Charles Correa

Transcribed Lecture

Order of Engineers and Architects- Beirut

Introduction by Sany Jamal

Good evening ladies and gentlemen. The task of introducing celebrities is not an easy one, particularly when the celebrity in question is none other than the eminent architect-planner Charles Correa. As many of you may already know, Charles Correa is an Indian architect and a major international figure in architecture and planning. As a practitioner, artist, and theoretician, Prof. Correa is known for the wide range of architectural work in India, studies on urbanization and low cost shelter in the third world, which he articulated in his 1985 publication “the New Landscape.” His architectural designs have been internationally acclaimed and he has received many awards. His intelligent design response to climate and location is evident throughout his work, as is his attention to movement through space and changes of light. His concern for India’s poor led him to regard people and space as resources and to device many schemes for low-rise, high-density housing intended to provide equity in the built environment. He has written eloquently about housing in town planning and worked to demonstrate his ideas in developing new Bombay. Correa moves easily from the housing for the underprivileged to hotels, public offices and cultural centers. His creative use of imageries to project a central idea has marked much of his recent works. His dramatic flavor is matched by his interest in universal models as represented by Mandala's Hindu or Buddhist Cosmic diagrams- literary interpreted in his buildings to express the deep variation between museums, industrial plants, office buildings, university campuses, housing schemas, urban master plans and state assemblies- all too numerous to enumerate here. Charles Correa was born in Skanderabad in 1930; he is married since 1961, has 2 children, and lives in Bombay, India. Mr. Correa got his masters degree from MIT in 1958; his professional experience from 1958 till today is carried in private practice...

Charles Correa

Thank you really for inviting my wife and me here to Beirut. It's a place we always wanted to come to. Thirty years ago, every aerial flight leaving Bombay would stop in Beirut or Cairo and then go on to Rome but we never got off the plane, and we thought next time we will stop but we never did. And then the war broke out and we couldn’t come; and now you have this wonderful conference. I think, and that goes for many of us, all those years we heard the most wonderful things about Beirut. In fact once a friend of us who lived in Beirut sent us a whole case of your wine and it was terrific; so now we must tell them that all the things we heard about Beirut are really true. Because we have been here for only 24 hours it's a very superficial judgment. But really, it is a marvelous city. It has scale it has this landscape that is all the time moving. And then it has this energy. These buildings that you are rebuilding, and the feeling one has that I know that you have at the moment- a kind of set back in your building schedule- but a feeling that it is landing on its feet. Once more you have this ability, which must have been there through the centuries, for the people to survive. They survived with grace and you survived again with a style. Now it seems to me that buildings that are rebuilt are practical; they are useful. I am sure they will be functional;
but perhaps we should expect a building to be expressing something about ourselves. I think that is very very important. I think Winston Churchill of all people- I am not an admirer of Churchill- but his sentence is really very good. You must have heard it. He said: “we build our buildings and than our buildings build us.” So it’s very very important what we build.

The problem of modern life, not just here but all over the world is that we tend to build very banal things and then we complain about the banality of life. But there is very little expression of what are the values of that society. I think just a month ago at the conference of architects, Suha mentioned the president of Iran. Without notes he said something like: “in order to build architecture, we must not copy a past, nor must we copy other people's present.” And then I think he said: “we must make our own future.” That is really wonderful. If you think about it; a man like Frank Lloyd Right; he is in Chicago in 1890 onwards; he invented the way Americans were going to live for 100 years. Houses in America come as a handed-down version of Right. Mythic imagery, you know the 2 steps after the dinning area, the picture window, the car park, etc. How did Right do this? Not because he looked at the history and looked off history but because he understood intuitively what Americans wanted to become. That is very important. So it seems to me that architecture just doesn’t talk about the history; of course you must know about what you were, but it’s what you want to become. This is very relevant to us in India. India is a large country. I am always embarrassed to tell you how big. It's a 1000 millions people as of last week! That's about 300 times bigger than you are, and it is many many different cultures. In a way that is part of the richness I think. I am sure that all of us who go to America find that it is many different people. To the extent that we are pluralistic our architecture should express this pluralism. As it does, I think we become stronger. I think India is like a palm: you know a set of transparent layers of myths, different myths that are layered through the centuries.

So today I thought I will try to tell you something about India and working there as an architect. You can see what is relevant to you and what is totally irrelevant. One of the things in India is that the issues are huge; I mean they are really much bigger than any of us. They vary from the most particular like squatters; what do you do when half of Bombay actually is living illegally, half of Delhi, half of Rio de Janeiro... These are epic issues. Big issues actually are an advantage because just in the act of addressing them we have the chance to grow. So, although there are tremendous frustrations, believe me, living in India and working in India, I am sure here also, will build frustration. But I am sure the frustration is not so bad. In fact, it gives you the chance to grow. I often think of what you produced at the beginning of the century compared to what they are producing today architecturally. At the beginning of the century, you had a house, you had so many things: tremendous energy on the arts and architecture and it’s not a matter of talent. I think God distributes talent equally the way he distributes rainfall.

So I think we, who are living in a developing part of the world, are [I don’t know if you feel living in a developing part of the world because for me you look so affluent driving in the city] developing and that’s a tremendous advantage of having to face issues, fundamental issues because they go from the most practical to the most metaphysical– that is one of the characteristics of architecture.

