A PLACE IN THE SUN

The Thomas Cubitt Lecture
by
CHARLES CORREA

Architect and Planner in Bombay, India,
delivered to the Society on Monday 31st January 1983,
with William D. Clark, President,
International Institute for Environment and Development,
in the Chair

THE CHAIRMAN: Your Royal Highness, my Lord Mayor, my Lords, Ladies and Gentlemen, this is the sixth of the Thomas Cubitt Lectures which were founded by the Cubitt Trust to raise the standards and quality of architectural work, in memory of Thomas Cubitt, the architect, in the Regency period, of some of the fine buildings in West London. The Trustees have done this by a series of lectures as well as seminars, and I think a sign of their success is the fact that they have succeeded this year in bringing so distinguished an architect as Mr. Correa from Bombay to speak to us this evening.

I am not going to say a great deal about the lecturer or his subject. Mr. Correa, who did his architectural training in the United States, has worked – fortunately for the world I think – primarily in his own country, and perhaps primarily in Bombay which is his own city. He was the chief architect for New Bombay, a city of two million people. Surely there never has in the history of the world been a responsibility like that, of producing a city for two million people. At the beginning of this century there were in what we now call the developing world, the Third World, no cities as large as that. By the end of the century there will be over forty cities of over five million souls in the Third World and one, Mexico City, will be up to thirty million. In the next ten to fifteen years a billion people are going to move into the cities, either through being born there, or coming in from the countryside. That is a colossal task – providing them with shelter; it is a task as important as any that faces us to-day, as important as nutrition in the Third World in terms of health and happiness. Shelter is as important a problem for the majority of the population of this world as the control of nuclear energy, and yet how rarely we regard it as vitally important. It is our great good fortune to have working on this subject someone with the strength and vision of Mr. Correa.

The following lecture, which was illustrated, was then delivered.

MY SUBJECT is concerned with building in a world far removed from Britain, India – where a great many things are quite different: the climate, the energy resources, the social patterns, the cultural ethos. Hence my title: 'A Place in the Sun'. In actual fact of course, as Mr. Sherban Cantacuzino has already so obligingly pointed out to me, my talk should really have been called 'A Place in the Shade' – since that presumably is the prime purpose of shelter in India. (And had I to deliver this talk in the heat of a Delhi summer, I might well have called it just that.) However, here we are in the middle of a London winter and I rather hope that this phrase, 'A Place in the Sun', does what I wish it to do: namely, in one fell swoop, lift us out of this freezing North European weather into a faraway clime, swing us into another state of mind, into another ambience, where warm and languid breezes blow.

Transitions '. . . easy and amorphous'

If we can conjure up such a fantasy in our minds, I think we might begin to experience new attitudes to many things around us: to the clothes we wear, to the room we are sitting in – in fact, even to our manner of sitting in it.

For climate makes a fundamental difference to our need for – and perception of – built-form. In these northern regions, where the cold is so severe, the architect has perforce to stay within the design parameters of a totally insulated, weather-resistant box. One is either *inside* this box, or *outside* it. The transition from one condition to the other is through a hard, clearly defined, boundary: the front door. Inside or outside exist as opposites, in a simplistic duality. (A proposition lucidly expressed in the Miesian equation: a steel-and-glass box set in a sea of open space.)

Compare this to the complex manifestations of built-form in a warm climate. Between the closed box and open-to-sky space there lies a whole continuum of zones, with varying definitions and degrees of protection. One steps out of the box to find oneself . . . in a verandah, from which one moves into a courtyard, and then under a tree, and beyond on to a terrace covered by a bamboo pergola, and then perhaps back into a room and out on to a balcony . . . and so forth. The boundary lines between these various zones are not formal and sharply demarcated, but easy and amorphous. Subtle modulations of light, of the quality of ambient air, register each transition on our senses.

I believe that this pluralism – this ambiguity – is an essential characteristic of built-form in a warm climate. I believe that this is precisely the quality that classical European architecture lost as it moved from the Greek Islands, up through Rome and the High Renaissance, to lodge finally along the banks of Threadneedle Street.

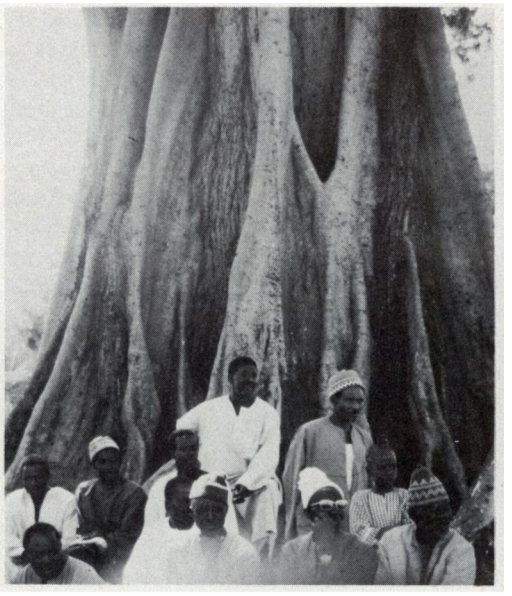
Furthermore, I believe that for us in India, an understanding of this spatial pluralism is of prime importance since it is the key to several of the most vital issues we face. This evening we shall concentrate on three of them. The first concerns our relationship with built-form; the second, energy-passive architecture; and the third, housing the urban poor – i.e. dealing with the enormous migrations which are changing cities all over the developing world, from Jakarta and Caracas to Calcutta and Bombay. Looking back on almost three decades as architect and planner, I find these three seemingly disparate issues have been central to my work. In this survey, I shall try to relate them, one to the other, and set

On its way to Threadneedle Street – the Acropolis

them in the context of a fourth issue – one that is crucial to India (indeed, to the entire developing world) – and that is the nature of change.

