AN APPROACH TO A REGIONAL ARCHITECTURE
AT THE MOUTH OF THE GANGES

by

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ABSTRACT

The retreat of Colonial rulers and the emergence of a new self identity among many of the once colonized nations of Asia, Africa and Latin America is one of the significant features of the current century. In the field of architecture, the expression of this independent spirit was delayed by the tenets of the Modern Movement that was sweeping the globe at about the same time. Now that this movement has run its course, leaving very little that is positive in the developing countries, architects from these nations are turning to their own history and culture to find guidelines for their work. As an architect from Bangladesh, that land where the mighty Ganges meets the sea, I feel a desire to do the same.

The search for a basis of architecture in the spirit of Bangladesh can quickly become a progressively diverging inquiry encompassing questions like what is the purpose of architecture, what is the spirit of Bangladesh and why an architecture in the spirit of Bangladesh? Such an open-ended investigation, much beyond the scope of this thesis, has been given a manageable boundary by focusing on a museum design at the bank of the river Buriganga in Dhaka, Bangladesh.

A specific site offers the advantage of a much more tangible past and present to relate to and project a future from. The challenge was to connect these three timeframes without being simplistic. The zamindar-bari of Ruplal, currently lying abandoned on the site, evokes the memory of a past typified by aristocratic rule. The life of the common people that permeates the site and its surroundings today is taken as a symbol of democratic spirit that one hopes would reign the present and the future. The Museum building sets up a dialogue between aristocracy and democracy where the later supersedes the former. The process does not destroy the old but, rather, transforms it to serve the new; the past belongs to the present as the present to the future.

Thesis Supervisor: William L. Porter
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Bill Porter, my thesis advisor, deserves mention before anyone else. Most of what is commendable in this thesis has had his guidance in some form or other. His sharp mind always had a direction to offer, his keen eyes picking up light at the end of many a long tunnel.

My father and sisters cannot be thanked enough for the support they continue to give me at all times and for the sacrifice they bear in allowing me to stay away from home.

Zulfiquar Hyder has furnished me with drawings of the site. Most of the photographs of the site and its surroundings are also to his credit. I am deeply grateful to him for these invaluable assistances.

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Bibliography
As an architect from Bangladesh, practicing in that country, how do I respond to a design challenge? When a client brings in a program of requirements and requests their conversion into a set of drawings for a residence or an institution, where do I begin? These are questions that every architect who hopes to practice with sincerity must face and strive to resolve for oneself. For me they have initiated a search in which the present thesis is a beginning.

In looking for a basis of architecture, there is of course the Vitruvian maxim of 'commodity-firmness-delight'. A building must serve its purpose i.e. fulfill functional requirements, should be structurally strong and finally be aesthetically pleasant. But is this enough to create an architecture that is appropriate to Bangladesh? Would this produce a built form that clearly exudes a 'Bengaleeness' in its presence? I don't think so. The Vitruvian definition of good architecture is useful but too general. Architecture, all over the world, need to have those qualities. There are, however, other aspects of architecture that make it time, place and culture specific, as vernacular architecture from round the world clearly illustrates. I believe this regional component of architecture to be essential towards its success, a position that is gaining increasing acceptance in the aftermath of the Modern Movement and particularly the International Style in Architecture.
PART I.B

INTRODUCTION:

Bangladesh is essentially an agro-based economy, its 65 thousand villages housing most of its 100 million people. There is however a growing rate of urbanization and major cities like Dhaka, Khulna and Chittagong are experiencing substantial building activity. These buildings are often thoughtless productions or copies of Europe and American images resulting in a built environment that is a wastage of resources and an aesthetic hotchpotch.

Being primarily an agrarian economy, the tradition of urban vernacular has never had a chance to mature, as one sees it in societies like Morocco with its roots in trade and commerce. A conscious architectural profession could have filled in this void, had it taken the trouble. In the twenty years since a school of architecture has been established at Dhaka, this has not happened. There are various internal and external reasons for this failure but the point is that there is no time to be lost in initiating a search for this urban vernacular as well as a vocabulary of architecture that is appropriate for the country as a whole.

