LIFE
IN METROPOLITAN AREAS
IN THE 21ST CENTURY

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LIFE IN METROPOLITAN AREAS IN THE 21ST CENTURY
A CASE STUDY OF THE PARISIAN CAPITAL REGION

When the lifestyles of inhabitants change, so does the city. Climate change and digital technology are transforming our lives and the planet. Expansive metropolitan residential zones are polarising large and small towns, urban countrysides and villages, to the point of putting them at risk. In the same way as when ports first introduced products from all over the world, artificial intelligence is completely changing our daily lives and the professional world. Mobility now governs access to employment, health care, education and culture. And for the first time in the history of mankind, four generations of populations are finding themselves side by side, and the unprecedented question of how to live together now and in the future must be addressed.

One hundred and fifty years since Baron Haussmann and 50 years since Paul Delouvrier, Les Ateliers seeks, with due modesty, to reflect on the long-term future of Paris — its territory and its inhabitants. The aim of this exercise is to arouse people's spirits and minds, so that they may see beyond some of the long-held notions that have imposed themselves and guided the principles of development over the last 150 years. Just as Baron Haussmann did not foresee the automobile and the high-ranking Delouvrier did not anticipate «the pill and the drop in births», we too may only be able to see so far. But both were able to imagine far enough ahead to better decide the immediate future, and both were able to see the greater scope of the capital region to better define its long-term development and spatialisation.

The exercise proposed by Les Ateliers is more modest in its scope. It is a call to participate in the development of a reflection on what is or will be metropolitan life in the short and long term — in 10 to 30 years — in order to produce questions appropriate to the various territorial scales and to generate ideas to accompany and influence the future.

The growth of the world's population and the massive use of fossil fuels are simultaneously underway, while humanity seems to be at a turning point: urban extravagance, greenhouse gases, waste build-up, energy and water scarcity, the digitisation of the economy and social practices, the development of artificial intelligence and robotics, etc. All of these radical changes present a number of potential threats for the future, but more importantly they offer just as many opportunities to be seized by a new generation — for instance by participating in this workshop and by addressing these issues in terms of uses, quality of life and well-being.

Many lofty goals seem possible. Nevertheless, as in our other workshops, it is not a matter of how many possibilities there are, but rather what they can inspire: creating the means to invent the future and embrace the present reality through a precious perspective, a freedom of perspective. This is so that we may treat the subject on a human level — to question it, to examine it — using intellectual means as we search for the lifestyles to which we aspire, for today and tomorrow, armed with the utmost freedom of choice. As such, we will be focusing especially on the uninterrupted migration towards the city since the 18th century and the resulting metropolitan concentration that continues to increase every day at the risk of costly divisions.

It will be an examination of life in metropolitan areas in the 21st century, and as such the proposed topic for Les Ateliers' Île-de-France September 2018 workshop. At a time when we are unable to produce enough housing to meet the needs of the Île-de-France, is there not someone who can think outside of the box to find a new solution? With the threat of climate change approaching ever closer each day, are there still those who believe that things can stay the same? Is it not the time to fully accept the situation and let a younger generation express itself and take responsibility? As creative people flee the capital territory and as the international metropolitan area becomes increasingly unbearable and more discriminatory every day, how can we ignore a reflection that could cover the smallest scale, that of lifestyles, to the largest, that of the metropolitan area?

To set the foundation for this vast and ambitious topic, four main themes have come to nourish our year of preparatory work and our reflection on what the future holds for those living in the Paris metropolitan area:

What transitions are needed to avert the threat of climate change and reduce the devastating inequalities present within the territory?

How will the effects of the digital revolution structure the city of tomorrow? What impact will it have on how digital technology is used daily?

What will be the new modalities of the home-work relationship?

How will the future metropolitan area maintain its powerful appeal?

How can the profusion of citizen initiatives be articulated to benefit the territory?

*Entretien avec P. Delouvrier, « Le schéma directeur de la région parisienne »; Espoir, n° 159

TABLE OF CONTENTS

THE PHENOMENON OF THE METROPOLITAN TRANSITION: A DRIVER OR AN OUTDATED MODEL ?

