



## A tale of two cities

ARCHITECT DR NIZAMUDDIN AHMED

ARCHITECTS have taken inspiration from nature, the built environment and from each other ever since the second 'architect' began his practice in an era lost to time. In more recent times, Louis Sullivan's Chicago School and Frank Lloyd Wright have been motivating architects all around the world, often to the extent of veering them out of context, as their critics would like to argue.

Today, in addition to bringing our readers the recommendations of the workshop on 'Apartment Culture in Bangladesh: The Future', we take the opportunity to take a look over our shoulder at what truly is one of the fountainheads of architecture.

The workshop on 'Apartment Culture in Bangladesh: The Future' was an amalgamation of a host of expertise to seek ways and means of addressing the growing concern about the problems faced and created by an industry in one of the largest cities in the world.

While the need for appropriate law, education, backward linkage industry and fiscal incentives was stressed with varying weightage, the most significant outcome of the workshop was perhaps the comprehension that developers need to be seen as service provider that benefits the buyer.

It is not for the developers alone to put right every conceivable problem that emerges due to their products and by-products. The government bodies entrusted with guarding the Building Construction Act and Rules have an equal responsible. Concerned ministries, LGED, RAJUK, DESA, DWASA, Titas Gas and DCC (not necessarily in any order) have to find their 'ace' instead of behaving as a pack of playing cards, incessantly trying to trump each other. No wonder the house is falling.

Whereas it is arguable why Dhaka and Chicago should be discussed on the same page, being poles apart as they are in history, society, culture, religion

and economy, there is no doubt that both are great cities in their own realms.

The Chicago School, as the style is dubbed, is primarily characterised by concrete/terracotta encased steel members, clarity of form, repetitive windows and lack of ornamentation. Much of those attributes we are striving to achieve albeit in our own vocabulary. Visiting Chicago and the icons of the school can be a stimulating learning experience for someone involved in city development. The temples of architecture there bear witness to one of the great epics of building history.

Architects the world over, in their quest for innovative creativity with new materials and know-how, have taken stimulation from Chicagoans (thanks to a myriad of Western publications and publicity) not to imitate the form, the loftiness or the spatial qualities, but to respond positively to one's socio-economic, cultural, climatic and other environments as well as client psyche with emerging technology and material.

Qazi Muhammad Arif's drive has been exhilarating in the least and to some extent suffers from the risk of taking too much in too short a time, often referred to as dyspepsia in respect to the stomach. But then one has to have the stomach to sense the very soul of architecture, that which is palatable and visible only to the selected few.

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## Apartment culture in Bangladesh: The future

Recommendations of the Workshop held by The Daily Star - BUET-Bangladesh Scouts in association with REHAB on 31 January 2002 at BRAC Centre Dhaka

### Legislation and Sanction

Authors  
Prof Dr. Golam Rahman, Institute of Planners

ASM Ismail, Institute of Architects  
Md. Najib, Planning Commission  
Aminul Islam, Department of Environment

- Existing Building Construction Act and Rules should be adhered to and implemented properly.
- Land use classification and Zoning Plan should be formulated and implemented. This should be notified and should also be made public.
- Building Construction Act and Rules should be updated periodically on the basis of the joint participation of professional bodies like the Institute of Engineers Bangladesh, the Institute of Architects Bangladesh and the Bangladesh Institute of Planners, and development partners such as REHAB and others.

4. In housing delivery systems REHAB should provide legal securities and compensation if any buyer is exploited in any manner. All developers should be members of REHAB, as REHAB will have to ensure the quality of their products.

5. Enforcement of building construction law should be made effective and transparent providing all support for monitoring and follow-up.

6. Housing societies, which deal with selling of plots within DMDP area should come under rules and regulations regarding planning and environmental norms.

### Design and Documentation

Authors  
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- Standardisation of building services (staircase, elevator, electrical and plumbing lines, width of passage, area consumed by service facilities) and facilities, including parking areas.