In part one of this three-part thesis, I have given a brief historical background that has shaped the current architectural scene in the Indian sub-continent, followed by an exposure to the case of Bangladesh in particular. Part two is a design proposal for a museum building at Dhaka, Bangladesh where I attempted to be sensitive to the site and its setting by way of illustrating an approach to a regional architecture in Bangladesh. Part three sums up my views on regionalism as a basis for today's architecture, discussion of two projects that have successfully addressed the question of continuity and change and how I look at my design proposal in light of these.
I began this thesis with the intention of finding out what might be a regionally sensitive architecture for Bangladesh that responds to today's needs and those of the coming decades. The initial goal, perhaps a bit simplistic, was to formulate a set of criteria which, when adhered to, would yield buildings that one could sense as belonging to that culture. At that time I saw this work primarily as a text that would discuss the various components of the issue, compare and contrast them with one another with the help of examples of important built work in and around the country such as Louis I. Kahn's Capital Complex at Dhaka, Bangladesh and Geoffrey Bawa's works in Sri Lanka and in the end hopefully find a common set of essential ideas that could be presented as criteria for the production and analysis of regional architecture in Bangladesh. I abandoned this approach soon afterwards because:

1. The area of inquiry proved too broad and too general
2. A set of recommendations without an illustrated example might have seemed frivolous.
3. My architecture background responded more closely to engaging in such a dialogue through design.

These considerations raised the possibility of 'research through design', a method of inquiry that combines architectural theory and design, activities I want to be simultaneously engaged in in future.

A design solution claiming to illustrate a regionally sensitive architecture for Bangladesh immediately makes its architect an easy prey for criticism. From design reviews in architecture schools we know how easy it is to shoot down a scheme, no matter what you put up. I accept that criticism in good spirit, indeed encourage it, because only through such discussions and exchange of ideas can we, the architects of Bangladesh, ever hope to find directions for our work that are both innovative and sensitive to our context.

The specific design project I have chosen for my inquiry is a museum/visitors' center for the city of Dhaka. The site is a prime piece of property on the bank of the river Buriganga, an edge from where the city of Dhaka began its existence more than four centuries ago. Dr. Muntasir Mamun of Dhaka University, who has extensive research on the city and its past to his credit, has suggested the use of this site for such a museum in a recent article by him on conservation of old Dhaka.

A huge mansion that once belonged to two zamindar (feudal lord) brothers Raghunath and Ruplal and now lying mostly abandoned, stands on the site. This, together with the auditorium that the British Governor North Brook built in 1876 adjacent Ruplal's mansion, challenges one to deal with a colonial past that no Bengalee is comfortable with but the presence of which, at least in the big cities of the Indian sub-continent is too extensive to be ignored. Nor have the Vitruvian axioms of function, structure and beauty have been ignored. The challenge of sun, wind, axis and their shifts, the dialogue of the old and new, the connection between the past and the present and the means of that connection, the notion of the spirit of the place have all been addressed or attempts made to do so, in search of an architectural vocabulary for Bangladesh. The results are now open for discussion.
Colonial Period:
That the architectural profession in Bangladesh and the building industry it serves has no clear sense of direction should not be news to anyone coming from the developing countries, for a similar situation is prevailing in most of them. Part of the blame for today's confusion can be attributed to periods of colonialism that most of these nations had gone through in the last few centuries. The British in India, for example, had ruled for two hundred years since the 1700's, imposing their own set of ideology in the built environment of their colonies. Here in the humid tropics, they came to believe, was the perfect setting for the colonnaded architecture of the classical Greece with its large openings allowing the breeze to flow through, something their cold English climate did not permit. This style, because of its monumentality, also helped to make their presence as rulers constantly felt amongst the natives. Their efforts to maintain a critical distance from the 'bad air' of the local population suited this style well because buildings of this type are much more successful as objects within a field rather than as the field itself.

Efforts to save their empire from an increasingly disillusioned native population had forced the British to soften their architectural impositions with the introduction of the Indo-Saracenic style in the last decades of their rule. Its vocabulary was a curious amalgamation of Mughal, Hindu and Gothic architecture and behind its masqueraded facade lay as foreign an architecture as their much more overt initial impositions.