During the inauguratory seminar dedicated to the workshop's preparation, which was held on 25 September 2017, a fundamental question was debated: The metropolitan transition, is it a model of expansion, a driver or an outdated approach? This, recognising the wide variety of situations, then led us to another question: How can we define metropolitan areas?

The future is already here

More than half of the human population now lives in cities, of which developed countries can claim 80%. In China, the urban migration is operating at a pace of 25 million people per year. This urban phenomenon has become massive since the beginning of the 21st century.

People come to the city in search of work, to access knowledge, exchange and share in a condition that everyone hopes will be better. The urban reality is now part contemporary society.

The city is intended to be the place where people come together and the site of the collective creation of values, backed by a territory: economic and social values, intellectual values, human values, and so on. The city is thus the place where these riches are accumulated.

Metropolitan areas are a reflection of their country. The main characteristic that differentiates metropolitan areas is their country's urbanisation rate: 80% in developed countries compared to 30% for the least developed. This rate is therefore seen as a marker of prosperity, an objective full of promise, that has nothing to do with the area's size or its relation to the rest of the national territory.

From this perspective, the Parisian metropolitan area, located in a country with an 80% urbanisation rate, is mature. In the long-term, the growth of the Paris capital region will be balanced out with the rest of France's urban territories, while undoubtedly becoming more out of balance with rural areas.

The country's urbanisation rate, the metropolitan growth rate and the area's relative densities are not the only significant characteristics that comprise a metropolis: the spatial dimension, the inner- and outer-metropolitan transportation networks, the services and facilities that form the base of the superstructure and their redistribution across the territory are also markers of how things operate and of live in these metropolitan areas.

Yet for all that, the economic, social and cultural dynamism of the Parisian metropolitan area is taking place within the context of an urban renewal and does not seem to be slowing down. So in view of this «mature» metropolitan area that continues to develop, why would such a model be considered outdated?

An outdated model?

The metropolitan transition phenomenon is already underway all over the world. A development model in expansion for some, it can also be seen as outdated approach for others. Why?

At first glance, it is clear that the dynamics are here, present well beyond the administrative boundaries of the capital region and all the more so when considering the new metropolitan area of Greater Paris as it is designed today. Elsewhere in the world, these dynamics are amplified even more for those metropolitan areas experiencing high growth.

Regardless, this phenomenon profoundly transforms the environment and lifestyles of all metropolitan areas, affecting housing, work, travel and leisure. The adaptive capacities of inhabitants are put to the test every day. This poses a first set of problems, which are unevenly resolved depending on the country. The result: urban attractiveness and the desire for prosperity clash with the quest for well-being, the pleasure of living and the wish to give meaning to one's life.

If we were to take a closer look, the city hides an implacable reality: the wall of climate change. Since the early 1950s, the concentration of greenhouse gas in the planet's atmosphere as passed from 300 to over 400 ppm. At its current pace, the fatal concentration threshold of 450 ppm will be breached by the 2030s, leading to the anticipated increase in temperature by 2°C, and the irreversible threshold effects that experts agree will happen.

Cities are responsible for the majority of these greenhouse gas emissions. The urban metabolism, born from the massive use of fossil fuels, the fruit of a century of accelerated development, is no longer sustainable in its current state. If we do not take it seriously, climate change will slam like a door in the face of urban prosperity, whether real or desired.

Metropolitan areas of the 21st century and their surrounding territories will be either low-carbon or not. What is important and should be reconsidered is the entire system: from the production of wealth to the consumption of resources and the mobility of people and goods.

Thus, for such reasons as well-being and climate change, the current model of metropolitan development could be considered obsolete, provided that the concerns that structure life in metropolitan areas are not overlooked.

METABOLISM AND THE THREAT OF CLIMATE CHANGE:
WHAT CAN BE DONE? HOW?

The metropolitan area, regardless of its administrative perimeter and spatialisation, is inseparable from the land on which it stands: drawing on its resources and radiating beyond its politically governed borders.

Two numbers are telling, when looking at the metropolitan area:

The Parisian conurbation covers 3,000 km2 of urbanised lands, yet its ecological footprint measures a total of 600,000 km2, the surface area of France. The city's large imprint leads to point of forgetting that there is an outside world on which urban life depends.

