – but much to do with India's new standards as a powerful, confident world player.

CHHATRAPATI SHIVAJI INTERNATIONAL AIRPORT IN MUMBAI

Mumbai Airport was long plagued by a bad reputation – it was said to be too crowded, that the walks between the gates were too long, that it was disorganised. Finally, the operators decided to construct a new building. Skidmore, Owings & Merrill designed an impressive terminal, whose design contains various architectural and cultural references to India.

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CHHATRAPATI SHIVAJI INTERNATIONAL AIRPORT IN MUMBAI

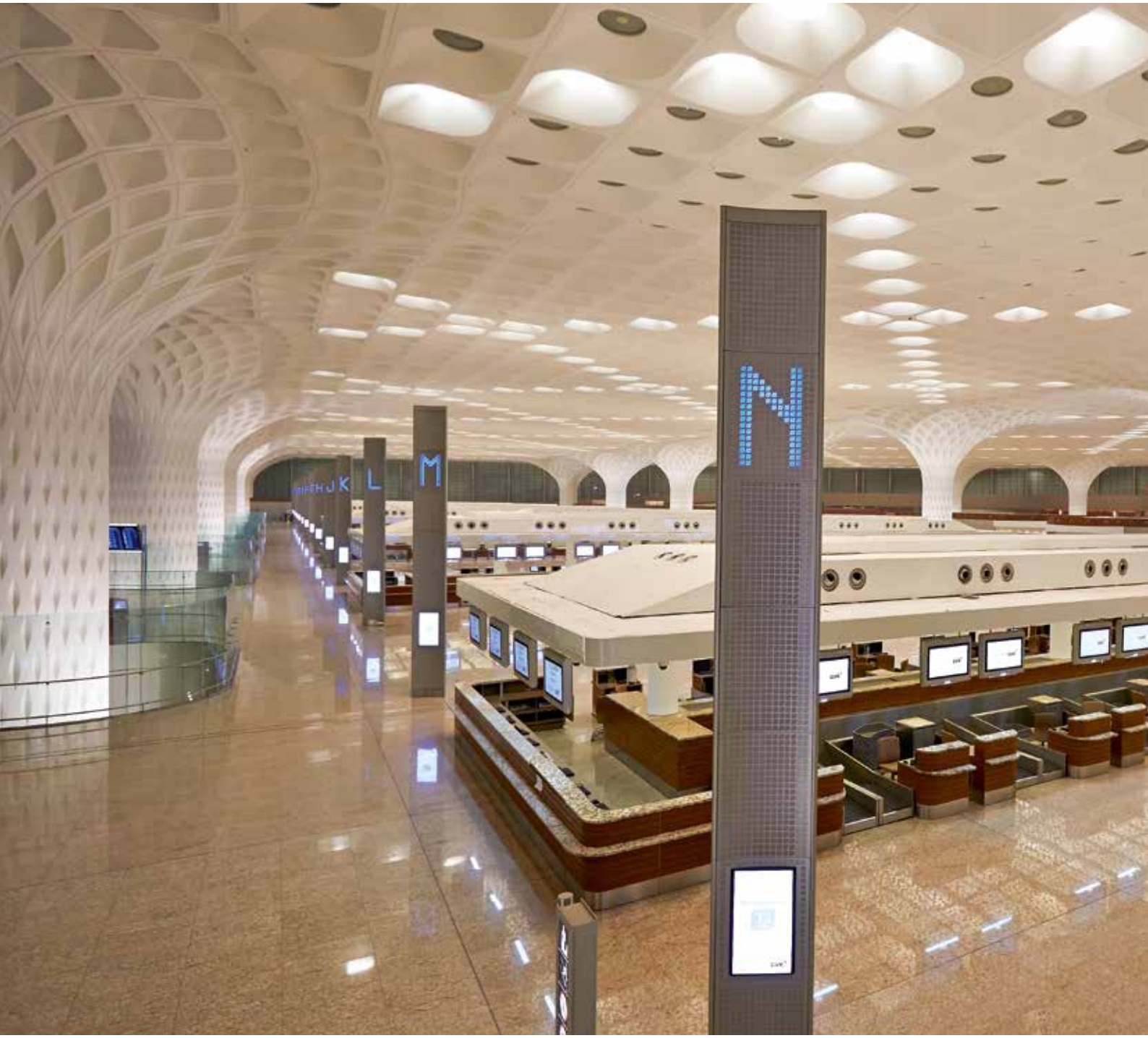
Light and airy, bathed in sunlight – those are the impressions of Terminal 2 when standing on the top level. This is where passengers check in. (previous page)
The facade of the building can be best described as delicate and transparent. The architects only deviated from these guidelines of transparency when dealing with areas with too much sunlight. (below)

Chhatrapati Shivaji International Airport is located in a central area of Mumbai. Within ten years, the number of passengers frequenting the airport of India's financial metropolis increased from approximately 6 million to over 32 million. The airport was stretched well beyond its capacities. Its operators finally decided to expand its infrastructure. With the new Terminal 2, designed by the American architectural firm of Skidmore, Owings & Merrill, a representative gateway was constructed – for both national and international air traffic. Up to that point, the two had remained separate: Passengers arriving from abroad with a connecting flight out of Mumbai needed to prepare for a long walk. That's all in the past now. When designing the new building, the architects drew inspiration from the design language of Indian pavilions. Many elements of traditional local architecture such as the latticework of jali windows were adapted for the building. Decoration – though pleasantly subtle – is a ubiquitous theme. The delicate glass facade and the support structure of the roof are a real eyecatcher. Mushroom-like columns that are several metres in width merge seamlessly with the roof. Transom lights and lamps mounted between the ridges at regular intervals illuminate the gateway in a warm, glare-free light. Speaking of light: The suspended glass facade which encloses the building allows all levels to be flooded by daylight. To the east and west, perforated metal panels prevent excessive exposure when the sun is low. Passengers get to the terminal via an elevated road and a spacious vestibule on the fourth level. The majestic roof provides shelter to travellers and their friends and family, as well as adequate space for the ceremonial send-offs that are part of Indian culture. Inside, various service and shopping points spread over four levels. From the central processing area with its over 200 check-in desks, four piers lead to the individual gates in an X-shaped arrangement. 40 million passengers can now be processed in a 24-hour cycle; the fully automated luggage system distributes bags at a rate of nearly 10,000 items per hour. Hörmann equipped the new building with approximately 4000 fire-rated and multi-purpose steel doors.