I am trying to show you that in India it always was, and I think here too, it was a metaphysical issue of creating, of making a model of the cosmos. A model of the deepest things you believe in, and it interests me very much how an earth stone can represent something very metaphysical in your mind. Now to do this I think it’s not just a question of looking at history but it is trying to understand something the society likes in a fundamental way. It's something which I heard Louis Kahn calling volume zero. He was talking to some students at Penn and (I don’t know exactly the sentences but it goes very much like this) he said: “I love English history, he said I love the bloodlines of it;” he said: “I have 8 volumes at home which I love reading;” and then he says“ “actually I have not read all 8, I have read the first;” and then he said: “I haven’t even read the whole of the first volume, I just read the first few pages;” and then he said: “I don’t think history started the way they say it started, it started before that, I want to read Volume Zero.” I think that is so elegant; that it is so true. I think he goes on to say architecture is magnificent because it deals with the recesses of the mind with that which is not said and not yet made. That is really beautiful and it is really the strength of someone like Aalto who could make a totally modern building yet it speaks eloquently of Finland. Or Le Corbusier of the Mediterranean: it is reaching that volume zero; and if we do not reach volume zero then we should try. I mean in the cultures in which we live, architecture becomes an empty gesture of invention- either as a kind of wild geometry or as a fashion. But with volume zero of course everything changes. So I put together some slides so we can discuss what can be the volume zero in the context of India.

So the question is what would be volume zero in the context of India and to some extent I would say some of these things would be relevant to you here? I start with this slide which is a typical courtyard. It is in Spain. It could be here in Beirut. It could even be in many other places in Greece or India or China. It shows a set of rows around an open space, which is open to the Godly sky. It has something
interesting. All the rooms look again and again at the same set, at the same scene; and instead of the scene becoming boring, it becomes more and more interesting as you see it from different rooms, and from different angles.

Here is another courtyard from Bombay, a Roman courtyard and it is highly formal and very monumental. But is working in the same way; but here it is even more clear the importance of the open sky above, the rooms around, and then what you call the axis of the universe going from the earth up to the sky above. This courtyard, this kind of typology where you are looking at empty space which generates a kind of energy of course, is central to many things, including the Mandala. I remember Hassan Fathi talking about the Arab house and said: "all day the Arab lives with sand crossing the desert and would see nothing but the formlessness of sand and then in the evening comes to this house- his mud house in the desert. And then, in the courtyard in the center, suddenly the air becomes very cool. It's like the blessing of Allah. Because the deep penetration of the outer space the Arab walks, sits into the courtyard, and sees above in the night sky this incredible pattern of stars. It is the exact opposite of what he has been seeing all day..." Now I think when this goes on in thousands of years, it must have worked through the consciousness of the people, into the deep structure.

This fence is in West Africa and you can see people sitting under a big tree under the open sky, these are the elders in the village and the whole village was just some mud houses but it is structured by the roots of this tree. So this is why in India, but not just in India, in most of Asia, the idea of the Guru sitting under the tree is very important. It's the way you find enlightenment; it is not the little red schoolhouse of North America. It is the open space; and this has tremendous architectural implications.

Here for instance we see a building, this is Mies in Chicago. This is the Chapel at IIT. You see it closed and sealed because of the cold weather. It is completely different from the picture on your right. Here one is either inside or outside. There is a base and the building has a front door and one sees the inside when he is outside.

Now if I show you a building, this is in Oudaypur. It is completely different building because it comes from another volume zero. There you don't know when you are inside the building or when you are out of it. It's very ambiguous as you step in and out to the places you get changes of the light, of movement of air, and all this makes architecture. And anyone who has been to any place around the world you get changing of the climate and for another cultural condition.

I want to show you some of the projects we did starting with one of my earliest ones: this was a memorial to Mahatma Gandhi. And this is Gandhi's own house. As you can see, it got two rooms and it has a little courtyard at the back. Gandhi spends most of his time in this veranda or in the courtyard. He has two pairs of sandals, then a pair of spectacles, and then a watch, and then two bowls, and three monkeys speak no evil, etc. And I thought that is very touching and I felt we should try to express these, they are very Tube houses, Ahmedabad, India (1961-62).

Ghandi memorial, Sabarmati Ashram, Ahmedabad, India (1958-63).
human scale and the humanity of this man. But using the same materials he used in his house: that tiled roof, stone floors, and the brick walls. But using them with our own voice because I don’t think it was a question of copying what he built. It was built in his time. So what we’ve made here was a center of Gandhi studies, a kind of memorial museum and it’s using the same tiled roof but they are put in a pattern, which is quite formal yet, very narrative. It’s a long narrative of moving easily, symmetrically, and generally laid around some water. And these places you move through, as we said just now, are ambiguous; some of them are enclosed to include letters or photographs or books. And those places can grow. You can extend the building as more letters are found.

This is the kind of courtyard we have. We don’t have any windows. We have these kinds of louvers so the light can go through; and this is the space where you would have the letters but out here you just walk through these kinds of spaces. Now because of this kind of thing, very poor people feel free to enter the building, they don’t feel intimidated, and I think that is nice. I should point one thing, one element we added over here was the channel which you see here. The whole vocabulary is using the same material but in a completely different way. This is the extra element, the concrete channel, it’s in the water but it also accesses the beam so you can extend the building. So you then get these kinds of spaces one can move through.

