Introduction
A brief introduction and general overview 4

Speakers & Session Chairs
Alphabetized listing of all 77 conference speakers and 21 session chairs 6

Presentations
Reports on the three plenary and 21 themed sessions over three days with some of the world’s most renowned speakers:
P1: Remaking Tall Sustainable Cities in the Vertical Age
P2: The Remaking of Mumbai
P3: The Future of Tall Buildings
Day 1 Highlights: Remaking Tall Sustainable Cities in the Vertical Age
Day 3 Highlights: The Future of Tall Buildings

Social Events & Networking
Attendees had many opportunities for networking at the conference social events and breaks:
Welcome Reception
Conference Dinner
Exhibition
Networking Lunches

Technical Tours
Five tours were organized giving attendees the opportunity to see some of Mumbai’s most notable high-rise buildings and construction sites:
Palais Royale
Dharavi
C- Ward
Kanchanjunga Apartments
South Mumbai Cultural Tour

Statistics, Feedback & Attendee List
The conference in numbers, including overall attendance statistics, delegate feedback received after the conference and a full list of attendees

Press Coverage
An overview of some of the international media coverage on the conference

CTBUH Information
Current CTBUH organizational structure and current member listings

RoMF Information
RoMF organizational structure and current member listings

Video Highlights DVD & Presentations CD
A Video Highlights DVD profiles some of the more memorable messages from the conference, including footage and summaries of all presentations.
The final day’s plenary was a platform for new ideas and concepts in eco-friendly urban planning while taking care of individual buildings with regards to sustainability. A unique perspective on tall buildings by international spiderman Alain Robert got rave reviews from the construction fraternity as it was an out-of-the-ordinary layman’s view on tall buildings.

Dr Ken Yeang’s presentation on moving beyond accreditation and engineering while designing tall buildings was undoubtedly one of the most inspiring presentations of the conference. He made clear that green buildings should not be just about innovative engineering but broader concepts of urban planning should be included. A tall building should not be just a stack of concrete, but designed like a vertical city. It’s important to integrate urban planning programs in the sky to create sustainable buildings and cities.

His presentation spoke briefly on the idea of vertical urban design and the ecological nexus where he propogated the notion of integrating biotic and abiotic components and connecting them to the ground to create a network of green urban spaces. The idea of a landscaped ecobridge is fascinating and if urban planners could incorporate it in their plans it would not only improve the ecosystem but also preserve the diversity of all animal species present in the locality. His concept of connecting green spaces from the top of the building to the underground and the vicinity was very refreshing and captivating.

His ecodesign concept of integrating the grey (roads, etc), blue (drainage, water bodies, etc), red (buildings, etc) and green (natural environment) infrastructure while considering the regional environment critically in a urban plan and in fact flipping the master plan vertically did appear to many as the future of urban design in this 21st century.

Cathy Yang’s presentation on ‘Greening the World’s Second Tallest: Taipei 101’ focused on the efforts taken by the building corporation to technically upgrade itself so as to acquire the LEED green building certificate and be an example of ideal sustainable design and symbol of Taiwan’s standing in the world. She spoke about the latest techniques like using glass curtain wall to avoid direct heat and motion sensors for some lights during off hours to save on electricity. The building has provided window blinds, an
energy management control system, rain harvesting, grey water system, recycling station, and garbage sorting and garbage collection system. Efforts are being taken to educate the tenants about the correct usage of this green design by organizing socio-cultural events.

The corporation saved up to US$1,987,675 in the last two years due to its efforts to use sustainable technology and the tower is a fine example of a developer’s corporate social responsibility.

Alain Robert’s was the most entertaining presentation during the entire conference as his frank talk and tryst with the law and tall towers had everybody in good spirits. Being a human spiderman, climbing tall buildings is his passion and he has scaled the heights of around 80 tallest towers in the world! His video of climbing the Petronas Tower in Malaysia was heart throb-bing and his story of not getting legal permissions and agreeing to imprisonment for a few days amusing. Alain criticized architects for using slippery materials like marble and glass for building facades and not designing grooves spacious enough for his fingers so that his ascent could become easier!

**Question and Answer Session**

**Q:** How was a large amount of land made available for the construction of Taipei 101 in the heart of the city?

**Cathy Yang:** The Taipei city government put together three parcels of land to make Taipei a financial center. Also, this is a new area and most of the land belongs to the government. In fact, after the Taipei 101 project, the whole area started to develop and it’s now the CBD of Taipei.

**Q:** You have climbed nature and mankind. Which of the two do you prefer? And what next do you wish to climb?

**Alain Robert:** I thrive on adventure and climbing nature or mankind, both are very challenging and different from each other. It is not possible to tell you which one is better! And I have also climbed bridges including the Golden Gate, Harbour Bridge, Brooklyn Bridge, etc!