Let us start with the first: our relationship with built-form. To summarize what I was just saying: life in a warm climate makes use of a much wider range of physical conditions than it does in a cold one; furthermore, the boundaries between the various gradations along this spectrum (between room and verandah and terrace and courtyard) are blurred and casual, so that one passes easily from one zone to another.

In such a situation people develop totally different attitudes to architecture. They find that for a great many activities, over much of the year, the 'box' is neither the best nor the only answer to their needs. This has profound implications – in pragmatic and functional terms, and in metaphysical ones as well. Thus, while the Little Red Schoolhouse is the symbol for education in North America, in India – as in most of Asia – it has always been the guru sitting under a tree. Not only is this image of the Lord Buddha and the peepul tree more evocative, more conducive to Enlightenment, it is also – as far as physical comfort goes – far more sensible than sitting inside a stuffy old box. So these variations of open spaces (verandahs, pergolas, etc.), are not just cheap *ad hoc* substitutions for solidly-built construction – as is too often misunderstood by the casual observer. On the contrary. At certain times of the day, and at certain seasons of the year, they provide the most pleasant – and most appropriate – environment for our activities.



African tree: fromagère (Senegal)

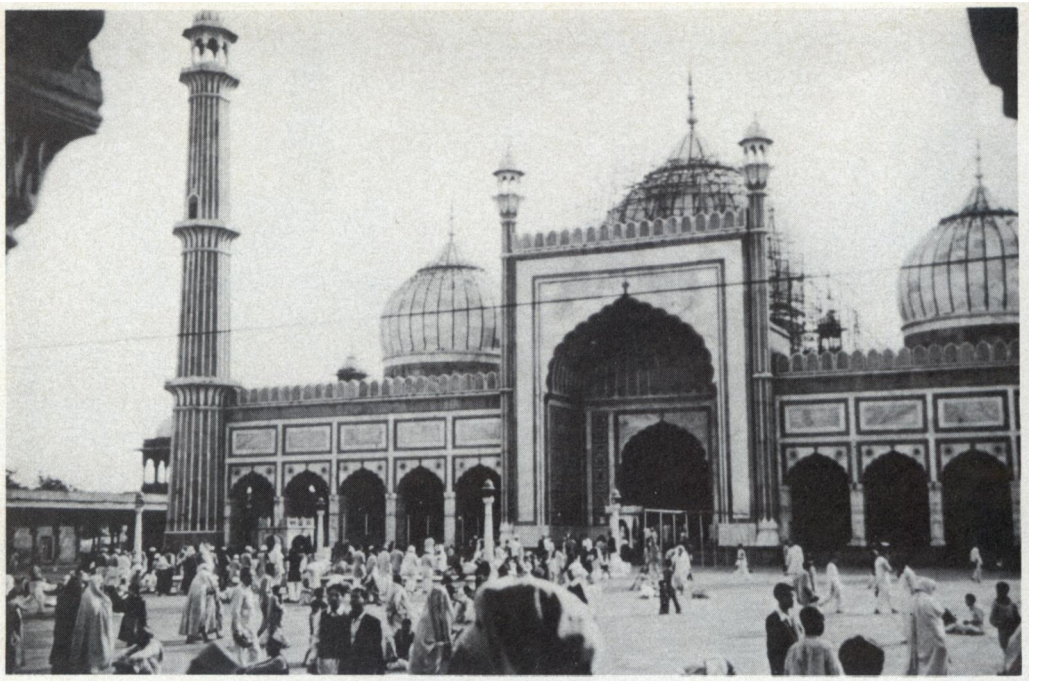
Burobudur, Indonesia

This of course makes for a difference in our perception of what is architecturally desirable and significant. If one lives in a cold climate and is continuously involved in the production of boxes (and mutants thereof), then one becomes obsessed with the surface-patterning, the coding, the tattooing of those boxes. And architectural photography, in journals and books, reinforces this obsession – since the printed image dramatizes two-dimensional patterns, but is almost valueless when it comes to communicating any sense of the ambient air.

Which is indeed a great pity. For to walk on a seashore in the evening, or to cross a desert and arrive at a house around a courtyard, is a human experience beyond the merely photogenic. At these moments, responses are triggered off in our minds, responses conditioned by thousands of generations of life on this planet. Perhaps they are the half-forgotten memories of a primordial landscape, of a lost paradise . . . but in any event, as we approach the open-to-sky end of the continuum they condition, very powerfully, our perceptions.

