The Power of Urbanization – from Babylon to PRD/HK

By Henrik Valeur, 2010

[Hierakonpolis movie]

…

[Title]

I will talk about the creative and destructive forces of urbanization.

It is often assumed that urbanization is the result of economic, social and technological development, but maybe it is more accurate to say that it is urbanization, which enables economic, social and technological development. And in so doing urbanization provokes changes of existing orders, both in nature and among people. But without urbanization no change, no development!

In fact, without urbanization no history, since history begins with the invention of writing and writing was invented in cities. And without history no civilization (no order of events and no records of achievements)!

Without urbanization we would probably still be running around hunting and gathering our food in small groups in the forest, or growing it in small, isolated villages.

And there would be very few of us.

[Mesopotamia]

Mesopotamia, which literally means "between rivers", is often referred to as the "cradle of civilization'. Here, on the fertile land between the rivers of Euphrates and Tigris, settlements were clustered almost within sight of each other, forming a kind of pre-urban network.

This is where the so-called "urban revolution" started, some seven or eight thousand years ago.

[Eridu] [Ur] [Babylon]

It started with cities like Eridu, Ur … and Babylon.

But why did these cities develop? Why did people want to live squeezed together in one place? Why do millions of poor people want the same today?

There are probably many reasons, for instance the fact that people are attracted to people. Another reason is the belief that cities offer a better chance to survive and a chance for a better live; this belief is shared by people across time from ancient Mesopotamia to modern China. And it is not only a belief it is actually true - cities *do* offer people a chance for a better life; they offer them the chance to earn more money, get better education, more health care etc.

Why is that?

Maybe because together we achieve more!

Like building the Tower of Babel for instance, which, according to the Bible, was intended to connect earth and heaven, something God prevented by giving people different languages. No matter if you believe the Bible or not, diversity is a unique urban characteristic.

[Mao suit]
Maybe this is why Mao wanted to develop the rural rather than the urban areas of China; because homogeneity and uniformity is harder to achieve in cities.

[Farming in ancient Egypt]
Urban revolution, however, would not have been possible without agricultural revolution.

With the invention of agriculture, food could be *produced*, not only *hunted* or *gathered*. And a relatively few people could produce it. Thus other people could begin to do other things like being creative for instance, as the person who made this painting.

[Dubai masterplan]
Even today, urbanization without agriculture is very difficult and only possible at extreme economic and environmental costs, as you can see it in Dubai, where people, food and other supplies have to be flown in.

[Farming in Indonesia today]
At the same time, in many other parts of the world life in rural areas hasn't changed much for thousands of years!

[4 ancient civilizations]
It may actually be even less advanced than it was in these areas, where the first cities – and civilizations – evolved, which was not only around Euphrates and Tigris, but also around the Nile River in Egypt, the Indus River in India/Pakistan and the Yellow River in China.

Cities evolved in these areas because natural conditions allowed for efficient agriculture that could feed large urban populations.

[Yellow River]
But nature is never static, there would also be flooding and dry periods. However, with many people living together in one place it was possible to create large-scale structures to protect against flooding, and to create and maintain large-scale irrigation systems.

These projects were possible because of the division and specialization of labor in cities, and the inventiveness and creativity, which life in cities stimulate.

[Ur Standard]
In cities we can learn from each other and help each other, thus improving our living conditions and create both artistic and technological development such as, for instance, the wheel!

But the city also creates division, between new groups of powerful and powerless people within the city, between city and rural areas and between city and city. Cities may even go to war with other cities.

But cities also depend on other cities, on the exchange of products and ideas. Therefore the location of the first cities was favorable not only for agriculture, but also for trade.

[The Silk-road]
The Silk-road is an early example of this. It was a "road" that connected many different cities and in so doing established a kind of global urban network based on commercial, cultural and technological exchange.

At one end of the Silk-road was Rome, the center of Western Civilization and the first city to reach a million inhabitants, already 2000 years ago. The density was very high, about 50.000 people per km2, which is about the same as the densest areas of cities like Hong Kong and Shanghai today.