Now I’ll continue to show you how we resort to the past but in a way to reinvent it. I’ll show you some examples from very early work where I tried to deal with climate. One of the very important aspects, working in a place like India, is housing. It’s not just a question of designing museums and other special buildings. I have really spent a lot of time thinking about housing and I imagine you do that too. I love these two examples. These are absolutely endogenous housing. This is from Pakistan. These are the wonderful wind-catcher houses; you got the wind coming in, humidified, and then used inside the rooms. It’s really like a machine for living but a wonderfully evocative thing and this impressed me very much when I was a young architect. And the other of course is the Bangalo and it is meant for the hot humid areas which would be more like Beirut, I don’t know if Beirut is this dry but this would be more relevant, I’ll try to show some examples of this.

This was some housing I did in 1961 in a competition which we won. They wanted apartments but we found that we should get the same density with narrow tube houses like this where the hot air by the very shape of the roof you got the hot air rising and getting out from there. The mezzanines become automatically a bed and a desk and you save on the window by closing the courtyard with plants up there. So it’s a very small kind of house. These were the prototypes, which are clustered together. Now the same principles were used for a much lavished house for Melona.

This was in 1961 or 1962. Here, you’ve got a number of these tubes; they can control the rising worm air that goes out from the top.

These come from experiments we did. It was a crazy thing in 1961 to do. I forgot we’ve done this. The other day some students pulled it out and made a big poster out of it because they say this kind of architecture is back in fashion and you should know it. But it wasn’t meant to be fashionable. It was meant exactly to see what we were talking about: how you would use a mega construction, which in itself would be its ventilator. So you have a thing here where you enter through here and you go through that. You can imagine and get out. You can see the section; the whole thing was built as random. They didn’t want any computer to analyze it so it was done purely by the experience of the structural engineer to decide how much concrete to spend on. In India one gets the chance to experiment.

This is a house; we are again with the same principle of working in a hot dry area. This is in Rajestar. You all know I think, that a house around a courtyard is really the nicest thing you can do because you can step out to the courtyard in the evening. The problem is that by evening the roof has become very hot and if you make a thick roof then it takes longer to get hot but it still gets hot and heats the rooms late at night. That is why people sleep in courtyards. So better than making a thick roof is to put on a second roof to protect the first and this one can be very light. It can be in bamboo and maybe painted white and then they would reflect about 70 or 80% of the sun energy and keep this thing shaded. So then I realize that if you raise this roof then you could create rooms up here. And this whole project was never built but it had a big effect on us in the ideas that you could get this kind of long houses because there it was going to be built of stones which actually spans 10 feet, this is in Kortania in Jaipur. And from it we developed. This is the idea of built houses, which have a section, which is closing, like this. A section you can use in the afternoon in the summer and then you have a section which opens up you can use in the evening or in the winter when you want the sunlight. I don’t know what Beirut’s climate is but it may have these moments in the course of the year; perhaps even in the course of the day. So in this house you’ve got three bays and one bay is a winter section, one the central bay is a summer section and the third bay is the kitchen and bathroom and all the services.

These are the elevations of the house. This is just finishing construction. This is done in 1965 which of course diagrammatically shows the sections.
Now I'd like to switch to the other prototype I showed you - the Bangalo. This one is for hot humid climate. As you know, they're very common in parts of southern India and Southeast Asia and Brazil. It's really a house where you've got these rooms, living, dining, bedrooms, etc. and then verandas around protecting them. And this is much better because it doesn't heat and you can double as circulation. So you can see you have master spaces using Kant's terminology and subsidiary spaces. So we did a series of apartments. This is an apartment house with 3 units. You can see the main living room, 2 bedrooms, kitchen, etc. But what we tried to do is to make a version of this where you have the main room, the veranda, and the study. By sliding panels this way you can then connect this veranda to the bedrooms; or you slide it this way so it connects to the living room. So the living room can use all the space and the parents and children can use that and you can keep varying this and it gives very interesting kind of spaces because the spaces are kind of couple spaces which will lead one into the other. In this respect, one set of spaces actually protects the one behind. So in doing that, I realize that if only the space, this outer zone, if you make it double height than it could become a garden and it could use the sun and the rain for it to grow. So by protecting these spaces you were doing something useful and if you did double height and single height here you could interlock them.

So here we got to Bombay which is a very high-rise city. I found that we could have 2 levels on one side, one on the other, 2 here one on the other, sometime 2 here and 2 on the side. So you could go from 3 bedrooms to about 6 bedrooms, this was done in the early 70's. Now it's doing something else of course. Every apartment goes all the way from the east to the west, which is the breeze direction in Bombay. You have two lines of defense against the sun and the rain. This is the close up of a typical terrace. Standing on the terrace you could see the terrace on the corner and it's about six meters height to the terrace above; the living dining room is here; the study, and then you come back to two more bedrooms. Because of the way your eyebrows work you don't see this so much and you think you are in the open space. Open to sky space is very much part of volume zero. I shall return to this. And you see the bedrooms. They are overlapping the same space. This is the double-line defense to the outside; so if it's a very hot day you can move back in here. This is the building here and this is Bombay; and that's the sea out there; and that is where the breeze comes from. Now this use of the open to sky space has other very practical advantages. For instance, Bombay is a city on water, it is a high-rise city and it has this tremendous amount of population which I told you about where you get a city today of eleven million people of which about 6 million people are living like this. If you have time to go one day you can see the horror of such a thing. These people are very human people and they are really not muggers or anything of this sort. They work with their hands. It is just that the city doesn't have space for them. What is frightening about this life, to my mind, is this discontinuity between the way well-to-do or even the middle-class lives and the other half of people who lives like this. So it's like 2 different planets. In the old days in India, there was continuity, it was a bigger house but it was the same kind of thing. Now in India, the great danger is this split which you see in Rio de Janeiro and many other places. This is Lagos. It is not only a human problem or a moral problem; it is also a political problem.

