

Episode 6 - Sustainable Cities

This is Radio Australia. Hello I'm Barry Clarke and welcome to 'Sustainable Cities' - challenges in the Asia Pacific.

In this program, Beijing.

FEMALE STUDENT: I suppose just like everyone I was amazed, the size of the city, the size of the buildings, the size of the roads. All of the roads are equivalent to our freeways. And I guess the other thing that amazed me was just the speed of the development, just so many things getting built, so many new buildings.

MALE STUDENT: What struck me most powerfully and amazingly, wasn't so much the dramatic differentiation in scale, but was a notion that an architectural polemicist called Rem Koolhaas from Holland talks a lot about and which is a city of exacerbated difference.

You have a massive western skyscraper right next door to a tiny traditional Chinese hutong, that's crammed with people and detritus from centuries of habitation and it's a differentiation you don't see in most western countries.

FEMALE STUDENT: I was quite amazed by, once we'd gotten around very large streets driving through triple story flyovers and got into the very small city, I thought that was the most surprising thing, to see this kind of shift in scale.

It's a whole different kind of headspace. This is the old part of Beijing which is hundreds and hundreds of years old and it's based on this courtyard style house so you walk down a lane and on either side are little compounds and you see the wall of the compound and you get a glimpse in of a little courtyard with little houses around.

Some of them are completely filled in and maybe thirty or forty people live in this tiny compound and some of them are quite open and stately. You know, there's 3 or 4 families sharing this little area, and it's all sort of mixed up with people selling things on sticks on the street and the incense seller and lots of stuff happening.

CLARKE: Postgraduate students from the University of Melbourne's Faculty of Architecture and their impressions after visiting the Chinese capital in 2004.

Dr. Jianfei Zhu is a senior lecturer with the faculty and he says these elements of size and scale so apparent in Beijing result from the city's imperial past.

JIANFEI ZHU: Beijing itself is always big. Imperial Beijing is big. So, whenever you walk in Beijing now it is always big. And that is a problem and I do not know how we can deal with it satisfactorily because the overall size of the city is large.

The major example would be Tiananmen Square, which is a modern square. It's the largest square in the world and Tiananmen Square is big because the Forbidden City itself is also big and therefore all

the building surrounding it has to be big. So the traditional scale of Imperial Beijing demands the building of large buildings in contemporary Beijing.

CLARKE: Architect and urban designer, Steve Whitford, also lectures at the university. He believes it's vital the city retains its more human scale spaces in the rush to modernise.

STEVE WHITFORD: There is a lot of contrast at the moment. There's a lot of massive projects going on and a lot of big scale. But the ring roads have always been very big and the east west axis through Beijing has always been a large space.

So, Beijing has this tradition of largeness if you like, but also there is this intimate sort of small scale, and it's at that scale where the city works the best for human beings, definitely. Let them develop these large grand projects, but they should be very aware not to lose these smaller, intimate spaces and you've got to keep the mix right too.

You want to keep the balance right so that you can move from these very large, grand, international, global type city spaces, but move very quickly into these other places, the traditional places it's provided. So they need that diversity and my big concern is that the way they're madly building at the moment, they may lose that diversity.

CLARKE: Dr. Huang Ping is a sociologist with the Chinese Academy of Social Sciences and he's observed many changes in the city.

HUANG PING: During the last two or three decades, Beijing became metropolitan, not only in terms of size; it's a kind of complex center for industry, administration, political culture and social center of the country. And now with a total population of over 12 million, so almost doubled over 20 years, plus something like 3 and a half million floating population, so there are like 15 million people here.

Also Beijing becomes more and more international. There are not only just embassies, but many companies who have set either headquarters for China or even headquarters for Asia here. And also in terms of the cultural change, Beijing is quite young. Actually, it's old and young. Young because there are lots of newly emerged cultural activities which you can see everywhere in Asia today from Bangkok, Manila, Tokyo, Seoul, Hong Kong, these type of similarities between the young people. And sometimes I feel there are more similarities between these cities, than between Beijing and provincial capitals.

CLARKE: So what impact has the large increase in population had on the citizens of Beijing and on the city itself?

HUANG PING: Beijing is becoming taller and taller. Beijing used to be a very traditional Chinese capital with lots of old, sort of, what we call hutongs courtyards for the ordinary people. Now there's lots of modern even postmodern architecture around.

