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The Indonesian visual environment reflects the colours and crafts used in rituals and ceremonies, as with the Javanese masks

Sher-E-Bangla Nagar

Minar looks at the current state of Louis Kahn's major building for the capital of Bangladesh

Baghdad Resurgent

A number of major projects are underway in Baghdad. From new information, Sherban Cantacuzino looks at some of the work being carried out by foreign firms

The editorial cartoon is by Ho Kuoniam, a young Singapore trained architect working for a local firm
"What sensitivity! What attention to human scale!"
Villes et Travail en Syrie

By Dominique Chevalier
Editions maisonneuve et Larose Paris, 1982
162 pages (in French), 84 French Francs

There is always a certain usefulness in republishing one’s previous articles in book form, both for the writer and for those specialists and students in the field covered by the book’s subject matter. The author, willingly or with apprehension, is put into a position of looking back on his intellectual career, with all its continuities and lacunae. The interested scholar seeks a working tool, one which will be a source of reference(s) for his own particular field of inquiry.

In his preface Professor Chevalier regrets that his publisher restrained him from adding numerous (unpublished) notes and references to the various articles, and even from adding introductory remarks as a way of updating each article. This criticism, which is obviously on the form rather than the viles et Travail (translatable in English as Cities and Work in Syria, 19th and 20th centuries), but it seems relevant because there may be others who will share a dissatisfaction not only with the visual presentation (different kinds of type print, transparent paper, etc.) but with the fact that there is no attempt to situate the material whatever its date within current debate about the urban environment.

The well-known author of these collected papers is essentially a social and economic historian of the orient, whose credentials are impeccable and whose scholarship reflects lengthy research and analysis. However, for the architect, planner, or historian of urban form (that is, concerned with the three-dimensional physical and spatial qualities of cities) the majority of the articles reproduced here are of tangential interest, since Professor Chevalier rarely links socio-cultural history with an evolution of the urban fabric in Beirut, Damascus or Aleppo.

Most of the articles return repeatedly to the theme of the impact of Western industrialisation upon the Levant. He raises altogether pertinent issues, as in the last chapter (translation “Arab reality in the face of Western presence”), where he notes that the relationship between villages and cities must be reconsidered within a framework of common cultural identity, yet having different modes of production and different systems of organising the labour force. The reader would like to see such an analysis developed and its ramifications in terms of uses of space spelled out. These issues were, in fact, treated in papers delivered at a colloquium in Paris in 1977 and published by Maso Maisonneuve under Professor Chevalier’s direction as Escape Social de la Ville Arabe (Paris, 1979). One might hope that there would be more of the latter sort of publication rather than uncritical reprints of material available elsewhere.

Editors

Self-Help Housing: A Critique

Edited by Peter Ward
Mansell Publishing Ltd. London 1982
296 pages Hardcover £17.50

Self-help housing is something that everyone concerned with housing and development has championed. It has an inherent ‘goodness’ about it. The notion of (poor) people improving their condition by helping themselves rather than relying on others is an appealing and a deserving one. Nearly every country (rich or poor, east or west) has some self-help programme or other and nearly every one has failed. Failed in the sense that self-help has not proved to be the magic answer to all the housing problems its advocates promised or presumed. Yet, whenever proposals for overcoming housing problems are being mooted, self-help is inevitably amongst the suggestions on offer. Each time it is presented as an act of faith; past failures are disregarded. Indeed each time it is presented as if it had just been thought up; a novel approach (Ironically, in almost every case, the ‘problem’ is a consequence of people helping themselves usually because there was no other help available).

To a large extent it is because the concept is so appealing, that everyone wants it to work and so the whole question of whether it will or not is not gone into, most of the discussion focusing on the mechanics of self-help rather than the principle. Moreover we seem to be very bad at learning lessons from the experience of others. Indeed we rarely undertake evaluations of projects with a view to building up a body of experience (as opposed to the evaluation of each project, mainly to assess it in its own terms). And where such evidence does exist, it is not consulted by those embarking on a new project.

With self-help housing there has also been the excuse that even if one were interested in reviewing past experience, the material has been difficult to find. What critical work there has been, has been in the form of unpublished or limited circulation ‘official’ reports, or else it has been written by and for ‘academics’ rather than for practitioners.

Peter Ward has helped change that. By bringing together almost a dozen contributions in the form of a critique of self-help housing in an accessible (though expensive) package, ignorance of the basic issues in self-help housing can no longer be an excuse, nor shortage of time be a justification for not reviewing past experience.

The book brings together some of the leading theoreticians in the field: John Turner and Hans Harms who have been...
involved in housing generally and have been teaching and preaching self-help in particular for the last two decades. By including Rod Burgess' critique of Turner the book provides the reader with a glimpse of the opening salvos in the recently joined battle over the precise nature of self-help. "Does self-help housing depress still further the already low income levels of the urban poor, or is it an effective bootstrap with which they can pull themselves up?"

Self-Help Housing: A Critique
edited by Peter M. Ward

The 'Theories of Self-help' make up Part I of this book, with Part II looking at 'The Impact and Contribution of Self-help Housing in Different Cities.' Part III examines the 'Experiences of the Application of Self-help: Practitioners Viewpoints.' Though much of the material is based on Latin American experience, including four of the six case studies presented, that is more a reflection of the bias in the literature than anything else, and readers in Africa and Asia will find numerous parallels to their own situations.

However, what makes this book much more than just a collection of readings is Ward's Introduction and Conclusion. The introduction is one of the best short reviews of the literature on self-help housing and provides an excellent overview of the history and development of and basic issues and concepts in self-help housing. It should be made compulsory reading in all schools of architecture, planning and development.

Indeed anyone concerned with advocating self-help housing as a solution to the shelter problems of the world would do well to read this book. Unless satisfactory answers can be given for some of the fundamental questions about self-help housing raised by the contributors to this book, it would be irresponsible to advocate self-help as a solution.

Babar Mumtaz, an architect and planner, is the deputy director of the Development Planning Unit at University College in London. He also consults on problems of planning in several African and Asian countries for international organisations, including the World Bank.

New Publications

Agarwal, Anil
Mind, Mud — the Potential of Earth-Based Materials for Third World Housing. Edited by John Tinker (Published in English, French, Spanish) London, Earthscan, 1981 (International Institute for Environment and Development, 10 Percy Street, London W1P 6DR; UK) £2.50

Al-Jawadi, Mishak, and Tappuni, Riadh R.

Bakir, Najla M.W.

Clark, Brian D.

DeAngelis, Michele A., and Lentz, Thomas W.

Farahat, AbdelMohsen M. and M. Numan Cebeci

Golany, Gideon

Hall, Derek R.
A Spatial Analysis of Urban Community Development Policy in India. Chichester, England, N Y, Research Studies Press, 1980 $45.00 (Distributed by John Wiley; N Y)

Hayuma, A.M.

Ilbert, Robert


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Kamran Diba Buildings and Projects Stuttgart: Verlag Hatje, 1981 $24.00 est (P.O Box 468, D-7000 Stuttgart-Bad Cannstatt, West Germany) Buildings and projects carried out by K Diba & Associates and later by DAZ Architects, Planners and Engineers, Tehran, Iran

Khan, A.N.

Kurian, George Thomas
Encyclopedia of the Third World Rev ed 3 vols New York: Facts on File, 1982 $145.00 (460 Park Avenue South, New York, N Y 10016 USA) Concise surveys of 122 countries, including economic and social statistics, a map of each country, comparative tables

Lee, Bonk Koo

Lucas, Philippe, and Vatin, Jean-Claude
L'Algérie des Anthropologues. Paris: Maspero, 1982 FF 60.00 (1, Place Paul-Painlevé, 75005 Paris)
Makki, M.S.

Mazumdar, Sanjoy

McDonnell, Pat

Olpala, D.C.I.

Parker, Richard B.
A Practical Guide to Islamic Monuments in Morocco Published under the sponsorship of the Aga Khan Program for Islamic Architecture Charlottesville: Baraka Press, 1981 £12.50 (Baraka Press, Box 3351, Charlottesville, Virginia 22903, USA)


Payne, Geoffrey K.

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Thinking about Development New York: Plenum Press, 1982 $19.95 (227 West 17 St., New York 10011 USA) The author, who was trained as an anthropologist, examines through her own planning and construction of social, moral, and technical issues in development planning.

Petruccioli, Attilio
“Tracking Down the Poet of Raw Bricks” and “The God Mammon” Article and an interview with Hassan Fathy Spare and Society, no 17 (1982), pp. 43-51, 53-61


Problems and Planning in Third World Cities Edited by Michael Pacione London, Croom Helm, 1981 £11.95


Prusin, Labelle

Rahmah, Contemporary Architecture in Singapore, 1965-78 Singapore Institute of Architecture, 1981 $45.00 (Singapore Institute of Architects, Publication Board, 393A/395A, Block 23, Outram Park, Singapore 316)

Sarin, Madhu

Siebolds, Peter and Florian Steinberg


Urban Planning Practice in Developing Countries John L. Taylor and David G. Williams, ed Urban and Regional Planning series, vol. 25 New York: Prentice Hall, 1982 $60.00 (Maxwell House, Fairview Park, Elmsford, New York 10523 USA) A reader in planning practice offering practitioners and students a range of case studies, including the Karachi Development Programme and the Jakarta Kampung Improvement Programme

von Hardenberg, Joachim Graf,

Prepared by the staff of the Documentation Center at MIT, The Aga Khan Program for Islamic Architecture
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Building Study
A school in New Delhi

Regular Sections
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And more ...
MIMAR Competition

To design: A Workshop-House in the Bazaar

**Total Area:** 100 square metres  
**Covered Area:** 125 square metres  
**Workshop Area:** 10 square metres  
**Height:** 3 storeys maximum  
**Family Occupants:** Father, 48 years  
Mother, 41 years  
Daughter, 16 years  
Son, 22 years  
Daughter-in-law, 19 years  
Son, 14 years  
Grandmother, 70 years  
Cousin, 30 years  

And A scooter and a goat  
**Income:** Middle income  
**Climate:** Hot dry  

The Design Problem

The problem consists of designing an economical dwelling cum workshop for a maker of wooden blocks for block-printing industry. The irregular site in a densely built-up neighbourhood has an area of 100 square metres. Adjacent structures have two storeys with no setback. Climatic conditions affecting the site are hot and dry, with a predominant breeze from the southwest.

Our prospective inhabitants are part of a middle-income group, with the following family of eight to be housed on the premises: father, age 48 years; mother, age 41 years; daughter, age 16 years; son, age 22 years; daughter-in-law, age 19 years; son, age 14 years; grandmother, age 70 years; a cousin, age 30 years who owns a scooter and a goat.

In order to accommodate this family, a house with a floor area ratio of 1:25 is allowed, or 125 square metres of built surface not including terraces, verandahs, etc. Maximum height permitted is ground floor plus two storeys. The workshop must be a minimum of 10 square metres.
MIMAR COMPETITION II

Project: To design a Workshop-House for an artisan in the Bazaar.

The winner(s) to receive Singapore $1200 (US$600).

The winning and commended projects will be published in MIMAR.

Closing date for entries — 1st March 1983.

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The design competition is open to all readers under the age of 35. Simply fill in the Registration Form, cut it out and post it now to:
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Submissions
You may submit any kind of drawings you think suitable to explain your scheme. The drawings should be no more than three sheets of an A3 (420 mm x 297 mm) size. The last date for entries to reach Singapore is 1st March 1983. Submissions cannot be returned

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Please register me (free of charge) as a participant for the Competition. I agree to abide by the rules and my entry will reach MIMAR in Singapore by 1st March 1983.

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The Jury will be announced in a later issue. The Jury reserves the right to divide the prize-money or not to make any awards, as it sees fit. The Jury’s decisions are final.

Results
The results will be published in the magazine. MIMAR reserves the right to publish any of the material received in any form. Only the winners will be notified.

Date received

Code M6
Modern School, New Delhi

Modern School was founded in 1920 by a group of Delhi citizens who wanted their children to have a Western education without losing their Indian cultural background. The school purchased 25 acres of land near the centre of New Delhi and moved there in the 1930s. Later a separate Primary School was constructed and the younger children moved out of the main campus. As the school expanded, a boarding house was built, so that the boarders moved from the old school building in 1974 and the space vacated was available for additional classrooms. By this time the pressure from parents for admission was so great that it was imperative to build a branch school, for which 8 acres of land had already been purchased in Vasant Vihar, a suburb of South Delhi.

The school is fully private with no government aid, and has always had a high academic and sports standard. It was the first school in Delhi to teach in English but to insist that the children's extra-curricular activities be based on traditional Indian culture. Thus all children in primary school learn Indian dancing, music, singing, as well as Hindi and English drama. The children are taught in English but study Hindi from the Nursery stage onwards. Art, clay modelling, wood and metal sculpture along with traditional Indian crafts of cloth printing, tie and dye and batik work are available for children at different levels, as are electronics, photography and domestic science.

The Architect's Statement

The design of the branch building for Modern School at Vasant Vihar was based on the concept that the atmosphere of the building would affect the child's attitude to school in general. However, when the school was designed in early 1974, there was no clear indication of what the future school system would be, as the new all-India 12 year school syllabus had not been published. Being a school with a long record of all-round education, emphasis was laid not only on the pure academic side of education, but also on sport, arts and crafts, music and singing, dancing and drama, and practical lessons in radio, electronics, wood and metal work. The new syllabus was expected to be more 'vocational' in orientation and it was hoped that when the syllabus came into effect, the School would already be teaching all the necessary subjects.