However, to ensure the supply of urban amenities, the city must seek its resources from outside — far, and farther away. Take for example the Paris of Baron Haussmann, whose water source was found 200 km outside of the city (from 1852 to 1868).

Today, the Île-de-France is 95% dependent on resources produced outside of its territory. The 150,000 jobs at the CDG-Roissy Airport depend on international traffic. The companies listed in France's CAC40 and their public counterparts are international. Regional metropolitan areas import products from all over the world.

These metropolitan areas are dependent on imports to feed their inhabitants. They import their largest share of manufactured goods from China, the world's factory. But the situation remains the same for water and energy. Beijing must seek its water hundreds of kilometres away; Sao Paulo gets much of its electricity from the Itaipu Dam on the border between Paraguay and Argentina.

The metabolism of cities and territories is not a static picture. Local productions and consumptions, the inflows and outflows of people and goods, knowledge and money, all play a significant role in CO_2 emissions and climate change. In return, the latter affects prosperity. Over the past 5 years, the deforestation of the Amazon has led to a 200 km westward displacement of the humid airflow that feeds the Itaipu Dam during the rainy season. As a result, there has been a 20% drop in energy production.

World growth (in billions of inhabitants) (1750-2150)
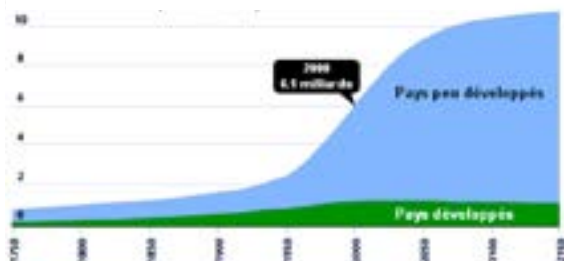
GLOBAL DEMOGRAPHIC EVOLUTION

source : Population Reference Bureau

Percentage share of the middle class in population, by quartiles, 2010

MIDDLE-CLASS POPULATIONS ACROSS THE WORLD

source : agirlocal.org

How did we get here?

In the course of a single lifetime, the world's population has tripled. In a quarter of that time, the world's middle and upper classes have quadrupled. The consumption of fossil fuels is an outcome of this, along with deforestation. The result: We are 3 years away from reaching the 415 ppm threshold set by the COP21; whereas, the fatal concentration threshold of 450 ppm will be breached in the 2030s, itself leading to a 2°C rise in temperatures.

There is a special thermometer, in Mauna Loa in the Pacific Ocean, that has been measuring this concentration in ppms* since the 1950s. You read "ppms» as if you would degrees when taking your temperature; everyone knows that 40°C corresponds to a high fever and requires hospitalisation; and that at 42°C, the prognosis becomes vital.

We have created this mortal danger.

We are the problem, we are the solution.

In France, will the major challenge of the future be new building technology, the eco-quarter or the new transportation line?

At a renewal rate of 1% per year for the city and the countryside, 95% of greenhouse gas emissions will be caused by what we can see today with our eyes.

One of the main challenges is therefore the ecological reinvention of the existing city and countryside and not only those that will be built tomorrow. This demands a reinvention that improves health, safety, well-being, biodiversity and social ties.

And if it is indeed a question of changing our everyday lives, should we simply leave the responsibility in the hands of policymakers? No. It is by multiplying individual and collective initiatives and mobilising the energy of the hundreds of millions of families living in cities and rural areas, who count among their ranks entrepreneurs and locally elected representatives, that progress will be made.

It is a choice that requires us to see clearly on a global scale and to act accordingly on a territorial one, well beyond the typical actions of elected officials. It applies to the way we eat, buy and go on holiday, as much as it does to how we conduct our professional duties, from photocopies and vehicle use to purchases, transportation, energy, and manufactured products and services.