Of course, second thing is size, now Beijing is much larger. Twenty years ago we only had [a] second or at most, [a] third ring road. Now we have the sixth. So, it's become expanded. And third of course, Beijing is becoming more complicated. You can meet every type of people from every part of the world in Beijing's streets.

And not surprising, sometimes you also feel Beijing is becoming more and more international. And

in terms of the impact on the people, now people become more and more interested and have lots of knowledge. They can watch news, they can get easy access to the internet so they become more and more open minded. So people are changing also very rapidly.

CLARKE: Dr. Huang agrees that the changes in the city are not always seen in a positive light. As an example he cites the destruction of the old hutongs, and the traditional way of housing as more and more high rise are built to replace them.

Another critic of this is Alfred Peng, Professor in the School of Architecture at Beijing's Tsinghua University.

ALFRED PENG: Unfortunately, it's very ridiculous. Some of the government agencies, they have a bureau which is a cultural relic protection bureau – their job is supposed to protect this kind of courtyard housing. But they have another commercial company, it's trying to build new development buildings.

Well, I think some of the work they have done has destroyed the old courtyard housing under the name of renovation or upgrading. Actually, they have destroyed a lot of them.

HUANG PING: At the beginning of course, people in the hutongs themselves feel quite happy to move to the modern high rise buildings because usually the hutongs had less facilities, infrastructure, and were very crowded. So, the elderly people, they may feel lonely for instance in high-rise buildings, there's less communication with neighbours. So recognizing that, many people including some local communities are talking about community rebuilding. So they would like to regain that sense of community identity and neighbourhood.

LAURENCE BRAHM: The changes are remarkable and not always in a positive sense. I mean the old, traditional city has disappeared and it's been replaced by a very modernistic city.

CLARKE: Laurence Brahm has lived in China for two decades. He's an author, columnist and political commentator based in Beijing.

LAURENCE BRAHM: I think it's sad they've destroyed so much of the old city, the traditional city. But on the other hand, this reflects very much the psychological striving of the society today.

Architecture, in whatever form it takes, is an expression of people's relationship with their environment, a relationship with themselves. And certainly in the case of Beijing, there's this mad rush to try and be recognized as an international capital.

I mean, more than anything else, Beijing people strive for this recognition. No other place went so crazy finally being chosen to hold the Olympics as Beijing. But this reflects something decades, even centuries, of a relationship with the West, where they... first of all, they were in the Opium Wars, where they felt they were inferior and being subdued by colonial powers. And then certainly post 1949, they were snubbed by the US [United States] and treated as a rogue state for about 35 years.

So really, this is a situation of the psychology. The fastest way to express that you're modern, that you're international, is to try to take the architectural styles from all the international countries. Everything is being driven by an association with Europe and the West. And it's kind of sad because they've ploughed down, torn down and lost a lot of their traditional culture and heritage in the

process. I think that is very much the kind of conflict of psychology now in Chinese people, which reflects the turning point they're at in the 21st century.

CLARKE: Professor Alfred Peng has been teaching architecture in Beijing for over 20 years. He's critical of many public buildings in the city, some designed by foreign architects, and fears the loss of the 'Chineseness' of Beijing.

ALFRED PENG: Architecture, I think, is the most concrete crystallisation of science, philosophy and arts which reflects the human cultural achievement of today and creates a better living environment for tomorrow, provided the architecture is good. On the other hand, bad architecture can also create a negative living environment, plus they would destroy and ruin some of the good culture and also existing environments.

So it takes time, the whole economy, development. And also it takes time to educate the whole country including the cadres, the government agencies and officials. And most important, the architects also need to be educated. It takes time, 10 to 20 years. But the sad thing is when that time comes, I think some or most of the cultural relics have already been ruined. Then you have to build some new ones.

CLARKE: It's possible to build new cultural icons?

ALFRED PENG: Yes, if you have learned the core national policy. They said they wanted to develop scientifically. And also they wanted to build a harmonized society. If you have many outrageous buildings, it's not a harmonized society.

JIANFEI ZHU: I think one of the most important issues they have to face is to design in consideration of human scale and human access.

CLARKE: Jianfei Zhu visited the Chinese capital with a group of his students in 2004 and I asked him if this challenge of designing buildings with consideration for human scale and human access was being met.