This is why, here in Europe, the great wellspring of architecture has always been the region along the Mediterranean Sea. Here the colonnade is not just a (heavily coded) screen through which you see the main building, but a perfectly pleasant spot to saunter around for much of the day. And the monumental Hindu temples of South India – at Madurai, at Tanjore, at Srirangam – are experienced not just as a collection of gopurams and shrines, but as a pedestrian path (a pilgrimage!) through the sacred spaces that lie between. In fact, this open-to-sky processional movement is of the utmost religious and symbolic significance. It is found throughout the warm regions of the Earth, from the Sun Temples of Mexico (which consist of pyramids, and – more importantly – of the sacramental open spaces they define) to the temples of Bali (with their ritualistic pathways up the hillside, through the knife-edged doorways).

Religious ceremonies in Asia have always emphasized movement through open-to-sky spaces – and the quasi-mystical sensations these generate within us. Thus while the cathedrals of Europe are all variations of the closed-box model, the great Islamic mosques in Delhi and Lahore are at the other end of the spectrum: they consist mainly of large areas of open space surrounded by just enough built-form to make one feel one is 'inside' a piece of architecture. Indeed, they exercise a rare finesse.



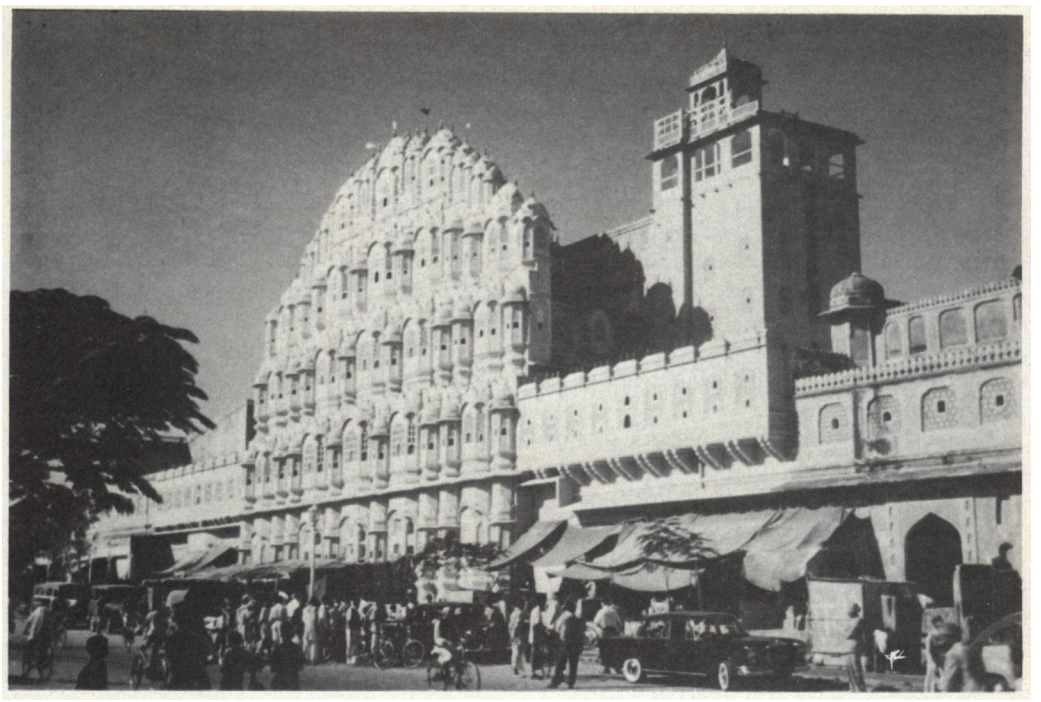
Jumma Masjid, Delhi

This phenomenon is not confined to temples and mosques. Examples are found in the secular world as well: as witness Fatehpur-Sikri, which exemplifies so much of what we have been discussing here. They are also found at the scale of domestic architecture: those of you who have travelled to warmer climates might recall early mornings on a lawn, or sitting out on a verandah, when the thought of stepping back into an air-conditioned box appears suddenly claustrophobic.

Perhaps the most familiar example of all might be the Acropolis at Athens, where the sensations we experience, partly tactile (air movement on our skin) and partly metaphysical, (the ascending progression, under an open sky) move us so profoundly. Unfortunately, as we go northward, we lose these responses. Thus, even if there is a promenade, as for example, in Corbusier's Armée du Salut in Paris, the cold telescopes it into a hop-step-and-jump we must scurry through. The Acropolis, it would seem, is not a moveable feast.

Discussing movement patterns in a warm climate brings me to our second point, viz. the importance of such patterns to the crucial issue of energy-passive architecture. For in a poor country like India, we simply cannot afford to squander the kind of resources required to air-condition a glass tower under a tropical sun. And this, of course, is an advantage. For it means that the building itself must, through its very form, create the 'controls' the user needs. For centuries now, people all over India – in villages and palaces – have invented wonderful combinations of the kind of spaces (from closed box to open-to-sky) we have been discussing here. At the same time, they developed the kind of life-styles which allowed them to use these different spaces in optimal patterns. Take, for example, the Red Fort at Agra: in the early mornings of the summer months, a velvet shamiana (i.e. canopy) was stretched over the top of the courtyards – thus trapping the cold overnight air in the lower level of rooms, where the Mogul Emperor spent his day. By evening, the shamiana was removed and the Emperor and his court came out on to the gardens and pavilions of the terrace level. In the cold (but sunny) winter, this nomadic pattern was reversed: the terrace garden being used during the day, and the lower levels of rooms at night.

