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PREMIER MONTHLY MAGAZINE ON AVIATION & AIRPORT BASED BUSINESS OPPORTUNITIES

FEBRUARY 2006

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MODERN AIRPORTS
Inspiring architectural excellence

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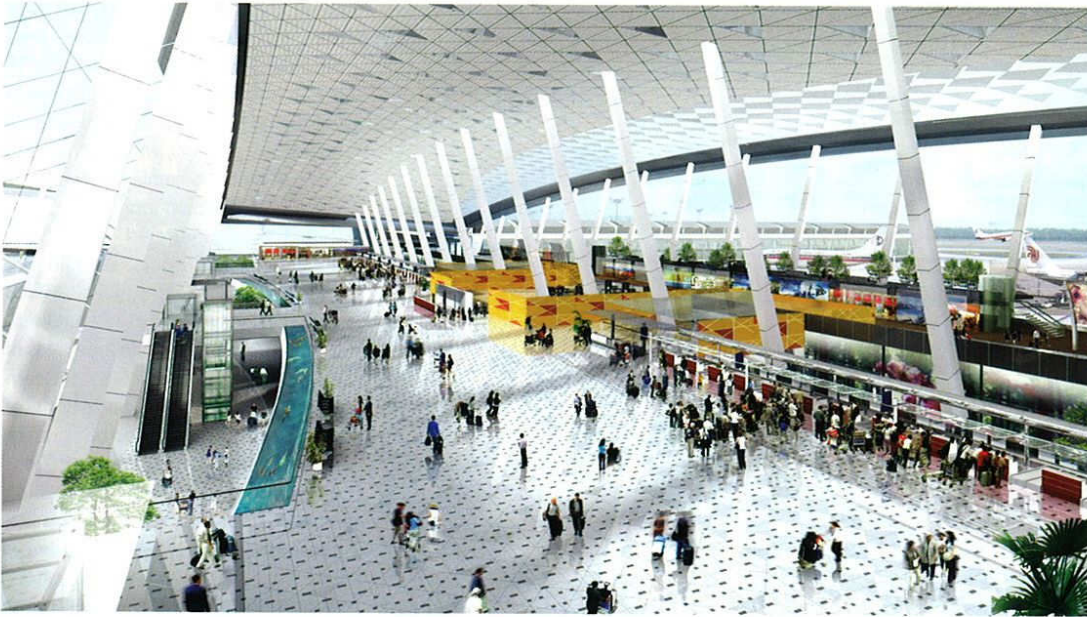
- Marc Baumgartner, President and Chief Executive Officer, IFATCA

Modern Airports

Inspiring Architectural Excellence

- Martin Menachery

Modern airport terminals, which are the most important building type in the business of transportation, also stand as a testimony to the spectacular achievements, and innovative and ambitious aspirations of contemporary architecture. The ambience of modern airports is consciously kept inspiring, considering the versatile profile of the travellers.



public love it and it is, indeed, quite uplifting."



■ **Dr Kisho Kurokawa**
President, Kisho Kurokawa Architect & Associates, Tokyo, Japan



■ **John Taylor**
Senior Partner, Kensington Taylor Architects, Exeter, Devon, UK

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Airport architecture has evolved dramatically in the recent times to meet the ever-escalating demands of the thriving travel industry. The impact of modern lifestyle is clearly reflected in the architectural style of airports, which accommodates and complements other vital needs like shopping and entertainment, apart from steadfastly awaiting the arrival and departure of the travelling masses.

Modern Architectural Trends

The design of major airports such as London Heathrow, Amsterdam Schiphol or Singapore Changi, to name a few, has essentially been developed through a series of evolving trends since their earliest stages. In the current terminal developments such as Singapore Changi Terminal 3, the airport architecture expresses modern trends through the integration of the architectural, structural and building systems design (such as long-span structure,

large volumes and striking roof-form); the inter-connectedness of the spaces; and the extensive use of materials such as glass and steel, throughout. Channel Island Guernsey Airport is another classical example of the latest trends in airport architecture.

John Taylor, Senior Partner, Kensington Taylor Architects, Exeter, Devon, UK, says, "Our 'modern trends' on Guernsey were to create a warm, comfortable and colourful interior within a quiet but memorable exterior. We researched international examples exhaustively and we were very impressed by a criticism of general terminal design, (we believe) by the architect of Oslo's new terminal. He begged for a move away from black, grey, white, stainless steel and a move towards colour, timber and natural materials. We embraced his hypothesis to a not inconsiderable degree and we are very pleased with Guernsey's ambience as a result. The

"The airport, especially a capital airport, is the gateway to that country. It should express the cultural identity of the nation."

