ARCHITECT'S RECORD
2004 AWARD CYCLE

1. IDENTIFICATION

Project Title : 'PAVILION' APARTMENT
Street Address : 3/12 BLOCK E, LALMATIA
City : DHAKA
Country : BANGLADESH

II. PERSONS RESPONSIBLE :

A. Architect/Planner

Name : URBANA
Mailing address : HOUSE 56, ROAD 5A, DHANMONDI
City : DHAKA
Postal code :
Country : BANGLADESH
Telephone : + 880 2 9671500
Facsimile :
E-mail : urbana@bangla.net
Principal Designer. KASHEF MAHBOOB CHOWDHURY, MARINA TABASSUM

B. Client

Name : KASHEF MAHBOOB S. CHOWDHURY, MARINA TABASSUM
Mailing address : A5, 3/12 BLOCK E, LALMATIA
City : DHAKA
Postal code :
Country : BANGLADESH
Telephone : + 880 2 9129000
Facsimile :
E-mail : urbana@bangla.net

C. Project Affiliates/Consultants

Please list those involved in the project and indicate their roles and areas of responsibility (e.g. engineers, contractors, economists, master craftsmen, other architects, clients, etc.). Please cite addresses and telephone numbers separately.

Name	Role
01. MATIUR RAHMAN	ENGINEER, STRUCTURAL DESIGN
02. NASIM CHOWDHURY	ENGINEER, ELECTRICAL DESIGN
03. AZIZUL HAQ	ENGINEER, PLUMBING DESIGN
04. SULTAN AHMED PATWARY	SITE ENGINEER
05. BAZLUR RAHMAN	SITE ENGINEER
06. SHAH ALAM MANIK	SITE ENGINEER

07. FARIDUL ALAM	Master Mason, Masonry Contractor
08. KADER & SANTU	Concrete Work & Formwork Setting
09. MOHAMMAD KAMALUDDIN	Contractor – Marble Work
10. MOHAMMAD ESHARUL	Master Craftsman – Marble Setting
11. MOHAN CHANDRA DAS	Master Craftsman – Woodwork Contractor
12. JIBON CHANDRA DAS, BRINDABON	Assistant to Mohan Chandra Das, Woodwork Team Leader
13. MOHAMMAD ZAFAR	Wood Finishing Contractor
14. MOHAMMAD HASNAIN KHAN & MOHAMMAD ANWAR	Copper Hammering
15. MOHAMMAD JAMSHED	Chinitikri Work
16. MOHAMMAD ASADUZZAMAN	S.S. Work Contractor
17. MOHAMMAD IMAMUDDIN	M.S. Work Contractor
18. MOHAMMAD SHAHJAHAN	Plumbing Contractor
19. ROB MIA	Electrical Contractor
20. ALAMGIR HOSSAIN	Glass Supply & Installation

III. TIMETABLE

(Please specify year and month)

A. Commission - N/A

B. Design - Commencement: OCTOBER 2000 Completion: NOVEMBER 2001

C. Construction - Commencement: DECEMBER 2000 Completion: DECEMBER 2001

D. Occupancy: FEBRUARY 2002

Remarks: MANY DETAILINGS WERE DONE ON-SITE, IN CONSULTATION WITH CRAFTSMEN.

IV. AREAS AND SURFACES

(Please specify in square metres)

A. Total size area: 669 sq.m.

B. Ground floor area: 516 sq.m.

C. Total combined floor area: 111.5 sq.m
(Including basement(s), ground floor(s) and all upper floors)

Remarks: A & B RELATE TO ENTIRE BUILDING, C RELATES TO APARTMENT ONLY

V. ECONOMICS

(Please specify the amounts in local currency and provide the equivalent in US dollars. Specify the date and the rate of exchange in US dollars at the time.)