The basic points of the design, such as adequate natural light and cross ventilation in classrooms, the necessity of cutting down noise penetration, the importance of easy maintenance, the desirability of not going beyond three storeys, and the number of children in a class, were all immediately agreed upon.

The school authorities were very clear in their minds of the type of school they wanted and devoted many hours of discussion until the picture emerged for the design. The very first sketch was accepted by the clients and after that only needed refinement.

Exposed brickwork and arched openings were not only for their appearance but also for easy maintenance, the arches also structurally suit the bricks. (The original school was also built with exposed brick and arches).

As the building was to be constructed in phases, it was important that each part of the school could function independently but still join naturally with the next block constructed. This encouraged courtyard planning and the scheme was developed to include a number of blocks: i) primary school, ii) senior school, iii) laboratories, iv) activities, v) administration and library, vi) auditorium and vii) residential accommodation for part of the staff. The primary school building containing 14 classrooms, canteen, kitchen and toilets, was constructed in only five months to enable the school to accept admissions for the 1975-76 academic session. The record construction period for cast-in-situ concrete frame structure, exposed brick walls, cast-in-situ terrazzo floors and all interior finishes, was due to the excellent co-operation of the contractor who accepted the completion date as a challenge. Twelve classrooms were used for the junior school, and the two classrooms were converted temporarily for use as...
music and art rooms, although designed to be used eventually as science and audiovisual rooms. The canteen was used for administration.

The second phase of construction started almost as soon as the children moved into the Primary School and consisted of one block of eighteen classrooms and one block containing six laboratories. The classrooms are similar to those in the Primary School but are designed to be used as 'subject' rooms in the future, which a teacher could equip a classroom with all the required visual aids, student's charts, and models which create a particular atmosphere relevant to the subject being studied. The 'subject' room usage has, however, not yet been adopted. In phase three, part of the activity block has now been constructed and is fully in use. The library (which was originally to be housed over the administration rooms in the front of the school) is now in the activity block.

About a year ago it was decided to start another phase of construction. The school has grown considerably over the years, with an extra section added to each class in the Primary School. Every possible space is occupied by classes, while the administration is cramped into two inadequate classrooms. Activity rooms, laboratories and verandahs act as temporary classrooms. Plans for adding another sixteen classrooms have been submitted and are awaiting approval. It is hoped that work will begin in the next few months and be completed by the next academic year. These classrooms are being placed at the rear of the existing school. Modern School is lucky to have a natural rocky mound on the west end of the site; this prompted placing the Primary School at the mound end, so that the small children would have the fun of climbing and playing on the rocks. The play equipment was placed near here, leaving the clear area of the site at the back of the school for playing fields. The school is oriented with all main windows facing north or south. The buildings spread right across the site.

Although the front garden was to be reduced in size when the administration block joined the senior classrooms, it was felt important that trees and grass should be planted in the interim period rather than leave a dusty unfinished appearance at the front of the school. Trees were situated so that all but one or two would be retained when the Administration block was constructed. However, the garden has become such a feature of the school that no one is prepared to allow construction in front and the original proposal for administration and library at that site has been abandoned, although the building from the road appears incomplete and now always will. A careful blending of flowering shrubs, annual flowers and flowering trees ensures a continuous range of colours in the landscape.
Two open air auditoriums were constructed to blend with the landscape and the building. The small one near the Primary School is intended basically for junior assembly, the large one to the east of the Senior School can seat a sufficiently large audience for special functions. It is hoped that this will be replaced in the future by a permanent hall, but there are more urgent building requirements.

The children of the Modern School, Vasant Vihar are happy and appear to enjoy school more because of the building. There are not many schools where parents say that they want their children admitted because of the buildings, landscaping, and the general bright atmosphere which prevails. If this can set a trend in school buildings in India, future generations of children may thank Modern School. This would never have been possible if there had not been complete understanding, trust and confidence between the school management, principal, architect, consulting engineers, the school engineer, and the contractors, who formed a hard-working and devoted team. Every member of the team, whether still connected with the school or not, thinks of the school as theirs, and is happy to have assisted in its creation.

The Reviewer's Statement

Client inputs and constraints pertained primarily to three aspects besides curriculum and activity data relevant to actual programming; the client group required that the construction be phased, that the finished buildings be relatively maintenance free, and lastly that each room receive adequate natural light and ventilation.

The architects responded to these requirements by adopting a series of interconnected blocks that would permit phased construction with a minimal disruption of existing facilities.

The exposed brick building was designed within a series of sensitively proportioned, well controlled landscaped courts on either side of the central corridor, which traverses the building from the entrance at the south to the playground at the north. Two open air auditoria blend into the overall landscape.

Each class block has central zone that serves not only as a secondary light and ventilation source, but also provides spill-over space for students pouring out of class, thus reducing corridor jams. These zones also act as noise buffers and act as semi-covered landscaped 'play' areas at ground level.

The rocky out-crop to the west was seen by the architects as a major site resource and was allowed to act as the generating point for the Primary School layout. Thornes and spiked grass were removed, sharp rock edges smoothed out, and flowers, shrubs and grass introduced to form a play area for the younger students.

The original design provided for the addition of an Administrative Block to the front of the building. As an interim measure, however, this area had been treated with flowers, shrubs and trees in a bid to soften the unfinished appearance of the front aspect. This garden has, with time, become such an integral element of the school and has come to mean so much to students and staff, that the architects have been compelled to relocate the administrative functions.

Given the sensory impact of the building, the total spatial experience of moving through courts that virtually cascade into one another, the sheer "just so-ness" of its volumes and voids leave one with the firm conviction that the slightest dimensional variation could only have a detrimental effect upon this delicate spatial symphony that is as much a product of a clear recognition of requirement, resource and constraint as it is of an intuitive grasp of scale.

The fact that the very first sketch design produced by the architects was completely accepted by the client, would appear to speak for the clarity of the initial client-architect dialogues, as well as for the accuracy of the architect's programme interpretation.

There is, however, a certain lack of refinement, even a sense of crudeness in terms of architectural detailing, that keeps the building short of true excellence in design. From up close, the building exhibits a lack of just that touch of maturity which is the essential difference between good architecture and great architecture.

It is an unfortunate phenomenon of our architectural scene that few architects appear to exhibit any sort of continuity in terms of their languages of expression. Often there is no real ideological content in the interface between "society" and "architecture." This has, by and large, resulted in a peculiar form of adhocism, one that manifests itself in an apparent random selection of elements aimed at the sole, though partly valid, end of visual gratification. This is not to imply that we do not experience "good" architecture, occasionally even sensitive and satisfying architecture. Witness, amongst others, the Modern School building. It is, however, a fact quite probably born of just such a situation that more architecture seems to "happen" than was ever "created by intent." This design by happenstance can sometimes lead to a satisfying architectural solution. For instance, the school can well be seen in the light of the continual dialectic interaction between intuition and intellect.

In the words of Sachdev, the building "just happened on its own." Zen and the Art of No-Effort Architecture, perhaps?

The Architects

Sachdev Eggleston Associates has been in existence since 1961, becoming a Private Limited Company in May, 1976. The firm is now involved in a range of projects from urban planning, landscape design and architectural work in housing, commercial and institutional buildings, to interior design and display. The firm has won a number of Awards for competitions.

Jagjit Sachdev (partner) received his training in London. Between 1952 and 1956, he worked with Le Corbusier in Chandigarh and 1956-60 in London. He returned to India to teach architecture until 1970.

Rosemary Eggleston (partner) received her architectural degree from Melbourne University, where she taught between 1961 and 1963. She has been a visiting professor at the school of Planning and Architecture in New Delhi since 1964.
Skyscraper!

A very personal view by
Omer Cakmakli

In a world where buildings are getting larger and larger, where technological marvels abound, where “problem solving” is the goal, and the built environment a major concern, we sometimes tend to forget about this planet’s fragile inhabitants — Man — and how our buildings and technologies have altered our perception of space and scale, our cities have taken us over. Let us be aware of what we are doing.
Baghdad Resurgent

It has become a truism to say that Baghdad nowadays is like one giant building site. The report which follows is about development in two specific areas, Bash al-Sharifti and Kadhima, and to appreciate their significance, at least in terms of size, they have been set in the wider context of some of the building operations which are in hand or at an advanced planning stage all over the city.

Baghdad is bisected by the Tigris, which flows roughly in a south-eastern direction. On its right bank Al-Mansour established his Royal City, which marked the foundation of Baghdad in 762 AD and gave rise to the early extensions of Kadhima and Kadsch, both of which survive in name. On its left bank Rusafa developed into a large medieval city, losing its walls and being cross-cut by modern roads only in the 20th century. This opening-up process exposed many mosques which had hitherto lain embedded in the city’s dense fabric. It also introduced the modern concept of the street (the arched Rashid Street is an attractive example which the authorities hope to preserve) into a typically irregular Islamic context.

It is this haphazard and half-baked modernisation which the present Mayor, Samir M. Abd al-Wahab and his organisation, the Ammar al-Asimsa, are turning into a systematic effort to bring Baghdad into the 21st century and re-establish its supremacy in the Arab world. What has made this effort unique, however, is the appearance some two years ago of Baha Chadirji, as the Mayor’s councillor in all matters of planning and design (Chadirji’s own work was covered in MDMAR 3). It is largely due to him that the quality of foreign consultant is improving and that the type of development encouraged is now more in sympathy with the surviving traditional fabric, a substantial part of which is to be preserved and restored. Chadirji has developed a “theory of compatibility” with guidelines within which every consultant is expected to work.

Often it is the size of the understandings which astounds. In terms of infrastructure alone in the last three years the city has spent

Above: Plan of central Baghdad showing the two banks of the river. Kadhima and Rusafa. Also shown are the projects discussed in this article.

1. Bash al-Sharifti Street
2. Kadhima
3. Rusafa Street
4. Kadsch
5. Modern City
Left: General view of Baghdad looking north, with the Alorsi bridge linking Kadsch on the left with Rusafa. Photograph: Ameen Assi

Below: View of the river Tigris with the old town of Baghdad beyond. There is no real development on the monstrance.

Photograph: Ameen Assi
more than US$1.69 million on sewerage and more than US$2.306 million on water supply. It is building roads, bridges, pedestrian overpasses, car parks and is spending unspecified amounts on the ambitious new metro. It has completed 45 shopping centres in different parts of the city, and is in the process of constructing a major tourist centre on an island in the Tigris, as well as the second stage of the Medical City. More immediately impressive is the US$35.2 million project, already well advanced, for a monument to the Unknown Soldier, which consists of a 190 metre diameter circular platform over an underground museum, supporting two 40 metre high domes, the whole apparently floating on a lake.

The central redevelopment projects the most ambitious and longest term is Khulafa Street and Haifa Street. Khulafa Street runs parallel with the Tigris on the left bank and Haifa Street does the equivalent on the right. Between these streets and the river are the remains of old quarters with bouses and so too (markets) which extend to the water's edge and which are worth preserving. The Khulafa Street project, which consists of many new buildings along the street, two squares, a civic centre, a mosque extension and the rehabilitation of

The Haifa Street project is being co-ordinated and managed by Renzo Piano and Foster (Mazad Al Analin). It is in eight parts and is being carried out by as many architects. Unfortunately the idea of rehabilitating Kaish, the area between Haifa Street and the river, was conceived when some of the blocks along Haifa Street were already under construction. At the presentation of the Kaish project, last April it became apparent that a completed 30-storey block could not integrate with the existing low and dense fabric behind, and that it was more important to look the other way and consolidate the links which have traditionally always existed between the two sides of the river.

The Haifa Street project in its entirety will cost more than US$307 million. Of the same order of magnitude is the Abu Nuwas project by Arthur Erickson. Abu Nuwas is a building which runs south-east from the Jumhuriya bridge on the left bank of the river. It is the nearest to a corniche, with gardens between the road and the river, and a proposal to extend the corniche north-west of the bridge has been suggested for the time being. At the very heart of the old city

Left: Haifa Street Development, Part 4 (Block 4), by Richard England and Partners is presently under construction.

Above: Roof plan of the Haifa Street Development Part 4 (Block 4)

Drawings courtesy of the architects

Richard England

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Drawings courtesy of the architects
Above: Plan showing the extent of Arthur Erikson's Abu Nuwas project which includes the Bataween conservation zone.

1. French School  4. Sheraton Hotel
2. Baghdad Hotel  5. Alwaya Club
3. Meridian Hotel

Below: The monument to the Unknown Soldier or Martyr (Al-Shahid) is a gigantic sculpture of split domes sitting on a circular platform. Underneath the platform is a museum and the whole appears to float on a lake surrounded by a public park. The architects are: Siamak A'ad Kamal with Sa'id Al-Zuhairi, Wijdan Maher, Imani Kama and Nada Zabani. The sculptor is Ismail Fakih Al-Turk.

Drawing courtesy of the architects.
the river has so far escaped land reclamation and embankments.