In short: dealing effectively with climate necessitates an inventiveness about living patterns, i.e. about *life-styles*. Indeed, all truly *new* architecture and planning is, in the final analysis, concerned with the conceptualization of alternate



Hawa Mahal, Jaipur – the 'machine for living'

Hawa Mahal, detail

life-styles. This was the driving force behind Wright's Prairie Houses. It is also the real issue – and opportunity! – of the present energy crisis, both in Asia as well as here in Europe.

The example of the Moguls is not such an esoteric one. Adapting in a quasi-nomadic manner to different conditions of built-form was a common practice even in the U.S., where, as recently as the 1950s, families still used their porches in summer. By 1960, the mechanical engineers (with the connivance of the architects) had changed all that. Everyone withdrew into their air-conditioned boxes. Somewhere in the process, architecture – and the issues it addressed – had become sadly diminished.

It is a dislocation apparent in formal architectural vocabulary as well. Consider, for instance, the house of Ali Qapu, facing the Meydan-i-Shah in Isfahan. An enormous roof hovers over the entrance, creating not only shade and protection, but a great evocative gesture towards the city – exactly the kind of architectural *tour-de-force* that made Corbusier, that frozen Swiss, come to life when he saw the Mediterranean, and later Brazil. The machine for living! Yes, and always the great sculptural decisions (the overhangs, the double-heights), were placed facing the elements – i.e. at the business end of the habitat (e.g. the Esprit Nouveau Pavilion, the various Unites, the Shodan house in Ahmedabad, etc.). But as Corbusier's influence permeated into the colder climates, these heroic gestures had to withdraw into defensible space, into the mechanically heated (and cooled) interiors of the building. In this retreat, they lost much of their rationale: they began to appear rather arbitrary and capricious. Indeed, the bigger they got, the more wilful they seemed – till finally one has the wild extravaganza of a Hyatt Regency. In those incredible lobbies, despite the spatial pyrotechnics, the ambience is somewhat artificial, contrived, stillborn. And for a simple reason: they do not connect with the kind of open-to-sky space which could quicken them to life. Even the superb Ford Foundation building in New York suffers from this syndrome; for at its centre beats an artificial heart: a hot-house, electrically illuminated, 'garden'.

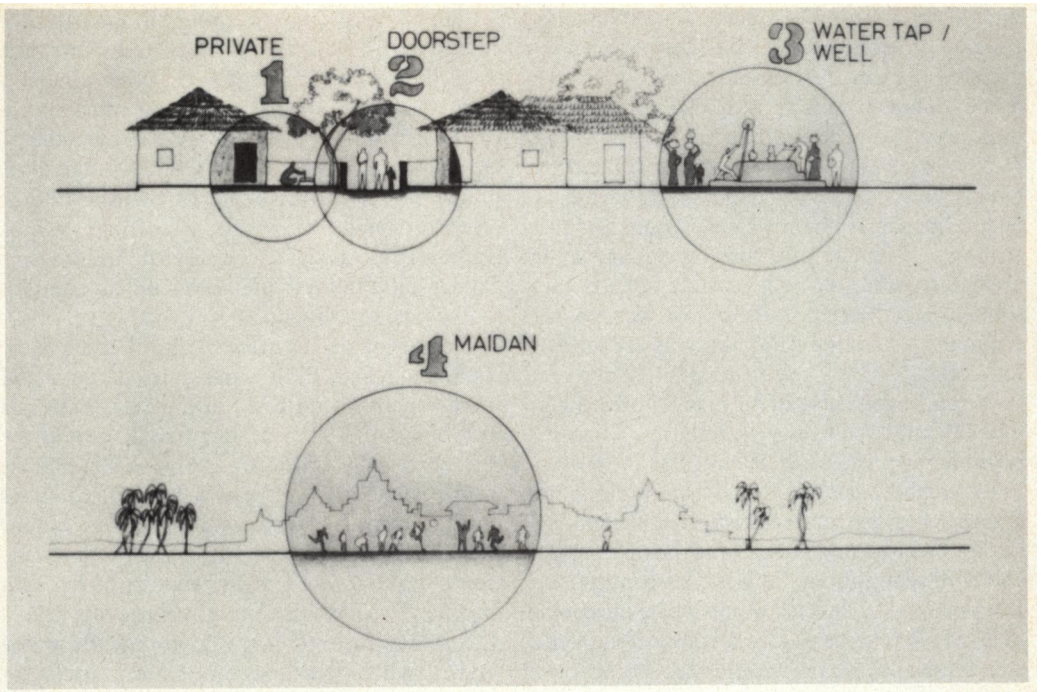
Precisely the contrary is true of the Alhambra; here a structurally decadent, rococo building generates a truly extraordinary experience in us. Why? Because the basic premise of the Alhambra, viz. axially-placed courtyards, inlaid with fountains and water channels, under an open sky, evokes an echo in the deep structure of our minds.