Huge columns support the enormous overhanging roof at the access road on the upper level. Their mass is obscured by the three-dimensional surface. (below)

CHHATRAPATI SHIVAJI INTERNATIONAL AIRPORT IN MUMBAI

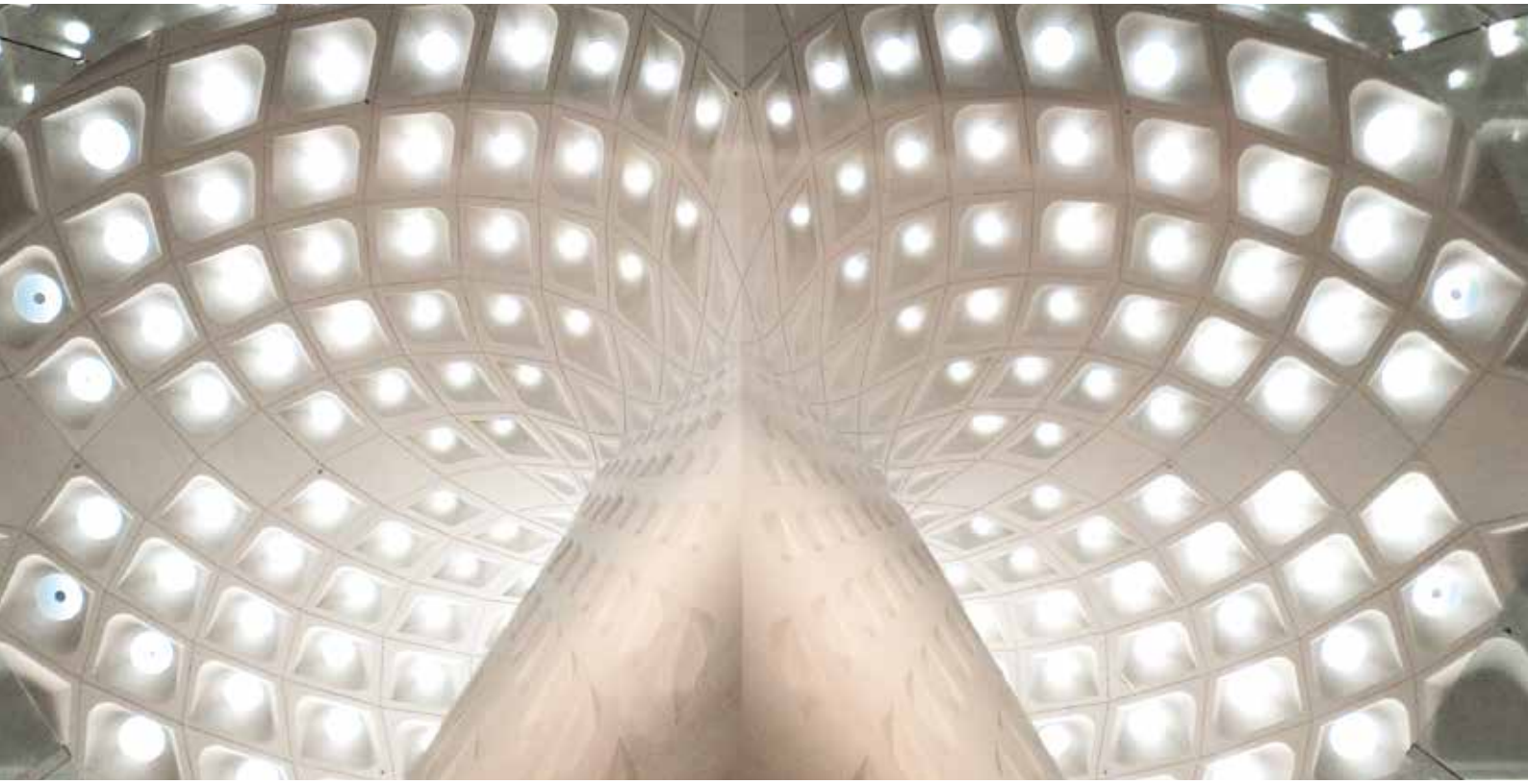
The terminal offers a spacious interior. 32 million passengers and counting are being processed here each year. (left)



Various stylistic elements of traditional Indian architecture were adapted and re-interpreted for Terminal 2. (top and bottom right)