2. Correct presentation (to scale) of furniture layout and car parking spaces according to standard dimension.

3. Standardisation of day lighting and ventilation.

4. Planning rules and regulations concerning apartment design should be according to Floor-Area-Ratio (FAR).

5. All future apartments (either moderate-high six-storied or high-rise) must be designed following Bangladesh National Building Code, 1993, as well as international seismic design specifications.

6. Quality concrete (3000psi or more) and high strength (60 grade) steel must be used in structural concrete construction.

7. All six or higher storied buildings must have shear walls. The parapet walls must be either of RCC, grill, or reinforced brickwork.

8. Soft-storey open car parks should be avoided, or taken into consideration during the structural design and seismic detailing.

9. All apartment buildings must be equipped with lightning arrester.

### Buyers and their Psyche

Authors

Iftekhara Khan

F.R. Khan

Salahuddin Ahmed

- Buyers confidence can be greatly enhanced by a. Uniform declaration policy

Standard Contracts by all developers. REHAB has a major role to play.

Standard terminology/ nomenclature, such as net/gross sft. as

already established by REHAB.

Limited warranty and after sale service. Once statute of limitations is established, the buyer will feel confident and the playing field will be level.

b. Building developers past performance

All bonafide developers want to create a list of 'good' projects since they want to be in business for a long term. Recommendation from past products will enhance the business. However, short-term developers (or overnight traders) are getting away with excessive profit and damaging the reputation of the industry.

Solution: Mandatory enlistment with REHAB, which is watchdog and peer pressure group.

2. Further enlightenment for buyers Developers should be more creative in providing 'value for money'; usable space (yield) vs. gross sft.

Which should the buyer go for? For example: a well designed/laid out plan of 1800 sft vs. a badly laid-out plan of 1900 sft.

3. Buyer's long term planning, i.e. well before he has financial capacity to enter into a contract

Prospective buyers should be given a 'clear picture' of what the city will look like in 15/20 years time without the uncertainties and upheavals of the urban sprawl, as witnessed today.

Solution: Policymakers/regulatory body/RAJUK should openly exhibit the future city to the citizens. So that each prospective buyer can plan ahead of several years, before the actual purchase

### Finance and Marketing

Authors

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Prof Dr. Sarwar Jahan, BUET

Dr. Toufiq M. Seraj, REHAB

1. Credit facilities on soft and long-term basis should be made available by private and overseas leasing companies guided by Government of Bangladesh policy.

2. For apartments low-cost registration fee should be adopted by making new rules, as being practised in neighbouring countries.

3. Transfer permission fee should be discontinued for apartment.

4. Registration of apartments on all government plots should be simplified and entirely done by RAJUK, by amending existing rules.

5. Housing sector has been declared as an industry in Industrial Policy 1999. Therefore, fiscal incentives like tax holiday, reduced tax rate and duty benefit on imports (on lifts, sanitary items) should be introduced.

6. The developer shall make aware clients and certify the design and construction quality of each apartment, that the apartment has been built as per BNBC, Building Construction Rules, etc.

### Materials and Construction

Authors

Prof Dr. M. Shahidul Ameen, BUET Engineer Mahmudul Hassan, Developer

Architect Akhil Akhter Chowdhury, Developer

1. The industry requires specialised professionals, because multifunctional complexes are being erected, professionals for architecture, specifications, foundation, plumbing, electrical-mechanical (increased automation) and so on.

2. Considering the size of the building industry training facilities for skilled construction workers (mason, carpenter, electrician, plumber, etc.) should be introduced.

3. Supplier/importer should have

specific mechanism to control quality and price of building material; there should be no prototype test.

4. Factories for producing building components should be established in order to achieve design standards, quality control, encourage mass housing and cut price.

5. Building Inspection Authority should be established to evaluate performance of buildings and provide performance certificate.

6. Construction Management personnel should be trained to ensure quality construction, suitable material and effective time management.