Each purchase, each project can tilt the balance between good and bad.
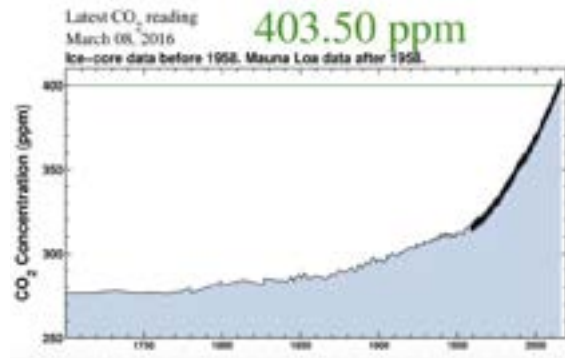

CONCENTRATION OF CO2 IN THE AIR

source : Scripps Institution of Oceanography

Who would be interested to act? A long-term perspective is worth the detour.

With a steady population and the stability of the euro, the world's 5th leading power, France, has 7 times more public resources than in 1950. A labourer, an employee in the 2000s has as much purchasing power as a manager from the 1930s. The Active Solidarity Income (RSA), and the Universal Health Coverage (CMU) are options unlike any other in the world. Purchasing power is 7 times greater and life expectancy has increased by 14 years.

However, during this same period, according to Thomas Piketty, we have maintained the same distribution of global capital as in 1914. A few dozen individuals concentrate as much wealth as half of humanity. In France, 8.8 million poor people have less than 60% of the median income.*

The rich have as much interest as the poor in averting the threat of climate change. This is a good thing: the richer you are, the more greenhouse gases you emit, and the more resources you have to reduce them. The rich account for 2 billion people out of 7.5 billion on the planet and mostly live in cities. In France, they comprise 80% of households, almost all businesses and all elected officials. This raises questions. For example, can we deal with the energy transition and social inclusion, by way of one to the other?
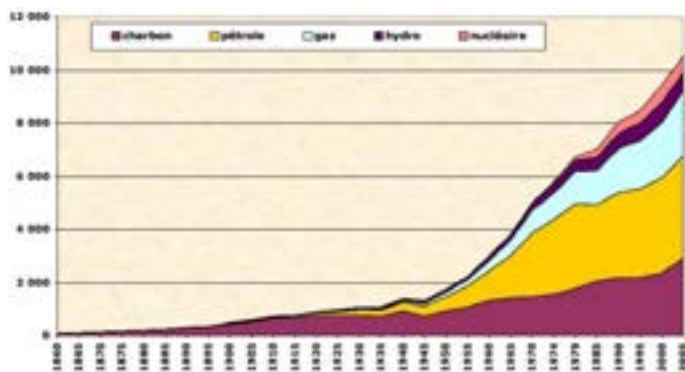
EVOLUTION OF THE GLOBAL CONSUMPTION OF ENERGY (EXCLUDING BIOFUELS) SINCE 1860

source : Schilling & Al. (1977), IEA (1997), Observatoire de l'Energie (1997)

* Thomas Piketty, *Capital in the Twenty-First Century,* 2013

Ecological transition and solidarity driven by inclusive projects

Governments have long noted that half of greenhouse gas emissions are caused by individual behaviour, i.e. they are outside the scope of policies, laws and their powers of inducement or coercion. Proximity is key. Local projects are crucial.

A one-third reduction in our emissions would give us another ten years to reduce the threat of climate change. Small changes in the behaviour of inhabitants, entrepreneurs and elected officials can almost instantly reduce our emissions by 20%, while also reducing our expenses and improving our health.

Two examples at different territorial scales illustrate this point:

In Cergy-Pontoise, there are 200,000 inhabitants, 100,000 jobs, 27,000 students: permaculture would create nearly 1,000 jobs over 1,250 hectares of agricultural land compared to the 74 today, and would include both highly skilled and low-skilled jobs.

In La Défense, the business district is heated using heavy low-sulphur fuel, brought in by train. Replacing it with wood would instantly transform the area into a sustainable neighbourhood. And it would allow a region-to-region contract to be awarded to ensure supply. This would amount to 5 billion euros that would shift from the trade deficit to the GDP, create jobs that cannot be relocated, and lead to de-indexed oil rental charges for residents, businesses and public services.

However, as one of our elected representatives put it: «We cannot continue to decide by hoping for the better, we must act in an efficient and organised way on our territories, massively».

How can we come together?