**Q:** How can non mechanical vertical transport in a skyscraper be made more interesting?

**Ken Yeang:** In one of my buildings in Singapore I have designed a spiraling ramp and wrapped it around the tower. It’s more than a kilometer in length and has a park wide enough for vegetation. It’s landscaped and a refreshing walkway for all.
Dharavi

Of all the technical tours that set off around Mumbai, it was perhaps the tour of Dharavi that captured the imagination of many of the conference delegates. In part this was fuelled by the debate and discussions surrounding how to appropriately redevelop slum areas that acted as a continuous theme throughout the conference. Known as ‘India’s largest slum’, Dharavi lies in the center of Mumbai and is home to one million residents in an area of just 0.7 square miles. It is one of the densest and most populated places on earth.

First stop of the tour was the Matunga Labour Camp Daycare Center. Here delegates listened intently to a presentation about the future of Dharavi, and in particular the challenge of surveying the district (a challenge that has taken a number of years to complete). It was then off to explore Dharavi itself, with delegates walking through the seemingly never-ending labyrinth of narrow lanes, hardly wide enough for two people to pass, with electricity wires hanging precariously overhead. The streets themselves are a hive of activity, with children running and playing, people chatting in informal meeting places, food being prepared and sold and black smoke rising from potter’s kilns. There are also thriving cottage industries, with an estimated 15,000 single-room factories in the district, many centered on the business of recycling. Nothing is considered waste in Dharavi, as the delegates found for themselves upon a short visit to a diaper recycling center! However, many were left to marvel at the intensity of recycling, as the tour passed residents sorting and collecting plastic bottles, cardboard, old shoes, textiles, car batteries, computer parts, plastic bags and wire hangers.

Perhaps the most memorable scene from the tour occurred when delegates were led along the top of a short stretch of water pipe, located in a ditch of waste and garbage. As the delegates walked tentatively along the pipe, children struggling to carry water teetered the other way. Small, tightly packed shacks backed right up to the edge of the ditch and goats roamed freely in the garbage below. In the distance children laughed and played in the waste. In many ways, this scene summed up the disparity of Dharavi; happy, smiling children, a vibrant and electric street life full of color, with a strong sense of community, but a frightening lack of infrastructure and basic sanitation. However, it was also apparent that Dharavi is not a ‘slum’ in every sense. Whilst the buildings are certainly ramshackle, they are constructed of concrete and brick and seem permanent rather than the temporary huts one might expect. Children return home in the afternoon smartly dressed in school uniform, and there is no begging on the streets. It may seem incredible, but the annual turnover of industry here is $650million.

It is interesting to note, that due to Dharavi’s prime location in the heart of Mumbai between two main suburban rail lines, it has become a hot piece of real estate. The state government has plans to redevelop and transform the district into a ‘modern township’, complete with shopping complexes, hospitals and schools.

A goat grazing on a field of trash.

Delegates walk along water pipe.

Hanging washed clothes on electrical cables.
C - Ward

The technical tour to the C-Ward was an unforgettable experience for many of the tour delegates. The C-Ward is one of Mumbai’s high-density zones and one of the largest and oldest trade markets in the city. The area houses people of different religions, ethnicities, trades, etc. in a cohesive yet dynamic fabric giving weight to the true meaning of secular India.

Delegates found the perceived planning of the C-Ward very interesting, with streets often merging to form large congregation areas commonly converging on a religious building at its core. Different streets specialized in different trades, with an informal land-use/zoning-pattern clearly observed. Residential use occupies the floors above the commercial space. Historically, as trade flourished, the density of both residential and commercial activity increased in this area without adequate increase or improvement of the infrastructure. Thus, even though basic amenities and services are provided by the municipal government and other organizations, it was clear to delegates that there are not enough to facilitate this overcrowded district.

A number of things can be pointed out that need immediate attention in this area: congestion, inhumane living conditions, vehicular and pedestrian circulation, dilapidated buildings, non-sewage disposal, and a rent control act to name a few. As already mentioned, the living conditions in the area are inadequate, however, the charisma of this area lies in its density. Any plans for redevelopment need to be sensitive to this issue, and not strip it down to be like any other part of the city, lest it lose its character. Thus, the herculean task of redeveloping this district is a sensitive one, and needs to be carried out in a smooth manner by all the agencies involved, both government and non-government, such that the lifestyle of the people improves as a whole, while the area maintains its character and vigor.