'Fiction', said Cocteau, 'is primordial memory.' Perhaps so also built-form. Certainly architecture is concerned with much more than just its physical attributes. It is a many-layered thing. Beneath and beyond the strata of function and structure, materials and texture, lie the deepest and most compulsive layers of all. And these can manifest themselves not only in epic monumental architecture, but in projects of a much smaller, more humble, scale as well.

We now turn to our third issue, viz. housing the urban poor. It is indeed a wrench, for this is an area involving totally different kinds of knowledge and skills: in economics, sociology, land policies, mortgage rates, and so forth. Yet even here, we will find that the spatial continuum we have been discussing is of decisive importance – not only for housing, but for the very survival of the cities themselves.

Most of you are already aware of the scale of the problem. All over the Third World, from Africa to Asia to Latin America, migrants from the rural areas are pouring into towns and cities to find work. I don't think the world has seen such epic migrations since the eighteenth and nineteenth centuries – when Europeans, through their military prowess, re-distributed themselves around the globe, for much the same reasons. This is an option not open to most Third World countries to-day, and hence we must see our cities, like Jakarta or Bombay, for what they are: mechanisms for generating employment (especially in the tertiary and bazaar sectors), growth centres for absorbing distress-migration on a scale which is truly mind-boggling. Bombay, for instance, as recently as 1965 had a population of about four million; to-day it is over eight. By the turn of the century, it is expected to cross fifteen million. To generate urban land on a scale commensurate with this demand, necessitates a transformation of the transport network, the job locations, the desire lines, etc.; in short, a re-structuring of the city.

In this process, I believe that the architect has two crucial rôles to play. Firstly, in conceptualizing the new growth options; and secondly, in establishing the ground rules which will generate the housing. Now both these tasks necessitate an understanding of space (and its alternate uses); but of course it is the second which relates so clearly to the continuum we have been discussing here.



'System of spaces'

For there is much more to housing than just building houses. The room (the box) is only one element in a whole system of spaces which a family needs in order to live in a city. This system is usually hierarchal, starting with the private family zone, and moving on to the doorstep (where you greet your neighbour), then to the water tap or village well (the community meeting place), and finally to the great maidan (the principal focus of the city).

Each element in this hierarchy consists of a mix of spaces (from closed box to open-to-sky), in a delicate balance determined by the cultural and economic context of that particular society. Thus the first step towards generating economic housing is to identify the hierarchy and to understand the nature of the balances. Otherwise, one is in grave danger of formulating the wrong questions – as witness the many low-income projects which perceive housing as a simplistic problem of trying to pile up as many dwelling units (as many boxes) as possible on a given site, without any concern for the other spaces involved in the hierarchy. Result: the desperate effort of the poor to try and live in a context totally unrelated to their needs. – a state of affairs not only inhuman, but uneconomic as well.

For in a warm climate, many of a family's most essential activities (like cooking, or sleeping, or entertaining friends), do not require to take place within the four walls of a box, but can occur in verandahs, and courtyards. Under Indian conditions, where such spaces are liveable for more than nine months of a year, we estimate that courtyards have a useability coefficient of about half that of a room, and verandahs about three-quarters. Now rooms have a production cost, dependent on the amount of bricks, cement, steel, and other materials used to build them. Verandahs and courtyards have a production cost as well: measurable in the amount of additional land, roads and service-lines they require. By quantifying these various costs and benefits, the points of trade-off can be determined and the most economic – and efficient – patterns of housing identified. In most Third World cities, these turn out to be low-rise high-density configurations, making extensive use of terraces, verandahs, and courtyards. For in a warm climate – like cement, like steel – space itself is a resource.

This conclusion is an extraordinarily important one. First of all, it describes a habitat which people can build for themselves – and that means not just sites-and-services, but also the kind of indigenous vernacular architecture one

finds all over, from Mykonos to Rajasthan to the casbahs of North Africa. Furthermore it is of decisive relevance to employment. For while money invested in high-rise steel and concrete buildings goes into the hands of the few contractors who can build such structures and the banks which can finance them, this low-rise pattern of housing is built by small masons and contractors – which of course generates a far greater number of jobs exactly where they should be generated: in the bazaar sector of the economy, where the rural migrants are looking for work.

Of course these and all the many other benefits (incrementality, identity, variety, etc.) become possible only when we realize that the way to low-income housing in the Third World is not through increasingly sophisticated technology but in the more inventive use of the open-to-sky end of the continuum. This is where indeed our efforts should be directed – and where the people themselves have been so incredibly resourceful and innovative. It is we architects who have been remiss.

For the developing world is eager for innovation and change. Much more so than here in the West, where the past (perhaps because it is receding so fast) evokes so much nostalgia. 'I have seen the future – and it works!', cried the American poet in 1922 on his return from the U.S.S.R. A statement so optimistic, so naîve, so poignant, as to be almost incomprehensible in the 1980s. For to-day, architects and planners in Europe and North America are an extremely cautious tribe, heads bloody and very much bowed. 'We have seen the past, and it appears to have worked . . . maybe.'