One of the things we did is to finally convince the government to go ahead with new Bombay; this was 20 years ago, now it's about 20 million people. It should have grown faster; we wanted them to move capital there but at least it's taking off and the bridges have been built etc. By doing things where you're not just putting poor people here, we have generated jobs here, there is mass transport. There are many issues, I don't want to go into that; I just wanted to touch on one thing and that is housing. How do you house people at a price they can afford? This is the income distribution in Bombay; it's an old figure. The figures have changed because of inflation but one figure hasn't changed: that of 40% of the people living below poverty line. This is frightening; it means all the buildings. What I am showing you would apply to the top 10% and maybe some 16% of the people are living in this. These people have to live the way we saw and I was made the chief architect for New Bombay in the first few years and I had the opportunity to try and look at this issue. How can we have cities, which we can afford to live in?

Then I found the use of open-to-sky space, which we were talking about. It has tremendous practical things in this problem of housing the poor because you see this mud village and people have this one little room but they also have a courtyard. Here in Nepal and in Katmandu, you can see that this kind of use of open space moves into the public space too. If you look at the housing, if you look at this family, they have this room, they have this space they can use for cooking, you can see here but they also use it for sleeping at night and for the children to play etc. So they can use it for about 70% of the essential things in life. Making this room has a production cost. It costs so much mud or so much concrete etc. Making this courtyard has also a production cost, it uses so much of urban land, which means services, etc.

The tradeoff between these 2 costs and the usability gives you the optimal housing.
least, an open-to-sky space has a wonderful quality that it’s a kind of system in any town, in any culture. It would vary from culture to culture with the climate but it means that the space in the courtyard, the space in the threshold, the space of the community and there is the space of the whole city, what we call the "medan" and you call the "medan" I think. There a tradeoff between these spaces, a place like the Kasba in Algiers or the town of Mikonos in Greece, there is hardly any space like this; in fact none; but that space is given at the terrace and courtyard level. So it's a very human place to study. In some other town you might get a lot of space over here and less in this area but the main thing is to realize that housing is not just this box but it's all these other spaces. Now that you are rebuilding Beirut, I am sure you're keeping this in mind but it's tremendously important.

This is just an attempt here to try and do this in New Bombay. These are very high densities, a least for us, of 500 people per hectare with schools; but we started a small unit of 7 houses which are built around a courtyard of about 8 meters. The houses don't touch each other. They can be built around 2 boundaries so that they can grow independent from each other and they have cross-ventilation. There size is about 55 to 75 m2 so you get a kind of equity and continuity from the poorer people to the richer people. Now you get a cluster of 7 houses like that. That is the basic cluster and you see that you can repeat them to 3 clusters and then you repeat it again, etc. You finally get the town which gets about 6 families and this density, I told you, of 500 people per hectare with the schools and open spaces, etc. The typologies goes all the way from just giving a piece of land with a tree and a roof for a family to quite sophisticated houses because on 70 m2, I think the average size of many houses in Amsterdam is no bigger then that in our Oudaypoor.

This question may not be so useful to you but for us it was crucial.

This is only a diagram. The question is how much land we are using by having low rise but human-scale housing. In this diagram which is purely a diagram, it's a 5 minutes walk, half a mile or 3/4 Kilometer square and that's a railway station. You can get 25000 people on either sides, 50000 people all together and you keep 30 m2 in the open spaces which what we thought the average for the Indian climate and culture in Bombay at least. Now if I want to double that density to 50000 on either side, you have to go to 4 stories, or 5 stories. I think that's the point why you see much of the housing here in Beirut. If you wanted to double it again, you will have to go to 20 stories and on the scale of the city, this is what happened on the housing area so you are going from ground floor to 4 stories, to 20 stories just to double to four times. On the scale of the city you are not saving much land. I think this diagram was made by Lesley Martin at the time of the English new towns of the 50's and he showed that only 1/3 of the city is used for housing. So if you double the density of the housing, which means when you go from 4 stories to 20 stories you will not save much for your city of Beirut. On the other hand, if you double the densities you might have quite a different life style in the housing.

What is said is that we don't see that, we don't realize that we are not saving much land for the city and we build building which really got to do with having this kind of repetition of high-rise. We think we are getting higher densities, we are not actually. This slide, I show very often, it is in Saint-Louis; I think. This is Brazil by the way. Brazilia is unbelievable because such a city-a beautiful city- Rio, but when they tried to build high in Brazilia they did this because they had to very quickly house 10,000 to 100,000 people. I am showing this to you, because perhaps this is an issue here too. In this case, this is Saint-Louis, and these are houses of about 18m height and about 7m deep and they get open spaces for parking and for air to go through. If you push these buildings down so if they fell on their face, they would have enough space for each of them to fall down, there is enough space and then you'll get housing like this. I think this is from Saudi Arabia. It is a traditional village and it's stunning because I would imagine the densities here are higher than there or at least the same and this is about 6m high housing and every space is personalized and usable whereas the spaces here are unusable all except for parking. This is in Mikonos; but you can see when you desegregate the space how usable it becomes. So if ever one has a bill of rights for housing in a place like India, the house has to be incremental. It can grow; it should be pluralistic; it should be many kinds of houses. People should participate in the planning and in the construction so they can generate income. There should be equity; that's equality; and they should be open to the sky-space. Then finally, desegregation means that you don't try to make some solution for everything.