Travelling on foot through the streets of the C-Ward was the best way to experience the area. Updates on the C-Ward redevelopment plan from the Remaking of Mumbai Federation representatives and interactions with the local people helped all the delegates connect with the area. Apart from the streets which gathered most of the attention, areas like the community schools, courtyards, religious buildings, etc. were also fascinating in their planning and use of space. Due to this vibrancy of spaces and people, the C-Ward can well be called a ‘city within a city’.
Statistics

**Conference in Numbers:**

- **Number of Days:** 3
- **Number of Speakers:** 77
- **Delegates Attending:** 1067
- **Countries Represented:** 26
- **Organizations Attending:** 490
- **Technical Tours:** 5
- **Sponsors:** 10
- **Promotional/Media Partners:** 28
- **Exhibitors:** 27

**Attendee by Profession:**

- **Owners/Developers:** 220
- **Construction:** 179
- **Architects:** 154
- **Engineers:** 119
- **Urban Planning/Government:** 83
- **Others:** 58
- **Cost Consulting/Project Management:** 40
- **Associations:** 40
- **Press:** 38
- **Academics:** 22
- **Students (not shown in chart):** 114

**Total Number of Attendees:** 1067

**Companies most represented:**

<table>
<thead>
<tr>
<th>Organization</th>
<th>Attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lok Group</td>
<td>24</td>
</tr>
<tr>
<td>Saifee Burhani Upliftment Trust</td>
<td>16</td>
</tr>
<tr>
<td>Cisco India</td>
<td>13</td>
</tr>
<tr>
<td>Illinois Institute of Technology</td>
<td>13</td>
</tr>
<tr>
<td>Shree Ram Urban Infrastructure</td>
<td>13</td>
</tr>
<tr>
<td>KONE Elevators</td>
<td>11</td>
</tr>
<tr>
<td>Larsen &amp; Toubro</td>
<td>11</td>
</tr>
<tr>
<td>Mumbai Housing &amp; Area Dev. Authority</td>
<td>10</td>
</tr>
<tr>
<td>PERI</td>
<td>9</td>
</tr>
<tr>
<td>Alumayer Group</td>
<td>8</td>
</tr>
<tr>
<td>Dow Corning India</td>
<td>8</td>
</tr>
<tr>
<td>K Raheja Corporate Services</td>
<td>8</td>
</tr>
<tr>
<td>Mumbai Met. Redevelopment Agency</td>
<td>8</td>
</tr>
<tr>
<td>ITC (Indian Tobbaco Company)</td>
<td>7</td>
</tr>
<tr>
<td>Sir J.J College of Architecture</td>
<td>7</td>
</tr>
<tr>
<td>Arihant Construction Co.</td>
<td>6</td>
</tr>
<tr>
<td>Builders Association of India</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Organization</th>
<th>Attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fortune Consultants</td>
<td>6</td>
</tr>
<tr>
<td>Godavari Paints</td>
<td>6</td>
</tr>
<tr>
<td>Nina Concrete Systems</td>
<td>6</td>
</tr>
<tr>
<td>Schindler Elevator</td>
<td>6</td>
</tr>
<tr>
<td>Sheth Fabricators</td>
<td>6</td>
</tr>
<tr>
<td>Skidmore Owings &amp; Merrill</td>
<td>6</td>
</tr>
<tr>
<td>The Indian Institute of Architects</td>
<td>6</td>
</tr>
<tr>
<td>Thornton Tomasetti</td>
<td>6</td>
</tr>
<tr>
<td>Ashitech India</td>
<td>5</td>
</tr>
<tr>
<td>Kemrock Industries &amp; Exports</td>
<td>5</td>
</tr>
<tr>
<td>KPMG</td>
<td>5</td>
</tr>
<tr>
<td>MM Project Consultants</td>
<td>5</td>
</tr>
<tr>
<td>Rizvi College of Architecture</td>
<td>5</td>
</tr>
<tr>
<td>Samsung C &amp; T Corporation</td>
<td>5</td>
</tr>
<tr>
<td>Shree Vaishnav Alloys</td>
<td>5</td>
</tr>
<tr>
<td>TEKLA</td>
<td>5</td>
</tr>
</tbody>
</table>
Did the conference fulfill your reason for attending?

- Yes - Completely: 43%
- Yes - Mostly: 55%
- No: 2%

Delegate Experience:

I gained new knowledge and insights.

- Strongly Agree: 39%
- Agree: 50%
- Neutral: 9%
- Disagree: 2%
- Strongly Disagree: 0%

The quality of my work will be enhanced as a result of this conference.

- Strongly Agree: 36%
- Agree: 47%
- Neutral: 16%
- Disagree: 1%
- Strongly Disagree: 0%

Speakers:

The speaker line-up was excellent.

- Strongly Agree: 33%
- Agree: 51%
- Neutral: 14%
- Disagree: 1%
- Strongly Disagree: 1%

The presenters were stimulating in delivery.

- Strongly Agree: 33%
- Agree: 47%
- Neutral: 19%
- Disagree: 1%
- Strongly Disagree: 0%

Event Quality:

The conference was well organized and coordinated.