This is indeed ironic. For it is societies like India who *live* with the past all around, who accept it in their everyday lives as a woman drapes a sari – these are the societies most impatient to invent the future. They see the past everyday – and much of it doesn't work, much of the time. Thus we have Mao-Tse-tung, with a kind of divine impatience, re-structuring China through his concept of communes. And we have Mahatma Gandhi with his non-violence and his Sarvodaya movement.

To invent the future . . . architecture as an agent of change. This is our fourth issue – and perhaps the most basic one of all. Past and future, continuity and invention – how is the balance struck? If we look at Mao or Gandhi, we find that neither of them was hung up about whether an idea was new or old – or indeed where it came from – so long as he knew he could make it work in the context of his own people. Thus Mao's Communism stems from a German who lived halfway around the world and a whole century earlier, and much of Gandhi of course derives from Emerson and Thoreau. The genius of both these men was that they could stitch these ideas into an old social fabric and produce a seamless wonder. New ideas making the past work. (And vice versa!)

There are no great men, said Stendhal apropos of Napoleon, there are great events. We are only as big as the questions we define. And this, to my mind, is the central rivetting fact of life for an architect in the Third World. Not the size or value of the projects, but the nature of the questions they raise – and which we must address. A chance to grow: the abiding virtue of a Place in the Sun.

DISCUSSION

MR. ROBERT SHAW, BArch, ARIBA, MRTPI: I wonder if we could entice Mr. Correa to say something about the dilemma of high buildings, in India particularly. I think he has demonstrated very clearly the essential way of life in India, which is on the ground, and he has shown the delights, as he put it, of changing volumes, light and shade, the importance of shadow, and so on. Yet he has also shown, particularly in Bombay, this very curious anti-architecture of very high buildings which cannot be serviced and are utterly dependent on electricity, with frequent power cuts. He has himself designed one of the very few high buildings in Bangalore.

THE LECTURER: Tall buildings reflect high land values – which I presume happens in London as well. To the developer, the optimal built-form is a decisive trade-off between the cost of land and the cost of construction. As a building goes higher, the construction component goes up, but the land component diminishes. But if, instead of looking at just a particular site, the developer is responsible for the whole neighbourhood, then this point of trade-off would be different; and if he were to look at the city as a whole, then the point of trade-off would change again – because then land would have to be provided not only for that particular building but for all the schools,

open spaces, that go with it. Unfortunately we live in a society where decisions are made by people looking only at the smallest context: i.e., the individual site. They are perfectly logical in what they do, but the result is myopic. It was only when I worked on New Bombay that I began to see that one had to have an overview of the whole thing to understand what should be done.

I might add that in India low-rise buildings have many crucial advantages – including the kinds of materials they can be built of: mud, bamboo, country-tiles and so forth. (You cannot build a 20-storey mud building!) Now, in a cold climate, it's quite different. Regardless of height, you build in brick and concrete – not for strength, but to protect yourself against the weather. In India, you do not need that sort of insulation. So when you get into high-rise buildings, you are into a very much more expensive way of life.

PROFESSOR GABRIEL EPSTEIN: You talked about the in and out of buildings, the openness of buildings, the shading of buildings; all this was not only convincing but very beautiful to look at. But then we came to town planning. We are dealing, as you said, with many millions of people. You also said that it seems rational, and so it does, to build rather low. You then mentioned the absolute need to get to your job. You put yourself by the transportation line in order to be able to get to your job which is absolutely vital because you cannot keep the home going if you have not got that job. So now we have millions of people, and we are thinking of low density. Low density means an enormous spread if we are building that low. How do we cope with that?

THE LECTURER: I will try and answer your question, but I hope we can move on to architecture! (Is there no architect in the house?) You are absolutely right; as the densities get low, then a lot of other things get expensive (like public transport). But the patterns I am talking of are really very high density patterns. For two reasons: firstly, the size of the housing unit is very much smaller in India; secondly, the occupancy per room is very much higher. A one or two room unit with a courtyard is more than most families have. In fact at present there are ten or fifteen people per room in Bombay. I did not want to discuss any of this because these are really planning issues, but you can get about fifty thousand people within a five minute walking distance of a train station, each having their own little plot of about thirty square metres. It is actually a high-density low-rise pattern of housing – what is sometimes called carpet housing. We do not have to invent it. It has been around for thousands of years.

But to get back to my main thesis, I was trying to suggest that architecture as we know it is a warm weather thing. In the Mediterranean area, it was based on human responses which came from the deep structure of our minds. We do not understand at all why we feel the way we do as we climb the Acropolis towards the Parthenon, under an open sky. As architecture moved north, these profound experiences became mere symbols, patterns, tattooing. However, it seems to me that there *is* one kind of architecture which is deeply moving and which is absolutely North European, and that is the Gothic Cathedral. It is a box. It does not bother with any of the things I have been talking about. Yet it moves us profoundly. Why? Perhaps because Gothic architecture deals with light falling from great heights – the same feeling you get in the narrow canyons of the American West, or in the pine forests of Scandinavia. There is something about looking up and seeing light – I think the tilt of your head awakens some primordial instinct. Perhaps it was the fear of Jove hurling down thunderbolts (or it might be just someone hitting you), but whatever it is, something is triggered off in your being.

THE CHAIRMAN: Thinking of what you say about Gothic cathedrals, one remembers that from the earliest times they started having coloured glass in those high windows.