I must quote Hassan Fathi again. He says "no architect should design more than 12 houses", I don't know how he arrived at 12 at a time and he said "if you take the greatest surgeon in the world and ask him to operate on 200 people in one day he has to kill them all." So I think we must understand what danger and damage we do when we design 1000 houses in one day or one year.

Anyway, if the architecture is malleable then people can bring an expression of their own culture, their own mythic imagery, which I think is very important.

So malleability is important in architecture. Here, we get for instance a Scottish colonial Bombay. This is the biggest slum
in Asia. You can see how poor these people are; but it is a festival day. They dressed up the children and the mother has made some diagrams on the ground. These diagrams are kind of sacred diagrams, memories of memories. This is the aspect of your work as architects which I find also very interesting, and the use of mythic imageries which underlies and gives meaning to the built-form. This is the kind of imagery we are looking at. These are called "yantra." This is the most famous of them. All the "shruyantra," which is 9 triangles and the center of the center is the source of all energy. In fact, the other one I saw was in Iran and was called Mandala.

In India and for temples, the Mandala is a square and you could subdivide it. Usually, the temples are 64 or 81 squares. The Mandala is the Mandala of the planets and these are the 9 planets, two of which are imaginary. The city of Jaipur was built by a man called Jaisink and he was fascinated by the sky. The design of the city is based on 2 sets of mythic images. One is the mythic values and images of the Mandala of the 9 squares and you see the 9 squares placed on the side. There is a hill over there so the one square is moved and that is the plan of Jaipur. The center is the god and that is the palace. So the movement of square is what he had to do because of the hill.

This is a palace; and you can see the way Jaipur works because of the hot dry desert air. You get the courtyard and you get this in the middle of the courtyard. In the distance, you see another thing out there. You can see that through. This is the Janter Manter, other set of mythic values which he was obsessed by; that was the newest myth of science, the idea of being precise and accurate, so he combined these 2 in one city. It wasn't a kind of schizophrenia he brought them together and that's incredible. Some of you may have been in India and seen this. The first attempt was in Pakistan and this was the second. He built 5 of them in different cities of India.

When we did an exhibition and we included Jaipur years ago, I thought he was the first modern man. He was like our first Prime Minister Nehru who wanted to discover the oldest things about India. The discovery of India and at the same time the invention of a new future in this new country when we first got independence, I thought in that seems Jaysink was a kind of a forerunner of Nehru. So when we were asked to design an art center in memory of Nehru in Jaipur, I immediately thought of making a version of the old city, a kind of a model of that city but I took the 9 squares and I moved one across so these 9 squares represent the 9 planets and the center is empty because it has to be empty; that's why it becomes the source of all energies. By moving this to this side, it gave us entry to 3 different parts; this is the planet with the most powerful planets, so we put the theatre. So the public has to be able to come as pedestrians and this allows the cars to come from this side.

It really gave me access to the Mandala because if I really hadn't done this thing which is a kind of a 20th-century-thing-to-do; and if I had to enter here I could never use such a plan. So when we use things like this, one has to re-invent then. This is the entrance and you're going from here and these are the planets, each about 30 m, and with these walls it got open to sky from the space within it. Then, the traditional symbol of that planet is stone. Because the only connection between these boxes is an opening 3 meters square it allows each planet to have its totally architectural expression; which you can see it here. It also means that you can go through it in any way, every time the narrative changes you can see it in a different order to each visit but the center is empty and therefore you know your orientation where you are. This is an old drawing of the 9 planets. It's very beautiful. It shows each of them had a color and a quality. One is of, as I said, a plan; one is an angle, etc. And these are the symbols. A friend of mine who was very interested in these things did the research. He was a graphic artist and he found all the old traditional symbols and the qualities. Then we matched them and I made up plans in each. For instance, this is the eclipse of the sun; and if the moon is covering the sun and we made 2 circles black and white etc. and then of course, in this thing on the graph of the ceiling, you put a whole cosmos which is the entire middle Kingdom: a traditional painting which is then put into 3 dimensions by a traditional artist. This is the Christian Lord who is one of the mythic images in Ketro and that's the size of a person walking down the earth. This is a very well-known image. These are different planets and etc., and this is the center, which is empty. In the program they wanted an open-air theatre so we made this. So we always match something useful that suited our own agenda. In other words, in order to do this kind of things, I had to write my own secret agenda and I never told the client who was the government. The government wouldn't have bought it. I didn't say we've done the model of the cosmos and all that, I just said this is the plan; and the director would ask: where is my room here? And does it have an attached bathroom? I say yes, and the plans go through.