The result of these efforts was a breach with the indigenous building traditions of the land. Not that this tradition was a homogeneous entity before the arrival of the British. Indian sub-continent had experienced invasion from foreign powers since ancient times: the Aryans, Turks Persians and the Mughals among others. There is, however, an important difference between the British and the previous invaders, especially the Mughals, who had ruled India for six hundred years before the British arrived. Many of the earlier powers who came to India lived on permanently. They made this land their own, assimilating from their adopted culture as much as they introduced into it. Not so the British, who saw India as a land to be exploited to enrich their home country. Their strategy for the appropriation of surplus has been well explained by the acronym 'R.I.C.H.', standing for 'Rob India and Come Home'.

The British left the Indian subcontinent as the independent nations of India and Pakistan in 1947. Before these
nations could reestablish the lost link with their culturally rooted building traditions, before that tradition could be reinterpreted to cater to 20th century realities - a difficult task at all times, a titanic one for two nascent nations whose people did not have the chance to think on their identity for two centuries, the 'international style' of architecture struck its onslaught. Originating in Europe as a healthy protest against the Art Nouveau movement that immediately preceded it, this architectural ideology, in the hands of its lesser gods, soon deteriorated into a thoughtless repetition of banal box-like forms. Europe and America, profiting form the presence of the originators of this movement, got a few authentic architectural pieces out of this style. Not so the developing world. The copies of the copy of the true spirit of modern movement that reached countries like India and Pakistan were so many generations removed from their originals that they were now distorted caricatures, a life-less, maggot-infested corps, far more destructive than beneficial.

The politicians of the newly independent countries on the other hand, in their zeal to keep their nations in step with the modern world, meaning of course the western nations, did not pause to differentiate dead from alive, as long as it was stamped 'made in the West'. They believed that to achieve development, they had to possess what the industrially developed nations of the west possessed, in the form they had it. The golden deer of progress is, however, much more illusive to be caught by such a simplistic net. The hunters, having given up their foothold in their own soil, had only set themselves up for a down-fall.

Post Colonial Era:
If one has to pick one building project that best epitomizes the post independence spirit of creating a new beginning in the Indian sub-continent, the glory would go to the conception of Chandigarh. Curiously enough, it also illustrates well the weakness in that policy. Built as the capital of the state of Punjab, India in 1951-1965, Chandigarh symbolized India of the future to Prime minister Nehru, as he once commented: "Let this be a new town, symbolic of the freedom of India, unfettered by the traditions of the past, an expression of the nation's faith in the future". However, once the buildings were put into use, it did not take long to realize their flaws. The inhuman scale of the city with its sprawling built forms and wide boulevards, an absence of living quarters for the poorer section of the population who, in a society such as India's, have a strong symbiotic relationship with the upper class, and similar other problems kept the brand new city from attaining even the semblance of vibrancy that is
characteristic of every other Indian town or city. On the other hand, Chandigarh gave the Indian building industry, especially its design profession, a vigorous start. Inappropriate as the design was, it created a new generation of Indian architects who saw the workings of an exceptionally creative mind such as LeCorbusier's from close quarters, worked under his direction on an important project, built and had for real-life assessment a conception which, if nothing else, showed them what not to do and why. By the 70's, India and the rest of the world had fallen out of love with modern architecture and was searching for a new direction in design principles.

Search for Identity:
The American defeat in Vietnam in the early 70's was one of many indications that the old world order had started to break down. The self proclaimed role of the policeman-of-the-world by this powerful nation was challenged and defeated in that war by a vastly inferior army and ammunition. Rapid industrialization and economic growth of Asian and Latin American countries like Japan, Korea and Brazil showed to the world that less developed countries of today can turn into major economic powers of tomorrow. The oil embargo of the early 70's probably brought home to the developed world, more than any thing else, that in an era of scarce resources, no nation can claim to be self sufficient in all respects and interdependence, on a much more equal basis, may be the only means of peaceful coexistence in the coming decades.