The buildings of Karkh and Rusafa still step down to the river's edge, facing one another across the water. A laudable part of Ericsson's project is the conservation of traditional houses in Bataween which are no more than 50 years old. Its acceptance, however, of the corniche principle, with the inevitable and interminable line of buildings all facing in the same direction, and set well back from the river is more questionable. The use of Saadoun Street as the main traffic artery, with a system of "feeder" roads leading down to the river might have produced a far more varied and spatially exciting solution, which could have included buildings with their feet in the water so much for the context. The first of the two specific areas is Kadhimiya but APP (The Architectural and Planning Partnership), who are responsible for the redevelopment around the great Shia shrine of Kadhimain are also working adjacent to the Gaylani shrine in Bab al-Sheikh, the second of the two specific areas, in which they are but one of seven consultants, each handling his own separate part. There are similarities about the two APP projects. Both are the result of large-scale clearance, and implemented progressively until, as John Warren of APP has written, "the high bare walls of the shrine... stood gaunt, bleak and forbidding above hectares of rubble and urban wasteland". Both endeavour to restore something of the original dense and continuous fabric as well as the traditional mixed uses of the quarters: bazaars, offices, manufacturing, social facilities and courtyard housing. Both attempt the definition of a wider conservation zone, and include the restoration of a number of old houses in the surrounding areas. Both propose a system of grant aid, a building survey and the rehabilitation of the adjacent historic areas.

One aspect of concern for the motor car Amy rebuilding, therefore, must accommodate modern services with vehicular access, and the Amanat Al-Assima as client has opted for the expensive solution of basement servicing so as to be able to reserve the narrow, irregular streets at ground level for pedestrian use. Although the creation of this basement has avoided piling, its viability with a mere two, or at most three, stories on top, and its consequent value as a model, must remain questionable. In this respect it is interesting to compare the APP projects with the solutions offered by Arab Associates, Carlfried Mutschler and Richard England, at Bab al-Sheikh, all of which provide servicing and vehicular access mainly at ground level, with five stories on top, incorporating a raised pedestrian deck.

The APP projects must be rated as one of the first attempts in the Arab world to re-create a substantial part of a traditional Arab medina to modern standards and without imitating the designs of the old buildings. Climatically appropriate, the new is also in scale and uses materials (mainly local brick) which are in sympathy with the old. At Kadhimiya the shrine is surrounded with and accessible through the new bazaars. At Bab al-Sheikh the way through the shrine leads into the new bazaars. In each case the shrine is provided with additional accommodation and improvements. The new houses follow tradition with their inward-looking courtyards, but depart from them with their basements of service rooms and garages, and with their reduced size (to fit the reduced size of Iraqi families) which is made possible by air-conditioning. Also traditional is the fact that there are no repeated designs. The access between the lanes are divided into plots in the most convenient way, and each house is then fitted into its plot with its rooms arranged around two or more sides of a courtyard. Another reference to the past is the repeated use of the shanaishil, the over-hanging first-floor window which is perhaps the most characteristic feature of Baghdad streets.

Seen in conjunction with the desire to protect whole areas, the possibility of grant aid to individuals who own property in these areas and the purchase by the city for restoration of a number of the more significant houses, the APP these projects constitute a remarkable effort in conservation which must be unique in the Arab world. Part of Amanat Al-Assima's programme is the restoration of 90 old houses, 60 in Kadhimiya, 20 in Bab al-Sheikh and 10 in Abu Nuwas. 24 of these are in the hands of APP and are all due for completion by November 1982. The Amanat Al-Assima compulsorily bought the houses, turned out the people living in them and financed their restoration, which is costing an average of US$250,000 per house. They are not grand houses, although some have two courtyards. They are barely 100 years old, yet their condition is often so derelict that most of the structure has had to be dismantled and put together again, using as much of the old materials as could be salvaged and making up the rest with new. Nearly everything has to be imported, including the contractor (the Bengal Development Corporation) and his Bangladeshi labour.

The typical Baghdad house is built of brick and timber, with underground rooms — the cool rooms and situha ventilated by wind catchers on the roof — whose walls and vaults are of kiln-dried brick. Mud requires regular maintenance; timber is attacked by termites or, when replaced as it often was by steel joints in the cantilevered structure and supporting the shanaishil, by corrosion; and the underground rooms have invariably been affected by damp from the rising ground water of the city. In a typical house the ground floor contains the kitchen, laundry, bath, etc., and becomes

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"Two other projects at Bab al-Sheikh, by the French firm OTI and by Riccardo Boffili, are not included in this article."
Bab al-Sheikh project by Arup Associates International

Left: Model of the Bab al-Sheikh projects showing the adjacent schemes byarchitects Mutchler and Partner and Arup Associates International. At a central point along the new road, a pedestrian bridge, incorporating shopping, will link the site to the Al-Maylan shrine to re-connect the conservation zones divided by the new road Flanking the bridge is a square on the Arup side (right), and a shopping centre on the Mutchler side. The Arup scheme includes an eight-storey building with a vaulted space around which offices are planned. Below: Ground floor plan showing a continuous arcade on the street side and short shopping arcades at right-angles At one end is the eight-storey office building and at the other the public square and the bridge. At the back courtyard housing steps down to fill the irregular shape of the site to meet the existing two-storey housing. On the first floor there is a pedestrian deck level. The units are planned on a structural module of 50 metre bays with service zones every 25 metres. Bottom: A double wall provides the ground floor level arcade with rooms and terraces to the housing above. Right and right, below: Model of the Arup Bab al-Sheikh scheme viewed from the street arcade side. All photographs, drawing and plan courtesy of the architects.

Ground floor plan

Section
the living area in the summer, while the first floor, with its reception rooms facing one another across the courtyard, set behind a colonnade, provides the living area during the winter and is abandoned in summer. Every room on the piano nobile is directly accessible from the balcony and the use of corridors, which made this possible, resulted in the filling of the residual corner spaces with little mezzanine retreats, from where the women of the house could look down into the reception rooms and out through a miniature *shanshali* on to the street. Although the traditional way of life is unlikely to survive the social changes and the advent of new technologies, the houses can be adapted to the new requirements while remaining eminently suited to the climate and an integral part of the scene.

The development of the Bab al-Sheikh area consists of a new street which runs from Khilany Square to Sheikh Omar Square in a gentle double curve. On the south side of this street the project is based on a design competition for housing and commercial development won by Arup Associates, and developed together with the competition runner-up, Carlfried Mutschler and Partners. On the opposite side of the street a scheme by Richard England and Partners faces the Arup site, while schemes by Sheppard, Robson and Partners and APP face the Mutschler site. The new road cuts through the Bab al-Sheikh conservation zone near the Gaylani Shrine. It also bisects Keefa Street, which will be reconnected by a pedestrian bridge incorporating a public square and a shopping centre, linking these facilities with the shrine and re-establishing continuity between one side of the conservation zone and the other. The intention is to create an urban boulevard, with commercial activities at street level on both sides and housing at the upper levels. The street facade is a double wall which forms a continuous arcade at ground-floor level and provides additional rooms and terraces for the housing above. It is what the architects call the organising element, giving cohesion and special identity to the new street. The Arup, Mutschler and England schemes are similar in that they consist of shops and offices on the two lower levels, and stepped courtyard housing, accessible from a pedestrian deck, at third floor level and above. The housing varies in height from six to two stories across the depth of the site, with the two-storey housing at the back relating in height and scale to the existing traditional housing beyond. The scheme as a whole demonstrates how a large mixed urban development may be fitted into the old and fragile fabric of Baghdad. It also suggests a way of combining the European concept of the street and its ability to handle vehicular traffic, with the Arab tradition of shady pedestrian lanes and courtyard housing.
Bab al-Sheikh project by Carlfried Mutschler and Partner

Top: Plan at pedestrian level
Above: Ground floor plan showing the arcade with shops on the street side and a vehicular access with parking between the back of the shops and the houses in the rear. The central part of the development is a modular structure which is mirrored and repeated four times. At the bridge and there is a shopping centre designed like a three-storey version of a typical oriental souk. At the intersection with Sheik Omar Street is a ten-storey "zigurat", behind which is an existing school which will be renovated and extended.

Left: Section showing the street side and ground level parking, the elevated pedestrian deck and the way the development steps down at the back to meet the existing two-storey housing beyond.
Above, right: The ten-storey "zigurat" houses shops, community facilities and flats.

Plans and drawing courtesy of the architects.
Bab al-Sheikh Conservation Area

Plan of the Bab al-Sheikh area showing the clearance around the Gaylani Mosque, before the construction of the new-road which runs south-east of the mosque and connects two roundabouts. The APP site is north-east of the mosque and the plan shows the conservation area.
Bab al-Sheikh Development by Richard England and Partners

Above: Site plan showing the complete development. It consists, first, of a four-storey office block curved on plan and forming a background to the Khilaniy Mosque. Down Khulafa Street there are two linked office blocks; the larger one rising to eight storeys to conform to the design norms fixed by TAC in conjunction with the Amarat Al-Assima, and to frame the entrance into the landscaped area around the future civic centre; the smaller one six-storey high to relate to the mosque. Along the new road are shops and housing which extend as far as the Galleria, an internal space full of cafes, restaurants, specialised shops, exhibition areas, etc., related to the pedestrian bridge in the same way that Muschler's shopping centre is related on the other side of the road. Between the housing and Gaylani Street are two more developments: one consists of 32 two-storey houses (incorporating two old houses), and the other of infill (housing and a bank) between existing houses.

Left: The housing which incorporates an old house, consists of six blocks and relates in scale and rhythm to the housing development by Anup Associates on the other side of the street. There are 36 units of two and three-bedroom houses or flats, each approximately 200 square metres.

Left, below: The curved office block behind the Khilaniy Mosque is a brick building, enclosed in a towered screen and covered by cascading stepped projections. At ground level it accommodates a conference hall, an exhibition space and a restaurant.

Drawings and photographs courtesy of the architects.
Bab al-Sheikh Development by Richard England and Partners

Above: Part of the housing seen from the rear street. The different treatment of the arcade on the left denotes the old house which is incorporated into the development. The first two levels fronting the street accommodate shops and offices. Houses and flats rise from an elevated pedestrian deck. Brick is used on the external walls, and there are traditional elements such as enclosed balconies, narrow vertical openings, corbels, and timber screens.

Right: Side view of housing showing the interval streets which run through the development at high level. On the side of the new street the housing rises to five floors, forming a street-defining wall. It then steps down to two floors at the back on the side of the Ceylon Shrine.

Photographs courtesy of the architects
Al-Kadhimiyah Redevelopment by the Architectural and Planning Partnership (APP)

Above: Plan of Kadhimiyah Shrine showing how demolition in the immediate vicinity and the surviving traditional Quarter around the shrine have been cut through the dense fabric of the old town. The empty area around the shrines is the site which is now being built up with housing and commercial development by APP. The plan as a whole shows the conservation area.

Plan: The Architectural and Planning Partnership

Right, above: The APP Kadhimiyah scheme, to John Womers' words, attempts "to predict the natural desire lines in conjunction with community needs. Our tasks is to build a new signature of the city, sympathetic to the character of the past but designed for the needs of the future." The plan shows the use of small-scale traditional dwellings with which do not completely surround the sanctuary. This leads to relationships between dwellings which are rather different from the traditional pattern. The new housing also caters for modern needs such as the motor car, air-conditioning and smaller families.

Right, section: Section through the APP housing (now under construction), uses the basic principle of inward orientation and creates a new subterranean level primarily for services and the motor car. This new level replaces the sheds and caravans (stalls and kiosks) of the original housing. Whether this new lower level will function as planned is beyond a dark refit/gathering place remote to the users.

Plan and drawing courtesy of the architect.
House to be restored in al-Kadhimiya by the Architectural and Planning Partnership

Roof plan

First floor plan

Mezzanine floor plan

Ground floor plan

Basement floor plan

Section AA

East elevation

North elevation

Drawings: The Architectural and Planning Partnership
Left and left, below: The house in Kadhimiya is one of the 14 to be restored by APP. The photographs show the first floor balconies leading into reception and family rooms.

Photographs: S. Canasozino

Sherbhos Canasozino, the well-known architectural writer, was editor of the Architectural Review for many years and is presently Secretary of the Royal Fine Art Commission of Britain. He is also a member of MIMAR'S Board of Advisors and wrote this article after a recent visit to Iraq.
Concrete in Dacca

The following pages contain excerpts and pictures from a truly unique document, kindly made available to Munir by the author, Mr. Fred Langford. It is a report prepared in June, 1966 at the request of Louis Kahn, architect of the National Assembly Building in Dacca, concerning the potentiality for reinforced concrete formwork and construction in Bangladesh. Mr. Langford spent four months experimenting with materials and methods suitable to the location, to the capacities of local manpower, as well as the qualities of the architectural conception. Written and illustrated in the form of a manual, copies of the original report were left with the Department of Public Works for those who would subsequently execute the work, and it was sent to the architect's office to aid those who were commencing detailed of the National Assembly.

Apart from the rare and fascinating historical value of this document as it relates to the achievement of a monument of modern architecture, we feel that conditions in many parts of the developing world for applying this type of technology have not changed all that much since 1966. The insights provided here into adapting tools, expertise, and standards of performance to the local context are, as relevant as they ever were.

Local Conditions Relating to Concrete Work During the Experimental Period

1. Materials
Cement imported from China and Russia — limited supply from Sylhet, Bangladesh — stored on site in sacks — Russian type produced best concrete colour of the three brands — Pakistan as a producer, should be considered.

Stone hauled from Sylhet area of Bangladesh and crushed locally — produced good strength concrete — control of aggregate size during experimental wall casting was poor — pea gravel, which should have been limited to 25%, reached proportions of 75% in some cases which retarded the sliding action of the wet mix during the vibrating process, causing surface disfigurements — 25% pea gravel (½") and 75% (¾") to 1") stone produced the best concrete surfaces.