### Safety and Security

Authors

Brig (Retd) AHMA Momen, Developer

Engr. Syed Md Abdullah, Titas Gas

Md. Shahjahan, Dept of Environment

Md. Mesbah Uddin Bhuiyan Murad, Bangladesh Scouts

1. Segregation of solid waste at point of deposit/collection

a. hazardous waste

b. waste glass

c. recyclable waste

d. food waste (decomposable)

2. Periodical monitoring of gas line joints to avoid fire and other accidents due to leakage.

3. Use of double gas burner without meter to prevent misuse and avoid disconnection

4. All developers are brought under REHAB to ensure adherence to government policy, BNBC and rules.

## Architecture: Driving through Chicago!

ARCHITECT QAZI MUHAMMAD ARIF

RICHELIE puts the key into the ignition hole. It was 9:30 in the morning. Beginning of a bright, sunny, cool spring day in Chicago, the Second day of our three-day trip to Illinois. Orland Park, where Zerlin and Richie built their new home, is about 30 miles South to Chicago downtown. After a sumptuous breakfast prepared by Zerlin's mother, we are on the Highway by 9:45, heading towards downtown Chicago. Richie, behind the steering wheel on his Nissan minivan, his wife Zerlin, myself and my wife Emily and our 5-month old little boy Shureed being the passengers.

Chicago, America's "Second City", the sprawling, burly-king of the heartland, home of America's tallest building, one time capital of American anarchism, is a city of oddly impressive firsts. Chicagoans love their superlatives: the nation's first skyscraper (Home Insurance Company building 1885) and the first comprehensive municipal plan (1909), most Noble Laureates; world's largest private building (Merchandise Mart with ninety acres of floor space); best hotdog and pizza, largest indoor aquarium, one of the world's last free zoos, most massive outdoor food festival, civilization's largest free library.

Chicago even has the only river in the world that was trained to run

back; in 1900, using a system of locks, engineers turned the flow of the Chicago River, preferring to transport the city's sewage to St. Louis rather than into Lake Michigan. Founded in 1779, and nourished over the next two hundred plus years by waves after waves of immigrants from every conceivable part of the globe, Chicago is a vivid metaphor for the boundless drive, vitality, and variety of America itself.

It took us about half an hour to get to the first point of attraction for the day. We halted for a short stay at the campus of University of Chicago.

**THE UNIVERSITY OF CHICAGO:** Founded in 1892, the University of Chicago is proud to be the home of the highest number of Noble Prize winners in the world. It is a top ranking institution for research and development in various fields of pure sciences: Physics, Chemistry and Mathematics. Henry Moore built his famous sculpture here in this campus in 1967, commemorating the triumph of Nuclear Energy. On December 2, 1942, as a result of comprehensive research in this university, man achieved the first self-sustaining chain reaction and thereby initiated the controlled release of Nuclear Energy- beginning the age of Nuclear Power and Atom Bomb.

The campus of Illinois Institute of Technology (IIT, Chicago) is another landmark of architectural development of our present world. Richie

drives us next to IIT campus designed by the world famous architect Mies van Der Rohe.

**ILLINOIS INSTITUTE OF TECHNOLOGY (IIT):** The late fifties were the time for architects and builders to think about some thing else, other than ornamental structures with articulate and miniature details. It was about the time to put more efforts in creating functional spaces using industrially manufactured products in a structure, which was less in cost and build-able in shorter span of time. Buildings started looking straight and simple with large uninterrupted interior spaces. Steel and Glass took over the places of Masonry construction. Architecture stepped into the Modern Era.

Renowned architect Mies van Der Rohe designed all the structures in the campus in mid sixties. Ample use of Industrial Steel painted black and exposed, and the use of long span Glass panels on the exterior facades were a big jump from common practice. Buildings of IIT campus are considered the pioneers of Modern Architecture. "Crown Hall", presently occupied by the School of Architecture is the most attractive and significant structure in the campus.

