Hilary Ballon: Steven Holl, a faculty member of Columbia's School of Architecture, is one of the most creative and acclaimed architects at work today. It is rare for an architect to bridge the worlds of academic theory and building practice as effectively as Steven has. He's a man of ideas and a maker of breathtaking forms. His recent buildings include Simmons Hall, a dormitory at MIT; the Loisium Visitors Center in Austria; and the Museum of Contemporary Art in Helsinki. He is now working in China and we're going to hear about that current work right now.

Steven Holl: I need your patience for technological adjustment here. It's an honor to be part of this symposium, and I titled my talk "Working With Doubt: Unforeseen Urbanism." And Yung Ho stole my "you can be certain and be wrong." But working with doubt, I've used this term in a book I wrote about five years ago, and I think more than ever when I try to do something in China I have to use this very carefully.

Let's see if I can get this to come up.

I'm just going to show three projects, but I just preface it with this conundrum of not speaking Mandarin and never having been in China before. I went to Nanning—my first trip to China was to Nanning—and then also then to Beijing to lecture for Yung Ho. And so I'm trying to, let's say, rid myself of all my general theory, but I have to sort of honestly admit this sort of manifesto from a long time ago, that architecture should stem from a clear idea, and that idea is a force to drive the design. It should really be tested not in an intellectual way but in the phenomenological experience of the thing, whether it's a success or not.

When I came to China for the first time, and this is the Nanning project on the left, the brief is for a town of 9,000 units of housing—27,000 people will live there. I have to say that for me I didn't have anything that I'd worked on that compared, that I could even think about, except perhaps some work I did as sort of manifestos.
against sprawl in America, like the Edge of the City project in Dallas. These are Spiroid Sectors, the idea of erasing suburban sprawl, connecting pedestrian city sectors with rapid transit. So maybe this is a little bit of an a priori I bring to this project, and that might have set my competition entry very different from Yung Ho's.

I tried desperately in the short three months or four months that we had to do the competition to learn as much as I could, and I was lucky to be collaborating with Lee Hu, who was born in Beijing and can read Mandarin, so whatever we're looking at he could tell us stories about. This is an early map of Nanning, this very special town. And my first thought about this peninsula—and I'm glad to follow Yung Ho because you've heard the whole story, the failed development, the two mounds that are left—but my first thought is to link it to the core of the city with a line of rapid transit, an electric-train system that would allow this new town to come into being without depending on the automobile. And you know it's not that far.

You can see this is the view from the site to the town, which is full of postmodern skyscrapers, like so many other cities, sprouting and sprouting—over a million, right, Yung Ho? So this is one of—I thought that was very interesting what Hilary said in the beginning, 166 cities over one million—this is one of them, a town I'd never heard of before we were invited to go there, and I was fascinated by it. But I think for me the real crucial question is how to propose new development without depending on the automobile. I think that this sort of—not only the dependence on the automobile, but the entire sort of petroleum-based economy—I think that this is a nightmare of America that we have to work ourselves out of; it's a nightmare of developing cities in Mexico, and it could be a nightmare in China. I think China has the potential to be a place where you could really test new and radically different propositions. And so this whole project then rests on building this transit link back to the city.

And these are the things that Yung Ho spoke about, the shape of the peninsulas there; the wiped-out mounds, flattened and muddy; and the remaining landscape. And our project develops from my first sketch in the old town of Nanning to see these wonderful streets with shops below and mom and pop living upstairs and a courtyard in the back, and I thought, "Why couldn't this be a twenty-first-century morphology, a real pedestrian street, a real possibility of a mom-and-pop computer shop, or whatever it could be?" Okay, maybe it's working with doubt. I saw that. That was the most exciting thing for me was that morphology, and I thought, "You know, if we made a master plan, if we could propose this transit link, these things could be done by other architects." We don't know exactly what they would be but the proposition is to save the two green mounds and to actually go around them in a linear town, which is really made up of two typologies, this low rise and then seven mountains—I call them cultural mountains—which would stick up and have different qualities. One would be a kind of shopping center, one was to rebuild this monastery, this Buddhist monastery that was there. So these would all be done by different architects, but they would all have a 60-meter-square envelope. So this would be the basic morphology, which would be completely connected to the river for evaporative cooling. It would be a tropical housing section, really taking solar power, units that would be transformed by the people that lived in them. Really it's a kind of framework to be transformed by its inhabitants. And that making up the basic frame, and then these 60-meter cubes, seven of them, they would be built gradually and by different architects, but inside of those frames with different functions. All the roofs
would be green. You could see back across the river. And the link, the crucial link, to make this work is to not depend on the automobile.