Sand hauled from Sylhet area — granules of good size and shape — washed on site and sieve tested.

Water available on site — satisfactory for mixing but measuring by buckets and fractions of buckets often inconsistent.

Lumber for starter wall formwork usually a species similar to Philippine Mahogany or Luan — pronounced "gorgjin" — easily worked with planes and chisels and receives nails without splitting — but not being seasoned it is subject to high volumetric change and warpage — most boards are delivered to the site 1" or 2" thick, 6" wide.

Nails single head (box type) — steel soft, they bend easily — most sizes available — double head type should be obtained.

2. Tools and Equipment
Hand tools limited to small handsaws (20" length) hand pen hammers — wrenches (adjustable type) proved satisfactory — most carpenters have 2 or 3 planes and a variety of chisels — a few wood drills — 24" folding rules — the foreman used a 50' leather bound cloth tape for weeks before we discovered it was incorrect by 1" for every 10 feet.

Power tools like cutoff saws, portable hand saws, drills, sanders, routers, etc. were not available on the site, however these tools were present in the technical training centres in Dacca.

Saw mills in the Dacca area operated with very limited machinery, however the FIDC (Forest Industries Development Corp.) had a mill less than five miles from the site that was complete with modern equipment — unfortunately the work that was produced was poor due to the lack of skilled workers.

Mechanical vibrators (gasoline powered) were used on all pours after bamboo rodding technique was found unsatisfactory — the PWD (Public Works Department) owned 14 vibrators all in a state of disrepair — only 3 partially operable. Finally an electric powered vibrator was tried and proved dependable — also a combination electric belt driven unit was devised by the Workshop which also worked well — in the final stages of the experimental castings the PWD Workshop became very cooperative and resourceful.

Model, project for the National Assembly, Dacca
Louis I Kahn, architect

Cement mixers (two-bag type) proved very dependable — one-bag mixers were tried but output was inadequate to provide proper lift rate and variations in water measurements were greater with the one-bag mixers.

3. Labour
Classification and number of men making up each group that worked on the building experimental walls were as follows:
Carpenters (4), Masons (10), Labourers (50 to 70) — the Rod Misters (craftsmen) (14), in addition to bending and tying steel, also erected the bamboo scaffolding.

Work hours started around 9 am — lunch 2
to 3 pm — as weather got hotter in April and May, lunch period became lunch and siesta period 2 to 4 pm — normal quitting time should have been about dusk (7 pm) but the entire crew always worked until 9 or 10 pm and about 25% of the time until midnight — 6 days a week in February and March — 7 days a week in April and May. Delegation of responsibility was biggest problem in trying to maintain a planned work schedule — foreman was not capable of anticipating sequence of work procedure even though the same sequence was repeated as many as a dozen or more times — in the final stages of experimental work, work teams were designated with specific responsibilities — the key men of each team started assuming more responsibility making scheduling more dependable and good workmanship easier to achieve.

Attitude. workers were always willing to cooperate to the best of their ability — willing to work long hours and rebuild formwork when necessary — form panels were handled and cleaned with loving care — some men became skillful in a very short time.

4 Weather

Temperatures between November and February are ideal with the range 60° to 85° Fahrenheit — in March temperatures will rise to the mid nineties — in April and May it often exceeds 100°F — from mid June till mid October (the rainy season) temperatures rise to the low 90s.

Humidity is very high during the rainy season, 75 to 100% — however, April and May are the most uncomfortable due to the combination of 95 to 100 degree temperatures and 70 to 85% humidity.

Rain totals about 100 inches annually in Dacca with showers starting in April and almost daily rains occurring in July, August, and September — finally subsiding in October. Cyclones sometimes occur in April and May.

5 Methods

Excavating done by hand with hoe type
shovels — loaded in shallow baskets and then heaped out of the trenches — because of the densely-packed earth, cuts as deep as 10 feet can be made almost vertically — earth moving equipment owned by the P.W.D. but usually reserved for road building.

Formwork for pile caps and all starter walls fabricated on site — pile cap shuttering very crude but satisfactory — below-grade starter panels completely hand-made.

Form coating for starter walls 30 S.A.E. motor oil on raw wood — a greenish gray surface of concrete resulted — first sample walls above grade poured with panels coated with two coats of shellac — greenish-brown dull surface resulted — shellac was removed and two coats of imported water-proof varnish was tried — produced good surface on first pour, but varnish started to peel off with the second and third use — panels were coated with imported polyurethane over varnish but this peeled on the first usage — panels had to be scraped and sanded down to raw wood — 8 panels were then coated with two coats each of polyurethane and 8 panels were coated with three coats each — the three coat system proved satisfactory.

Cement mixing handled in one-bag and two-bag mixers — sand and stone measured and carried in one cubic foot wooden containers — water measured in buckets — cement in sacks.

Transporting of wet mix starts by discharging the mixer to an area on the ground covered with metal sheets — it is then shoveled into round shallow pans — two men lift the full pan onto the head of a labourer — the labourer walks from 50 to 300 feet and dumps the contents of the pan into the formwork — the time element between the pick-up and the dumping, plus the small quantities involved has a tendency to settle the mix in the pan — result separation or a lack of adhesion after dumping.

Casting first made without vibrators — bamboo poles were used for rodding — wooden mallets used to tap outside of form during pour — many rockpockets resulted to system was abandoned for mechanical vibrators.

Various concrete shapes such as corners, tee sections, closures, etc were tried with hand-made formwork on the starter walls that occurred below grade.

Stripping of formwork presented very few problems — wooden wedges were made to assist the break-away process — bolt threads were being damaged during removal until form-panels were handled without any benefit of hoists which presented dangerous situations at times — stripping above 38.00 level will have to incorporate mechanical means.

Curing originally was handled by covering new castings with burlap sacks and then keeping them wet for 7 days — this left brown deposits transferred from the burlap — white streaks where wall received uneven wetting and drying action.

Form-panel Design Criteria and Recommendations

1. Analysis of Various Materials

Plywood is good panel material but water-proof plywood is not available in Bangladesh.

Steel form-panels in tropical climates present a rust problem — modifications are difficult — reuse factor of less than 100 feasible, steel formwork economically not feasible.

Rough wood board panels produce a deep-textured surface that would encourage fungus growth — this would be objectionable.

Fiberglass not available.

Smooth wood planks, tongue and grooved to prevent leakage and retard cupping, should make an excellent form-panel.

2. Fungus Growth a Design Factor

Concrete and plaster surfaces, as well as masonry joints that are exposed to constant wetting and drying during the rainy season, develop a greenish brown moss or fungus growth.

Areas under protective overhangs are not affected — silicone treated surfaces are not affected for the first few years after the treatment — terrazzo surfaces are not affected (Imperial Chemical Industries (ICI) says silicone treatment should be repeated every five years).

Polyurethane resin form-coating will produce a surface almost as smooth as terrazzo if proper care is exercised — adding silicone to this surface every five years should keep the building free from any growth of fungus.

3. Well Seasoned Lumber Important

Moisture content should not exceed 12% — a species with a minimum volumetric change should be selected — teak is ideal but too expensive — champ and chapalis were selected for the experimental panels.

Chapalis worked better for the rear frame because it received nails well — as a form surface chapalis proved very soft and also contained fluids with concrete staining ability.

Champa was too hard for the rear frame but very satisfactory for the surface planks.

4. Five-foot Lift Allows High Reuse Factor

Potential life of each panel should be based
on usage from the first pour to the top-out pour (22 lifts) without major repair — the panel should have the potential to be resurfaced and used 22 more times — 44 uses before cutbacks for secondary surfaces. 

Proper care exercised in stripping and cleaning procedures is a prime factor in form-panel life.

5. Marble Recess Contains Bolt Line and Pour-joint

Continuous projection of top and bottom frame must produce the desired recess in the concrete between pours to allow for a straight and accurate setting of marble trim.

Rin-sinker cannot be a nailed-on or glued on shape because of the many uses desired from each panel — it should be part of the solid edge-member, moulded from one piece of timber.

6. Each Panel Must Be Dimensionally Stable

Minimum moisture absorption is a key factor in maintaining dimensional stability in wood form-work — polyurethane coated surfaces allow very little moisture intrusion during the pouring process. Continuous high humidity that is characteristic of the rainy season will cause dimension increases in each member within a form-panel should accommodate small interior changes without allowing overall dimensions to grow or shrink.

Polyurethane resin (two coats) should also be applied to the back and rear frame of each form-panel in order to minimize effects of rain and high humidity.

7. Structural Integrity Important for High Reuse

Rigid surface perimeter frame should be glued at corners and bolted to the heavy back-up frame.

Internal surface or body of the form-panel should be vertical tongue and grooved planks backed by horizontal studs let into heavy vertical edge members which are shiplapped into the heavy top and bottom members.

Glued joints require the use of uria formaldehyde which is waterproof and is available in Bangladesh.

8. Leakage Must Be Prevented

Continuous \( \frac{1}{3} \) by \( \frac{1}{4} \) recess is provided in the bottom frame of each panel where it contacts the former casting — this recess should be stuffed with a cotton rope to prevent leakage at the bottom of the new pour. String caulking can be very helpful in the prevention of leakage around filler strips, stair-keystones, circular block outs, etc.

9. Juncures allow for Length Corrections

Length correction in order to respect reference control lines are a problem inherent in all concrete forming systems — to preserve the integrity of the individual panels, a make-up (dimensional correction) zone must be established — the logical location for this zone is at the vertical gap that occurs between form-panels.

Fixed filler strips were used in the vertical gaps between panels on the building experimental walls.

Variable filler strips must be employed when a panel series includes a corner form — these strips will have to be custom shaped for each pour.

Flexible inserts (rubber or neoprene) should be studied as a joint sealant and as a variable-width gap-filler.

Placement of Concrete — Preparation and Procedure

The procedure and sequences listed below are for lifts up to elevation 38.42. From the 38.42 level up to the parapet a scaffolding system of a completely different nature will be required. A scaffolding system with a hoist system counterpart will greatly affect formwork erection procedures, pouring procedures, and stripping procedures.

1. Material Check List

- Cement (correct type — ample quantity)
- Sand (correct type — washed)
- Stone (correct sizes — proportions)
- Water (source functioning)

2. Scaffolding (up to wall level 38.00)

- Scaffolding brackets mounted
- Bamboo frame (proper elevation — cross braced)
- Planks roped to brackets and to bamboo frame
- Ramp in place if necessary

3. Equipment Check List

- Mixer and all parts working (fuel check)
- Vibrators capable of immediate starting (fuel check) (wiring check for electric type)
- Lights hooked up and working in case pour is delayed

4. Final Formwork Check List

- Level, plumb, straight
- Corners and vertical references on control lines
- Check bottom of all key blocks and filler strips for leak-holes
- Fill the crack that is formed by bottom recessmaker of form-panel and previous casting with mortar
- Check wedges behind all juncture elements (key blocks — filler strips)
- Check stair key-ways for inserts and string caulking for marble insert
- Check reinforcing steel for proper distance from all form surface (adequate wooden spreaders and pre-cast donuts)
- Check for spreader loops (closed position)
- Check panels for excess oil (this is the time for final wipedown if wall thickness permits)
- All wood sawings, nails, debris, etc. should be cleaned out of the bottom of the wall.
- Check all bolts for equal pressure
- Wet down hoppers, panels, top of previous pour.

Station a man under the formwork with bucket and water to wash down any leaks that may occur.

Start the mixer and holler “Thana Thari” (Quickly)!

5. Placing Concrete (“Pouring” — “Casting”)

Mix should be tested for 3” to 5” slump —
first 20% of pour should be near 5" slump remaining 80% should be near 3" slump
Pan: if pan system is used, first 10 pans that are dumped in each hopper should be large type pans.

Hopper placement is very important — drop should always be at wall ends so fill can be from outside to inside from ends to middle
Adjustable hopper chute will control initial build-up at wall ends — concrete must be dumped into the triangular zone formed by the intersection of the bulkhead and the existing pour — the mix should be slightly wet (5" slump) — it should be vibrated immediately after placement, but not over vibrated
Pan carriers should make one complete circuit for one hopper then make one complete circuit for the other hopper

Chute: When the built-up reaches the end of the adjustable chute, the chute should be removed — at this time the hopper extension can also be removed. After the extension is removed the pan carriers can fill the two hoppers simultaneously by alternating one man to one hopper, the next man to the other hopper.

Extraction: When the build-up reaches the bottom of the hopper, the hopper should be extracted because now the wall is within 18" of the top at each end

Operator: when the hoppers are removed introduce the third mechanical vibrator and operator — this third man will have the responsibility of the middle section of the wall. The two original operators have the responsibility of maintaining the proper slope build-up (advancing slope method) — this slope may be 4 feet high at each end down to zero in the middle for a 30 to 35 foot wall length. The vibrator operator who has the responsibility for the middle one-third of the wall must work the bottom slopes of each side together — he must make a homogenous juncture so no vertical cold joint takes place — after the juncture the middle vibrator assists the other two operators in the maintenance of the two advancing slopes

Dumping must always be from the high ends — the proper vibration will keep the top 6" and 12" of the slope constantly sliding, causing a wiping action on the form panels. No concrete should be dumped into the center section until the ends are filled for a distance of at least 10 feet and the center section has built up to within 12" of the top.