This is looking through one of these squares into Gourou, this is looking from Gourou back into the square. You get a different sense of space because it's on a different construct. Usually a public building I will design going from one room to the next but here it's all-discontinuous. Each time you step through that square it's like Alice in the wonderland. On the inside of each planet are the suspicious colors of that planet. On the outside are the stone wall and then the inlaid work. This is the moon eating the sun literary. I
am showing this because it reminds me of a video game called Batman. You remember that? And the thing is that this symbol is of 100 years old maybe 1000 years but the human mind hasn't changed. And that's what I am talking about; the deep structure and volume zero.

Now while we are doing this building which was of the black hole, about the space, the big bang. So out-of-the-blue we suddenly got this commission to do a center of astro-physics and astronomy. Here the basic underlying imagery is totally different from the Mandala stuff. What we saw here it comes out of things like the energy Mandala.

The infinite number of galaxies, about the space, so we enter these columns, made of concrete and we go through these black walls which are the local stone that I thought would symbolize the blackness of space. And then we come to these courtyards. This is a black hole in the modeled landscape and from there the energy goes into this other and these all come from theories, etc. There is no art in the place, it all comes from the imagery of the scientist. This was to try to symbolize in the landscape itself, the energy coming out of that.

There is something interesting about the black hole. You know when we were talking about the Mandala and that the center is empty. Because the center is empty, it generates this energy which is true about a house around a courtyard or a version of it. It is also true of what scientists believe today. They really believe that a black hole is energy devouring itself, which is exactly what the Mandala is about. It is interesting not because thousands years ago people in Iran or in India knew about modern physics. To my mind, it is because it is the same human mind and that it is very much in the deep structure of the human mind: the idea of the center. So here the four main accesses are shown by great scientists that are Einstein and Galileo. That is one of the columns, which we came through. On the dome, we wondered what would be the equivalent of the cosmography we saw in the earlier one and the scientist said it should be precise because that is one of the essential things in science and so this is the exact positions of stars on the day we started the project and this was done by the scientists themselves, they were very supportive. It was impossible to have done that without their enthusiastic support. This is Foucault’s pendulum in the heart of the scheme, the center. It shows how earth is turning. It just goes continuously changing directions. This of course is for measuring the sun and the stars. We used the black stone and steel because we wanted to make our own version of what Jay Sink has done.

I will show you 2 more buildings. This one is the British council building in Delhi. They wanted an auditorium and a library and a few meeting rooms and some offices. Of course, we had to design that but in my own agenda. I thought how wonderful if we could show some of the richness of what has happened in India; what I talked about earlier: the wonderful overlays of different cultures and mythic beliefs which finally made India. The way I have designed it, is that when you open the front gate you see all the way to the back of the building and right at the back of the site is the head of Shiva and this is the access of Hinduism. So the head of Shiva represents, I mean, Hindus believe that from the head flowed the Gange river and this water goes into the spinal which for them is an access to the Hindu. The next overlay was Islam which came along. Islam brought a wonderful pleasure in life which did not exist in Buddhism and Hinduism and which enriched that; and this is symbolized by the garden of paradise which came I think from Iran. The third one, which is down indoors, so we move to the semi outdoors, it is what Europeans, brought to India and that is for the renaissance and the age of reason. As a symbol of renaissance was this thing used by Michelangelo in his capital by the viceroy’s house. We used this to symbolize the belief in rationality, that you can actually invent the future, etc. So these forms are in a line and then right across the front is the pluralism of India, which all this could happen. So India is in the shape of a great Banyan tree and this was done by a brilliant English artist called Howard Hutchins some of you might know his work. Howard usually works on small canvases and the colours. He is very much influenced by Matisse but he decided to do the whole thing in black and white and in two kinds: white marble and black stone. He painted it on one meter long and then we had it inlaid, you can see the stones and the brush strokes all mimicked. We designed in a way that the whole- all things- works with the architecture to draw your eye into the building. It goes right in with it. Then, of course, it is the sunlight of things; the sense of the sky above comes through the shadows, etc. This is looking back the other way from the head of Shiva through the garden of paradise out.

This is the last project I will show you. It is the assembly in Bowpal. This one that got the academy award a year or two ago is a circular building and it is a very complicated building. It is a difficult building to show. One has to be there. It became circular because it is on a site on the top of the hill in the middle of the city next to the other government’s buildings. But there is no direct road to that site. The access road is very casual. It goes something like a line and then right across the front is the garden of paradise out.

In a way that the whole- all things- works with the architecture to draw your eye into the building. It goes right in with it. Then, of course, it is the sunlight of things; the sense of the sky above comes through the shadows, etc. This is looking back the other way from the head of Shiva through the garden of paradise out.

This is the last project I will show you. It is the assembly in Bowpal. This one that got the academy award a year or two ago is a circular building and it is a very complicated building. It is a difficult building to show. One has to be there. It became circular because it is on a site on the top of the hill in the middle of the city next to the other government’s buildings. But there is no direct road to that site. The access road is very casual. It goes something like a line and then right across the front is the garden of paradise out.

