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Taming Tall Buildings' "Autistic" Tendencies



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Kees Christiaanse studied architecture and urban planning at TU Delft. From 1980 until 1989, he worked for the Office for Metropolitan Architecture (OMA) in Rotterdam, becoming a partner in 1983. In 1989, Christiaanse founded his own office, Kees Christiaanse Architects & Planners in Rotterdam, known as KCAP since 2002. From 1996 until 2003 he taught architecture and urban planning at TU Berlin, Germany. Since 2003, he has been a professor at the ETH in Zurich, Switzerland. In 2009, Christiaanse was curator of the International Architecture Biennale Rotterdam (IABR) with the title *Open City: Designing Coexistence*. Since 2010, Christiaanse has been program leader of the Future Cities Laboratory (FCL) in Singapore.

The CTBUH is actively expanding the "Urban Habitat" portion of its mission, which calls for tall buildings to be optimally integrated into human-scaled urban environments. Reflecting this mission, CTBUH Editor Daniel Safarik recently spoke to Kees Christiaanse, principal of KCAP Architects & Planners. The firm has offices in Rotterdam, Zurich, and Shanghai, and has extensive experience in urban master plans throughout Europe and Asia, as well as having designed numerous individual tall buildings in those contexts. These include the districts of HafenCity, Hamburg and Wijnhaven Island, Rotterdam, where KCAP's Red Apple, a 2009 CTBUH Award-nominated tall building, is located.

I'm very interested in the concept that your firm has developed called "flexible urbanism." That has a very appealing sound to it. Can you define it in your own words?

If you work in the city and you work within a larger context, you will soon learn that everything that you draw that you think is fixed will be changed over time. These days, when there are such enormous and rapid transformations in economies and urban contexts, it's no use to work on designs that are inflexible and fixed. It's necessary to work in a more strategic way, to work in a way of control and *laissez-faire*, in which you define certain things that you assume are robust, and leave other things open. This makes you more like a director and less of a sculptor. I think this is a vital difference between an architect and an urban designer. The architect always ends up creating his own confined product within the brief and the site that he's got and according to his own fine taste, but the urban designer has to coordinate between everybody's bad tastes and make something out of it. So it's a radically different way of working if you want to do it right. You also have to very clearly study impacts of urban design in order to get feedback and identify if your designs will have an impact or not.

Tall buildings are often accused of being contextless, immutable, and hostile to the street. You've designed several very interesting tall buildings that fit within their environments and many more urban plans that incorporate others' tall building designs. What do you think is essential in order to facilitate "flexible urbanism" in that context?

What is very important is the relation between

plot size and the urban ensemble of tall buildings. In many cases, tall building ensembles are footprint developments that have a very autistic relationship with public space. For instance, they only have one entrance over a whole block. They are often blind in the sense that they have basements or parking garages on their façades. That's not a good condition to develop urban quality. There is a direct relationship between plot size typology – on the one hand – and urban vibrancy. Let's say we always try to work in high-rise conditions to give them smaller footprints, so they have to arrange themselves in relation to other plots. This creates an emerging friction where they settle themselves and are given much more grounding in the urban fabric.

Connected to that is the idea of a podium. Many modernist towers still stand as shafts on the ground without any public space or courtyards. You see that most urban vibrancy develops in conditions with clear fronts and backs, and clearly indefinite spaces that can be colonized by uses. This is something that a lot of those buildings don't have.

Then of course, you have the traditional American problem, where there are building regulations that allow enormous floor plates. These aren't allowed in Europe, because there are daylight rules that limit large cores. This initially looks very economical, but in the end it is very inflexible, because it means that these building can be used in no other way than as large offices. If you take into account that the life cycle of buildings is increasingly short, then these enormous floor plates are not very sustainable in terms of flexibility.

“[As an urban designer] you have to have a very hard head, because you are constantly punched in the nose.”