CHHATRAPATI SHIVAJI INTERNATIONAL AIRPORT IN MUMBAI

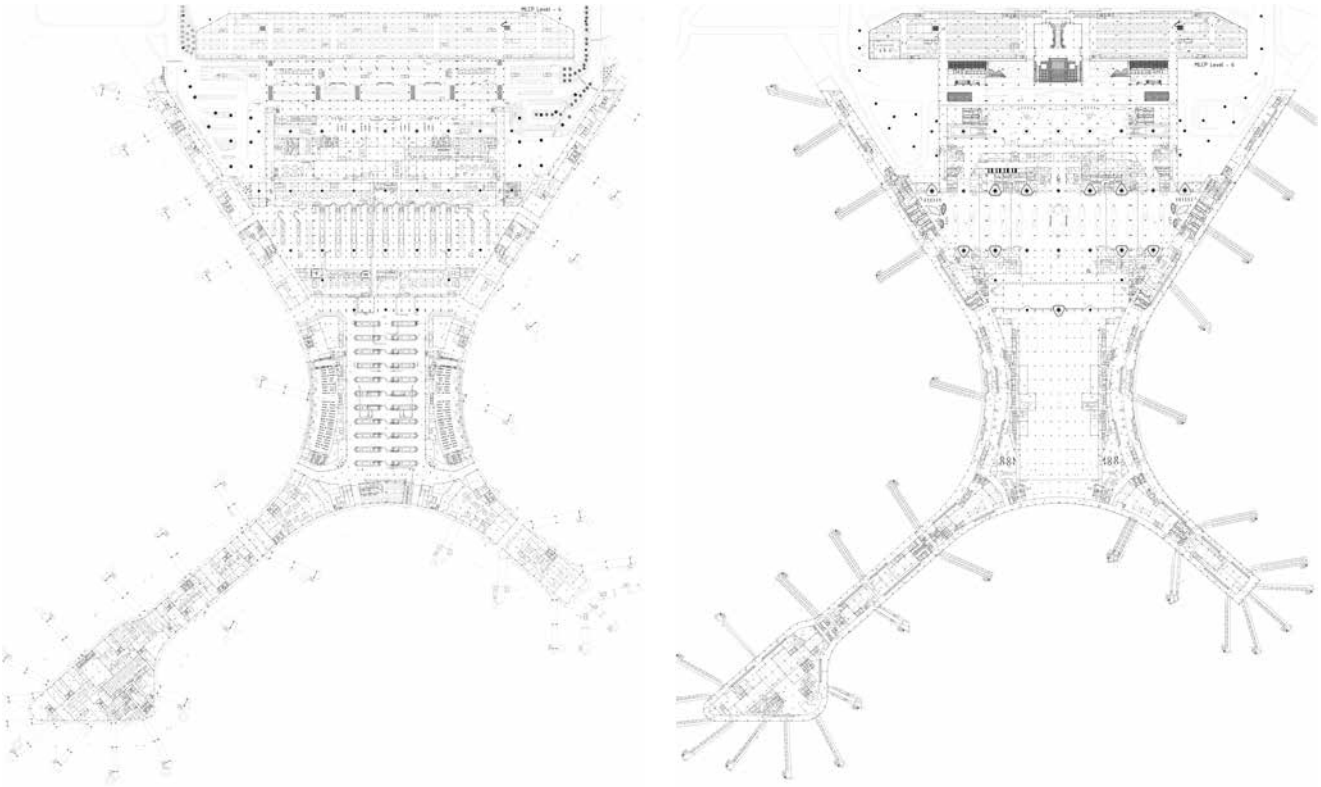
Terminal 2 is an impressive sight even at night. The roof appears to be floating on a layer of light. (top)
Transom lights as well as artificial lights evenly illuminate the interior. (bottom left)



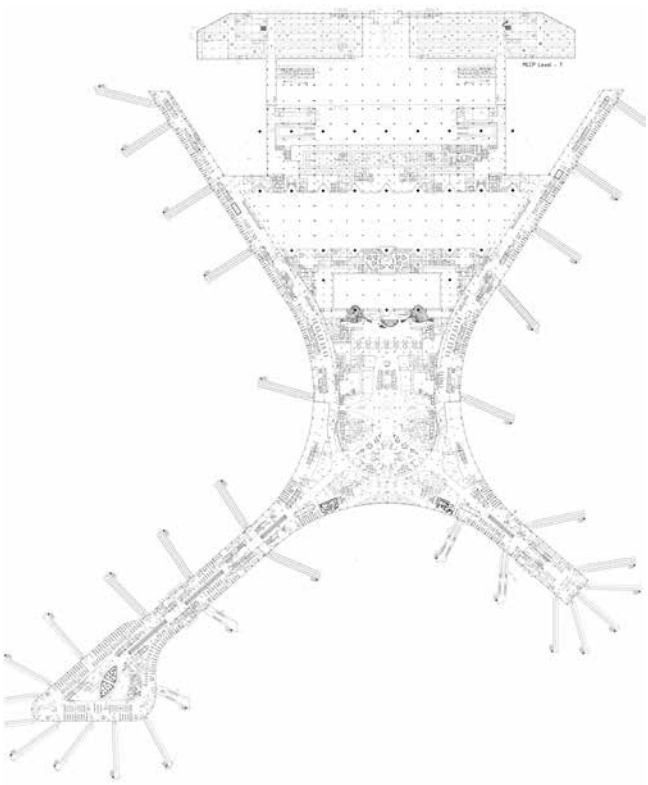
Hörmann provided 4000 steel fire-rated and multi-purpose doors for Terminal 2. (bottom left and right)