The second project is in Nanjing, where we were invited to be part of an architectural exhibition called The Practical China architecture exhibition. Yung Ho is also part of it. Twenty-one architects were invited, and we were invited to do the architecture museum. I put this in because first of all I'm showing only three projects I did in China, but it's making the point to start with a clean slate with a site and circumstance, and with the question of a doubtful beginning. And the thought was first of all to discover this town, this Ming Dynasty capital, and see these wonderful old stone walls. And I believe this town is about 3 million, a population of about 3 million. It's quite large, it's growing. Ford Motor Co. is building out here some factories. But there's a great old structure of this town. And I was mesmerized by it, built in black bricks. Ming Dynasty is what year, Yung?

[Inaudible]

The fragments of these old walls are really absolutely fascinating and really part of the morphology of this city. And this is our exhibition. And my inclination was somehow to link back from this exhibition site, which is a totally suburban kind of site, all set in the landscape, back to the old structure of this fascinating city, which has the greatest restaurant on Earth. I happen to be a vegetarian and there's a monastery there where the nuns serve you the most amazing vegetarian food, so I really recommend you go to Nanjing if you're in China. There's a great museum there with an amazing jade coat of armor. I don't know what that's called. I've only been there three times now, but I cherish going back. There are just amazing things in this place which I have to admit I'd never heard of before I was invited to work on this.

So one of the things that I used as the beginning point—and I say that each project is a new, a fresh territory for an idea that drives the design, an idea that's related to the site and circumstance—and one of the things that I've always been fascinated with is Chinese painting, parallel perspective, where there is no vanishing point. And even after the Chinese were introduced to Western painting with a vanishing point, they didn't employ it in their paintings, they continued with this parallel perspective. Yung Ho actually helped me, sent me a series of key paintings. I measured the angles and realized that it's either between 28 and 35 degrees this angle, and I was doing a very elaborate Eisenmanesque analysis of how to put the perfect angle on the project, but I relied more on sort of first sketches on the site, and that was to build the museum itself as a kind of morphology of parallel perspective and then to top it out with a piece which would really be a kind of entrance piece but also look back to the city.

This is an interesting detail. I imagine that's going to go on through the rest of the symposium.

So you can see basically a very low building which contains all the galleries, bamboo will be the lined, the forms. Actually the bamboo that's growing on this site is the proper diameter to cut into thirds, and those will line the form work so the actual black and concrete will have this bamboo work which came from the site.
And the upper gallery. It's the first architecture museum dedicated to contemporary architecture in China. It's very small, it's 25,000 square feet, and I was very nervous that they will never have the proper curatorial staff, so I put in a curator's apartment with a beautiful garden. I've had trouble with my museums. I have a museum in Seattle that's, you know, the trustees walked away and they're blaming the architect. It has nothing to do with the architecture. So I'm very concerned about curators and trustees and this type of thing because I know that a building is just a dumb thing, and there are all these other more important things. So I thought for this, they didn't have a director, and I said, "What I'm going to put there is a great apartment, and I'll live there myself if they don't get a director."

So this is the sort of top gallery that flies like a lantern. It's really made out of lightweight polycarbonate panels, so it glows at night. And as you move through—it's a sculpture and model gallery—as you move through there's a little teahouse, and that end view is that view back. This is the main gallery. Of course that's a different lecture. And as you move through you slowly unwind and the last view you can see from that vantage point that's the actual perspective of the city of Nanjing.