You also see that gradually people are looking for either smaller footprints or modulated plans, where there is much more exposure to the outside. It's also very important to take into account where the cores are, in order to have a semblance of flexibility.

As a master planner, do you feel that you are able to get the appropriate level of flexibility out of local codes when you are working with authorities in different countries?

In many cases not. Unfortunately, the urban designer is someone who has a lot of power, but also is completely powerless. This unstable condition is often reflected in an urban design, which means that certain aspects you cannot control, such as if a mayor comes and says, "I'm going to do this, and despite your design I'm going to change it." You have to have a very hard head, because you are constantly punched in the nose. You have to give up principles, not because you are compromising, but because there is no choice. People just go over you. This is a basic aspect of urban planning which you shouldn't conceive as something personal, but as a consequence of urban development being the result of so many people, influences, and forces of power. The direction that it goes sometimes is not predictable. If you do not like this kind of unpredictability, then you are in the wrong business.

We have a lot of problems with mayors in cities that have romantic, and short-sighted legislation-oriented ideas of how the city should be. This is very damaging sometimes, but it's all in the game. I would say that out of 10 projects, one project is OK as it is realized.

What do you think were some of the most successful projects that integrated the verticality of tall buildings with a humanistic, flexible urban design as you intended?

I think our HafenCity Hamburg project (see Figure 1) is really the most successful, but this is due to the politics that were very enlightened. The management of the HafenCity Corporation consisted of extremely well educated and insightful people.



Figure 1. HafenCity, Hamburg. © Reinhard Kraasch. Source: Wikipedia

Some have criticized that certain buildings in that development, like the Elbphilharmonie, were expensive and too slow to finish.

It's just one building, which is not part of the HafenCity budget. Apparently it eats up part of the cultural budget of the city, which is quite damaging, although in 10 years nobody will talk about it anymore. Another stagnating project in HafenCity is the middle section, The Überseequartier, which, contrary to the other projects, was tendered as one big project at 300,000 square meters. This has caused problems. The Dutch investment banks pulled back after the economic crisis because they weren't allowed to go into real estate anymore.

The German developer was too small to do it by himself, and had never done such a big project, and almost went bankrupt on it. In the end there was no commitment after a little bit less than two-thirds was constructed. After it was completed, the main shopping street was still unfinished, so the shops within the development got into difficulties, because there was no circulation. It's a snowball effect.

The main part of HafenCity was developed block by block. Sometimes there were two or three building sites that were organized as competitions for design-build teams. When somebody won, they only got the land and property from the moment they handed in the building permit request, that is, when they paid the fees to the city. This meant that they

would certainly build the project, because the fees are significant. That led to an incremental kind of development, in which every project that started was secured because the building permit was handed in. That's also why it is both a large-scale and small-scale project.

Are there standalone projects that you also think were successful?

The second project of ours that I think is very successful is this tower project in Rotterdam, the Red Apple (see Figure 2). This is a single building within an urban design that we



Figure 2. Red Apple, Rotterdam. © KCAP

made for Wijnhaven (Wine Harbor) Island. We used a dynamic high-rise zoning law in which the block structure and small parcels stay intact. So there are no superblocks; high-rises are not allowed on a plot that is bigger than 2,000 square meters.

Further, we don't care whether owners take down the old buildings or build new ones. You can leave the old buildings and extrude a certain volume allowance into high-rises, or create a new building with a podium harmonizing with its perimeter block. There is a formula that describes the relationship between the building volume for the tower and the footprint of the plot. The relationship allows you to build a maximum of 35 cubic meters per square meter of plot. This means that if you want to build high, you have to go slender. If you want to build low, then you have to get fat. You typically arrive somewhere in between. It's a kind of self-regulating mechanism, and it works very well.

How do you feel about the Red Apple project and port areas of Rotterdam now? Do you feel that the city is a skyscraper museum? Is it a thriving district with its own personality?