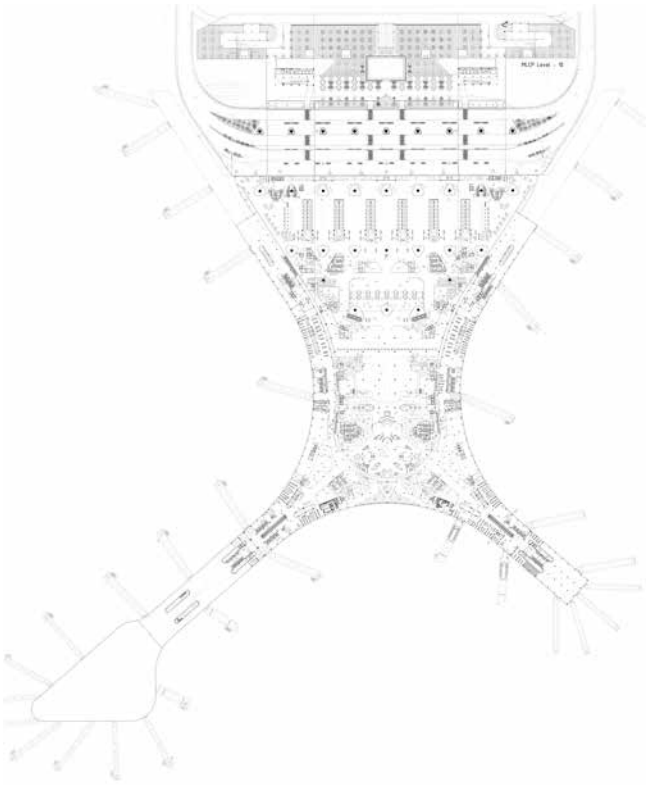
CHHATRAPATI SHIVAJI INTERNATIONAL AIRPORT IN MUMBAI

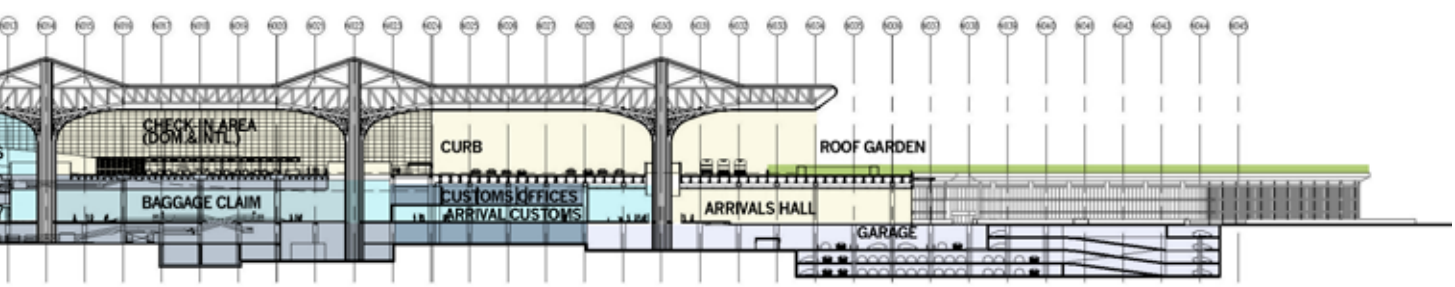
Level 1 to 4 (top, from left to right)
Cross-section (below)



Location: Chhatrapati Shivaji International Airport (BOM), Mumbai, India
Owner: Chhatrapati Shivaji International Airport
Architect: Skidmore, Owings & Merrill LLP, New York, USA
Structural engineering: Skidmore, Owings & Merrill LLP, New York, USA
Lighting design: Brandston Partnership Inc., New York, USA
Acoustics: Cerami & Associates, New York, USA
Signage and wayfinding: Pentagram & Entro Communications, Toronto, CA
Baggage handling: BNP Associates, Brookfield, US
Cultural design collaboration: Abu Jani Sandeep Khosla, Mumbai, IN
Completion: 2014
Photos: Robert Polidori, Sandeep Sawant, Skidmore, Owings & Merrill LLP / Shakti Hormann Pvt Ltd
Hörmann products: Fire-rated and multi-purpose steel doors







HIRANANDANI UPSCALE – RESIDENTIAL APARTMENTS, CHENNAI

Chennai is one of India's most densely populated cities. It has been the stronghold of the Indian IT-industry for approximately a decade. One of its centres is located a few kilometres outside of Chennai, where a new residential neighbourhood consisting of several high-rises is being constructed. The community spirit prevails: The residents have access to club houses with a wide variety of activities.

HIRANANDANI UPSCALE – RESIDENTIAL APARTMENTS, CHENNAI

The highest towers of the Hiranandani Upscale residential complex extend 100 metres into the sky. (previous page)
Approximately 1800 fire-rated doors from Hörmann provide safety. (right)
The exterior architecture is characterised by neoclassicism, the interior design is definitely modern. (below)
The outdoor area between the towers is user-friendly as well. (next page, left)
The two-storied club houses are located between the towers. (next page, right)
They offer many free-time activities, for example billiards and movies. There are also several fitness and spa areas. (next page, below)

Chennai is located in Southeast India on the Bay of Bengal. With its 8.6 million inhabitants it is not the largest city in India, however, it does have the second highest population density after Ahmedabad. There's approximately 27,000 inhabitants per square kilometre. As a point of reference, in Munich, Germany's most densely populated city, there are 4500 inhabitants per square kilometre. To put it bluntly, space is tight in Chennai. Project developers for the real estate company House of Hiranandani therefore decided to venture about 30 kilometres south of the city centre, where they would construct a whole new district: Hiranandani Upscale. It is currently being constructed in Egattur on Old Mahabalipuram Road, which runs parallel to the coast and connects a long string of high-tech companies. Hence its popular name, the IT corridor. At the centre of this industrial sector is SIPCOT IT Park, the Silicon Valley of India, located directly across from the new construction project. This is also Hiranandani's primary target group: high-income residents with high living standards. The buildings are tailor-made for this demographic. Currently, there are 15 high-rise buildings planned, each over 100 metres high. Others will follow. At this point, the neighbourhood is still a construction site, even though over three quarters of the buildings have been completed and occupied. The high-rise towers are casually grouped around a central space called the podium. Here, landscaped areas with fountains and playgrounds provide for a relaxing atmosphere. Each of these groups of buildings also has a club house. These club houses offer a wide array of spas and sporting activities. In the evening, residents can meet up for a drink at a bar. The required infrastructure has also been provided. Schools, hospitals, and stores are in the area or in the immediate vicinity. A business centre is planned where residents can rent "plug-and-work" spaces. The architecture is neoclassical and thus contains many decorative elements such as tympana, cornices, capitals, and columns. The three-to-five-room flats ranging from 120 to 325 square metres feature more modern designs. The 1800 fire-rated doors from Hörmann are a perfect addition with their subtle design.