These economic and political realities strengthened the search for identity that architects of the developing countries had embarked on since their disillusion with western models of architecture in the late 60's. They saw the fallibility of the industrially powerful nations who they had at one time blindly wanted to copy. The resistance against the homogeneity of the international style brought concepts like 'contextualism' and 'pluralism' back into vogue, directing the attention of the architects from the developing countries to the wealth of indigenous culture their own societies possessed and which could act as the generator of a building tradition they could once again call their own.
Bangladesh cannot claim, as neighboring Sri Lanka and India can, a local architect whose work has so far been significant enough to draw international attention. One possible reason can be its position as a secondary center of administration and culture, rather than the primary, during both the Mughal and the British times. Located at the fringe of these enormous empires, the area that defines present Bangladesh, with its center in Dhaka, has been, as it was for centuries before that, primarily an agricultural hinterland. The fertile land was its wealth, the ‘zamindars’ (feudal lords) the exploiters of its affluence. Living in Raj-Baries (feudal palaces) close to their land resources, they gave rise to small townships and administrative centers, but never to a proper urban culture as we see in other parts of the subcontinent such as in Bombay, Delhi, Agra and Jaipur which were seats of government, or Puri, Venaras and Bhubaneshwar which grew as pilgrimage centers. As a result, the building tradition of this area remained confined to rural vernacular architecture until very recent times.

The isolation of Bangladesh or what was Bengal of undivided India from the imperial seat of power, however, helped it to retain and develop its own strong cultural norms, customs, habits and especially language, with little interference from ruling cultures. Indeed, for a large part of Muslim rule in India, Bengal remained politically independent under rulers who, though Muslims of Turkish and Persian origin, had settled in Bengal and were patrons of local languages, cultures and customs. The architectural style that grew up to create the few permanent structures for religious, defensive and administrative purposes, most other building activity, as already mentioned, being confined to vernacular houses, was nevertheless quite unique and reflected fully the topography and geology of the region. The heavy rain and dense vegetation that characterize this land, coupled with the lack of permanent building material other than brick, has not preserved examples of ancient human settlements in this area. Whether urban culture and built form more extensive than what we know today ever existed here is a matter of pure conjecture. There are however remains of several highly developed Buddhist monasteries from the 3rd century B.C. which indicate the presence of important religious centers in this part of the world.

Since independence in 1971, there is an increasing awareness amongst a small group of local architects about the importance of our cultural identity as particularly relates to building activity. The mushrooming growth of thoughtless built form in recent years, the confusion about an appropriate approach even amongst those few who...
wants to be thoughtful in their design interventions, the world-wide phenomena of searching for roots and culturally rooted architectural solutions and last but not the least, the second Aga Khan Seminar on Regional Architecture held at Dhaka at the end of 1985 have now created a concern about the question of an appropriate architecture for the country among a growing number of local architects.

The project that hurled Bangladesh into the forefront of the world architecture scene in recent years is the Capitol Complex at Dhaka, designed by the American architect, Louis I. Kahn. This project was commissioned by the central government of Pakistan way back in 1962 as the Second Capital of Pakistan, to pacify the growing discontent of the Eastern Wing on the question of fair sharing of economic and administrative resources between the two parts of the country. The employment of a foreign architect for the project reflects, as in the case of Chandigarh in India, the west-ward looking mentality of the decision makers who, in their underdeveloped self identity, needed the sanction of the western hand to declare any production worthwhile. It is also fair to say that, at that time, there was no local design team who had experience with such large-scale projects. All these facts are, however, related rather than isolated. Otherwise, why, a decade after the British have left, did Pakistan not have competent design professionals for such projects.

One important difference between Corbusier’s appointment in India and Kahn’s in Pakistan merits pointing out. The government of India, when selecting Corbusier to design Chandigarh, had, as a mark of farsightedness, actually appointed him as a consultant to a team of local architects, so that these local counterparts could work closely with him in all aspects of the design, training themselves in the process to be useful to the nation for years to come. This part of the vision did pay back handsomely as members of that team, such as Doshi, are now leading architects in the Indian scene. The Pakistan government, being less sincere in its motives, never bothered to make a similar contract with Kahn. The Capitol Complex at Dhaka, therefore, was done entirely in Kahn’s Philadelphia office using his own staff. No one from Bangladesh took the opportunity to learn from Kahn’s superb mind, not even the school of architecture at Dhaka succeeded in taking advantage of Kahn’s presence in the city missing, thereby, a rare opportunity to usher a dormant architectural profession in the country towards the pursuit of design excellence.