		Amount in Local Currency	Amount in US dollars	Exchange rate	Date
A.	Total initial budget	Tk.1,200,000.00	$21,053.00	1 US$ = 57 Taka	June 2000
B.	Cost of land	Tk.7,56,000.00	$13,263.00	1 US$ = 57 Taka	
C.	Analysis of actual costs				
	1. Infrastructure	Tk.490,750.00	$8,610.00	(Cost of proportionate structure)	June 2000
	2. Labour	Tk.215,895.00	$3,788.00	1 US$ = 57 Taka	Dec. 2001
	3. Materials	Tk.649,415.00	$11,393.00	1 US$ = 57 Taka	Dec.2001
	4. Landscaping	--			
	5. Professional fees	--			
	6. Other	--			
D.	Total actual costs (Without land)	Tk.1,356,060.00	$23,790.00	1 US$ = 57 Taka	Dec.2001
E.	Actual cost (Per square metre)	Tk.12,162.00	$213.40	1 US$ = 57 Taka	Dec.2001

Remarks: Cost of land (B) indicates un-demarcated, undivided, portion of land while Infrastructure (C-1) includes proportionate cost of structure, services, lift, generator and other common facilities. The latter is also reflected in Actual cost (D&E).

VI. PROJECT DESCRIPTION

The 1200 sf apartment, on the fifth and topmost floor of a multifamily residential building also designed by the architects, is as an open plan pavilion-like space. Response to their own simple lifestyle requirements, the floor area is configured into four basic spaces which differ in treatment and the arrangement of which is inspired from the Char-bagh layout of Moghul gardens. The open court or Spiritual is an urban interpretation of the tradition *uthan* or courtyard, which used to be the centre of domestic activities in cities in earlier times and continues to be prominent in the rural homestead. The sitting area essentially overlooks the court and with the glass shutters moved to one side, the room becomes a veranda.

The dining and kitchen area is arranged like an inner court, which like its traditional use, is a more intimate space for relaxed times spent with family or friends, the Bengali tradition of *adda.*

The sleeping area is raised and replicates sleeping-on-floor but without the associated problems of dust and dirt. The two baths are treated differently, one in white *Chinitikri,* the other completely in brick, including ceiling and floor.

Experience as residents: During the one year of our stay in the apartment, we have enjoyed, the seasonal changes and arguably most profoundly, the rainy season. But for us it has also served as an 'escape' after the chaos of a day's work. It is especially quieting in the court on moonlit nights and calm and meditative at first light.

We did leave a budget for fans and air-conditioning but had only to spend on a table fan, when on a very hot and humid peak of summer in August and with not a leaf stirring, it was finally necessary. But except for that one week, we have always enjoyed a good constant breeze that flows from the south, as it does elsewhere in the deltaic plain.

VII. MATERIALS, STRUCTURE AND CONSTRUCTION

It was an intention from the outset to use a combination of materials: brick, teak, travertine, concrete, glass, copper, porcelain, mild steel, stainless steel, offset plates, gun metal. Some materials were chosen for the colour of reflected light they generate: hand worked copper in kitchen area, white broken china pieces in bath, glass pieces set in ceiling and on counter tops. Imperfections and textures in materials were juxtaposed: crinkled surface of brick next to porous travertine; concrete textured by wood form work next to machine finished, unpolished stainless steel, worm holes in teak and hammered surface of copper.

Starting with an initial plan, the design and construction process became one as the work progressed. In the later stages, spending more than six hours on site allowed the architects to design most detailing on location and in direct consultation with master crafts persons.

VIII. PROJECT SIGNIFICANCE AND IMPACT

Climate responsive eco- environment

The design is based on the model of one of the most successful building forms of the tropical climate zone – the pavilion. The latter provides for the simple basic – the roof overhead. Open all around it offers the maximum interaction with nature: panoramic views, constant breeze to sweep the heat and humidity away and enough sunlight. Combined with this design basis is another prominent, time proven typology – the courtyard house.