THE LECTURER: And that increased the effect of light very much. There must be some tremendous memory – some instinct – from thousands of years ago. I really think this is very important. Why do we like buildings that end with funny things on top, such as domes? I think it is because we scan buildings the way we scan people: we look first at the head. A dog does that. He comes to bite you in the leg, but he looks at your eyes first – and then he bites you in the leg. And that is of course why a king wears a big hat. We bring this kind of instinctual scanning to buildings without even knowing it.

MR. STANLEY WILLIAMS: In England we take it for granted that the architect will start off with services, electricity, gas, water and so on. You raised the question of room heating or cooling. I wonder whether you have a special problem in the Third World with regard to the provision of water services, sewerage and so on? Here we take for granted the provision of such services; the architect has them all laid on. In the Third World I am not sure that one can take them for granted.

THE LECTURER: Bringing power is a very difficult one. Of course electricity is now available in many villages, but the power grid has proved very costly. Perhaps an unnecessary cost – since there is so much human labour available. We have created a system where we take the power out to the villages and they do the hand loom bit, and then their product is put on to trucks and sent back to be sold in the cities. So we also need road systems which have taken years to develop. Compare that to the decentralized patterns

advocated by Mahatma Gandhi. He just wanted people to remain where they were, doing their own weaving, handicrafts, etc., and then using the things *themselves*. Thus he dispensed with both the power grids and the road systems. Many people (like Schumacher who lived in this country) now feel this might have been a much better approach. I think to a large extent China has done just this. A very brilliant economist has said the greatest follower of Gandhi has been Mao, not India.

MR. IAN DAVIS (Principal Lecturer, Department of Architecture, Oxford Polytechnic): A comment about your view that as architecture has moved north it has become boxlike without 'transitional zones'. I wonder about the cloister as an exception to this rule; it does seem very interesting that the cloister came to its maturity in Northern Europe within the monastic tradition, and is made up of these marvellous inside out qualities which you have been describing.

THE LECTURER: I am not an historian, but did not cloisters originate along the Mediterranean?

MR. DAVIS: But they were not discarded when the architecture came north.

THE LECTURER: I would think the monks dressed differently. (Perhaps they wore thermal underwear?) In any event, going in an out must have been easier. In fact the first time I saw England in 1948, people really did keep a door open. I do not know if they still do. In America of course they cannot because they are not ready to face the outside – so therefore their winter pattern is very much an indoor one. I would imagine that, in those days, the cloister could travel for this reason.

MR. BRIAN THAXTON: I have the sense that tonight you wanted to stimulate a discussion about fundamental differences between Eastern and Western architecture resulting from earlier responses to different climatic environments which you consider the essence of architecture, and that we have failed you.

As a contribution to such a discussion it occurred to me that, extending your thesis that architecture encompasses external space in hot eastern climates and therefore becomes more vital, the spirit of Greek classical architecture has the same characteristics. I think you said, controversially, that architecture probably stopped there in the West! It occurred to me that, although in an adjacent very similar climate, Roman civilization developed more closed forms.

Since in Western cultures our antecedents in terms of architectural image probably derive from living in caves, perhaps Roman architecture does represent a shift towards emphasizing internal organization and developing the trend towards more 'bureaucratic' forms.

THE LECTURER: I would not say that architecture stopped, but it became a different thing, a different kind of game. But it probably does derive from the cave. That really is a wonderful notion: maybe the Gothic cathedral is a cave, and God the light coming from inside this darkness. It is a terrifying thought: there is something within this cave of great power, which is light from the sky.

MR. JONATHAN LOUTH, BA(Hons)Arch: You touched on perhaps one of the greatest social problems in the architectural and urban development of Third World countries, and that is the flight from the country into the city. Can you expound more on your personal view of how the problems that this creates can be dealt with, particularly in relation to your ideas of the nature and resource value of space as it relates to people?

THE LECTURER: As I tried to say, the people are coming in waves of distress migration. Restructuring our cities so that they could absorb those people is a subject that would take much too long to discuss here, but briefly this must be done in a way that gives you jobs and living space for these people. In other words, *space* becomes a *resource*. I will give an example. In America, If they had hung around the East Coast and never opened up the West, they would all be fighting for the same square foot of land. They used space as a political necessity, to provide equity for people. Hence the homesteaders. The same with the suburbs: they stopped people competing for Manhattan space by opening up Westchester.

In the case of our Third World habitat, the reason why changes do not come about is that the people who *can* restructure the city do not need to do so. The city works for them the way it is. You know, if you are reasonably well off, Bombay is not a bad city to live in. You have schools, clubs, cricket grounds within five minutes of your house or your office. It is the poor people, or the people who came later, who are the ones that have to do all the commuting, and have to live on the pavements. How do you get decision-makers to make decisions which do not interest them? Except as Boy Scouts, except from the goodness of their hearts, like architects, like all of us? It is not that they are mean. They just do not see the point of change. Political will only comes about if there is enough pressure on them, or they see something in it for themselves.

MR. LOUTH: Do you see a rôle for architects in hindering or in slowing up the process of the growth of urbanization?