JIANFEI ZHU: I think overall it's quite a failure in fact. Most buildings are built quickly without consideration for human access or human scale, with some important exceptions. And one important example is the Jianwai SOHO by Riken Yamamoto, in the east of Beijing in the CBD [central business district]. That building seems to be a very interesting alternative to the current practice in Beijing, because that building offered a very accessible human space on the ground floor where people can easily walk onto the site and move into various facilities of the site.

CLARKE: According to Dr. Zhu, there are two components that need consideration. One is the scale of the building, the other is accessibility to human movement.

JIANFEI ZHU: The scale of the building again has two issues. One is the physical size of the building. The other thing is the approach to the building, when you get close to the building, the design of the parts of the building, like the entry, the foyer, the gardens is another issue.

Now when we talk about the first issue, the size of the building, it's no longer possible to design small buildings in Beijing. So, the overall size of many buildings will inevitably be very large. But that does not prevent us designing a building that has a human scale. So, it is possible to design a very large building, with various parts of it being human in scale. For example, the foyers, the entry, the windows, the gardens, the ground floor design can be of a human scale even though the overall size of the building is very large. And that is something that is weak at the moment. That's one

thing.

The second thing is access or movement, that's more abstract. It's about the overall design of the ground floor, the relation with traffic. At the moment, an overwhelming number of buildings in Beijing do not care at all about human pedestrian movement. So it's pedestrian movement that I'm talking about when I talk of human access.

CLARKE: Well, given that so many buildings are not addressing this issue, and if there is no change, how will Beijing end up to you as a city? Will it be a city that lacks this human dimension, this human scale?

JIANFEI ZHU: If these problems are not addressed then it will become harder and harder for pedestrian access to various buildings and facilities. It will be just imposing on human life basically, an enormous psychological pressure as well as functional difficulties for people to move around.

So, I think when [the] Beijing construction boom reaches a certain point, these issues will be raised anyway whether we talk about it or not because the general population will talk about it, the government officials will talk about it. It will become a practical problem anyway because people can't walk into a building any more.

And I think, give Beijing another 10, 15 or 20 years, these problems will be addressed sooner or later, one way or another as we see in Japan or Hong Kong, when they've already passed over that point of building boom, they became more concerned about small scale space, that is accessible for human movement. At the moment, Beijing is crude, if you like. They're building big buildings, infrastructure whereas the human quality is weak at the moment.

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LAURENCE BRAHM: I remember a decade ago riding my bicycle around the old hutongs. It was a place of leafy alleyways and old brick houses and it was a very charming environment. Here in Beijing now you don't dare ride a bicycle out because the traffic's so bad, it's crazy and the pollution factor is really unbearable.

JOHN WHITELEGG: The rapid decline of cycling and the huge increase in the number of vehicles and the degree to which they are being used is I think almost unprecedented globally.

CLARKE: John Whitelegg is a Professor of Sustainable Development at the University of York.

JOHN WHITELEGG: And what that means is that for the ordinary residents of Beijing, they are experiencing very serious air pollution, very serious related health problems; respiratory disease, various problems simply in terms of moving around, even down to difficulties in crossing roads. The very basic things of everyday life are tricky.

It means, for example, the buses - and there's quite a dense bus network in Beijing - the buses are actually stuck in traffic. If you have several hundred thousand vehicles competing with each other for road space in the morning peak [hour], people can't get to work and can't get to college and can't do the various things they have to do easily. So Beijing is in a very, very tricky situation at the moment where normal everyday life is very seriously challenged.

And the important conclusion from all that which I think is fairly well understood in China itself, is that the need for some kind of solution is really, really urgent. But at the moment the problems are deteriorating so rapidly that it's almost very difficult to know where to begin to solve those problems.

CLARKE: John Whitelegg is with the Stockholm Environment Institute - a sustainable development science policy think tank and is currently working on a project with the Chinese authorities called 'Sustainable Urbanisation'. I spoke to him from the UK after he visited Beijing early in 2005. So what are their priorities in managing traffic for the city?

JOHN WHITELEGG: Well, I would say the authorities at the moment are genuinely uncertain. And I don't say that in a critical way. I've seen uncertainty in most cities of the world about how to solve traffic problems, because on the one hand they see motorized traffic as being more or less an essential, normal part of everyday life and they're nervous of doing anything that will be seen as anti car or anti motorized transport.