We were yet to reach the heart of Chicago. It was after another half-hour that the marvellous skyline of this city of 'Sky Scrapers' came into our sight. Lake Shore Drive is famous for the best view of the Chicago skyline. We were travelling northbound by the edge of Lake Michigan looking at the grand parade of sky-high buildings on our left and the vast horizon beyond the blue waterscape of Lake Michigan on the right.

Our guides are Chicago resident for the last five years. Zerlin, a friend from our golden school days, is an architect and presently working for the renowned architectural firm 'Skidmore, Owings and Merrill' (S.O.M.) based in Chicago. S.O.M. happens to be the consultant for several skyscrapers built in Chicago and other major cities in the world. Richie is a professor by profession, teaches Business Administration at a local University. Both of them have got profound interest over Chicago; it's people, architecture, history, heritage and eventful civic activities and festival all around the year. As we were cruising through different avenues and streets, both of our guides described the interesting features and flavour of this world class Mega city

**SEARS TOWER:** Sears Tower, built in 1974 is the tallest building in the United States of America (1454 feet, 104 stories). It was the tallest in the world for a long time until Petronas Towers in Kuala Lumpur, built in 1997.

With the Sears Tower, a new vocabulary of super-tall architecture was introduced in Chicago, a city that has long prided itself on structural innovation. Fazlur Rahman Khan, a born Bangladeshi architect-engineer and Bruce Graham, the S.O.M. partners were in charge of the design of this magnificent structure. Khan's lightweight, yet extremely strong structure is simple. It consists of nine seventy-five-foot-square mega-modules bundled into one. Only two of the modules rise to the full 1450 feet height of the building. The forces of wind and gravity are dissipated throughout and down into the major mass of the building as each tube, acting independently



"John Hancock Center" Architect-Engineer: Fazlur Rahman Khan. Skidmore, Owings and Merrill, S.O.M. 1969

assumes only a portion of the stress. If bigger is better or at least not evil; then the Sears Tower is superb.

**JOHN HANCOCK CENTER:** Fazlur Rahman Khan designed this 1127 feet high steel building in 1969. "Big John" the John Hancock Center in Chicago is all skin and bones. A throw back to the structural systems of pre-skyscraper masonry buildings, the Hancock Center's outer supports serve the old fashioned role of load bearing walls with twentieth century twist. It's exterior-braced-framed tube design, in which the forces of gravity and wind are borne by the outer shell of the building, was one of the first in a rapid series of structural innovations that made the mega-structures of late twentieth century skyscrapers a reality. Although it consumed the steel equivalent of 33,000 cars, its innovative structural system was economical, requiring half the steel of a building with traditional internal columns.

Downtown Chicago is the home of several other skyscrapers. Wrigley's Building, Chicago Tribune Tower, Marina City Apartments, Water Tower, and a few others have acquired worldwide fame for the city.

Nevertheless, looking at a map of Chicago we are struck by the profusion of parks in every quadrant of the city: Peterson, Homer, Warren, Chase, Jensen, Humboldt, Garfield, Sherman, Hamilton, and on and on. Many are connected by a belt-line of boulevards that runs west from Lincoln Park, turns south all the way to Gage park, then back east to Jackson park at the Lake. It's little wonder that Chicago's motto is *Urbs in Horto*: "City in a Garden". Inside it are myriad neighbourhoods not suburbs, but officially named com-

munities that resemble a patchwork of small towns locked within the city: Hyde park, Lincoln Square, Rogers Park, Old Town and seventy four others.

Over the first three decades of the twentieth century, Chicago welcomed an array of other attractions that cemented its standing as a world class city:

**John Shedd Aquarium** -- still the world's largest such facility--is famous for live sharks, sea turtles and tropical fish. It offers winding nature trails through re-created Pacific Northwest coastline, an Asian river exhibit, several examples of Coral Reefs and lot more.