The deep volume of the court allows only slits of direct sunlight to enter the surrounding spaces. The well space also acts as a chimney to draw up the air from surrounding spaces. The result is a constant draught of air flowing from the south into the court and other spaces on one hand and on the other, warmer air from within moving up, encouraging a healthy circulation of air in all spaces of the house.

The court also acts as a light well during the hotter parts of the day when other peripheral shutters may be drawn for a darker and cooler interior. The shutters themselves are equipped with traditional *khar-khari* or louvered openings which allow light and air to penetrate when windows are closed during rain or for privacy. This allows a comfortable living inside without the use of fans or air-conditioning, thus putting to practice ecological responsibility.

Recycling

The two main construction and finish materials are recycled. All bricks used are from buildings in the old city where, in the absence of legislation or sufficient enforcement, many buildings fall victim to callous re-development schemes and real estate speculation. Various activist groups, of which the architects are members, have so far failed to bar such demolitions.

The travertine used are rejects and cut-pieces from a project completed in 1989 and procured from the project's contractor at base prices. Presumably from different quarries, the various sizes, colours and textures were sorted and matched piece by piece in consultation with master marble setter.

For cast-in-place concrete work, the form works were made from wood obtained by dismantling the container for the elevator installed in the building.

For the traditional *'chinitikri'* work, broken, reject china from a local factory were used.

Economics

Economics of construction materials – The two most prominent materials are bricks and travertine. Although the old bricks were chosen for their historical value, their procurement at low prices (@Tk1.00 or 2 cents per brick) also supported the limited budget. The left over travertine lot was also opted for because of economy of cost (one-seventh of market price) .
Economy of maintenance cost – All materials used are left bare and exposed. Except for the polishing of copper and wood, there are no maintenance sensitive finishes. Good air circulation and cross-ventilation all year round means air-conditioning and fans were not installed. Also as a result, electricity consumption is relatively very low, this being contributed to by use of energy efficient low voltage halogen lamps.

Social/architectural issues

Dhaka has long suffered from lack of proper housing planning and supply, both in the public and private sectors. In the past decade or so, the introduction, popularity and eventual spread of the multi-family developer-built residential buildings (commonly referred to as apartment buildings) have resulted in the transformation of most of Dhaka's residential areas. The ubiquitous midrise apartment block is now, and by far, the most prominent building type in Dhaka, with other major cities following suit.

However, with the sole objective of maximizing profit on part of the builder, the average apartment deweller finds himself paying a premium for living in typically poorly planned and

uninspiring condition. This project was also an exercise to study and demonstrate possibilities for an alternative, eco-friendly, climate and culture responsive living for the apartment typology.

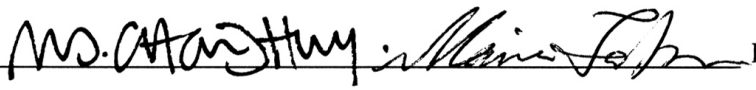
Cultural aspects

Inspiration has been drawn from the rich Islamic architectural traditions, exampled in the spectrum from the Moghul architecture in India to the marvels in Granada. Drawing from these sources, an attempt was made to find contemporary interpretation of various design elements such as water, landscaping, glass as reflective material and the luxury of materials in general.

Transformation of the traditional courtyard into the contemporary urban context provided the basic generator of the scheme. Also traditionally a form of screening existed between the *Baithak Khana* or guest entertainment area and the inner *Uthan* or private court. Lost in the urban scene, an adaptation of this division is manifested in a wall-less aperture standing freely between the sitting and dining area. Inspired by Magritte's *La Reproduction interdite,* it is an opening in open space but retaining the feeling of division, of separation.

There was also an attempt to revive traditional material and craftsmanship. The hammered copper – worked by craftsmen who make traditional copper utensils – and *Chinitikri* are examples.

Name (please print) Kashef Mahboob S. Chowdhury, MarinaTabassum

Signature  Date 14.10.2003

Pavilion Apartment, Dhaka, Bangladesh