In a way that the whole- all things- works with the architecture to draw your eye into the building. It goes right in with it. Then, of course, it is the sunlight of things; the sense of the sky above comes through the shadows, etc. This is looking back the other way from the head of Shiva through the garden of paradise out.
courtyards and replaced the big rooms in the corners, the upper hall, the lower hall, the combined hall and the library. These courtyards were very useful because all the offices could be put along the courtyard. When you are asked to do an assembly building you think you are designing some meeting rooms or some huge halls but actually you are designing a huge office building because it is the ministers, at least in India, who want all the space. For instance, this state government has 70 ministers in the cabinet, the other day I was saying it is 30 more than Ali Baba and each of them has to have a secretary and a waiting room, etc. So here we get this thing on a hill in the middle of the city and, itself, it looks like a little city. This is the combined hall; this is the Lower House; this is the Main House, etc. Although it is a circle, it is a very loose circle. I should have said that making it a circle, it gets two references, which were not my intention. This room bulges out from the circle but we used that to give more energy to the whole thing. The whole thing sits on a map of Madiapradesh. It is a much more complex building than one can show because at moments it disintegrated to many forms and came back again. It has 3 main entrances. This is the VIP entrance; I will show it to you in a minute. One thing I like about this building is that being on a hill in the middle of a city, it has stunning views of the city in all directions from every room and even from the verandas but what is nice is that this building belongs to the people; it is a democratic building. If this had been a head office or some big government corporation or some private industrialist it would be very obscene to my mind to control this city in this way but it is nice that it is for democracy. We have got 4 entrances; this is the entrance for the public. The four courtyards I told you about are in the center. We specially made a kind of space where the people could come in because the very poor people come walking 5 or 7 days with their children for some complaint. And they are not allowed into the building usually in India because they are too dirty and they wait outside so we thought to let them sit here; they can spend time on these steps. Here we got tribal people to paint mythic images on the wall of what they see life is about: the birds; this is an airplane; it is almost like a bird; tigers, whatever. Here is the diagram, you can see the three entrances, this is where we were just in; this is where the members come in; and this is where the VIP comes in from. The public cannot go in further then this because of security but then they can turn and they can go on this ramp and come to the upper level overlooking the combined hall or go this way and go up this ramp which is this ramp over here. So they do experience the main accesses and the same for the VIP, etc. It is again a complex thing of different levels and the cabinet room is over here on access with that. This entrance is quite wonderful, it was done by an artist with his version of the sunshy gate and he has done it in many layers of kite papers and it is beautiful. This is that central hall it is very difficult to photograph because it is different connecting levels; here again you can see the spaces. And then these are the courtyards around which the government offices are. This means that when you are reaching for a minister you don’t have to look at double-loaded corridor. You spend a lot of your life waiting to see the minister if you were to deal with our government. You can look at this; this shot brings us back to where we started the axis mundi which connects the earth to the sky above.

THANK YOU

Q 1: We have seen very nice slides about the zero volume. In comparison with the Mies Van der Rohe house, it was small tiny columns and beams. Also in the house of Ghandi it was tiny columns while in your museum about Ghandi we have seen very huge columns and beams. Why?

A 1: In the museum, as I told you, I wasn’t trying to make a house looking like Ghandi’s house at all. We took the premise of using the same material but using it in a different way for a different purpose. Here we are talking about a structure, which can grow, it was put on a land, which was very bad so it had to have points and beams but this doesn’t concern you. What I was trying to say was that you don’t copy the past anymore in old building in Bombay. I am not going to say it is a lot of bungalows put one over the other. It isn’t bungalows at all but it try to use the principles, which a Bungalow uses to try to make a high-rise building and get open to sky space stacked one over the other. So I guess that was my point in many of the things, I showed you, how we can use the past as principles and get at the deep structure that underlies it rather than just copy the shapes of the past.

You must have a comment on the Mandala, how could you miss it?

Q 2: I just like to make an observation, I guess I have known Charles and Monica now some 25 years or so. I really want to complement you on how poetically you’ve nurtured your own culture and overcome your MIT training.

A 2: It was very tough.

Q 3: Mr. Correa, I have a question. In the introductory words you, pardon my crude paraphrase, but you referred to a fact that architecture makes us…

A 3:….We make our buildings and then our buildings make us. It was Churchill who said that

Q 3: yes, can you give us an illustration of how in any situation you got feedback on how buildings that you have designed affected people, and that people get back to you?

A 3: I think that anyone who has designed a house or something, the moment when
The idea of having the center full of energy, the black hole. So all you have to do is imagine a building, which expresses this diagram. Your ideogram I would say like Ying Yang-you know the Chinese idea of black and white, male female, etc. Once that ideogram exists and it takes a whole culture to produce it, the architect can move in much more easily. In the case of today's ideas of the cosmos which are fantastic like expanding the universe, etc. there are no ideograms, our culture has not yet develop an ideogram. The only ideogram I can think of is when you see the letters E=MC2. We know it means Einstein or it means atomic energy but that is an ideogram but it is not a visual one. It is a verbal or a written one. So it seems to me that the Iyoka building had a huge handicap. We had to try and work out how you express these things.

The British council works because at this time in India we do have a lot of problems of different people, etc. It is interesting to think that these are in my mind all overlays; it is just many generations- I mean centuries of overlays- and think that once we were having a conference and then Joseph Rykwert said that a public building cannot express a person's idiosyncratic ideas. In a house I can make my own ideas but if it is a public building I have to express public set of values. But then interesting thing comes out; because there is not one set of values in any society, there are many sets of values; certainly in India. And then architecture becomes very important as a way of expressing the pluralism of a society. We mustn’t underestimate what the renaissance really did. To my mind the renaissance was a bunch of very, I mean the medieval church and the society were tremendously narrow-minded and they were gothic. Then there was a bunch of lunatic people who had started seeing the old roman ruins and temples and they thought: my goodness they are much better than what we are building and drawing and it should have lead to a heresy into anything, which they were thrown out. But no people like Bramante, Michelangelo, and stuff; they found a way of making a church which got the whole Christianity into a pagan temple. What is Saint Peter but a pagan temple? In its imagery and yet the pope is happy to be there. That is what art can do. It is not schizophrenia but it is 2 sets of values, which are healed.