To be honest, the City of Rotterdam has, since 1945, developed three concepts for how the city center should develop. The last concept was the "jump across the river." The idea was that there could be another half of the center on the other side of the river in order to activate the poor part of the city. It's starting to work now, but it was initially the wrong decision. This is because Rotterdam is a city in which the center itself is a desert. It was a vibrant medieval town before the Second World War, then it was bombed by the Nazis, and then completely flattened by the Dutch themselves, because they wanted to make a new city center. They dispossessed all of the plots and demolished the buildings. Then they designed a new street grid that was filled in by modernist buildings. The city was just at the point of developing a vital center when they decided to jump across the river.

The typical Dutch policy to create development is to draft a master plan, allocate plots and programs, and put public

institutions in these buildings in order to finance the project, which of course cannibalizes some other area. So they put public offices, the court house, the port authority, and the town planning department across the river. They also put a public theater over there. All of this drains the energy from the real city center. It was a very risky enterprise, and it leads to the fact that the city center itself is still rather empty. So what I'm working on is revitalizing and densifying the area south and east of the city center near The Red Apple. This whole area is under my "coaching," so to speak.

That seems like an amazing opportunity. For a city that's already been razed and flattened once and has almost been master-planned to death, there is a chance to restore vitality.

It has enormous potential. But if you go to Chicago into the Loop or along the park, it's an unbelievably vibrant city center with a lot of flair. It has a lot of very high-quality offerings, which Rotterdam does not have. The city experience is very cheap. Chicago is a lot more like Hamburg.

Hamburg is actually Chicago's sister city. Some of its leaders came here to give a presentation about HafenCity, drawing comparisons between that site and Lakeside, a derelict industrial site 20 kilometers south of the Loop that is going to be redeveloped. Unlike HafenCity, it's not at a walkable distance from downtown. It has great views of downtown, but that just emphasizes how far away it is. Transit connections are also an issue.

If you walk around Chicago, you realize that there is plenty of space left in the city itself. I'm amazed that if you go west of the Loop there is a sudden reduction of density that is quite unbelievable, in relation to the city center. In my perspective, that will be a super-interesting area to rapidly develop and densify.

Yesterday I was on the architecture boat tour, and I must say that the quality of many newer high-rises is really bad, compared to the last heroes of the '60s and '70s. If you ask me to point out good buildings, I would say that most of those '30s limestone Art Deco ones are great,

the terracotta productions are super, and the Miesian generation is great. Then some kind of freaky people like Harry Weese and Bertrand Goldberg. But all of this postmodern stuff is really a shame. And a lot of the later Skidmore buildings are also awful.

One of the buildings that gets a lot of attention is De Witte Keizer in Rotterdam, largely for what's going on underground. It has a very sophisticated robotic parking system. As a planner, do you dream of the day where you won't have to accommodate automobiles in buildings? What led to that robotic parking system?

Well, we simply have norms. Otherwise we won't get a building permit. The client happily said that they didn't want five stories of parking above the shops, so let's make something decent out of it. I would rather have a rule for parking that states that you can have as many parking spots as you want in your development, as long as they are invisible. That would be an interesting option for inner-city development. But of course it should be implemented in tandem with municipal improvements in public transit that reduces the amount of automobile use.

At the same time, you can't completely replace individual motorized use; it would destroy the economy. There needs to be a balance. The car problem is now only a spatial problem. It used to be a pollution problem, but it's not anymore because cars are so clean. There are electric cars, and also combustion engines are now very clean. It's now a space, volume, and traffic problem.

You have described some disused urban sites as "waiting lands," as in "waiting for their purpose to become obvious and realized." Where is there a "waiting land," in your mind, that is most exciting to you, where you would very much like to work?

The best kind of site is one that is a derelict industrial site, but it is located very centrally, or has the potential to create a new centrality. It should be able, through developing itself, to attract creative programs and tie together neighborhoods that didn't connect before. That's really my kind of work; it's my profession. ■