Location: Old Mahabalipuram Road, Egattur / Chennai, IN
Owner: House of Hiranandani, Mumbai, IN
Architect: Hafeez Contractor, Mumbai, IN
Construction period: 2007–2016
Area: 450,000 m²
Residential buildings: 15
Floors: Up to 45

Photos: Stalin Ramesh, Chennai, IN / House of Hiranandani, Mumbai, IN
Hörmann products: 1800 fire-rated doors

HÖRMANN PRODUCT INFORMATION – FAST AND READILY AVAILABLE

The Hörmann Architecture Consultation department provides planners with recommended solutions for the design and development of their projects. The co-operation between consultants and architects is particularly effective in the early stages of project development as the early exchange can lead to the conceptualisation of special solutions in co-operation with the Hörmann factories. The Hörmann Architects' Program plays a major role in this process. The latest version 8.0 offers information on all of the Hörmann products and is even more user-friendly. It was made available to architects and planners in mid-January to facilitate their work with detailed specifications and tender texts. They can now quickly and conveniently access drawing files, technical details and individual tender specifications. In addition to new technical features, the new version of the program presented at the BAU 2015 contains even more information on over 660 Hörmann products and offers approximately 8000 drawings. Using a drop-down menu, users can access the required product choosing from the vast range of industrial door systems, garage doors and operators, fire and smoke-protection, frames and project and residential construction. The drawings are available as DXF/DWG files as well as PDF files. The database contains several thousand drawings that can be easily used for further processing in CAD programs. Tender texts can be exported in GEAB or Word format. The revised Hörmann Architects' Program is particularly user-friendly as it does not require installation or administrator rights. The application can be launched directly from a data carrier that can be ordered from Hörmann. In addition, the Hörmann Architects' Program can be downloaded from the Hörmann homepage as either a full version including all technical information and graphics, or as a basic version containing only texts. Another access option has been introduced recently. Customers can now access the Hörmann server directly with a limited download volume and can browse the complete contents of the full version – which is being updated daily. Version 8.0 works with all current versions of Microsoft Windows. An English-language version of the Hörmann Architects' Program is in development and will be available in Spring 2015.

ROOM-HIGH ENTRANCE DOORS FOR ENTRANCE AREAS

In modern new buildings there is a clear trend towards spacious, well-lit and transparent entrance areas. Unlike doors with inaesthetic surface-mounted leaf profiles, Hörmann aluminium entrance doors place these elements on the inside to create full-surface door leaves that are completely smooth. This way, the entrance doors fit visually with the internal doors. In addition, the smooth surface creates a spacious look. Room-high entrance doors make the entrance area look even more spacious: The Hörmann aluminium entrance doors ThermoSafe and ThermoCarbon can be ordered in heights of up to 2.5 and 3 metres. 3D-effect designs add to the modern appearance of the doors. However, when it comes to entrance doors, performance is as important as appearance. ThermoSafe and ThermoCarbon entrance doors achieve excellent thermal insulation values: with a UD value of up to 0.8 W/(m²·K), the ThermoSafe entrance door complies with the new energy saving regulation and, according to the manufacturer, the ThermoCarbon entrance door with its 100-millimetre-thick door leaf is to-date the only aluminium entrance door on

HÖRMANN MAKES ADDITIONAL INVESTMENTS IN THE INDIAN MARKET

Hörmann has established sales organisations in more than thirty countries. India is one of them. There, the door manufacturer sells steel fire-rated and multi-purpose doors, as well as industrial doors and loading technology. Whilst many doors are produced on site – Hörmann became the majority shareholder in an Indian steel door manufacturer in 2012 – the industrial doors and loading technology have been manufactured in Germany and the Netherlands before being shipped to India until now. To ensure faster delivery times and even more attractive prices in the future, these products will also be maunfactured locally. For this purpose, Hörmann invested in its Indian subsidiary and expanded it by 5500 square metres (as can be seen on the aerial picture to the right). The construction measures included local industrial door manufacturing facilities for the Indian market as well as investments in a more extensive and higher quality door programme for India and other Asian countries. In addition to a three-storey office building, the Indian Hörmann location was also equipped with a large showroom that exhibits the entire product range for the Indian market. This will allow customers and specialised retailers to see the large product range in use directly on location.

the market with a UD value of up to 0.47 W/ (m^2·K). In high-value buildings, security equipment according to resistance classes (RC) is recommended. The ThermoSafe model can be equipped up to an RC 3 requirement, and the ThermoCarbon door up to RC 4. Thus, these doors can withstand break-in attempts of up to ten minutes by experienced perpetrators with tools such as drills. Modern, functional and smart – the new BiSecur app and other Hörmann radio accessories allow customers to control and operate entrance doors via radio and via the Internet from anywhere in the world. With the automatic lock and the concealed door operator ECturn Inside, it is not only possible to query the status of the door (locked/unlocked), but also to automatically open and close it.

SCHÖRGHUBER FAST-TRACK PROGRAMME

Delays are an everyday occurrence in construction projects. They result in postponed delivery deadlines or short-term orders placed with suppliers. To provide a flexible solution for these requirements, Schörghuber launched its fast-track programme 25 years ago to deliver function doors and timber frames quickly and without the need to forgo customised special equipment. Today, almost limitless combinations are available in terms of function, application, and design. Depending on the version, door leaves are available in 8 to 15 days; steel frames within just 48 hours. Both doors with standard equipment, as well as various complex multi-function doors and fully glazed solid timber elements, can be ordered in 500 different surface finishes, flush-fitting versions and even with concealed fittings. The fast-track programme even includes the highly robust PU edge. To maintain an overview of the various options and to select the right products, twelve Schörghuber consultants are available in Germany, along with the new tender software FormCalc, which displays possible combinations depending on user requirements.