On the other hand, Kahn’s buildings in Dhaka’s context looked less harsh than Corbusier’s did in Chandigarh’s setting. The context of an existing city helped to soften the impact of Kahn’s buildings’ compared to Corbu’s Chandigarh which was conceived as a new city. In size as well, Chandigarh was a much bigger project, amplifying its harsh quality. Anyhow, Chandigarh’s success and failures have been extensively studied by local and international scholars, while Kahn’s Dhaka complex, only recently completed and yet to be fully used for the purpose it was conceived, i.e. as a parliament building, awaits assessment. I believe there is much to be learned from Kahn’s design that is pertinent to the current world-wide debate on regionalism in architecture in general and the search for identity by the conscious members of the architecture profession in Bangladesh in particular.
Since the 7th century A.D., when Dhaka was part of the Buddhist kingdom of Kamrup, the city's size and fortune has seen many troughs and crests. Between 1608 and 1706, when Dhaka was the capital of the Mughal province of Bengal, it experienced tremendous growth and prosperity. In 1700, the city extended northward up to Tongi, nearly 14 miles from the bank of the river Buriganga (Maurique) and the population had increased to about one million (Taifoor, p15). With the shift of the capital to Murshidabad in 1708, economic decline set in, the population reaching its lowest figure of 51,636 in 1867 (Rennell). Establishment of the Dhaka Municipality in 1864, introduction of piped water (1874), electricity (1878), railroad to Narayanganj (1885) and Mymensingh (1886) brought in a phase of prosperity followed by prominence when, in 1905, Dhaka once again became a capital city, this time for the newly established province of East Bengal and Assam, under the British rule. In 1912 this province was dissolved, throwing the city onto yet another period of stagnation, until 1947, when Dhaka became the capital of the eastern part of the new nation of Pakistan and the pace of change picked up once more. In 1971, with the creation of Bangladesh and Dhaka established as its capital, the city has seen much growth and change. It has almost caught up with its physical extent of 1700's and houses a population of three million at present.

The changing fortunes coupled with heavy rainfall and erosion of the river bank has obliterated many of its historical monuments. The 'city beautification schemes' of the present and past governments have given no thought towards preserving and highlighting historical continuity - a shortfall which have left the present population without any sense of its past. Such knowledge not only enhances ones sense of belonging but can install in Dhaka's citizenry a pride for their city that a place with such a glorious past rightfully deserves.

A noted authority on Dhaka, Dr. Muntasir Mamun of Dhaka University, in a recent article, has suggested the reuse of Ruplal House, a grand mansion in Old Dhaka and presently lying abandoned, as a city-museum that would be devoted exclusively to the preservation and display of historical relics of the city. I find this suggestion very appropriate and have chosen the problem of its reuse as the design component of this thesis.

PART II.A
A MUSEUM/VISITORS' CENTER FOR DHAKA:
PART II.B
THE SITE AND ITS SURROUNDINGS:

Buckland Building, at the edge of River Buriganga, Dhaka City.

Ruplal House, Dhaka City.

Dholai Khal, from the top of the Iron Bridge,
Dhaka City.
Glimpses of the new city:

Glimpses of the old city:
Road intersection, Old city
Ahsan Manzil, looking North.

Farashganj Rd, looking East.
Parts of Buckland Bund.
Over several centuries, the city has grown to the north from the bank of the river Buriganga, extending to about fourteen miles inland at present. The oldest part of the city, continuing to function as its commercial hub, has densified to such an extent that access to the riverfront from the rest of the city is now very difficult.

This edge of the city, because of its colorful and vibrant riverfront, memory of history and historical relics, is the most interesting part of the city that should be preserved, developed and made accessible to for the benefit of all. Towards that goal I have the following suggestions as an over-all conception for my museum design:

1. Open up the Dhaka city to its inhabitants from the river once again as it was when the city first grew up.

2. This would be done by introducing a ferry service linking two major roads (with intermediate stops at important places) as shown on the map.

3. The river front on both sides of this ferry-route shall be developed; the Buckland Bundh may also be extended for this entire length.