Note: After many unsatisfactory experimental walls, this advancing slope method was the only procedure found to eliminate rockpockets. It is possible that with the add mixture pozzolith #3 the conventional horizontal layer-type system of placement will be satisfactory

Above: Typical details of form-panel construction
Right: above: Form panels ready for assembly
Right: Typical wall endings created with a bulkhead, a box-like forming unit designed with vertical section details similar to a basic form-panel

topping out: as the end sections of the wall reach the “top-out” limit they should be floated level and a key-way strip inserted between each spreader. After the wall has been completely topped out each bolt that is contained in a precast spreader should be tightened one-half to one full turn — this action will overcome some of the wall thickness shrinkage that occurs at the top of all pours and causes the concrete surface to be dull and flakey.

Cleaning after all bolts are tightened and all key-way strips set, the top edges of the formwork should be cleaned off before the concrete gets hard — all exposed reinforcing rods also should be wiped clean at this time.

Lift rate: the polyurethane coated panels produce the best concrete surface when the wall is poured rapidly — a lift-rate of 5 feet per hour should be the minimum lift-rate — 10 feet per hour should be the maximum.
Left: Casting process. Workers dump concrete mix into a hopper.
Left, below: Concrete mix being transported in steel buckets by labourers.
National Assembly Hall, Dacca

The Sher-e-Bangla Nagar, or National Assembly Complex in Dacca, Bangladesh edges slowly towards completion. Louis I Kahn (1901-1974) the American architect, designed the principal buildings, including the official residences, as well as the Ayub hospital (1963), and supervised construction through regular visits until his death eight years ago. The Public Works of Bangladesh Department has carried on the site work, with unfailing counsel of David Wisdom and Henry Wilcocks, architects in Philadelphia and long-time associates of "Professor Kahn" — as he is still affectionately referred to in Dacca.

The assembly chambers were inaugurated and used earlier this year. It was a highly symbolic event after the vicissitudes of war, of political instability and assassinations, not to mention the actual hardships of acquiring adequate supplies of materials in order to achieve the building. Highly controversial in more than one respect, the edifice now must find its place as a stunning statement of architectural excellence within the totality of Kahn's work itself as well.

While the colour of the carpeting that was put down does not correspond to Kahn's original specifications, nor that of the chairs for the Members of Parliament, the teak of the desks and rostrum lend a warm touch to the atmosphere of the central meeting space. The carpet will be changed eventually we are told. The prayer hall, the various smaller meeting rooms, interior promenades lit artificially as well as by daylight, and the two major entries on the north and south are practically complete. The lakes have been drained in order to execute the necessary brick works on the banks. Now, for the first time the building can be viewed from the outside without the cranes rising above the 40 metre high structure, perennially testifying to its unfinished character. MIMAR wishes to celebrate the occasion of its inauguration by bringing the following images to its readers.


Bottom: The National Assembly Complex, viewed from the west, is set in a rural landscape, away from the centre of Dacca.

Right: An internal walkway in the Assembly Building. Photographs: B Taylor.
Master Plan, Sher-E-Bangla-Nagar

Of the Sher-E-Bangla Nagar (Capital Complex) Master Plan, Louis Kahn said: "I was given an extensive programme of buildings: the Assembly, the Supreme Court, hotels, schools, a stadium, the diplomatic enclave, the living sector, a market, all to be placed on a thousand acres of flat land subject to flood. The prevailing idea of the plan came from the realisation that assembly is of a transient nature. Men come to assemble to touch the spirit of community, thought that a mosque woven into the space fabric of the assembly would reflect this feeling.

The Supreme Court was the test of the acts of legislation against the philosophic view of the nature of man. The Assembly, Mosque and Supreme Court became inseparable in thinking of the transient nature of assembly.

My design at Darra is inspired, actually, by the Baths of Caracalla (the great Roman public baths), but much extended. The residential spaces are an amphitheatre. This is residual space, a court. Around it are gardens, and in the body of the building are interiors, and in the interiors are levels of gardens and places that honour of the knowledge of how you were made. All these are places of well-being and places for rest and places where one gets advice about how to live forever, and so that is what inspired the design."

Plan:
A Citadel of the assembly
1 Assembly building
2 Presidential square
3 Prayer hall
4 Hotels for ministers
5 Hotels for secretaries
6 Hotels for members of the assembly
7 Dining hall
8 Lake
B Secretariat
C Hospital complex
1 Hospital
2 Out-Patient department
3 Staff housing
Above: A great hall is the centre of the National Assembly Building. The roof structure has large openings which bring in natural light into the complex. Overleaf: The strong sculptural structure creates a sequence of planes, the surfaces of which are concrete bonded with marble.

Photograph: B. Taylor

Plan
1 Entrance hall
2 Assembly chamber
3 Prayer hall
4 Offices
5 Ministers' lounge
6 Dining and recreation
7 Abution court
Above: Aerial view from the north, of the presidential plaza and National Assembly, flanked by ministers' housing (right) and legislators' housing (left) and the man-made reflecting lakes

Right: Legislators' residences, with the casuar dining/lobby sections viewed from the north

Photographs: A. Hussain
Above: Roof of the Assembly Hall viewed from below
Above, right: Interior of the National Assembly Hall
Right: Podium and focal wall of the Assembly. The hyperbolic roof meets the walls to create a recess which allows for indirect natural lighting.
Photographs: B. Taylor
Top: South facade of the Assembly Building
Above: Typical window is recessed for shade.
Right: The building interior is made up of tall volumes which intersect the several floors.
Photographs: B. Taylor
Left: Teak panelling lines the corridors and offices.
Left, below: Wall facing an internal courtyard of the Legislator's residences.
Photographs: B. Taylor.
Visions of Grandeur

Brian Brace Taylor

Following on the heels of the theme of MIMAR 5, "Open-to-Sky Space", we are taking up again but in an entirely different way, a subject broached in MIMAR 1: namely, the relevance of imported expertise and technology for the client culture in countries of the developing world. In so doing, our attention is turned towards two capitals in the Muslim world, Baghdad, Iraq and Dacca, Bangladesh, where efforts are underway to give expression through building to a national identity. Although the two operations, renewal and expansion of ancient Baghdad begun some three years ago and the construction of the capital complex, Sher-E-Bangla Nagar designed by Louis I. Kahn some 20 years ago, are very different in nature, in available resources, and in approach, a number of parallels suggest themselves and warrant discussion.

Exterior detail of the east facade of the National Assembly Building, showing government offices. White strips of marble cast shadows at regular intervals, thereby modulating and giving rhythm to the concrete surfaces.

Photograph: B Taylor.
Before setting out to enumerate those fundamental issues that allow one to meaningfully compare contemporary architectural transformations in an Iraqi and a Bengali city, our position as critic can be formulated as follows: The type of architecture, like the type of technology, a government client chooses to finance is an indication of its overall policy for national development. The selection of an architect, for example, either foreign or indigenous, reflects a decision on the part of the powers that be to promote one or another strategies for modernisation. Modernisation has, as a rule, generally come to be synonymous with Westernisation as opposed to reliance upon locally-available intellectual and material resources. Political regimes, as is the case with both Iraq and Bangladesh, have tended in the past to adopt Western architectural models, including the necessary technology, expertise and materials, even when these are at variance with the economic and political realities of the nation.

The case of Louis Kahn’s National Assembly building in Dacca is a case in point. Nearing completion earlier this year, the exterior facades were cleaned and scraped, window glass installed, and a portion of the edifice — the actual assembly chamber — was inaugurated in February, 1982. Although much of this interior finishing work still remains to be done in the rest of the building, the major construction is done and reflects what might justifiably be termed a super-human effort on the part of the Bangladeshis certainly in terms of their national budget, to see the Assembly through to completion. But have the ends, after all, really justified the extravagant means required?

As recent photos presented in this issue partially suggest, the assembly is an awe-inspiring and humbling mass of concrete. Above all the scale, vast and difficult to relate to as a human being, the proportions of certain spaces, and certainly the spectacular mingling of light and darkness in the cavern-like interior produce marked emotional reactions to this monument of contemporary architecture. However, the kinds of reactions the assembly provokes, it would seem, ought in some way to be related to the original intentions of the architect and/or of his client. What were these?

If the government client in 1962 initially wanted a tangible symbol of unity between east and west Pakistan, where parliamentary democracy was to prevail as a form of government, the authorities in Dacca at various moments since independence, have pursued work on the capital complex as a sign of Bangladesh national identity and cultural integrity. Kahn himself, on the other hand, expressed his intentions differently: “the idea which is still the prevailing idea of the plan. This came simply from the realization that assembly is of a transcendent nature. Men came to assemble to touch the spirit of commonness, and I thought that this must be expressible.” Further in the same text Kahn wrote: “What I am trying to do is to establish a belief out of a philosophy I can turn over to Pakistan so that whatever they do is always answerable to it.” Whatever concordance there may have been between the high objectives of Louis Kahn and his governmental client, little of either of the above mentioned frames of reference seems to have survived in the end result.

As a symbol of national unity for a modern nation-state, whose constitution includes many of the basic principles of parliamentary democracy but whose actual governing powers since independence from the British have most frequently been martial law authorities, Kahn’s “Citadel of Assembly” (the architect’s own terminology) has a questionable relevance. The extent to which the people of Bangladesh, one of the very poorest (average per capital income US$90.00 a year) populations in the world economically-speaking, find anything in the architecture of assembly building to identify with culturally has yet to be shown.

This is not necessarily the case for the red-brick residences, for ministers and administrations, situated on either side of the assembly, where in fact the smaller scale, the exposed brickwork and presence of interior courts have a definite relationship with earlier Bengali architecture. The assembly, of reinforced concrete and white marble strips, has none of these aesthetic
characteristics, nor does it symbolise indigenous social institutions. One is left with the conviction that the assembly building, so clear when reading the plan and so baffling as one tries to move through it, reflects the somewhat authoritarian policy decision to provide Bangladesh with a grandiose landmark of political, social, and perhaps technological, progress at whatever cost.

The decision to adopt a modernised form of Western construction technology for the Assembly illustrates a choice typical of many third world countries to adhere to foreign concepts and values related to that ubiquitous phenomenon called "progress". Portions of the report by Mr. Fred Langford published in this issue, who was the engineer sent by the architect to Dacca to experiment with adapting Western construction standards to the local situation and to train workers, reveal the kinds of logistical and organisational problems involved in what was an attempt at transfer of technical know-how. The Dacca complex was not a classic "turn-key" operation like so many others in the 1960's and 70's, Bengali workers in large numbers were actually trained on the job by the department of public works. This fact not only explains, in part, why the building has taken so long to complete, but also how it is that Bangladesh construction companies are operating successfully in the Middle East market — as Mr. Cantacuzino points out in his article on Baghdad.

Our argument clearly is not that Kahn's assembly building was a unique (or single) case of training manpower for a modern construction industry which was then exportable. Rather it is precisely the fact that the technology selected for such an enormous and prestigious undertaking did not contribute significantly to developing the overall economic infrastructure of the country. Unskilled and semi-skilled labourers prefer to leave the country for abroad, where they can earn more, while their remittances (as in Yemen and many other countries) tend to encourage a consumer as opposed to a producer economy. These are but several observations of a structural nature.

On a cultural level, Louis Kahn's assembly complex and more exactly the Ministerial Hostels have had noticeable repercussions locally over the last decade. Numerous villas in Dacca's most exclusive, upper-class suburbs sport Neo-Kahnian facades of red brick with apertures of pure geometric form: circles, semi-circles, triangles. Even more astonishing was the multi-storey building with such a facade to be seen in the heart of Dacca's Bangla Bazaar. The proprietor clearly hoped to benefit from such a decorative allusion to the capital in terms of his social and commercial status. The Kahnian architectural idiom, when confronted within the social and economic context of the old bazaar or that of predominantly rural Bangladesh, seems to suffer from the effects of a radical dislocation, or displacement. There is a surrealistic dimension, almost like the 'readymades' of Marcel Duchamp, to the whole exercise.

In the final analysis, what has transpired in Bangladesh with a good architect who produced a stunning gesture in space and form has also occurred elsewhere in the developing world with less good results, (and might happen in Baghdad if one is not attentive) namely, architecture and the technology employed to achieve it, become vehicles for expressing something (eg national 'identity', 'progress', political or religious doctrine, etc) which bears little relation to popular aspirations and capabilities. The processes by which acceptable, even good, architecture comes into being materialise are every bit as crucial for our judgement of the final product as the intrinsic qualities it may have. To have selected designers of talent for public commissions such as Dacca or Baghdad is already a 'plus' to insist as well that the building-to-be demonstrates coherent links with the structural elements of a given society is even better.
Paris and Kuala Lumpur: Technology Conferences

Two seminars dealing with questions of Technology and Development are planned for 1983.

Paris, UNESCO, 25th to 26th January 1983, on "Appropriate materials, constructive techniques, elements for economical housing in Developing Countries."

This rather long title for a conference on housing aims to focus attention on recent operational techniques, which have passed the operational stage of experimentation.

The conference expects to draw up a comprehensive picture of the present state of research throughout the world and analyse it from the viewpoint of the optimum utilisation of human and environmental resources, and impacts, and energy and imported raw materials savings.

The sessions will deal with Earth, Concrete and cellular as building materials. Other sessions will be on sewerage and sanitation, and disaster resistance, before the general conclusions.

The conference will be held in French, English and Spanish, at the UNESCO headquarters. The registration fee is 1,000 French Francs (approx US$275). For further information, contact: Europe-Congres, 95 rue d'Amsterdam, 75008 Paris, France.

Kuala Lumpur, Universiti Teknologi Malaysia, 1st to 6th June 1983, on "Islamic and Technology."