T90 TIMBER DOORS WITH EXTENSIVE APPROVALS AND TEST CERTIFICATES

Fire-rated doors from Schörghuber can be fitted in concrete and dry construction as well as timber partition walls and brickwork. The fire protection category for the individual wall element is defined by the door. The type of use must also be taken into account, since special requirements apply for the construction of hospitals or hotels, for example. Architects and planners need to note the size of the building and the resulting division according to the German building code in five classes. The higher the building and the larger the floor space, the longer the fire-protection doors need to withstand a fire. T90 doors are required for use in building class 5 (building height 14 to 22 metres, individual building units > 400 m²). Well thought out fire protection solutions must not only meet functional requirements, but also be visually appealing. Single-leaf or double-leaf T90 timber doors from Schörghuber can be equipped with any type of surface finish, from elegant veneers to robust laminates or high-quality coatings. Additional glazing cut-outs, combinations with glass side elements, transom lights and fixed glazings extend the range of design possibilities. Many additional equipment options such as concealed hinges, locks, or electric strikes are permitted. Because T90 fire-rated doors can be equipped with additional features such as smoke protection, soundproofing or burglary protection, Schörghuber offers one of the largest ranges on the market with its T90 doors, and features extensive approvals and test certificates. Architects and planners can not only draw on the most suitable combinations of function and design for

NEW TENDER SOFTWARE FORMCALC

Technical advancements and changes in statutory requirements in regard to function doors require an up-to-date overview of product solutions. Schörghuber's FormCalc software provides practical assistance with tender specifications. With just a few simple clicks the user can quickly and conveniently configure doors, frames and fittings. In a step-by-step selection screen, the user selects door properties in the categories: function, version, door leaf, wall and frame type. Special project-specific solutions can also be configured with the calculation tool. The program draws from the wide Schörghuber product range and shows the user whether the chosen combinations are feasible and available. Plausibility checks display possible errors or infeasible combinations during the configuration. Construction projects combine various functional requirements with expectations regarding aesthetics and design. The initial tender texts can be sent to field representatives or the manufacturing plant to request additional details or a cost estimate. FormCalc is available as a free download from the Schörghuber website at: www.schoerghuber.de/download-center/

their projects; in addition, Schörghuber delivers T90 doors even in small quantities – including single doors! Fire-rated doors made of timber thus help contribute to sophisticated designs and – due to the regenerative nature of timber – sustainable architecture. Schörghuber advocates responsible and environmentally sound forest management. It is certified according to PEFC (Programme for the Endorsement of Forest Certification Schemes) and FSC® (Forest Stewardship Council®) guidelines.

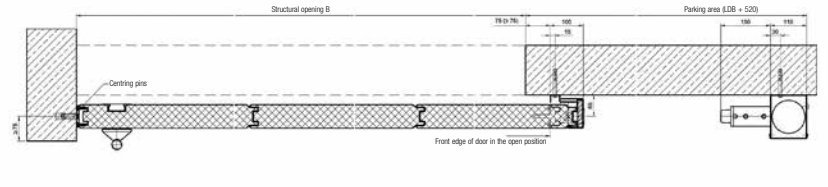
Photos: Andreas Muhs

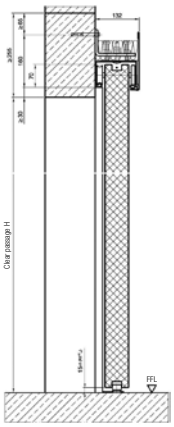
HÖRMANN IN DETAIL
FLUSH-STOPPING FIRE SLIDING DOOR

Model: Flush-stopping fire sliding door **Version:** Single-leaf, without closing profile, with cushioned stainless steel security bolts, intumescent coating, rumber double seal **Profile system:** Steel **Door leaf thickness:** 72 mm **Depth:** 132 mm **Max. size:** LDB 7500 x LDH 4500 mm **Fitting in:** brickwork, concrete, gas concrete, clad steel building components **Fitting:** Wall fitting to lintel, wall fitting to wall, direct ceiling fitting, direct ceiling fitting with synthetic lintel, suspended ceiling fitting **Suitable for:** Interiors as a partition between individual fire compartments **Requirements:** T30/EI2 30, fire-retarding **Optional additional requirements:** Escape route door **Optional extras:** escape/wicket doors without threshold, fire-resistant glazings, recess flap, compensator **Surface finishes:** Galvanized Pearlgrain, galvanized smooth sheet steel, V2A stainless steel, 240 grain finish, preferred colours, RAL to choose, NCS colours **Other models:** Fire sliding doors T30 or T90 (optional smoke-tight) and multi-purpose sliding doors with guiding profile in a single-leaf, double-leaf or telescopic version.

Operator handling: For quick opening and closing during daily operation, the T30 and T90 fire sliding doors as well as the multi-purpose sliding door will be available with the SupraMatic HT operator starting from July 2015. Convenient operation is possible with a push button, key switch or hand transmitter. In case of fire, a patented mechanism is used to unlock the operator and a closing weight safely closes the door.

Areas of application: The flush-stopping T30 fire sliding door is available now. The single-leaf door is not equipped with a closing profile; it can be equipped with an optional recess flap, thus becoming completely integrated into the interior design. Especially in representative entrance and passage areas, the flush-stopping version offers an elegant solution for the separation of individual fire compartments, in addition to its fire-retarding function.

