

One of the Architecture World's Fast Rising Stars has BIG Plans for Designing Tall Buildings



Bjarke Ingels

Interviewee

Bjarke Ingels, Founding Partner

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Bjarke Ingels started BIG Bjarke Ingels Group in 2005 after co-founding PLOT Architects in 2001 and working at OMA in Rotterdam. Through a series of award-winning design projects and buildings, Bjarke has developed a reputation for designing buildings that are as programmatically and technically innovative as they are cost and resource conscious. Bjarke has received numerous awards and honors, including the Danish Crown Prince's Culture Prize in 2011, the Golden Lion at the Venice Biennale in 2004, and the ULI Award for Excellence in 2009. In 2011, the Wall Street Journal awarded Bjarke the Architectural Innovator of the Year Award. In 2012, the American Institute of Architects granted the 8 House its Honor Award, calling it "a complex and exemplary project of a new typology."

Alongside his architectural practice, Bjarke has taught at Harvard University, Yale University, Columbia University and Rice University and is an honorary professor at the Royal Academy of Arts, School of Architecture in Copenhagen. He is a frequent public speaker and has spoken in venues such as TED, WIRED, AMCHAM, 10 Downing Street and the World Economic Forum.

OMA alumnus Bjarke Ingels has made a name for his Bjarke Ingels Group with innovative, paradigm-busting projects that blend nature and functionality with new twists on traditional forms. Now BIG is venturing into tall buildings with high-profile projects in New York, Vancouver, Miami, Korea and China. Each project takes a distinctively different approach, displaying Mr. Ingels' knack for pushing the boundaries without rejecting mainstream concepts. In an interview with CTBUH Journal Editor Kevin Brass, Mr. Ingels talks about the transformation of his firm, the evolution of tall buildings and the lessons learned from Rem Koolhaas.

What do you want to bring to tall building design?

I think any building scale or type has a set of conventions and a set of attributes that are, of course, interesting to get to know. Quite often there is a good reason why certain things ended up the way they are. And sometimes certain restrictions or habits are actually leftovers from conditions of the past that are no longer current and therefore lend themselves to being questioned once again. I think right now we are involved in a handful of projects in different contexts that somehow try to attack the traditional high-rise from different specific angles. Two examples that are both very much children of their context: a tower we are doing in Vancouver and a tower in Shenzhen (see Figures 1 & 2).

It's two quite identical typologies from the starting point: skinny tower on a podium. But they are two very different climates. Vancouver is very Scandinavian whereas Shenzhen is humid or tropical. For the project in Shenzhen, we have a very highly-restricted envelope, but the façade is designed to maximize the exposure to the cool daylight from the north and to minimize and block off the exposure to the warm sunlight and glare from the south. So the façade is kind of like a dress... a fabric that ripples and is closed towards the south and open towards the north. This very simple idea reduces the thermal exposure and need for air conditioning by 30%. Without any technology or moving parts the pure design of the façade actually makes the building perform. So what

makes the building look different is also what makes it perform differently.

Whereas the tower in Vancouver is wedged between the bridges of a forking bridge, the Granville Bridge, one of the main arrivals to Vancouver, and because the minimum requirement is having a 30.5-meter distance from any residence and highway, our foot print is restricted. But we saw as soon as we get 30.5 meters up in the air we have already achieved the minimum distance and the apartments can come back out and create a floor plate that is actually twice the size at the top than at the bottom, almost like pulling a curtain aside.



Figure 1. Shenzhen Energy Mansion. © BIG

Some people might find tall building conventions to be restrictive or boring. How are you addressing those conventions in your designs?

You need rules if you're interested in bending or even breaking the rules. The good thing about conventions is that they represent a series of assumptions that you can then question. Most of the time the assumptions turn out to be valid, but sometimes either something has changed or there's a new technology, it's a different market, or the context or climate is different. And then one of the assumptions is no longer valid and there is an opening to try to do something in a smarter way.

Do you spend much time looking at other tall buildings?

Yeah, I think we always spend a lot of energy looking at what's already there. Like what's in the surroundings? What do buildings normally look like in this neighborhood or in this scale? Why do they look like this? Almost as a way of defining a brief, but sometimes it's a positive brief that we establish a series of elements that we find desirable. Or we have a negative brief where we identify things that we think are mistaken, or certain opportunities that we would like to explore.