To celebrate its 10th anniversary, the University is organising this conference, which aims to review the status of technology and its uses in Muslim nations. They also wish to recommend guidelines for the establishment of an International Islamic University and an Islamic Bank.

The papers for the conference have not yet been finalised. The conference is to be in English and Bahasa Malaysia. For information on the conference, registration and fees, contact: Anniversary International Conference, Universiti Teknologi Malaysia, Gunner Road, Kuala Lumpur 15-01, Malaysia.

Topeng: Dance Masks of Java

Wendy Waldron Brandow

Photographs by the author: Individual masks used by kind permission from the collection of the National Museum, Jakarta.

In Indonesia, as in most developing countries, art and craft are rarely considered mutually exclusive endeavours. The most important concern in production of any art, whether the construction of buildings or the manufacture of objects, is functional value. The suitability of the product for its intended use. Although aesthetic considerations may be secondary to utility, they cannot be ignored. Magnificently conceived, sophisticated objects frequently have the visual and emotional impact of the finest works of art. This is especially true of objects created for the service of ceremony and ritual, objects such as the remarkable masks of wayang topeng, the classical masked dance drama of Java.

Masks have always been a part of the deeply rooted traditions of ceremonial life in Indonesia. While their precise origins are unknown, historical evidence indicates that masks were first used in performance of ancient animistic rituals. When worn by a shaman or medicine man, a mask was believed to have magical properties sufficient to gain him access to the powerful spirits in order that he might commune with them, propitiate and honour them.

The primitive tribal societies of the outer islands continue to value masks as imple- ments of ritual, and they are still used in ancestral, funerary and agricultural rites. On the more populated, politically and econo- mically sophisticated island of Java, the form and function of ritual changed during the period of the great Hindu kingdoms. In the scholarly and aristocratic society of the courts, masks were no longer required for the actual performance of ritual.

Perhaps as early as the 12th Century, masks were used in communal occasions for the presentation of morality or mystery plays which were designed to edify, enlighten and entertain members of the court. These early dramas had no narrative focus, their principal function was to communi- cate, through the example of masked actors, the high Javanese standards of per- sonal, social and religious conduct.

The classical masked dance drama known as wayang topeng evolved from these morality plays, and by the 16th Century it was a fully developed form of theatre. The literature of the courts, semi-historical accounts of the Javanese kingdoms, and the Hindu epics, Ramayana and Mahabharata, provided a wealth of dramatic material for the performance of stories of great heroism and dangerous rivalry. New masks were created to portray the vast array of charac- ters populating these tales: elegant princes, kings both noble and vile, beautiful princesses, deceitful ministers, honoured teachers, fearsome monsters, friendly animals, and impossible servants.

A common theme runs throughout the wayang topeng repertoires regardless of the source, the drama revolves around conflict and confrontation. Certain character types are common to all the stories, whether drawn from the chronicles of the courts or from the Hindu epics. The protagonist is a member of a royal family, usually a refined
and humble young prince, and the antagonist, also of noble birth, is an aggressive, arrogant and ruthless character, often described as being from a foreign land. These two principal figures represent the extreme poles of human nature; all other characters fall somewhere in between.

The confrontation of virtue and passion, as personified by the principals, is the basis of Javanese drama. Good and evil are recognized forces in the world and conflict is viewed as a means of maintaining an equilibrium between the two. The Javanese terms, alis and kasar, describe the characters of the opposing sides. An alis character is graceful and virtuous; the kasar character is coarse and impetuous. In wayang topeng, the alis side usually prevails although the conflict is never completely resolved.

Masked dance drama remained for centuries the prerogative of the court. When, in the 18th Century, it fell out of aristocratic favour, the tradition was carried on in the villages where it was transformed into a popular form of theatre. By the early 20th Century, wayang topeng had all but disappeared from Java, but in recent years it has been revived due to renewed interest in traditional dance.

The Mask Maker

The Javanese mask maker is a craftsman, an artist, frequently a philosopher, and most often a dancer as well. In creating a mask, he uses the iconographic model dictated by tradition and, applying the skills learned over a long apprenticeship, he interprets this model according to his own vision. Masks are made to fit the needs of a dancer or dance troupe: a new mask for a new character, or a replacement for an old or damaged mask.

A dance mask is relatively small in size, covering only the face of the dancer, yet it must convey to an audience the essence of the character depicted. Over several centuries, certain formal standards have been developed for the portrayal of different character types. Variations in size, colour and facial feature distinguish the alis, refined character from the kasar, or coarse character.

The alis mask is small and the features are delicate. The elongated eyes are lo-
wed, the nose is straight and pointed, and
the mouth is small and slightly smiling. The
kasar mask, by contrast, is large and the
features are quiet prominent: bulging eyes,
large, upturned nose, and a broad mouth
displaying both teeth and gums.

The colour of a mask has particular
significance. White is reserved for noble,
virtuous characters. Pale green is associated
with youth and black with maturity. Red
signifies passion and aggression. Gold rep-
resents physical beauty, but it may also be
used by the mask maker simply to make
the mask itself more beautiful. The colour
of a mask must correspond with the fea-
tures; the paler colours are used for the
more refined characters, darker colours for
the rougher types.

The mask maker must follow these
traditional principles of iconography, but
much is left to his ingenuity in applying
them. A great mask maker is one who can
create within a mask a sense of life, an
animation not achieved by skill and man-
ipulation of materials alone.

Top: Warnawaskito is one of the master mask carvers
of Java. He lives in a small village in Central Java and
for over sixty years has been creating masks for dancers
throughout the island. Warnawaskito served his
apprenticeship with the craftsmen of the royal court of
Yogyakarta. He is now training his young grandson in
the fine art of mask making.

Left: Masks, as objects, can have a tremendous visual
appeal but they have little real meaning outside the
context of dance and ritual. A mask is meant to be
worn, and its intended function is satisfied only through
movement.

33
The most popular stories of wayang topeng are drawn from an
extensive narrative cycle relating the adventures of a legendary
prince named Panji. Known in many versions, these stories focus
upon the efforts of Panji to locate his bride, Princess Tjandra
Kirana, who has either disappeared under mysterious circumstances
or has been transformed into another character. The search is
difficult, complicated by the appearance of Klana, a ruffian king
from a foreign country. Panji and Klana compete for the favours of
Tjandra Kirana and the conflict is resolved only when disguises are
dropped and the young couple reunited.

The mask of Panji (top left) is always of the dusky, aristocratic type; the colour is
either white or the pale green of youth, and the features are finely carved.

Gawang Suni (top right) is the brother of Tjandra Kirana and Panji’s faithful
companion. His mask has the pale colour and the fine features of a noble character.

Timmengang (bottom left) is a rufﬂish court oﬃcial. The prominent features and
darker colour of his mask signify an aggressive, somewhat brutal nature.

Klana (bottom right), the villainous king, is represented by the red, exaggerated
mask of the dangerous opponent.
Animals play an important role in many stories. In the Ramayana, both Hanuman, (top left) the white monkey, and Garuda, (bottom left) the bird also known as Jatayu, assist Prince Rama in the search for his lost wife and in his battles with the villain king, Ravana.

Principal characters are frequently accompanied by their personal servants. Pental (top right) is the faithful servant of Prince Panji. The half-mad, without a lower jaw, is worn only by the secondary characters who have a speaking part in the drama.

Monsters, demons and non-human ages often appear in the company of dangerous characters. A lute is a monster, and Botok Hijau (bottom right) is simply any green monster. The mask of a demon or monster is similar to that of a kawan character, distinguishable primarily by pointed teeth.

Wendy Waldron Brandow is an art historian who has just returned to the U.S.A. after living in Indonesia for several years. She travelled widely in the country, collecting and recording the different wood crafts, ranging from furniture-making to ceremonial masks.
Mega Projects
Abu Dhabi: National Fund Office architects chosen

Riyad Tayar an architect from Abu Dhabi has won a limited design competition for the new headquarters for the Fund for Arab Economic Development. This office building, located on a site near the Zayed Sports City, has been designed as a low-rise, triangular building. The cellular and open plan office accommodations are arranged around a fully enclosed, roof-lit, air-conditioned atrium, with car parking in the basement.

Amman: Alribat Housing under construction

The project Alribat (a term in Arabic for the defensive buildings built by the Arabs in North Africa), consists of 30 dwelling units in a rather unpleasant suburban setting of Amman. The scheme, presently under construction, is designed by Jordanian architect, Bilal Hammad.

The usual urban Ammani housing units are separate buildings surrounded by 3 to 4 metre setbacks. Alribat is trying to break this planning by bringing houses closer to each other in the tradition of the old urban centres of the region.

The idea was to build on the edges of the 3,850 square metre site, enclosing a landscaped outdoor courtyard for communal and recreational purposes, forming a defensive castle-like look from the outside. The

Right: Site plan
1. Villas
2. Swimming pool
3. Club
4. Garage
5. Building
6. Entrance
7. Courtyard

Below: Axonometric showing the central paved courtyard surrounded by dwelling units. The car parking is kept at the periphery in a garage (bottom left of sketch)
architect claims that this recalls "the gates of Jerusalem, where we enter an arched gate, leading us from the outside to the court and then to the different units," all separated from the underground garages.

Hammad has given priority to the use of local materials; load-bearing walls of limestone and concrete, inside surfaces of white surfaces painted plaster, floor tiles and stairs of local terrazzo, and the concrete tiles for the courtyard, provide a contrast with the creamy-white stone walls. The courtyard has been landscaped with local plants and trees.

It will be interesting to see what impact this different form of housing will have. As land becomes more expensive and more scarce, architects will, as in many cities, have the choice of either building upwards or try and create concentrated housing clusters. This scheme presents one solution which is relevant for the development of new directions for contemporary Jordanian housing.

Rasem Badran

Badran, himself one of Jordan's eminent younger architects and a correspondent for MIMAR, is concerned with creating a new indigenous architecture for his country.

Illustrations courtesy of R. Hammad.
Burnaby: Jamatkhana in progress

Burnaby, near Vancouver in Canada is the location for a proposed Jamatkhana: a religious facility for the Ismaili Muslim community designed by Canadian architect Bruno Freschi. The building has just completed its design development stage.

It promises to be a very fine statement of contemporary Islamic architecture, seen as an expression of vertical surfaces in form, and geometry in surface. The building is an extension of these elements arrayed in the elegance of natural light and a garden setting.

The site covers just over 14,000 square metres (3.5 acres) and the total built up (covered) area for the three floors is 3,870 square metres (41,660 square feet). Parking is provided for 134 vehicles.
Paris and Kuala Lumpur: Technology Conferences

Two seminars dealing with questions of Technology and Development are planned for 1983.

Paris, UNESCO, 25th to 26th January 1983, on Aggregate materials, constructive techniques, elements for economical housing in Developing Countries

This rather long title for a conference on housing aims to focus attention on recent operational techniques, which have passed the operational stage of experimentation.

The conference expects to draw up a comprehensive picture of the present state of research throughout the world and analyse it from the viewpoint of the optimum utilisation of human and environmental resources, and impacts, and energy and imported raw materials savings.

The sessions will deal with Earth, Concrete and cellulase as building materials. Other sessions will be on sewage and sanitation, and disaster resistance, before the general conclusions.

The conference will be held in French, English and Spanish, at the UNESCO headquarters. The registration fee is 1,400 French Francs (approx. US$275). For further information contact: Europe-Congres, 95 rue d'Amsterdam, 75008 Paris, France.

Kuala Lumpur: Universiti Teknologi Malaysia, 1st to 6th June 1983, on Islam and Technology

To celebrate its 10th anniversary, the University is organising this conference which aims to review the status of technology and its uses in Muslim nations. They also wish to recommend guidelines for the establishment of an International Islamic University and an Islamic Bank.

The papers for the conference have not yet been finalised. The conference is to be in English and Bahasa Malaysia. For information on the conference, registration and fees, contact: Anniversary International Conference, Universiti Teknologi Malaysia, Gurney Road, Kuala Lumpur 15-01, Malaysia.

Topeng: Dance Masks of Java

Wendy Waldron Brandow

Photographs by the author. Individual masks used by kind permission from the collection of the National Museum, Jakarta.

In Indonesia, as in most developing countries, art and craft are rarely considered mutually exclusive endeavors. The most important concern in production of any sort, whether the construction of buildings or the manufacture of objects, is functional value, the suitability of the product for its intended use. Although aesthetic considerations may be secondary to utility, they cannot be ignored. Magnificently, constructed commodities are frequently the visual and emotional impact of the finest works of art. This is especially true of objects created as the service of ceremony and ritual, objects such as the remarkable masks of wayang topeng, the classical masked dance drama of Java.

Masks have always been a part of the deeply rooted traditions of ceremonial life in Indonesia. While their precise origins are unknown, historical evidence indicates that masks were first used in performance of ancient animistic rituals. When worn by a shaman or medicine man, a mask was believed to have magical properties sufficient to gain him access to the powerful spirits in order that he might commune with them, propitiate and honour them.

The primitive tribal societies of the outer islands continue to value masks as attributes of ritual, and they are still used in ancestral, funerary and agricultural rites. On the more populated, politically and economically sophisticated island of Java, the form and function of ritual changed during the period of the great Hindu kingdoms. In the scholarly and aristocratic society of the courts, masks were no longer required for the actual performance of ritual.