On the other hand they are acutely aware of the very real problems of traffic congestion and they desperately want to find a way to resolve that. And at the moment they're putting most of their efforts into new road construction and new kinds of technology that will monitor and assist in ensuring the free movement of traffic. And I think the great challenge for Chinese administrators is to make the transition to looking at the system as a whole. All I mean by that is how can we actually persuade some people not to use their car so much, how can we improve the buses, can we have bus rapid transit systems, can we encourage more people to cycle, even at a time when many Chinese see cycling almost as a hangover from a former, less developed, less sophisticated age.

So making the transition to look at transport as a total system where you can balance bus, bicycle, walking, train, different kinds of buses and I think there is real uncertainty at the moment and big decisions will have to be made very quickly to get over this kind of uncertainty and this difficulty about how to set priorities.

CLARKE: John Whitelegg believes the Chinese authorities are prepared to make hard decisions if they're convinced they'll solve the problems and things like bus rapid transit, dedicated road space for buses and congestion charging - measures adopted by Singapore and London - are certainly on the agenda.

However he's concerned that as China embarks on its urbanisation process, it's locking itself into an oil dependent model, a model that increasingly looks unsustainable.

JOHN WHITELEGG: We know that globally while oil is not going to run out, the rate at which we discover new resources is in rapid decline. This tends to be known as the peaking problem and we've passed the peak already. Now at the same time, India and China are on a very steep curve in terms of the amount of oil that they want. And I've suggested to the Chinese, as I've done in other countries in the world, that we have to find a way of reducing our oil dependency.

But I'm particularly concerned about China, because China's embarking on a huge program of investment in precisely those things that increase our oil dependency. So I think the big issue for China is to come to terms with the serious implications of becoming more oil dependent.

CLARKE: But John what's the alternative for them?

JOHN WHITELEGG: You can develop any territory, any nation in a way that's not so energy intensive. You know you can organize transport systems, people can still be mobile and do what they've got to do but use much less energy. I mean, 200 people on a bus, on a very modern, very comfortable bus, will use a lot less energy than if people are driving around in cars. You can put up buildings so they don't need air conditioning. You can design manufacturing plants so that you recapture heat, you recycle materials, you reuse water.

There's a whole world of how to make more use of less. And this whole area is very well known, but doesn't tend to attract government support because governments are in the very straight forward thing of economic growth and they don't like to think about how can we develop at a lower rate of consumption of energy. And that's not happening anywhere in the world.

It's just that I think it's particularly dangerous for China, because China's got the highest rate of economic growth, the largest population, the largest commitment to urbanization. And if these predictions about oil availability and oil prices come to pass, then China is going to be in enormous trouble by 2015 or 2020 because it spent the last 20 years locking itself into an oil dependent model when it need not have done so.

CLARKE: The level of public awareness and debate of issues like these is growing all the time and Huang Ping now feels optimistic that Beijing can develop into a more liveable and sustainable city.

HUANG PING: I was quite angry in the 1980's when I saw such changes without necessary considerations of the environment, the architecture, the tradition, the ways of living of the ordinary people et cetera. And now increasingly I feel more and more optimistic. Now you can feel even among the young people, they are more and more conscious about the environment, the architecture, the arts and the old traditions, unique characteristics.

Also, if you talk to people around and if you look at the different types of publications, not just academic but newspapers, journals as well as radio, TV and the other types of media, and you can feel there is a kind of public concern about how Beijing should still be Beijing. And, gradually also in terms of different types of regulations and policies, there is a less one-dimensional approach to development. People are beginning to talk about sustainable development.

The development should also be more comprehensive. Comprehensive means not just for economic growth, but there should also be social, cultural and environmental dimensions. So, there is some kind of change in recent years. So, in the long term I am quite optimistic.

CLARKE: Dr. Huang Ping from the Chinese Academy of Social Sciences.

In the seventh and final program in our series, listen to postgraduate students in architecture and urban planning debate some of the issues and challenges thrown up in the previous programs.

I'm Barry Clarke, thanks for your company.

This series is produced by Sue Slamen and Barry Clarke, from Radio Australia.