Really, it seems to me that what architecture, I mean I can go on and on and this in India we've got a place you must have heard that mosque that was not down and all this that we should make a temple. But you know if you speak to any real scholar, they would tell you that the central mythic imagery is the idea of the Vestou who fell from the sky broken into pieces becoming the metaphor for the mountains and many things. And then the basis right is to putting together, the ritual so that he can ascend back. So this idea of the centrality and the connection to the sky you see in the dome of the prophet, you see in Christianity, you see in Hinduism. It would be wonderful at this time if we had built a building that told us what we all have in common rather than saying that we are different. It seems to me that this is an issue I wouldn’t reach about but I do that in that building, people are very happy because they feel this is making an attempt to bring us together. I do these for my own pleasure. I am not a social worker but what I am trying to say is that the banality of our buildings is partly due to us. It is partly due to society. You know the same exhibition I was telling you about, Jaipur; it was of something called the festival of India. I don’t think that came here but it was a series of exhibitions and we were asked the four of us to do an exhibition on Indian architecture. India is incredible because we sort of absorb everything. I think we got the finest collection of Islamic buildings in the world except maybe Iran. Then if you look at Corbusier, we've got some of Corbusier's main buildings; of course Buddhist Hindu temples, the biggest buildings are in India. So we will run all the way from the oldest 5 000 years ago to today. We made a list and it included Louis Khan and everybody and I thought the old buildings would be beautiful but the new buildings, Corbusier and others would have the new ideas, the concepts. But I was wrong. The old buildings were not only stunningly beautiful but they had ideas that made Corbusier look like contemporaneous because they spoke of what the society was about, the basis beliefs of that society. It is strange you take something like Boroboudour which I think Andre Malreaux described as the greatest building ever. Now if you see that building it is of 7 layers. It is showing the 7 levels of nirvana, etc. It is not beautiful in our sense but it tells what that society is about. In fact Malreaux said that the only equivalent in Europe would be a cathedral like Chartre that it also spoke about that society. So I thought why today are we building things which have no meaning? And I think it is partly the fault of the society because now we are asked to do a 40 story office building, a 300 room hotel, how can you put meaning into that? So it is not all our fault but it is also partly our fault. If we are asked to build a building, which perhaps has the chance to express something, we duck the issue because we are so used to express nothing. At
least that what I felt when I was making this exhibition. It was a big turning point for me. It was about 18 years ago and it was not very difficult to see in almost any program we get the possibility of expressing something and that is when that sentence comes out “we build our buildings and then our buildings build us”. If we express nothing we end up in the banality of what we see in the shopping malls, etc. I do not want to go into that. It is part of our job I think to have these agendas, which slowly accumulates. I don’t think you should rush and say I am going to express this or that. Slowly living here, you will begin to know what you want to express which will be good and positive and help heal your society. That is up to you to decide. But I think that is very much part of our responsibility.

Q 4: Part of something that we also all have in common is really materials; can you talk us a bit really about materials that you use in your architecture?

A 4: We mostly use just brick, concrete, and stones. Those are the materials easily available and affordable. It would be impossible for us to try to produce the kind of high-tech things, which involves metals and stuff. We don’t have the budget but we certainly don’t have the precision. It take a whole industrial kind of sub-culture to support that wonderful railway station. I don’t know if you can build it anywhere except in place which have engineering and production skills. I don’t miss that at all. I don’t think I can do that very well and I am not even interested to do that. I think one is interested in trying to do one thing very important which we were discussing today at lunch. I think when I was a young architect in the early 60’s and this is true for many of us, oh sorry you have a question?

Q 5: I would really like to congratulate you for your serious concern to relate your work to Indian tradition. You are trying to create contemporary Indian architecture. Having said that, I think I have 2 problems with your work. One, you made strong references to religious connotations which I find very sensitive in multi-ethnic religious place such as India. The second problematic issue I find is that your reference to Indian architectural heritage seems to be very, and I am sorry to say, naïve as opposed to spiritual reference in your architecture.

Q 6: I would like to just make an observation. I think that what is Charles is speaking about, Craw Young wrote about when he speaks about archetypes. I don’t believe that it is dealing with religion. I think it is dealing with the basic comprehension of ultimate reality and how you sort of diagram that. I believe the type of things that Charles is suggesting and showing in his work is probably something which is sadly truly missing in most of our works. One final word I would like to say about his work Mandala, that when we began to deal with this word m-a-n-d-a-l-a, its root means the reintegration of the parts with the whole. That is what has happened to our societies, we become fragmented from one another and these diagrams essentially reunite people and that I think that is a very important aspect about the work that Charles is showing. It is the reintegration of the parts within a unity rather than the dispersion into a fragmentation, which we generally exist. I think that those diagrams are Beirut as well as any part of the world because they are a typo.