According to an article in *Science* last year, it is population density rather than our brain capacity that has driven human social evolution. So what does it mean that we are living in scattered single-family houses today?

Rome was also a city characterized by great cultural, political, social and technological innovations, and a high living standard … for those who could afford it!

[Chang'an]

At the other end of the Silk-road was Chang'an (today called Xi'an), the capital of China and the center of Eastern Civilization. Like Rome, it was very dense. It was also a city from which numerous innovations originated

More than a thousand years ago people in Chang'an would read printed books and follow the time on astronomical clocks. They used air condition, natural gas, sewage systems and … toilet paper.

It is said that the technological inventions that made industrialization possible all came from China. These inventions include gunpowder, the compass and printing. Nevertheless, China completely missed out on industrialization because the emperor of that time didn't like all this new stuff.

Could it be that this was actually a wise decision?

[Forest]

It would seem that there were two paths to choose between back then. This …

[Coal]

And this!

We obviously chose the second, but it is maybe not so obvious why we did that?

Industrialization

[UK agriculture and industry]

Industrialization began in the area around Manchester, where new production processes and technologies were invented, such as "the flying shuttle" and "spinning jenny", which vastly increased production capacity.

[Riots]

Manchester also became a place where new social orders evolved: the working class and the capitalists. It was also the scene of the first labor riots and an inspiration for Marxism and free trade and laissez-faire ideologists.

[Manchester river]

It was a city of factories and chimneys, banks and trading companies, connected to the nearby coalmines by an artificial canal and by rivers to the port of Liverpool.

Friedrich Engels, Karl Marx's friend, described the river running through Manchester as *"a coal-black stinking river full of filth and garbage."*

But it was also in Manchester that most of England's wealth during Victorian times was created.

By 1850 half the British population lived in cities, enjoying the highest per capita income in the world.

Until then China had held the position as the richest and most advanced country in the world, with Beijing being the largest city on the planet!

Globalization

[PRD-HK map]
Today, the Pearl River Delta/Hong Kong region is like the early industrial areas of Great Britain.

It was here Deng Xiaoping first started his experiments with the "One country – two systems" politics, in which the communist regime and a mainly rural population on mainland China would collaborate with the sophisticated and cosmopolitan population of Hong Kong in a free market economy.

In practical terms, this meant that many businessmen from Hong Kong would assume a double life with one wife in Hong Kong and another in the Pearl River Delta.

[Mao's countryside]
Since the "Liberation" in 1949, Mao had tried to develop the Chinese countryside. Most infamously through the "Great Leap Forward", in which millions of Chinese people starved to death as a result of the forced collectivization of agriculture, and the "Cultural Revolution", in which the urban intellectuals (like you!) were persecuted and deported to rural areas.

[Deng Xiaoping billboard in Shenzhen]
When Mao's successor, Deng Xiaoping, came to power in 1978, he was 74 years old and had been following Mao since the beginning of the communist party in the 1920's. Nevertheless, he now turned everything up side down. Instead of trying to develop the rural areas he decided to develop the cities – and to develop new cities.

These new cities were called "Special Economic Zones" and the first ones were established next to Hong Kong and Macau. To begin with these virtual cities only existed on paper. Still, it was enough to attract initial investment from nearby Hong Kong and Taiwan, then followed by South Korea, Singapore and Japan, and then finally the rest of the developed world. Thereby creating what is now known as "globalization".

[Shenzhen 1979]
This is what Shenzhen looked like with a population of 25.000 people in the 1970's.

Note the tall apartment buildings in the back!

[Shenzhen today]
And this is what it looks like today, with the "tall" buildings now surrounded by new ones accommodating a population of around 10 million.

[PRD sat 1979]
In 1979, when Shenzhen became the first Special Economic Zone, most of the Pearl River Delta was very little developed.

[PRD sat 2003]
Only twenty-five years later it was already densely urbanized.

Today, it is one of the economically most dynamic regions of the world, constituting an urban network quite similar to the network of settlements in ancient Mesopotamia.