What do you think of the state of tall building design right now?

It's a very broad field. I think that in general the majority of high-rises that are popping up in the Americas – and especially in the Middle East and Asia – are quite generic, conventional high-rises with all-glass curtain walls and some kind of an ornamental headpiece at the top to distinguish them from the neighbor towers. So I think it is definitely a field that seems to be somewhat inhibited in its capacity to identify interesting opportunities.

There's also this constant battle between form and function. Is that part of the challenge for you?

Yes, I think that the reason that there is the term "perfume bottle architecture" is that for some architects it seems like there is the shape of the building and then there is the content of the building. And I think in America, the way the profession is organized, this is exacerbated that you have one

architect that does the structure and the envelope of the building and then you have other architects that do the interiors. Whereas in Europe you don't have the same distinction between the inside and the outside. And we're fortunate that in Vancouver and Miami, and now in New York, we actually got the job to do the interiors as well as the exteriors.

Do you find that you have to make more compromises in your design for a tall building to address the mechanics and economics than you would in other typologies?

No, I think you have certain givens and certain parameters that you have to work with no matter what scale of a building you're working with. It's not like I think a tall building is more difficult to design than a short building. I think it's always true whenever you're designing architecture that the parameters that you identify as key criteria in the beginning of the process become tools that you can work with. They become ingredients that you can use to create your design. Whereas the ones you fail to identify, they will come back and bite you because you didn't incorporate them in your thinking from the beginning. So that's why we hear about compromises when the facts is, for instance, [elements] like MEP or structure haven't been factored into the design process from day one.



Figure 2. Vancouver Beach and Howe Tower © BIG

You spend most of your time in New York these days. How is designing in America different than the rest of the world?

I think one thing that I would identify is that the whole process of designing and engineering a building has been Balkanized into armies of specialized consultants. The design process in Europe and especially in Canada is much more unified. You have an architect that does everything: the design, the execution, the construction administration and the interior. You have an engineer that does structure, MEP, civil, the whole spiel. You have limits, but it also has a great potential for synergy between the different professions. In the American model it's a bit more of a challenge because it's almost like one consultant finishes his or her job and passes it on to the next and the next and the next. Buildings end up being like an accumulation of efforts that are less integrated than they could have been.

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Figure 3. West 57, New York. © BIG / Glessner



Figure 4. Seattle Central Library. © Steven Pavlov

You've opened an office in China. How much of a focus is that going to be for you going forward?

Right now we have a production office in Beijing. We are running most of our Asian projects out of Copenhagen. Of course, a lot of opportunities present themselves in Asia. But I think now our main focus is probably Europe and North America.

“I think maybe there’s a tendency towards a more three-dimensional exploration of the life between the buildings, not only at street level, but higher. I think maybe also you will see a lot more effort in the transition from the streetscape to the tower.”

But Europe and North America have been slower markets over the last two years for tall buildings?

Yeah but you know we have like 150 people, we can't build every single building in the world. I think we're more interested in doing things of high quality, where innovation is actually in demand, rather than pumping out forests of high-rises all across the Asian continent at ridiculous speeds. So we have a handful of significant developments in Korea, Taiwan and China – some of them for American investors, actually.

You've talked about “hedonistic sustainability.” What does that mean?

It's essentially the idea that sustainability doesn't have to be some kind of a downgrade of your lifestyle [and can] actually coincide with increasing life quality. I think there's a lot of examples where what makes a city more sustainable is also what makes it more enjoyable.

There was a report a couple weeks ago that the Durst Organization is not going to seek a LEED rating for your New York project, West 57 (see Figure 3). Do you think LEED ratings are a relevant barometer of the sustainability of a project?

I think they were really relevant for putting environmental performance on the agenda by making it visible, measurable and tangible. Durst believes that. They are probably the most environmentally concerned clients that I've ever worked for. But I think that they were

seeing that it was becoming an unnecessary expense and bureaucracy to go through the LEED certification. And they were much more concerned about the energy performance and the life expectancy of their building than counting LEED points. So I think maybe it's just in the case of the Durst Organization that they might have moved beyond LEED.