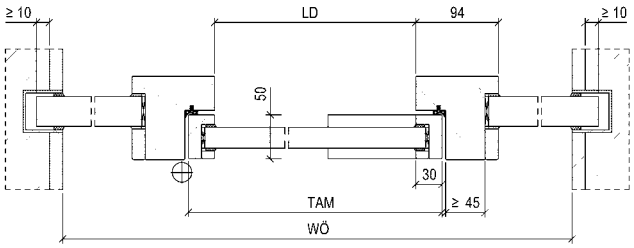


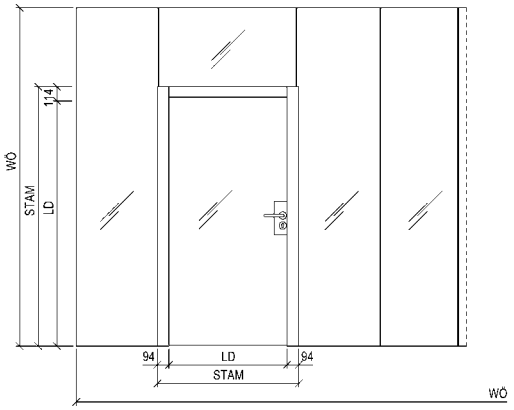


SCHÖRGHUBER IN DETAIL
SLIMLINE DOORS WITH “MAXIMAL GLAZING”

Product: Schörghuber Slimline doors “maximum glazing area”
Version: Type 25 N Slimline (single-leaf), type 27 N Slimline (double-leaf) in combination with system glazing type 25 V-S with silicon butt joints **Door thicknesses:** 50 mm, 73 mm **Moulding:** 30 mm **Frame:** Solid timber block frame **Requirements:** Fire protection, smoke protection, acoustic insulation, object **Nominal size:** Single-leaf: 1620 x 2782 mm, double-leaf: 2768 x 2782 mm. **Glazing:** Unlimited width for solid wall, up to 4000 mm for partition wall. Height up to 5000 mm for solid wall or 4500 mm for partition wall.

Areas of application: Function doors in construction projects not only protect against fire, smoke and sound, but also make a significant contribution in terms of overall design. Large-surface glazings and particularly narrow profiles on Schörghuber Slimline framed doors create transparency and a spacious interior. The 30 mm thick lateral mouldings on the solid timber framed door disappear into the rebate when the door is closed and are practically invisible on the opposite hinge side. The width of the top door moulding depends on the selected door closer and can measure only 30 mm, like the vertical edges. The bottom door moulding can be omitted depending on requirements. Unlike the full-surface glass doors, which visually are nearly identical, Slimline doors make it possible to integrate all desired fittings such as integrated door closers, securtiy fittings or special locking devices. The Slimline framed door can be combined with the 25 V-S system glazing for an eyecatching architectural effect. It creates the illusion of a free-floating door frame. The glazing sections are only connected to each other with silicone. One elegant connection option is to fasten the glass to the wall with a U-profile.





Photos: Andreas Muhs

RECENTLY IN ... MUMBAI

What's so special about Mumbai?
Mumbai is a pulsating multi-cultural metropolis. It is an astounding city – many people love it; some people hate it. It is a city of extremes, ranging from injustice to particularly harsh living conditions. As a cultural melting pot with a cosmopolitan flair and an open and welcoming spirit, Mumbai enjoys a very unique position in India.

Like all the major cities, Mumbai isn't perfect. What do you think could be done to make it better?
When you look at the antiquated infrastructure, the rampant slums, inflated property prices, poor administration, and the lack of recreational facilities, the city has a long way to go. Mumbai needs to utilise its advantages. One example of this would be to build recreational facilities, promenades, and public spaces alongside the city coast. There are development companies in India that would like to renovate decaying neighbourhoods. For this to happen, however, one would have to relax building regulations. These changes all need to happen with the greatest care so that the cultural heritage and character of the urban neighbourhoods, the so-called "gaothans", can be preserved. This is particularly true for the Indo-Saracenic and textile neighbourhoods.

What's your favourite building in Mumbai?
The Kanchanjunga apartment building by the acclaimed Indian architect Charles Correa. It's a brilliant and ambitious piece of architecture that blends into its surroundings while remaining iconic and setting a great example for other residential buildings. (photo, right)

What do you do when you need to get away from the noise and the hectic everyday life in Mumbai?
The 100 square-kilometre national park in the middle of the city is one of Mumbai's best kept secrets (photo, left). I often go there in the early morning, when it is still cool and dark. There is no better place to escape the cacophony of the city.

Apart from home, where do you like to spend your free time the most?
There used to be a painter's studio where you could look out the windows and see untouched landscapes as far as the eye could see.

Photo: Marco Zanferrari / Flickr CC BY-SA 2.0

Photo: Rohington Irani

Photo: Planet 3 Studios

Architects: Kalhan Mattoo and Santha Gour Mattoo
Kalhan Mattoo and Santha Gour Mattoo founded the architectural firm of Planet 3 Studios in 1988. The firm has made a name for itself in India and beyond. It not only hires young and talented architects looking for a challenge, but also interdisciplinary thinkers. So it should come as no surprise that the firm allows non-industry specialists into its ranks. On top of that, Planet 3 Studios puts a particular emphasis on community life. This is reflected in the interior design of the office spaces.

www.planet3studios.com

Where can one meet young and ambitious artists or see their works?
The Sir J. J. School of Art. The cafés near the Jehangir Art Gallery, the National Gallery of Modern Art, as well as other galeries are meeting places for artists and other creatives. Sometimes there are even open-air exhibitions.

What is the most innovative cultural event?
Ganeshotsav is the most important festival in Mumbai. It's a cultural event that is accompanied by extensive festivities. A tremendous amount of creative energy is put into building statues and figures. Even though it is a religious festival, it is open to everyone who wants to attend. Then there is the "Kala Ghoda Festival", which takes place in the artists quarter. It is very innovative but as of yet cannot compete with the big international art festivals.