4. Accentuating this linear development shall be focal points (exclamation marks) like the Ahsan Manzil, Bara

Katra and Bulbul Academy which shall have elaborate Ghats to announce major meeting points of land and water.

5. The Ruplal House, developed as a visitors’ center and museum for the city of Dhaka, may form the biggest of these exclamation marks.
The Museum Project and its Echo on the Opposite Bank.

Viewing Tower Alternatives.
The past that is present on the site.

Ruplal House (behind the newly built mosque) looking North.

North Brook Hall looking South East.

Of the various points of accentuation that mark the riverfront, as stated in my overall idea for this edge, the Museum/Visitors' Center for the City would be the Primary. Approaching and stepping into this Center from the river, using much the same route that the pioneers who established the city centuries back took to come to this land, would be a fitting preparation to an introduction to the city that the museum is expected to offer. In my struggle to find some firm concepts that would allow the idea of a museum to take its place on this specific site, I gathered the following concepts:

Past, Present and the Future
Adding to any existing built environment requires taking note of what is already there. When the context is as rich as my design site, one is forced to ponder the whole question of past, present and future. What past are we referring to, what present and future are we aiming for and what link do we use to weave continuity amongst these three?

The past that is present on the site are the Ruplal House, rebuilt from an earlier structure in the mid-seventeenth century as a grand residence for the zamindar (feudal lord) brothers Ruplal and Raghunath and the North Brook Hall. The present is the hum of life that envelops that
surrounding today. Trade and commerce is one major activity, the river bank working as the chief inlet into the city for the produce of the villages, its primary outlet for the manufactured goods from the capital city heading towards the rest of the country. It is the major point of arrival and departure for the thousands of people who come every day to work in the city from the outlying areas. Finally, just beyond the first building depth from the street life, witnessing all of this ever changing panorama of goods and people with an all-knowing indifference, content with their own distinctive life-style, enjoying their own sets of customs and rituals which are now slowly on the decline but far from dead, are the residents of the old city. Holding on to their quarters in this very densely built up area with its confusing labyrinth of street and paths, while the wealth of most of these inhabitants can easily buy them a place in the posh residential areas of the new city, these people represent an anonymous merchant class.

This, however has not always been the case. There was a time, and not a long time ago either, when these areas were dominated by aristocrats like Zamindar Ruplal and Nawab Ahsanullah, who, as residents of this area, had built their fortune by ruling over the peasant class, subtly exploiting them all the time, when the situation did not offer a pretext for some more overt means. The river's edge in those days was therefore dominated by the edifices of such fortunate few, the common people residing mostly in houses of bamboo and straw, even the better off amongst the subjects hardly ever building a modest brick house.

Aristocracy and Democracy

If the past can be represented by aristocratic rule, what the present and the future order to aim for is democracy. This is my point of departure. I have chosen the two notions of democracy and aristocracy to generate a dialogue between the past and the present. It is the play of these two, in and around each other, that my design is set to embody.

Expressing 'Democracy over Aristocracy'

through design

I have adopted three design strategies to illustrate my point of present day democracy superseding the aristocracy of the past:

1. Erosion and taking over of the old by the new.

As the new building rises around the old, it eats into the existing structure at its periphery, in a process of assimilation of the old into the new. This taking over is, however, not a total loss of identity by the old. Rather, in
the end, there are spaces which are unmistakably new, others which are clearly old and some in between spaces which are ambiguous.

In general, the erosion of the old by the new is severest on the upper stories, leaving the old in a ziggurat-like section. The reverse is not attempted because it is structurally less stable. The new adopts the inverted ziggurat-shaped form to complement the old. Unlike the old, the new is being built from scratch, allowing it to be designed to accommodate this difficult form.

2. Built form as a field.
When architecture is meant to express power and dominance, as all colonial and authoritarian architecture tries to do, it is often built as an object within a field. To express the opposite concept of democracy, I have reversed this relationship so that my new built form becomes the field itself, starting at the periphery of the site and growing from the edge-inward.

3. Free public access into and through the site.
This prime piece of property, if it is meant to belong to the people, must be accessible to the public at all times. A museum building, on the other hand, requires a certain amount of control. I have resolved this contradiction by placing the museum on the second level, devoting all of the first level to public facilities like post-office, kindergarten, library, mosque etc. which people would have access to at all times. A number of pathways cut across the site to make the riverfront accessible from further inland.