While the airport should be a hub of any transportation from airlines to railways and buses, the function for passengers and cargo should be valued. "The architecture of the terminal building itself should be of attractive design. It should be a complex facility, including airside hotel, shopping area, conference room, exhibition room and lounge," opines Dr Kisho Kurokawa, President, Kisho Kurokawa Architect & Associates, Tokyo, Japan. According to world-renowned architects, the three key elements in the architecture of modern airports are integration of commercial areas all along the

passenger flow, natural lighting and vernacular components in the airport design.



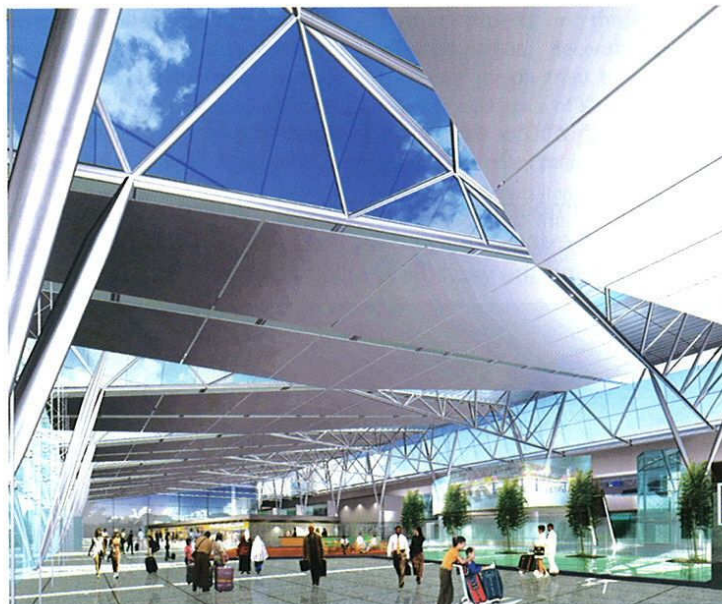
■ **Beat Küttel**
Chief Architect, Kaufmann van der Meer + Partner AG, Zürich, Switzerland

"We believe it is important that airports do reflect the local influence to make them unique and outstanding."

Creating Inspiring Ambience

Travellers, in general, now appreciate architecture more, and airports are the foremost landmarks in their journeys. They expect smooth flow through a terminal to be more than just about efficiency, but as much about spaciousness and views as well as human comfort. Beat Küttel, Chief Architect, Kaufmann van der Meer + Partner AG, Zürich, Switzerland, says, "We emphasise on natural light, plants and vernacular elements to create an attractive ambience."

The airport that gives travellers pleasure of the trip is, first of all, the one that creates cultural identity of the country where they arrive at. "With regard to Kuala Lumpur International Airport, passengers can see tropical forest as soon as they arrive at the courtyard in the Satellite Building and also the notice to arrive at Malaysia with strong impression. Moreover, as the architecture of the airport from arrival to entrance is



Singapore Changi Airport Terminal 3 Check-in Hall



varied space, it keeps people from being bored," discloses Dr Kisho.

So, with ambience being how travellers feel about their experience of these facilities, the modern architect has to be discerning in understanding every element the way a traveller will perceive it – in utilising latest technology to achieve state-of-the-art and recognising that we could achieve the modern traveller's inspiration only if we first captivate his or her interest in architecture.

Impact of Modern Lifestyle

Modern lifestyle, as it changes, naturally influences the detailed

design of furniture, fittings, sanitary ware etc, but the airport terminal of today is still a servicing building, sorting people and movement as efficiently as possible. The basic generic 'Arrivals and Departures' fundamentals must always be paramount, but the secondary needs of food, drink, rest, retail therapy, comfortable waiting and, not least, entertainment are the design elements that follow the lifestyle.

The airport should be a showroom of modern life, with world-renowned boutiques and branded product showrooms. Especially, the airport would be a stage of modern lifestyle for businessmen in these borderless

and global days. The stores in the airports will become the latest lifestyle shopping malls and the lounges in the airports will become more and more like lounges in hotels.