How does Mumbai inspire your work?
Mumbai has a very unique and unmistakable character. Every creative or design-related project that comes to Mumbai lends the city a special flair. This is even more the case for interior design than for architecture, which is subject to very strict building regulations. I like to believe that we are both inspired and disciplined to produce the best results with minimal resources. There is often an intuitive understanding of the economic requirements, so that unrealistic or eccentric ideas are very rare.

How do you envision the future of architecture in Mumbai?
Mumbai's motto is "form follows regulation"! The city is drowning in legal specifications. The land use regulations no longer apply to modern conditions. Building utilisation is significantly restricted by a decreasing floor area ratio (FAR). This all needs to change if the city wants to keep up with the world's leading metropolises. The architectural discourse is blocked by endless negotiations with authorities and various interest groups that leave little space for the development of a modern architectural language. Only with a more progressive government at both the federal and the state level could Mumbai be able to evolve into a true global metropolis.

ARCHITECTURE AND ART
NATALIA ZAŁUSKA

Photo: Uwe Walter, Berlin, DE

Untitled, 2014, mixed methods, collage, 50 x 35 cm

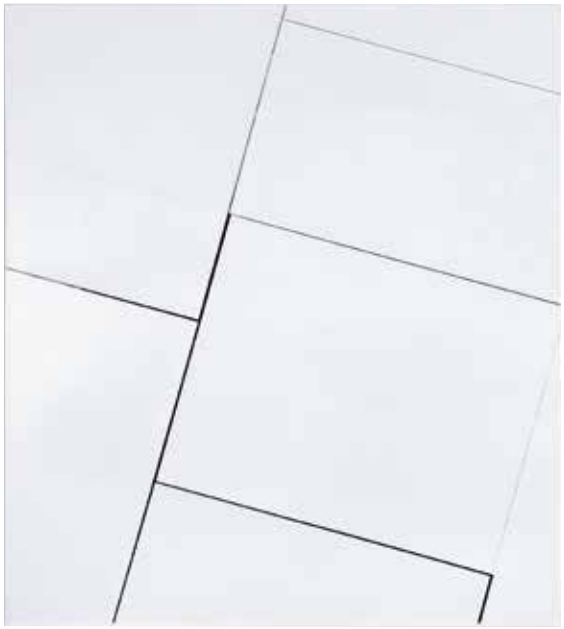


Photo: Uwe Walter, Berlin, DE

Untitled, 2014, mixed methods, collage on canvas, 180 x 160 cm

You might not realise the complexity of Natalia Załuska's works when seeing them for the first time. However, when you take a closer look and invest some more time in them, you will realise that the three-dimensional works are composed of strict geometric surfaces with complex layering. There is a subtle play of light and shadow. The group exhibition at the "Temporäre Halle für Kunst" in Linz, Austria, that also featured some of Natalia Załuska's works was very appropriately titled "Bildbaumeister" (image architects). Prior to that, the artist had her first exhibit at the "Galerie Jochen Hempel" in Berlin. "Natalia Załuska's austere canvases express a formal poetry and profoundness of a true artist. Her works are studies in perception; she examines the temporal and spatial aspects that define a specific painting and guide the observer's gaze. The artist breaches the monochromatic silence of her paintings in an outright radical way by cutting into the canvas. By doing so, she stimulates the surface and creates a sensual polylogue between the individual layers. Her works are both casual and controlled, gentle and brutal, taciturn and eloquent, minimalistic and neo-baroque. Załuska is a master choreographer of geometric shapes on a canvas. She overcomes the illusionism of painting and reaches the sublime, and with it a conceptual emptiness. Her untitled paintings in various formats, cut and structured according to the artist's own secret logic, represent the empty pages of history rewritten. Once destroyed and extinguished and then painstakingly put back together, they are the palimpsest of a maze-like state of mind, intangible and fleeting."
(Adam Budak, 2014)

Artist: Natalia Załuska
Born 1984 in Krakow, PL
Studied art history at Jagiellonian University in Krakow and the University of Vienna. She then turned from theory to practice and enrolled at the Academy of Fine Arts Vienna, where she studied painting with Daniel Richter and Lisa Ruyter. Her work has been featured in a series of group exhibitions since 2012 as well as solo exhibitions since 2014. Natalia Załuska lives and works in Vienna.

Galerie Christine König, Schleifmühlgasse 1A, 1040 Vienna, AT
www.christinekoeniggalerie.com
Galerie Jochen Hempel, Lindenstraße 35, 10969 Berlin, DE
www.jochenhempel.com

Photo: Uwe Walter, Berlin, DE

Untitled, 2014, mixed methods, collage on canvas, 190 x 160 cm each (view of exhibition at Galerie Jochen Hempel, Berlin)

Topic of the next issue of PORTAL:
Accessibility

It may be hard to believe, but accessibility has only recently become an issue outside of private living spaces – prior to this, it was especially people with physical impairments who were mostly left to their own devices. This has changed considerably in the last couple of years, even though we still have a long way to go. There are too many different types of restrictions. However, demographic change is forcing architects to be more inclusive in their designs – especially when it comes to people with impairments. Or are legislators doing all the work?

Photo: Christos Vittoratos/Wikipedia CC BY-SA 3.0

HÖRMANN AND SCHÖRGHUBER IN DIALOGUE

Constructing with Hörmann or Schörghuber:
Your project in PORTAL

Every four months PORTAL gives updates on current architecture and the conditions in which it is created. If you would like us to present your work, please send us information on a project you have completed that featured Hörmann or Schörghuber products by e-mail in the form of a brief documentation with plans and informative photos at:

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