Response to the river
An important difference between the museum and other means of communication like words and photographs is that the former brings the audience and the object face to face, while elsewhere it is the representation of an object (drawing, photograph etc.) that is used as the basis of communication. In case of the Dhaka City Museum, the river is one of its prime objects of display, for it is this which has generated and sustained the city over time. The museum building could not physically touch the water without disrupting the busy street life currently existing between its site and the river, a colorful scene of human activity that merits preservation and growth.

What it does, instead, is extend a walkway, leaping over the street life, into the water, terminating in a 'facade for the river' - an undulating pair of walls that symbolize waves and offers a platform for the visitors to watch the river go by.
The other gesture to the river is the idea of organizing the building volumes as objects on a river bank, with a symbolic 'river' of open space flowing through the middle of the site.

Light, Structure and Growth
Since Louis I. Kahn's Kimble Art Museum, if not before, light has become an integral part of museum gallery design. I have introduced diffused sunlight in the interiors by using a shell roof whose form was inspired by the form of a boat's hull, placed upside down.

Incremental construction, allowing growth over time, was a primary concern from the beginning. The organization of the plan as a collection of square bays with service areas between adjacent bays is meant to fulfill this aim. Growth by units allow each primary space to carry a share of service space with it and makes the roof shells small enough to be pre-cast on the ground and hoisted, when done, to their final position. Thus, light, structure and growth possibilities come together under one organizing idea.

Functions
This thesis, being a 'research through design' around the theme of regionalism in architecture, does not attempt to solve functions, important as they are, under its present scope. I do, however, have a broad sense of the location of the various components of the design.

The existing Ruplal and Raghunath Houses shall accommodate the machinery of the museum, i.e. its administration, reserve collection and repair and restoration workshops; while the new section, built around the old, shall house the display galleries, creating a convenient center-to-periphery relationship between the two. All of the first level, as stated earlier, shall be used for civic facilities. The North Brook and Johnson Halls shall form part of an auditorium complex, to be developed in future at the south-west corner of the site, the last building possibly becoming the stage for the new auditorium. Access to the site, as mentioned earlier, are many. An exclusive loading-unloading dock for the museum is provided from the north-east corner of the site, off the Shaym Bazar Lane.

Building Materials
Brick, as the only available permanent building material in the country, is used for all vertical plains while the shell roof above is of concrete.
PART II.D
THE DESIGN PROPOSAL

Site plan:
A. School
B. Mosque
C. Mosque library
D. Entrance
E. Museum
F. Auditorium Complex
Growth over time:

Stage One

Stage Two

Stage Three

Design Development
Museum Gallery Design:
Gallery Section and Roof Lighting
Display Gallery and its Parts:
Display Gallery and its Parts:
Merging of the Old and the New (plan):
Merging of the Old and the New (cut-away isometric):
Lines, Plains, Volumes and their Articulations:
Transformation (not Transfer):
The architecture of mosques as they reached Bengal from heartlands of Islam:

*Great Mosque of Qairouan, Tunis*
836, 862, early 11th century, 1294.

*Mosque of Baba Alam Shibli, Rampal, Dhaka, 1483*

Regionalism, what ever else it may be, is not a superfecial application of vernacular images on a built form, just as domes and arches alone cannot transform a building into a production in the spirit of Islam. Authentic regionalism must go beyond the facade to reach into what the architect Charles Correa calls the 'deep structure' of a society, assimilate its lessons and translate that essence in the vocabulary of today's materials and technology to cater to our present and future needs.

As I now see it, the basis of any architecture in our time must rest on three components:

1. The Local (regionalism)
2. The Global
3. The Eternal

1. The Local
I identify with Christian Norberg-Schulz when he says that the purpose of architecture is to make people 'feel at home'. This, he says, will happen when a person can both orient himself to and identify himself with a place. Architecture can 'assist our home coming' (Aldo Van Eyck), make us feel at ease in a place, only when it can assist us in this orientation and identification by 'gathering the characteristics of a place' (Heidegger's 'dwelling') within itself. This is the chief validity for regionalism in architecture, an expression that to me, connotes a built form which embodies in itself the spirit of its place or setting.