The 1892 **Art Institute of Chicago**, whose Bronze Lions outside the South Michigan Avenue entrance has become the institute's symbol and a favourite landmark of the city. Today one of America's four largest art museums, with a collection valued at more than \$250 million, it houses a stunning collection of French Impressionist and Postimpressionist paintings.

In 1996, **Museum of Contemporary Art** got a new \$46 million home, including a sculpture garden, in the shadow of the old Water Tower near the Lake front.

Chicago is also home to delightfully different galleries and exhibitions. **The DuSable Museum of African-American History** offers performances of music and dance. **The Oriental Institute Museum** at the University of Chicago features monumental statue of Pharaoh Tutankhamen and a forty-ton winged Assyrian bull-man relief.

We are now driving towards a Suburban town named Oak Park west of downtown Chicago.

**OAK PARK AND PRAIRIE HOUSES OF FRANK LLOYD WRIGHT:** Recognized as a dominant figure in the history of modern

architecture and the greatest design influence in the United States during the first half of the twentieth century, architect Frank Lloyd Wright created, during his long and prolific career, a unique body of work that endures to this day. Beginning in 1889 with the design for his own house in Oak Park, Wright designed several residential buildings. Wright's brilliant architecture is unified only by the underlying organic principles of change and innovation. Revolutionizing residential architecture with the disparate expressions of his simple creed, "Out of the ground and into the light!" These house built within about 30 years time are known as the Prairie Houses and they feature a sense of unity and privacy, and a free flow of interior space.

Driving thru Oak Park neighbourhood, looking at the 'Wright-buildings' one after another is a great experience.

The first place we stopped at was the **Frank Lloyd Wright House and Studio (1889-1909)**. In the design of his own house and the adjacent studio, added in 1898, Wright was free to experiment with his objectives in residential architecture over a 20-year period. Today, the Frank Lloyd Wright Home and Studio Foundation oversees the restored property the oldest extant house by Wright and conducts tours of the premises. The guided tour sequentially describes the

gradual development of the premises. The guide also explains Wright the architect, his philosophy, conviction, controversial eventful life and achievement in a lifetime and afterwards. The American Institute of Architects (AIA) has designated the complex, one of 17 Wright buildings to be preserved as an example of his architectural contribution to American culture.

It was almost late afternoon by the time we were done with the guided tour. We wished we had enough time to step into the other houses. **Nathan G. Moore House (1895), Frank Wright Thomas House (1901), William G Fricke House (1901)** are some worth mentioning examples among Oak Park houses.

Oak Park, also features Earnest Hemingway's birthplace and a separate **Hemingway Museum**; the stark, concrete **'Unity Temple'**, designed by Wright and built by Unitarians in 1905, a conservatory and a children's museum.

But we had to rush to visit the most superb of all the Prairie Houses, which was a little away from Oak Park. We could not wait to see this excellent creation of Frank Lloyd Wright, the **Frederick C. Robie House**. The best known of all his houses in Prairie style, this Robie house was built on a narrow corner lot. The house extends along a single horizontal axis, its most arresting feature being the cantilevered roof, which extends a full 20

feet beyond the masonry supports. Inside, the Robie House was revolutionary in having no walls or partitions to break the flow of space thru the common areas: living room, dining and central stairwell. Wright designed all the furniture, fabrics and fittings, including the globular lighting fixtures and the art glass of windows and French doors. In fact, the finished house does resemble an imposing steamship or *Dampfer*, which is what Chicago's German-speaking people call it. The Robie House did cost the then-prohibitive sum of \$60,000. Many students of modern architecture consider it the highest achievement of what has been called Wright's First Golden age.

Robie House was the last stop we could make before the sun was setting. We were at the end of our day full of excitement and astonishing experiences. All of us were tired enough and it was time for a cup of warm coffee to get us going towards the night extravaganza of Chicago lifestyle. That is a different story. Why not save it for the next time?

Architect Qazi Muhammad Arif lived in the USA for postgraduate education and professional activities from 1993 to 1999. He is presently involved in private practice in Dhaka