Perhaps as early as the 12th Century, masks were used in communal occasions for the presentation of morality or mystery plays which were designed to edify, enlighten and entertain members of the court. These early dramas had no narrative focus; their principal function was to communicate, through the example of masked actors, the high Javanese standards of personal, social and religious conduct.

The classical masked dance drama known as wayang topeng evolved from these morality plays, and by the 16th Century it was a fully developed form of theatre. The literature of the courts, semi-historical accounts of the Javanese kingdoms, and the Hindu epics, Ramayana and Mahabharata, provided a wealth of dramatic material for the performance of stories of great heroism and dangerous rivalry. Newer masks were created to portray the vast array of characters populating these tales: elegant princes, kings both noble and vile, beautiful princesses, deceitful ministers, honoured teachers, fierce demons, friendly animals, and impossible servants.

A common theme runs throughout the wayang topeng repertoire regardless of the source; the drama revolves around conflict and confrontation. Certain character types are common to all the stories, whether drawn from the chronicles of the courts or from the Hindu epics. The protagonist is a member of a royal family, usually a refined...
Habib Fida Ali

Reputed to have designed over two-hundred houses and many commercial interiors, Habib Fida Ali's recent works have been larger buildings and interiors. Today, he is one of the best-known architects in Pakistan. He runs a small but thriving office which works almost exclusively on private sector projects.

Fida Ali was born in 1936 in Karachi, Pakistan. He was educated in Lahore until he went to London in 1956 to study at the Architectural Association School of Architecture. Between 1960 and 1963 he worked in London, after which he returned to Pakistan to practise with William Perry Associates. In 1965 he established his own office in Karachi where he continues to work and live.

The architect was interviewed a few months ago in Karachi by Saheb Khan, an architecture student at Princeton University. And even more recently in Singapore by MIMAR's Hasan-Uddin Khan, resulting in this profile. Although his own house interior has been published in Architectural Digest, this is the first major international coverage of his work.

MIMAR: You are known primarily as an architect concerned with "Design", with a capital "D", rather than as an architect with an ideology or even having a direction in his work. Would you comment on that?

Fida Ali: I am not an ideological architect. I try to keep the didactic value of my buildings limited to solutions that are pertinent to their own contextual requirements. I am not advocating that architects should design buildings in isolation, solely from briefs. But I believe that if a design solution meets immediate cultural, socio-economic, technical and climatic considerations, the resulting building will in itself be exemplary and educative because of its honesty and contextual validity.

MIMAR: Don't you think that architects need to have a direction in their work: that he or she needs a framework for design in a Third World country?

Fida Ali: What is needed of architects in Third World countries is for them to get off their high horses, bridge their egos and attend honestly and seriously to the business of design. The quality of our built environment will not improve until architects get down to designing each and every building as honestly and as well as they can.

Some of my contemporaries feel that the issues confronting the Third World are "more serious than the design of aesthetically pleasing or even 'good' buildings," for such buildings are "totally unreal, unrelated to the problems of the common man." Structures that the upper and middle classes build for themselves do absorb large proportions of national wealth. However, these will continue to be built unless there is complete societal transformation. To insist that spending creative and monetary resources on such buildings is socially irresponsible and inappropriate is, in essence, also to let oneself off the creative hook, to hide behind one's own theories. If we approach each design with clear intentions, our cities would perhaps be in a less sorry state and we would be spared the sad sight of (ostensibly well-meaning) architects denouncing their own buildings as inappropriate and wasteful.

Architects should have the courage to build according to their convictions. To place every project in a macro-social context, relating the creative consideration a project merits to some calculus of national need, may be commendable for its idealism but is a dangerous exercise. Such an attitude could lead to an architecture coloured by polemics and circumscribed by the architect's personal understanding of the hierarchy of social need. It could also create rather convenient rationalisations for bad architecture.

MIMAR: For the time being, let us assume that architectural ideology is undesirable. A related issue we have taken up time and again in our interviews with architects is the concern with the development of national,
regional and even Islamic identities in architecture. How do you feel about this movement?

**Fida Ali:** People in our part of the world are increasingly talking about the necessity of a national architecture and of voluntary and legislative controls and codes to nurture its development. I am quite lost as to how one can ever tabulate a code of ethics that would ensure the “Malay-ness” or “Pakista-ni-ness” of new constructions. Such definitions aside, how does one ever force an architecture to extol “national” values and be in tune with “the aspirations of the people”? As a Malay architect demanded in a recent issue of your magazine! Regional and vernacular identities in architecture develop slowly and organically and thus any architecture given caesarian birth by such codes could only be an architecture of the academic, if not the political, elite. However, this emphasis on the creation of national aesthetics and architectural models to correspond with political identity could result in an officially sanctioned but creatively sterile stylistic interpretation of architecture, falling back upon visual catch-symbols.

While this debate continues, our cityscapes come up all over with an acerbic rash of unregulated apartment buildings, cardboard constructions and callously inhuman structures. Meanwhile the building, zoning and quality-of-life regulations which are of prime importance remain unenforced and flouted by all of us.

**MIMAR:** Although these regulations are part of our colonial legacy, we have only ourselves to blame if we consider them inadequate. We need to develop our own rules, perhaps based on indigenous culture, to rid ourselves of this excuse.

**Fida Ali:** In the Third World we still tend to suffer from a post-colonial inferiority complex which gives us a big chip on our intellectual shoulders when it comes to the question of indigenous culture. Cultural policies in our part of the world tend to be negative in concept — very quick off the draw in proscribing activities deemed alien but by and large unable to define or encourage what is deemed indigenous and national.

While attempts to manipulate architectural development in the name of national identity should be avoided, it remains essential for us to understand traditional spatial typologies.

We have much to learn from the way regional models accommodate climatic and institutional considerations. We need to understand the fundamental principles behind Islamic and subcontinental architectural traditions and not pander to popular notions as to what they ought to look like. But we should be aware of the fact that an understanding and replication of these fundamental principles will not necessarily provide a panacea for our contemporary urban ills. Thus, I feel, there exists a concurrent need to objectively evaluate our traditional models for their validity in a changing society.

The cultural incoherence that exists in our societies today manifests itself in the controversies that accompany questions of architectural design, idiom, structures, aesthetics, forms and social responsibility. The chaos that exists in the built environment of our countries does not arise only from importation of Western architectural models and the resulting suffocation of traditional models. The demise of an organic design consensus, the lack of standards for the quality of the environment and the unholy mess of kitsch and nouveau riche ostentatiousness that typifies most of our urban architecture, all testify to the existence of wide-ranging cultural influences as well as the changing socio-economic ground-rules.

**FIDA ALI:** I agree with you. But you seem to be contradicting yourself to some extent. On one hand you believe that architecture should beware of an ideological basis, yet on the other hand you want to create an architecture that understands and caters to social needs. In trying to create an appropriate architecture for a region isn’t there the need to develop a design vocabulary?

**MIMAR:** Perhaps but my concerns parallel yet differ from what can be called the “rhetoric of appropriateness” currently ascendant in developing and especially in the Islamic World.

I attempt to maintain a congruency between what I believe and what I actually build. Each individual building is an individual challenge. When I design, I am very conscious of the exterior in its simplicity I try to create interest in my work I aim at specificity whereby each part speaks for itself, and I attempt a commitment to a certain standard and to an understated non-idiomatic style.

**MIMAR:** Talking of style: your buildings are often seen as being “fashionable”; seldom making any statements beyond being aesthetically pleasing. Sometimes one gets the impression that it is the look of your projects that matters and not its content.

**Fida Ali:** I try not to dominate the environment perhaps this is why, for a long time, I did almost nothing but houses — they kept
Midway House Restaurant, Karachi
the scale human manageable! I do concentrate on an idea, a look for a building, but I try to combine this initial idea with its function. The two — form and function — are inseparable, nor to have both aspects in a building is rather like the idea of a person without a soul. My architecture does have "content." I may emphasise the aesthetic but I try to make two strong statements with my buildings.

MIMAR: I notice that your architecture appears to be changing. I see retuning in your design elements of your early architecture. Have you more current larger buildings, such as the Pakistan Barracks Shell (PBS) building and the bank in Quetta, affected your approach to design?

Fida Ali: Yes, I think that my architecture is changing. I am going through a learning process. A moment ago you talked of the "fashionable" aspect of my architecture — it is true that for several years I did reach to please clients and current fashions — but I

am through with doing that. I am now doing what I want to do and doing it honestly.

The PBS building was the turning point in my career. It made me realise that clients were ready to explore new ideas with the architect — but it in actual layout or the use of materials. This building helped me re-evaluate my own ideas.

I see myself at present in a cyclical situation where I am retuning to some of my earlier ideas, but I feel I now have the maturity with which to handle them, and a strength to take them forward with much less compromise.

MIMAR: It is interesting to see your getting involved as larger projects. I have often wondered why you have not worked on any major urban redevelopment or mass-housing schemes — I know that the opportunities have arisen on several occasions. What is the reason for this?

Fida Ali: First of all I am not an urban planner by training and to attempt to learn on-the-job would be to play with the quality of life of a great number of people.

Secondly, I believe that the urban crisis faced by Pakistanis cities can be best tackled by an enlightened administrative policy towards issues of land control and zoning. Initiative must come from politicians and government planners who should recognize the fact that what we face is not a "housing problem" but its urban and temporal dimensions, a "settlement problem."

People at all income levels are capable of providing their own housing according to their needs, resources and extent of legal security. Government housing agencies should restrict themselves to the provision of legal land tenure at the locations desired (irrevocably near sources of employment) and the development of infrastructural and social services.

The actual planning of the physical and spatial frameworks should be carried out by the groups of prospective residents...

The restaurant, situated on Karachi's high-

crest hill, overlooks the city. It is divided into two areas; an indoor dining room, kitchen and 
tablets, and an outdoor eating space. The outdoor area is covered by a wooden canopy, consisting of a series of persimn shaped squares, supported on a concrete frame structure. The frame itself is cantilevered from four columns.

The potted plants show the outdoor seating area. The wooden canopy provides shade during the day and allows them to escape from the heat at night. Its openness captures the south-westerly breeze. The marriage of roof creates deeply changing shadow patterns on the floor. The use of lights is reminiscent of the Mughal House, but changing in the open gives this restaurant a very different feel. Photographs: Faysal Warsi.
not getting involved in such schemes. But, more and more, can we afford not to be involved in urban forms if we are to be able to synthesize all the different vocabularies into designs?

Fida Ali: I feel that it is essential for us to synthesize hybrid forms incorporating a new aesthetic, indeed a new architectural vocabulary that also includes forms and types for situations for which traditional models is not available. The widespread use of Western technology also provides an impetus for a new architectural vocabulary as it introduces new materials with their own innate design possibilities.

Architects in our part of the world should draw on both their Western learning and their own heritage to develop design excellence; to educate the very visible upper and middle classes through intelligently articulated design in proportion, practicability and simplicity.

Our work should have the integrity of inspiration which is grounded in reality; it should not take wing on our egos nor get carried away on clouds of rhetoric. Let there be honesty and sensitivity in the selection of form and idiom. Let it not be governed by the architect’s whim, the socialist’s vision, the nationalist’s patriotic pride, the academic’s pet theories, the accountant’s balance sheet, the foreign expert’s pronouncements — by the worst in all of us.

<table>
<thead>
<tr>
<th>Habib Fida Ali: Major Works</th>
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<tr>
<td>Interior designs and renovations are marked with an asterisk. All projects are located in Karachi, unless otherwise indicated.</td>
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<tr>
<td>1970 Singer Showrooms and Offices*</td>
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<td>1971 Kohsar Restaurant*</td>
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<td>1974 Hotel Midway House*</td>
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<td>1976 PBS Building Citibank*</td>
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<td>1979 Dubai, Oman, Union and Indonesia French Banks*</td>
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<td>1980 Middle East Bank* Dubai Bank* Multan and Faisalabad*</td>
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<tr>
<td>1981 National Bank, Quetta Hotel Intercontinental*</td>
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<td>1982 Chase Manhattan and Hong Kong and Shanghai Banks*</td>
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<td>Under construction “The Iron” Hotel extension Midway House Hotel extension</td>
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<tr>
<td>Design stage Office and Shopping Complex American Express Office Citibank Office, Lahore Pakistan Carpet Industries Complex Sri Northern Office Building Davood Falah (welfare home)</td>
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Project Data

Restoration and interior design of a 19th century stone house, Khaliquzzaman Road, Karachi

Completed: 1974

This old house, one of the few remaining from the British period, was restored by Fida Ali as his own residence. The house serves as a reminder of an age gone by and is a quiet oasis in the middle of the busy city.

It took the architect two years to restore and decorate the house which bears his very personal imprint. The contrast of the stark white walls and the re-finished teak floors, provide a back-drop for his furnishings and objects of art which are displayed with carefully calculated elegance.
Left. The house stands shadily secluded amidst the bustle of Karachi, its white-washed stone walls shine brightly in the sunlight.

Left, below: A seating alcove off the living room, white like the rest of the house, forms a cozy sitting area. The carved floral wood chair is Pakistani.

Left, bottom: Fida Ali's own bedroom is furnished simply. The stark walls and bare floors provide a backdrop for the architect's art objects.

Right: The veranda is furnished in white Sindhi furniture; Dutch hanging lamps and an old chest stand on the refinished teak floors.