2. The Global
The world is said to be at the verge of a communication revolution whose effect on our lives is predicted to be more dramatic than that of the industrial revolution of the last century. In such an age of super fast information transfer, multi-national business enterprises and mutually dependent world economy, a certain amount of borrowing of ideas between the architecture of different parts of the world is inevitable. This should not be seen as a threat to regional identity, but as one more reality of our time, to be sensitively used in appropriate projects and places. So long as architects are conscious and willing to value the individuality of each project and its setting, the international component cannot overwhelm and monopolize their design, but only enrich it with one more layer of meaning.

3. The Eternal
Louis I. Kahn's quest for the 'beginnings', his search for 'volume-zero' of history refers to this component of architecture. His belief that there is an innate order in all
things, a quality of 'fit' among components, is difficult to challenge when he reasons that 'a striped horse cannot be zebra'. Civilization has gone through an enormous amount of change since man started to dwell on earth but man himself has changed relatively so little during this period. A smile on a face is legible in its meaning no matter where on earth one travels; salt has not changed its salt-ness with the passage of time.

Architecture too has a universal, eternal component that is valid for all time, place and circumstances. According to Kahn, one gets a sense of this eternal in the commonalities of people expressing themselves in the institutions of man such as the school (deriving from man's inspiration to learn) or the city (deriving from man's inspiration to meet).

I strongly believe in the validity and importance of this component of eternal in architecture. I feel that deep down, every man feels a belonging to a higher order, senses a beat of an all encompassing rhythm. I am aware that these expressions or those used by Kahn are quite vague and illusive. One cannot expect as rare a commodity as an everlasting quality to be available off-the-shelf either. Intangible as it is, when one does capture a part of that universal component in one's architecture it takes that building, like the Alhambra in Grenada or the Parthenon in Rome, beyond its time towards timelessness.

All three components mentioned above, that form a basis for today's architecture, need to be present in all projects, though their relative proportion shall vary according to the nature of each project. Thus, a commercial building may show an emphasis on the international ingredient, a cultural center would probably lean more on the regional aspect, while a residence might have an equal balance of all three.

Some Recent Projects
The Haj Terminal at Jedda, Saudi Arabia, by Skidmore Owings and Merrill, to my mind, is a successful attempt to capture the spirit of its place. The bedouin tent, like his camel, is an essential aspect of nomadic life in the desert. In this terminal building, which is built primarily to serve the three million pilgrims for one short month of the year - a transient phenomena whose parallel to the nomadic settlements is not difficult to imagine, the architects have evoked an image stunningly appropriate to its purpose and place. And yet, the materials used in its making are state of the art in their field, the technology used to fabricate it is, in many cases, newly developed for this project, and the parts have been manufactured around the world. This is a project where the essence of a place and a culture has
been expressed in a vocabulary totally of our time.

James Sterling's museum in Stuttgart, West Germany is a clever play between past and present. Drawing his references from Shinkel's museum of 1827 in Berlin, Sterling has made a subtle parody of it, creating what has been termed by critic Alan Colquhoun 'a monument to democracy'. Shinkel's museum's bilateral symmetry and central domed space has been appropriated by Sterling, only to be violated in its sanctity by an approach which goes around rather than through the central axis and the cupola of the dome blown off. This subtle and yet poignant mockery of the old order of authoritarian rule in submission to the democratic spirit of today's society not only makes the building vary much of our time, but does so without disregarding the past or losing historical continuity.

The Thesis Project
In my own project of A City Museum for Dhaka, Bangladesh, I have tried to achieve a fresh design which does not regurgitate the typed examples of past architecture, which shows us new possibilities, other ways of doing and thinking, while never losing sight of the past, indeed cashing in on its presence to make a statement for the future. The idea of a shifted grid, a cunning distortion of the existing, can help us perceive old truths in a refreshing new way. My aim has been this and more; my goal was to take a powerful idea that is valid for its setting and like a thin net of Muslin let it fall on its context so that in the interaction of the two the Muslin would get shaped according to the contours of the place, still retaining its basic message, while the palace itself shall have won an adornment it can be proud of.
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