- Strongly Agree: 42%
- Agree: 50%
- Neutral: 6%
- Disagree: 1%
- Strongly Disagree: 1%

The exhibition was useful and informative.

- Strongly Agree: 32%
- Agree: 48%
- Neutral: 16%
- Disagree: 3%
- Strongly Disagree: 1%

Networking opportunities with other delegates were appropriate.

- Strongly Agree: 18%
- Agree: 47%
- Neutral: 29%
- Disagree: 4%
- Strongly Disagree: 2%

The amount of interaction with the presenters was sufficient.

- Strongly Agree: 22%
- Agree: 44%
- Neutral: 28%
- Disagree: 6%
- Strongly Disagree: 0%

How did you learn about the conference?

- Advert - Indian Press: 23%
- Word of Mouth: 19%
- CTBUH E-Newsletter/Email: 18%
- From a CTBUH Leader/Member: 17%
- CTBUH Website: 7%
- CTBUH Journal: 13%
- Other: 15%

Possible Future Locations.

- Shanghai: 28%
- Singapore: 25%
- London: 13%
- Abu Dhabi: 12%
- Beijing: 10%
- Qatar: 2%
- Other: 10%
Delegate Feedback

"Organization and pre-conference assistance was helpful and thorough."
-Fritz King, Tyrens, Stockholm

"Excellent teamwork. All the plenary sessions were good and informative."
-Zoeb Bootwala, Remaking of Mumbai Federation, India

"Super experience! Hoping to be associated with CTBUH and ROMF."
-Akhil Aryan, India

"It was very well organized and coordination was super. Delegates got every penny back from the conference."
-Prem Ramnani, Unity Infra Projects, India

"Technical Tours were a great idea – Good way to break up a 3-day event."
-William Maibusch, Turner Construction International, Qatar
"Thank you for the energizing CTBUH Conference, I was pleased to be part of it."
-Mark Garland, Lewis Builds, Canada

"Excellent organization! Coordination of 1,000+ delegates was a mammoth task and was very well organized and managed."
-V. Chandrasekhar, India

"I personally have felt the power of knowledge gathering and the depth in which the brains were interacting."
-G. Rathinavelu, Trac Technologies, India

"One of the best organized and coordinated conference that I have attended."
-Maharaj Singh Satsangi, SCPC Associates, India

"As a student it was very inspiring. Thank you for this wonderful conference!"
-Aeva Hioz, Student, India
About the CTBUH

The Council on Tall Buildings and Urban Habitat, based at the Illinois Institute of Technology in Chicago, is an international not-for-profit organization supported by architecture, engineering, planning, development and construction professionals, designed to facilitate exchanges among those involved in all aspects of the planning, design, construction and operation of tall buildings.

Founded in 1969, the Council’s mission is to disseminate multi-disciplinary information on tall buildings and sustainable urban environments, to maximize the international interaction of professionals involved in creating the built environment, and to make the latest knowledge available to professionals in a useful form.

The CTBUH disseminates its findings, and facilitates business exchange, through many outlets including: the publication of books and reports; organizing international conferences; maintaining an extensive website and tall building databases; the management of special task forces/working groups; and the publication of the CTBUH Journal.

The Council is the arbiter of the criteria upon which tall building height is measured, and thus the title of “The World’s Tallest Building” determined.

CTBUH is the world’s leading body dedicated to the field of tall buildings and urban habitat and the recognized international source for information in these fields.

About RoMF

The Remaking of Mumbai Federation (RoMF) is an association formed by over 50 associations and NGOs. The federation has over 16,000 stakeholders: tenants and landlords as members. The federation’s main objective is to find solutions to the redevelopment of inner city areas of various cities in the country. To begin with, it chose Mumbai, where over 25 million people are living under the shadow of death in over 32,000 old and dilapidated buildings. It proposes to redevelop them in an inclusive, win-win and self financing manner. The federation is working to develop these cessed houses by deliberate planning processes by increasing and augmenting infrastructure to meet the requirements of this modern economic capital of India and transforming horizontal urban spaces to tall buildings with lots of open spaces, amenities and play grounds. This entire process will then result in altering Mumbai into a world class city which will become a role model for the development of other cities in India.

Council on Tall Buildings and Urban Habitat

S.R. Crown Hall, Illinois Institute of Technology, 3360 South State Street, Chicago, IL 60616
Phone: +1 (312) 567 3467 | Fax: +1 (312) 567 3820
Email: info@ctbuh.org | www.ctbuh.org

Remaking of Mumbai Federation

161, Chhapawala Building, 1st Floor, Dadi Seth Aglary Lane, Chira Bazar, Mumbai - 400 002
Tel./fax: +91 22 4049 7999
Email: remaking2010@gmail.com | www.romf.org

http://ctbuh2010.ctbuh.org