THE LECTURER: For architects, I do not know. Generating more jobs at village level is a matter of economic and social planning, etc. The last thing we

should try and do is to try and design villages. We'd only ruin them. People do a wonderful job with their own villages. But I do think there is a rôle for architects. Bombay cannot grow indefinitely. There must be new centres of growth, neither rural nor urban, but kinds of quasi-rural areas in which you have densities high enough to have a bus service and a school system, but low enough so that people can keep a buffalo and therefore have another source of income. An architect could certainly help formulate these things, conceptualize them. Maybe that could be called inventing the future?

MR. HANS HAENLEIN: Earlier on I put a question related to the financial constraints which Mr. Correa preferred not to answer. What I was hoping he might comment on is the architect's standing in influencing those people who live in the centre of Bombay and have access to schools and the tennis club and so on, to a way of thinking which actually does include the multitude. Are architects in India actually able to influence change more than we are in this country?

THE LECTURER: No we are not, but that does not stop us from *trying*. That is the nice thing about living in a Third World country. As a friend of mine says, you can take a position and shoot on twenty different problems which are really none of your business (like the cow problem, or the population of the cities). This friend, an Indian, now lives in Switzerland, and he says he has no opinion on anything because they have no problems! In the twenties and thirties architects might well have been wrong in their ideas, but what was wonderful was what they *tried to do*.

HRH THE DUKE OF GLOUCESTER: Will the New Bombay always be in the shadow of the old Bombay, or will it be a self-fulfilling city in the Ebenezer Howard tradition?

THE LECTURER: It is large enough, with two million people, and it should be actually independent. But I think it might grow even beyond two million because Bombay is an island and New Bombay connects it to the hinterland. There will be the new docks (much larger than the old ones in terms of tonnage). The government has chosen a site for the State Capitol, but has not yet gone ahead with building. If they do, of course the whole emphasis will shift there. In other words we will save old Bombay by taking the weight off it. New Bombay will become the centre from which to spread out.

THE DUKE OF GLOUCESTER: In one hundred years will it perhaps be more important?

THE LECTURER: One really doesn't know. There is a book called *City of Gold* by Gillian Tindall, an Englishwoman. It is not a history of Bombay; she calls it a biography of the city. She says that the East India Company had chosen Bombay to be their main centre, right from the beginning, long before they picked Calcutta or Madras or any other place, certainly way before Delhi. That is over three hundred years ago. But they could never get Bombay to work, because it was full of malaria and plague and it got flooded, and people kept dying like flies, and so forth. They finally got it to be a habitable place only about one hundred and fifty years ago. Then of course there occurred the cotton boom (during the American Civil War), and that was when Bombay really took off.

Starting a new city is an uphill task. Even with the tremendous will of the British Government in India, they could not make it viable until these other factors came right. To-day the money and the politicians are in favour of extending *old* Bombay by just building higher. I do not know if any of you have visited Bombay recently, but the results are terrible – people falling off trains, etc. We are finally realizing that we have to look at other options. It is sad that it has to be pushed to that point because the idea of New Bombay arose in 1964. Eighteen years ago, when we started writing about this, the population was about four million people. Now it is about nine million.

COLONEL DAVID SHERRET (one-time officer, Bengal Sappers and Miners): I was very interested in your strongly held view that we should learn from the past. I can well remember living in colonial bungalows, also in little atrium houses, modest houses in India and the Middle East. To see just how you have developed their characteristics, their spatial patterns and space usage has been most impressive. But it did not strike me that possibly with the great idiom of Indian architecture and Eastern architecture there might be some compromise, there might be some new future for, not pastiche, but some development in using the great heritage of Oriental architecture. Would you like to comment?

THE LECTURER: I think some of the work I showed you, like the hotel in Goa or the Craft Museum in Delhi, or perhaps the cultural centre which is going to go up in New York, is responsive to the past. But I still would not try to merely imitate it. I would rather use the past as a collage, as another layer coming at you (either in the form of painted images, or of actual authentic objects). Maybe it is just my bad training in what is derided as Modernism to-day. I certainly would hesitate to place a Gopuram on top of a building, or a Mogul arch. I would keep one step away from all that.

THE CHAIRMAN: This has been a stimulating evening, and aesthetically exciting. It has been very interesting politically too. The problems you described

so well of what to do with the poor in the cities and of the flow into the cities – all of this gave us a picture of something we probably know too little about, which is the problem of three-quarters of mankind. Mr. Correa, I am sure I speak on behalf of everyone here in thanking you very much.

MR. IAN HUNTER (Chairman of the Society's Council): Your Royal Highness, my Lord Mayor, my Lords, Ladies and Gentlemen, it only remains for me to thank our Chairman, William Clark. I should also like to express our general thanks to the Thomas Cubitt Trustees. The close co-operation between the Society and the Trust has found formal expression in recent months through the creation of an RSA-Cubitt Panel. In addition to sponsoring the annual Cubitt Lecture tonight the Panel will advise on a programme of activities concerning the built environment which will form part of the Society's general environmental programme. The first major event to be investigated by this panel will be a conference in October on the topical question of architectural competitions.

The Society's thanks are also due to the staff and students of the five schools of architecture who have contributed to the exhibition which has been planned in conjuction with tonight's lecture and will be on display in the Benjamin Franklin Room.