And that actually is breaking ground in November. They're going to start building it with the drawings unfinished. They say, "Don't worry, we just start." It's very interesting working there.

I had more than seven days to do this design. This is my last project. And I tell you the project, talk about working with doubt, this really frightens me, this project. I was working down there on that little museum and I got an e-mail, would I mind coming to Beijing and consider doing eight towers 22-stories tall? And I said, "Well, you know, I mean, send me a plane ticket if you're serious," and they did, so I took the hour-and-a-half flight to Beijing, I arrive on a Sunday night at 10:30 at the airport with Lee, and a white Mercedes picks us up with two guys with white gloves, drive us to a hotel, and say be ready at 9 a.m.

It's a long story. But I've been working on it seven months, and it's very central, you know, I mean this is an incredible site. Here's the Forbidden City, from like the sixth floor you can see into the Forbidden City practically, on a clear day. And this is the Olympics way up here. Most of the projects are out beyond the third ring road. This is the second ring, so this is a very—it's like being on Fifth Avenue in Manhattan. And of course my head man on this project, I'm really collaborating with Lee Hu who was born in Beijing, he knows everything about Beijing. He knows about that dust storm that comes in March, he knows better than having balconies. All my sort of previous knowledge about making apartments I have to sort of bracket and try to understand it from his mind, so I have to say that it's not just me thinking about this, I'm really working together with him through a mind of someone who grew up in Beijing who's very aware of the problems.

And I was just there last week, stuck in traffic. They say today that if you want to do something during the day in Beijing you can only do one thing, because if you have to go across the city, you can't go across the city twice in an eight-hour day. And the smog was terrific, I mean it was amazing, it was terrible, it was like Mexico City. So I think that our project, which is this idea of an autonomous place that you can live, you can work, you can buy all your groceries, you can get everything you need, you never have to leave this sort of quarter. By the way, this is 728 units of housing, so
there's going to be about 3,000 people living here, and they're going to build it all at once.

This is a diagram of the way Beijing has been for thousands of years. Of course the hutan, the courtyard housing, develops out of the restriction that you can't see into the forbidden city, and also the big super-blocks. Now everything has changed, private developers are tearing down all these wonderful old courtyards, building point towers isolated at the base, and that's basically what this developer wanted to do. He wanted eight towers, he wanted a gated community, and no mixed use. So we proposed something quite mixed and quite different. I said, "What's really important is everything aside from the apartments that you offer, the shopping that you offer, the possibility of recreation, and the live-work mixture that you offer?"

And I thought to make—because it's set at 22 stories, that's the zoning envelope that we were given—to really make another loop at around the twentieth floor with a lot of other functions, like spas and teahouses, so that you really can experience the site in three dimensions, a really sectional euphoria. And when I presented it, the client compared it to Matisse—this is the client's comparison here, not mine—and I said, "Fine, you know, however you want to understand it, it's fine."

I mean what's really interesting—and this is the shock—is that I accepted this completely doubtful about whether [it would work]. I mean basically I had inherited a zoning diagram with eight towers, and these heights were fixed, not the shapes and certainly not the bridges. So I tried to radicalize it and make it the most interesting because it's super dense already, to make it the most interesting dense quarter that I possibly could, fully feeling that they would never go for it. And when I presented it on the 14th of January, they just said, "We want to build everything just as you drew it." Then I really started to get scared because some of these spans are really kind of, you know, not easy. And Guy Nordenson is helping with the bridges. We've got them down now, the cores are actually working. There's a swimming pool in a bridge suspended between these two towers.

Another thing that's interesting about working with the Chinese is the value system for ecology and thinking about the future, the twenty-first century. It's really a pleasure to work with people in a private development company that really care about these issues. This project is going to be the largest geothermal housing development I think ever in Beijing. There are going to be six hundred geothermal wells drilled at a grid on 5 meters that are going to provide 10 kilowatts of cooling per well.