For someone who's willing to break away from the norm, you seem to have pretty good relationships with developers. What's your secret?

I think it's because we work with criteria. I love working with professionals because professionals are quite often aware of what they're doing so they can actually come with quite clear criteria and they can come with specific briefs for their building. And they quite often have certain experiences with what hasn't worked for them in the past and why. So that means that we actually have a very clear client to collaborate with. Since the work we do is very much based on analysis and consequence we can turn those – let's call them limitations or like parameters – into the driving force of our design because we are really genuinely interested in discovering buildings that look different, truly because they perform differently. So it's not like we're coming with some kind of pre-conceived style that we always have to do. In each case we somehow try to identify what is that true potential of the specific project. I think that makes us quite capable to collaborate with clients.

What lingering impacts did your time at OMA have on what you're doing now?

I think the greatest education in architecture is master apprentice. You work with and for someone whose thinking you admire or whose work you admire. In that sense, I learned a lot working at OMA. It seemed like a major part of my education. At the time, I was working on the design of the Seattle Central Library (see Figure 4), which in a way is sort of like a high-rise library, and at the same time they were doing projects all over America and Europe. I identified the need when you are operating in places outside your native environment to really make an effort to instantly acquire and understand the conditions you are operating in. Understanding precedes action and if you don't know you can't act. So one of the most crucial things in architecture is to find ways of instantly acquiring knowledge of the place that you're going to be operating in.

There's always this desire to build taller. Do you buy into that? Do you think we should be growing taller?

I think there's a certain element in human enterprise that is about achievement and about pushing boundaries. I mean I would be surprised if in 1,000 years we only live on planet Earth. So in that sense, I think it is a very beneficial element of human nature to always want to explore: explore cases and explore boundaries to create new possibilities.

Do you have a desire to push that boundary in terms of height? Would you want to design a kilometer tall building, or taller?

I was quite fascinated by the Chinese chap, the company that has announced plans to do the tallest building in three months.

Is that something that you'd want to do? Do you have that aspiration to get involved with tower of that height?

We are currently involved in a tower that is a little less than 610 meters and I think it's a remarkable challenge. I find it super fascinating.

Where is that?

It's in China.

How do you think tall buildings are going to be different in 10, 12 years? What breakthroughs are we going to see?

Yeah, I'm, curious. We're doing one project in Korea, in Seoul, which is essentially twin towers, but two towers stacked between them, sort of forming these hidden vertical communities with these Babylonian hanging gardens between the towers. I think there's a tendency towards a more three-dimensional exploration of the life between the buildings, not only at street level, but higher. I think maybe also you will see a lot more effort in the transition from the streetscape to the tower. You might have a more gradual maybe,

again, more three-dimensional way of inhabiting space at the base of the tower.

That's your Yongsan project?

Yeah, yeah (see Figure 5).

Is that going to happen? Where do you think that is in the development stage?

It's a big urban master plan that's being approved now. They've had almost 40 different teams cranking away, so it seems to be going ahead.

One more question. We're based on the campus of the Illinois Institute of Technology, where Mies van der Rohe was the Dean of Architecture. You called your book *Yes Is More: An Archicomic on Architectural Evolution* and I'm curious what you think of the whole Miesian style and era?

Mies has made some amazing typological innovations. You know he stripped the Manhattan high-rise down to its bare bones. He was good at distilling an idea into its pure essence. If it's about the view, why don't we make the entire wall the view? If it's about a big open inviting lobby why don't we just make it completely empty and transparent? So he was taking ideas to the essential extreme. I think also, when you travel around Canada and America, you realize that he did the same high-rise like 10 or 20 times, to the point where he was so obsessed with perfection that he got stuck with what he believed to be the perfect solution, and then he just repeated it.

I think that's the problem of his idea of universal application of the ideal solution. You miss the problems and potentials of the fact that you have different contexts, different cultures, different economies, different climates, different landscapes, different programs. Each parameter changes the equation and distorts the solution away from the universal perfect solution towards the set of locally optimized solutions. For me I'm much more interested in exploring the potential of these differences rather than always repeating a certain universal ideal. ■



Figure 5. # Towers, Yongsan. © BIG