Below and bottom: Hand-blocked Ajrak cloth panels (designed by the architect) line the walls of the thermatic black and white dining room.
17th Street House, Karachi

From the mid-1970s the direction of Fida Ali's designs started to change. He experimented with his own house, which though not built for himself (it is rented to an embassy), incorporates several of his recent ideas on house design. (Note how different this building is from the earlier Kabraee House which is a typical example of the architect's 1960's and 1970's buildings.)

The site for the 17th Street House was a long and narrow rectangle (60 feet x 120 feet) with residential plots on both the north and south sides. The house has been oriented toward the prevailing breezes, with the living areas in the front and the services

Above: The house seen from the side shows a simple profile sloping towards the front. The vertical wood slats protect the staircase and other windows from the sun.

Right: The entrance driveway to the house cuts into the plot to allow for a more central approach to the front door and also creates a private garden in the front.

Far right: The entry courtyard, lit as night falls, leads the visitor to the main entrance to the house. To the left is the living room which overlooks the garden.

Photographs: Timothy Hurstley
to the rear. The bedrooms, with their own small utility area, are on the first floor. The Master Bedroom upstairs commands a view across the lawn, as well as into the court from a private terrace. The ground floor is basically an open plan wrapped around an interior court. The staircase window is shaded by a simple but dramatic screen of vertical slats of wood, painted white.

The architect has retained a clarity of line in the design and has emphasised one organizational element - the central courtyard. He avoided exterior add-ons, such as the ledges or sun-shades, that wrap around most of the Karachi houses. His solution was to cantilever the top floor over the ground floor and then set back both windows and unit air-conditioners. In the interior, the spaces on both sides of these recesses became convenient built-in storage niches.

Much of Karachi's urban landscape is such a multi-hued and elaborate concoction, it is ironical that the uncluttered facade of this house makes it appear almost alien by contrast.

Right, top: The internal courtyard is partially open to the sky. It is a private space, mainly paved in brick and usable during much of the day.
Right, below: Side elevation of the house.
Below, left: The central court is surrounded by the more public rooms on the ground floor and bedrooms above.
Below: The central courtyard spills out to a narrow side garden. The free standing wall, at centre, is for privacy. Photographs: Timothy Hursley.
Kabrajee House, Karachi

Project Data

House for the Kabrajee family, Khokhnum, Karachi
Owner: Mr. Kabrajee
Design Team: H. Fida Ali, M. Kalam Baig
Completion: September, 1975

The architect says that this is one of his favourite houses in which he took his time and care in designing. The client gave him a relatively "free hand" and accepted the design with only minor changes. If user satisfaction is any measure by which to judge a building, then this house is a very successful design.

Right, top: Steps lead up to the front door of the house whose sleek lines sweep in bands around the facade. Right: The Living Room with its silk-covered furniture and Pakistani carpets. Top: The owner sits on the veranda adjacent to the garden. Above: The Dining Room displays a wall hanging by Zareen Bokhari, a Pakistani designer. The furniture was made in the country. The cool terrazzo floor is covered by a Pakistani rug. Photographs: Fauzaa Tunab

First floor plan

Ground floor plan
This project for the bank's interior design was executed in the very short period of two months. The banking hall is given an efficient and cool look by the use of marble floors and counters. The marble used is Italian, as the local marble was unavailable in panels of the designed size. The open plan office is divided by wood cabinets, and the dark tones are set-off by the bright corporate green coloured carpeting.

Right, top: The counter in marble gives the bank an air of subdued opulence
Right, centre: The Board Room is stark in its simplicity. The painting is by Bashir Mirza, a Karachi artist
Right, below: The office desks, adjacent to the windows are separated from the work areas by wood cabinets
Below: A corner waiting area continues the green and white colour scheme
Bottom: The banking area has marble floors, whilst other circulation and office areas have the corporate green carpeting.

Photographs: Farooq Tumb
The PBS Building was Fida Ali's first major project. He won the contract in a limited competition in 1973.

The complex consists of two buildings—a straight-forward three storeyed rectangular office block floating on a double height base facing west which is connected to a service block facing east. The multi-functional use of the service block (mechanical, staff rooms, lecture halls and a flat) has generated a more sculptured form where the plastic qualities of concrete are more fully exploited than in the main office building. It is something of an anomaly that the service building and the side entrance are more interesting than the main block and public facade.

The division of the functions into the two interconnected buildings strengthens the domestic scale of the complex, creating an atmosphere of harmony and intimacy—something of a rarity in corporate buildings.

The building uses fair-face concrete which is appropriate in terms of maintenance in Karachi's gritty and windy environment. However, it took Fida Ali some
time to convince the client "that the fair-face look is not an 'unfinished' one but an aesthetic one in its own right". Fida Ali is a strong advocate of bare concrete finishes and structures and has used them for three of his subsequent major buildings.

At a later stage he was asked to design the interiors of the building, including furniture and fixtures. Almost all the materials used were manufactured in Pakistan.

Top: The rear view of the office, with its sculptural service block in the foreground.
Above: The service stair is one of the fine plastic elements of the project.
Right: The building viewed from the public entrance road. The ground floor protrusions are those of the training centre. The fair-face concrete has been poured in a series of equal modules, while the top is capped with a low ribbed concrete parapet.
Photographs: Timothy Hurley.
Right: A small potted courtyard acts as the transition area between the two parts of the complex. To the rear is the staff entrance.

Photograph: Timothy Hursley
National Bank, Quetta

Even though Quetta is the capital of Baluchistan, it is still a provincial settlement with a rather haphazard pattern of growth. The architect recalls that doing a project in Quetta was quite a challenge, as the town was very different from Karachi, where he had done most of his work. Moreover, the proposed site was not in the older British township but in the newer mixed-use open spaces of the Cantonment area. There was not much in terms of contextual support that this bank building could count upon or play against.

In somewhat of a departure from his usual practice, Fida Ali decided that his design would make a strong statement. He decided to base the design on some local vernacular form. As he explained, “I was inspired by the craggy shape and power of the old Baluchi forts. Once the visual parallels were established — the necessity for both forts and banks to give the impression of being strongholds — it was all rather straightforward.” The Baluchi forts were built of sun-dried brick and covered with a mud-plaster. So the architect decided that a smooth fair-face concrete finish would help in his attempted visual and psychological connections. In fact, set against the encircling mountains, the building’s monolithic forms enter into a dramatic dialogue with the barren and rocky landscape.

Quetta is in the seismic zone, and the structure had to be designed to meet fairly severe earthquake conditions. For this reason too, local planning authorities will not give permission to build over two-storeys and encourage the use of basements. The architect designed this building to be two storeys high with a semi-basement area for the strong-room, storage and services.

The plan is basically an octagon with entries along the diagonals. The brief called for a large banking hall on the ground floor. This was made into a central double storycycled space with offices on two floors symmetrically arranged around it thus becoming a unifying element. The design is totally self-contained and non-expandable. At present it functions to 50% of its capacity and though the building may be criticised as being over-designed, the owners saw this as well designed built-in expansion.
Left: The main entrance to the bank rises half a level.
Below: The smooth fan-face concrete pillars rise imposingly, accentuating the fort-like appearance of the building, even though it is only two-and-a-half storeys high.
Photography: Farooq Tunab
FEEDBACK features readers' letters to the editor, comments, criticisms, and ideas for information exchange. Please address all such correspondence to MIMAR Feedback, 06-52 Tanglin Shopping Centre, Singapore 1024. Letters may be shortened for reasons of clarity or space.

Raising the right issues...

Your first issue rightly raises the issue of "relevance or irrelevance of imported know-how" for the architectural efforts of developing societies which are trying to put shelter within the reach of the people. With this in view MIMAR 2's exposition of emerging architects of the Third World was most relevant, and the dilemma they faced was well depicted by Miller in his cartoon of the struggling architect trying to reach a solution while finding her way through 'custom' and "tradition".

We in HUDCO (Housing and Urban Development Corporation) are convinced that this dilemma can be largely overcome if housing designs are evolved in a manner that they not only suit the living styles of people, but are also affordable and create aesthetic living environments.

HUDCO has done considerable work in this regard. Since its inception in 1970, HUDCO has sanctioned over 1.2 million houses, of which 80% have been in the last five years. Most of the houses are meant for families with total monthly income not exceeding US$67.00.

H.U. Bajani
Chairman and Managing Director
HUDCO, New Delhi, India

The good news and the bad news...

Your News section is a useful addition to your magazine. However, please do not give us such banal articles as the "Singapore Computers." On the other hand, the item on "Pakistan truck paintings" in the same issue (MIMAR 4) was a fine piece of reporting.

John Newborn
Architect, Phoenix, Arizona, USA

A surprise...

Over the years I have been interested in Frei Otto's work. His buildings in the Middle East (covered in MIMAR 4) came to me as a complete surprise, as I was not even aware of his work outside Europe. This must be the first time for those buildings to be printed — well done!

Martin Ritcher
Munich, Germany

...and another surprise...

Your coverage in MIMAR 3 (Jan-Mar 1982) of the rural architecture of North-West China was interesting to us based here in Beijing. It is different from what we are used to and reminds us once again that official and professionals have a great deal to learn from the masses. A better life for all the people is an important goal in our way forward and building plays a prominent role in our development programme.

Liu Feng-lan
Beijing, People's Republic of China

...and from our own correspondent...

I have some serious doubts about the way you gave the SOM Haj air-terminal coverage in MIMAR 4. I do not see how such high technology architecture parcelled out from USA and Japan to Saudi Arabia has any relevance for the Middle East. If you are seriously concerned with covering and discovering a new architecture of the Third World, this kind of building can be covered in a minimal way and not with the prominence you gave it. The West has dumped a lot of stuff out there in the desert and we shouldn't get too excited about running after it just because it is big and has high-tension tents as the roof.

I would ask you to look for theoretical articles, otherwise the magazine could become a coffee-table glossy with little contribution towards the thinking of fundamental issues. We must discover the progressive people in the intelligentsia of the developing countries who are dealing at theoretical level with the problems that such cultural revivals have, and carry some of their material.

Romu Khosla
Architect, New Delhi, India

We feel that we cannot ignore the new high-tech solutions which are being used in developing countries. We believe that the Haj terminal in Jeddah (whatever be its faults) is an important project, not just because of its scale but because it is creating a new image and direction for Middle Eastern design, much in the same way the Kuwait Water Towers (see MIMAR 2) did in the 1970's.

We agree completely with you for the need for theoretical articles as one of our aims is to develop a theory (or theories) for contemporary architecture in the 'Lesser Developed Countries.' Exposing approaches for dealing with the fundamental issues facing development of the built environment is an important aspect of this magazine. — Editors
Editor's Notes

Mainstream Architecture, the theme of this issue, covers the “megaprojects” which form an important part of today's building in the Third World. These large projects, often undertaken by well-known international firms, are commonplace.

Even though most of the countries which Mimar covers achieved political independence from colonial rule some thirty or forty years ago, they still depend upon outside aid and technical assistance. In some cases, the expertise is lacking within the country, but often much of it is available locally — and is not used. This may be due to the manner in which “aid” is packaged, but may also be due to an inferiority complex — a belief that we cannot do as good a job as some foreigner. We seem to have very little confidence in ourselves. And so, even today, the large construction projects go to foreign architects and contractors.

Government officials, clients and architects may wish to ignore the fact that the development of our rapidly urbanising environment is in the hands of outsiders — but the fact remains. Some of the buildings produced in this manner are good. The problem, of course, is that in this way a country never gives itself the chance to build up its own expertise — a “catch-22” situation perpetuating foreign presence in major building projects.

We have in the past debated whether publishing the works of large international companies (such as SOM's Haj Terminal in Mimar) undermines our own indigenous designers, and have come to the conclusion that we too cannot ignore the large prestige projects which so affect the developing world. However, it is our conscious decision to cover, in the main, the works of local architects. The balance in favour of people from within their own regions will remain.

In our theme we have taken examples from two very different Third World situations: the oil-rich Arab country of Iraq and resource-poor Bangladesh. We look at major works in progress in Baghdad, and make what we feel is a timely review of Louis Kahn's Capital Complex in Dacca. The projects have all been designed by foreign architects and we present them as positive examples of architecture, even though aspects of these works are open to negative interpretation and criticism. We present these reviews from different angles — as information, as criticism, as technological studies — but all of them as important current events in the urban scene.

The urban scene in the Lesser Developed Countries is somewhat chaotic and we often get carried away with a desire for “progress” and demonstrations of new technologies, such as high-rise developments. The high-rise is undoubtedly with us in a big way. The editorial cartoon and the comments in our short cartoon feature serve as reminders of some of the (perhaps undesirable) directions in which we are moving. At a later date we may explore the high-rise as a subject on its own.

Continuing our series on architects, we cover the work of Habib Fida Ali of Pakistan. He limits himself to producing good buildings and believes that "Development Issues", that many architects concern themselves with, are outside his realm and expertise. His approach is to produce good environment from the micro scale instead of from the macro.

I have not yet explained the editorial collaboration of Mimar, however, after five issues I feel it appropriate to "introduce" my colleague and alter-ego, Brian Brace Taylor. We work together in developing themes and directions for Mimar.

Brian for several years was an editor of L'Architecture d'Aujourd'hui, the French journal; he is professor of architectural history at the Ecole des Beaux Arts in Paris; has been a consultant in architecture and planning; and for a time was the Curator of drawings at the Foundation Le Corbusier. His dedication and contribution from Paris, where he is based, adds an important dimension to us in Singapore.

Readers' reactions continue to be most useful and interesting. We are sorry that we have not been able to print more of the letters, but as of the next issue we will increase our Feedback section to expand our vital dialogue.