By the way, the other project, the Nanjing project, is also geothermal. The wells there are drilled out in the parking lot and they provide 2 kilowatts per well of cooling power. So I mean it's amazing that we're using a gray-water system. We have a large pond I'll show you in a minute that's the centerpiece, that's using a very complicated gray-water system that allows all the water of this pond to be recycling out of the gray water and filtered. In the wintertime when this is not requiring more water, there's a redundant secondary system that allows it to use the gray water for toilet flushing. There's about—I could go on, I could just present the green issues on this project, it would take an hour. It's amazing. We're using Transsolar out of Stuttgart because we couldn't find anybody in New York that could sort of keep up with this sort of aspiration. And I think Cosentini is helping us, but it's really an
exciting—that part of it is really exciting. And then also the sort of mixed functions. All of these shops service the community, but the whole project is open to the public.

I wanted to engage one of the things that I love about ancient Chinese architecture, the polychromy. Having experienced a bit of it, I was always fascinated by the undersides, the eaves, and the way there's this incredible polychromatic ecstasy. And so these buildings, all the undersides of the bridges, have a powder-coat aluminum color. There's the pool, if you can imagine swimming on the twentieth floor in a bridge looking out over the city of Beijing. There's a landscape idea which has to do with cycles of life—a mound of childhood, a mound of adolescence, a mound of middle age, a mound of old age, and a kind of infinite mound. There's the childhood mound. It's required whenever you build a project this big—the government required a 25,000-square-foot kindergarten—so this is our kindergarten, which is also part of the landscape and knitted into the sort of arrival.

The project's totally open, of course, to the public, so for me it'll be on the level of Rockefeller Center, where it's a private development but really has public aspiration to create a public space. The sort of landscaping is merging with the great water garden in the center, and you can see that water garden really provides views all around the project, and especially at night. And the sort of centerpiece where they wanted to keep a rather ugly old factory building, we decided, we just sort of said, "You can't keep that because looking down on that would really be depressing." We put at the core of this two cinemas, a kind of cinemateque on the level of Anthology Film Archives, where the films will be projected in a kind of mist from the water on the outside of the frame of the buildings. There's a one-hundred seat, an eighty seat and a two-hundred seat. And there's a hotel which is the first link in the loop, so you can control that with a concierge, and there's the café from the hotel.

So the project really for me is, you know, what Hilary was saying in the beginning in her introduction, is how to humanize this super-dense development. And I have to say that I'm very excited about this. And by the way, we're working on this and we have had seven months to design it instead of seven days. I think architecture takes time, by the way.

You know, Rem's kind of gloss on the Chinese architect is slightly cynical. I think if you're going to do something you really need to work it out from every angle and from every aspect, it really does take time. But I believe we can do it in seven months, we're really breaking ground supposedly, they say, on March 1, so I'm really excited about this. And I'm excited about their acceptance of the possibility of a real twenty-first-century living, where all these different functions coexist with the 728 apartments that we're building, large apartments, some of them 200 square meters, some of them 250 square meters. And when I presented this the last time in March—Modern Group, which has a very charismatic president, Zhang Lei, who very seldom comes to the presentations, but when he does what he says is very important—and I presented this and I took, you know, sort of much longer than I'm doing today. We ended with this film, and I had all the hopes of all these different aspects aside from the housing that I'm putting in there. And by the way, they required 800 apartments. We were only giving them 728. If you did that in America the developer would fire you and hire another architect to give you the other apartments. So when I finished this Zhang Lei got up and in Mandarin said, "What's important here is the
spiritual aspect. We know we can sell all of these apartments." You know, it's like being on a different planet.

So I really am having a very joyful moment, but I'm very cautious and I'm very doubtful. Like Yung Ho said, it can stop any minute. But we have like 15 people working on this, building models kind of seven days a week and we're working on this, getting ready for the March 1 groundbreaking. And I hope it really proceeds. And I hope that this can contribute in a positive way an intensely human feeling of living in a dense new development.

Thank you.