Pang Toh Kang, President and CEO, CPG Corporation Pte Ltd, Singapore, suggests, "A captivating but comfortable and functional architecture has to blend the best of public space with the privacy of residential and hospitality design. Modern lifestyle in the architecture of airports, just like in hotels and resorts, is reflected in these being user-friendly, while having the comfort and convenience travellers want in their own home, but in a thoughtful, uncluttered way. It is a discreet luxuriousness, seen in the architecture of the facilities of airports, sharing a design expression with the modern lifestyle amenities of residential common space." Modern lifestyle demands management of versatile circumstances. And modern airports have to fulfil the aspirations of various categories of travelling masses – business travellers, tourists, consumers etc.



■ **Pang Toh Kang**
President and CEO, CPG Corporation Pte Ltd, Singapore

"Retailing has become part of the fabric of the modern airport terminal – the architecture of visibility and viability."



Singapore Changi Airport Terminal 3 Baggage Claim.

Making an Airport Profitable

Profitability of an airport is a vital requirement for any competent architect. Above all, the plan must work. Many new terminals have wandering plans with severe waste of space and therefore costly liabilities. The working plan must be simple, clear and totally functional, with no unnecessary add-ons. If the plan works and the airlines can use the terminal in total efficiency, the public will buy the airlines' products. "An airport is still an important landmark and, as the port of arrival, has an important role for the whole area," remarks Beat.

Emphasising the importance of architecture in the commercial viability of an airport, Pang adds, "Commercial planning can no longer be a two-dimensional activity. Airport terminals now feature double-volume concessions, double-level retail areas, double-height glass shop fronts, and completely open retail along the route of passenger-flow, simply demarcated by floor-finish. Retailing has become part of

the fabric of the modern airport terminal – the architecture of visibility and viability."

"Now, the airport is no longer for travellers only. People come to the airport from town for the conference, hotel, exhibition and shopping. The terminal building would become not only the entrance of the country but also of the downtown," says Dr Kisho.

The designer must also have an eye on lifetime maintenance; lack of maintenance costs obviously helps the profit margin. Efficient planning must include things like car parks, taxi ranks, traffic interchanges, disabled accessibility – the list can go on. If the architect has designed the terminal to be totally efficient, the corollary must be that the terminal is as profitable as it can be. This does not allow for inefficient organisation or staff, or even inefficient airlines!

Influence of Regional Culture

Culture of a region influences major airport architecture as simple gestures. Their distinctive roof forms

Astana International Airport, Republic of Kazakhstan.



make the subtlest reference to a wave shape in an airport located in the context of waters, or the form of kites where these are associated with the place, or just capturing a high sweep of traditional indigenous structure. "Yes, of course – this can be seen from international terminals, which vary from 'haciendas' to 'tours de force in reinforced concrete,'" comments John. Beat agrees with John and observes, "We believe it is important that airports do reflect the local influence to make them unique and outstanding." "The airport, especially a capital airport, is the gateway to that country. It should express the cultural identity of the nation," remarks Dr Kisho.

Embodiment of Innovations

Consider Kuala Lumpur International Airport! The structure of the airport uses the geometry of a hyperbolic paraboloid shell and embodies an abstract Islamic identity. The airport achieves the concepts of 'a symbiosis between globalism and localism'. The airport is surrounded by trees planted to evoke a tropical forest image. The courtyard in the Satellite Building also has a 'forest in the airport'. People call it 'the airport in the forest' or 'the forest in the airport'.

Singapore Changi's Terminals 1 and 2 are being made-over after some time, but that their layouts can be adapted shows that there is something

fundamentally sound in their planning. It is not easy to be timeless in an airport. Today's innovation is tomorrow's renovation. To have quality in design allowing for on-going improvements is architectural excellence.

There are many airports in different parts of the world, which could be sited as examples of embodiment of inspiring architectural excellence. "Possibly, Bilbao airport in one direction and Oslo airport in another are quite breathtaking. The reaction of the public is the key," says John. "Our project for the New Bangalore International Airport incorporates all the ideas, which we believe are vital for the modern airport design," adds Beat.

Terminal 4 at Barajas Airport, Madrid, Spain, is an inspiring design that features a sensuously undulating roof form, but what sets this apart is that it is only this high roof and the use of floor plate and void that are intended to endure while the modular design allows a finely-crafted-shell within which change to the other terminal elements will inevitably occur. Excellence in airport architecture has to be about permitting such flexibility for change that the building-type of the modern airport terminal inevitably demands with new security and operating requirements, fashions in retailing and so on. ■