The economic reforms and the open door policy, which Deng Xiaoping initiated in the late 1970's/early 1980's, have resulted in the most intense urban migration ever recorded, which has helped several hundred million people out of extreme poverty. But like Manchester it comes at a cost.

[Pearl River]
As pollution, for instance.

The Pearl River itself is a good example. A couple of years ago, after having spend a huge amount of money in an effort to clean it up, the government ordered a group of soldiers to swim there, to prove that it was now clean. But the soldiers refused orders, which is not something Chinese soldiers usually do!

[Migrant worker with suitcases]
Another typical problem in the south of China is the "villages within cities" problem, which arise when poor farmers in a village sell their land to developers and then one morning they wake up having spend the money and being surrounded by a modern city in which they don't know how to survive.

The chief planner of Wuhan told me that some of these farmers were so desperate they climbed the roof of the city's planning office threatening to commit suicide.

Another problem is the rural population who come to the city to find work, often from villages far away. In a city like Shenzhen up to 90% of the population are migrant workers. They don't have the same legal and social rights as the citizens; in fact they don't really have any rights whatsoever.

Challenges and possibilities

[Urban population]
The world is being more and more urbanized.

[GDP per capita]
We get richer and richer … not me but others.

[World population]
There are more and more of us.

[CO2 emissions]
And we create more and more pollution.

This leads to the destruction of the eco-systems we depend on, to climate change that poses a number of potential risks, and to fight over scarce resources.

[City of the dead]
Another mayor problem related to urban development in the developing world is slum. According to the UN almost 1 billion people live in urban slum today. It doesn't necessarily mean that they are extremely poor, only that their living conditions are bad, and that they are excluded from many of the urban possibilities.

In Cairo alone, there are several slum areas with populations of about a million people each. For instance the infamous "City of the Dead", which is so named, not because people here are living dead, which in some sense they are, perhaps, but because they literally live among the dead on a huge cemetery on the outskirts of the city.

[Antilia]

In Mumbai, half of the population doesn't have access to a toilet. Imagine how many thousand tons of shit they produce every day.

No wonder the city has some serious problem with diseases.

Yet, it is also in Mumbai you'll find the most expensive family house in the world. The private residence of Mukesh Ambani is estimated to costs 1-2 billion USD to build. It stands 173 meters tall with 37.000 m2 of living space.

The living space for more than half the urban population in India is 5.5 m2 per person – or less. This actually equals the minimum space for an American prison cell.

What to do? How to do it?

(This is a lecture in itself)

[Development Urbanism]

Urban development is the most efficient means to fight poverty, population growth and climate change, improve health, education and job opportunities, stimulate economic, cultural, democratic, social, technological and scientific advancement. But it has to be done in a more sustainable way.

That is the great challenge of the 21st century: to make existing cities in the developed world more sustainable and to create sustainable new cities in the developing world.

The way to do this is to develop our cities together and to understand cities not as stupid machines but as sophisticated ecologies!

[Nordhavnen diagram]

This pretends to be a diagram of an ecological system, but it is not, it is a diagram of a machine. Why? Because it is a designed and controlled system, an ecology is not – at least not according to science.

Nature evolves based on principles of self-organization and experimentation. And it is unpredictable!

Apparently something it is very difficult for planners to deal with.

[Happy Village 1]

It shows how difficult it is.

[Happy Village 2]

It is maybe a bit naïve, but that's the good thing about being a student: you are allowed to be naïve, and naivety is certainly needed if we want to solve some of these problems!

[Improvisational Metamorphosis 1]

A flexible system that embraces spontaneous change!

[Improvisational Metamorphosis 2]

Climate Change!

[Design with Nature 1]

Ian McHarg, 1969

[Dance]
The biologist Brian Goodwin has called evolution a dance. It is not going anywhere it is simply exploring a space of opportunities. That's what I think we should be doing: creating spaces of opportunities!

Urban spaces, that is, which are accessible and inclusive and in which matter is recycled and regenerated in new and unpredictable ways.

And we should create those spaces together – not only architects and engineers, but everyone who has something to contribute with and everyone who is somehow affected

It is a matter of working together, helping each other and learning from each other. In short, evolve together by living together!