In 2017, the city of Paris published its strategy with the aim of making Paris into:

• An inclusive and solidarity-based city, that draws on its inhabitants to reinforce its resilience

• A city built and developed to meet the challenges of the 21st century

• A city in transition that mobilises its collective intelligence, adapts its functioning and cooperates with other territories.
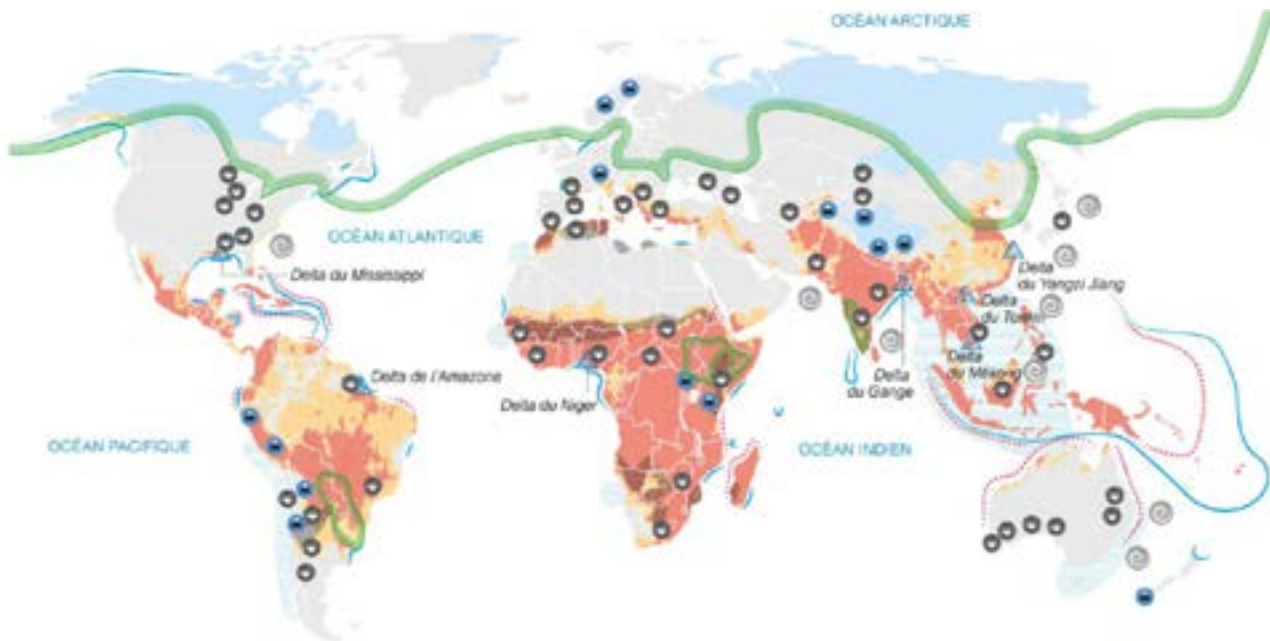
On the scale of the Greater Paris Metropolitan Area, an organisational track has been prepared by one of the Greater Paris civil society working groups. In contrast to classic French city planning, it made three proposals:

• Construct a climate change plan, freeing up the resources and energy of millions of decision-makers in Greater Paris.

• Construct a showcase of prototypes and pioneering projects able to be replicated and exported.

• Create a transition fund for (small) projects that are innovative and reproducible.*

At the regional level, a toolkit has been created over the last 10 years by several thousand technicians, inhabitants, entrepreneurs and locally elected officials. Validated by the association The Mayors of the Île-de-France, it offers the commune a dashboard of actions and projects — pioneering and reproducible.*

* http://agirlocal.org/

If newly built spaces are not an issue, if the metabolism of the existing territories must change, if the population is here and feels good here — and continues to grow — then how can we meet the basic needs of the metropolitan area's inhabitants by starting with what enables them to have shelter and live in society in a meaningful way?

MAP : IMPACTS OF GLOBAL WARMING

source : Le Monde

PARIS IN 2016

source : France Bleu

MELUN IN 2016

source : France Bleu

WHAT WILL BE THE NEW MODALITIES OF THE HOME-WORK RELATIONSHIP?

Upon graduation or the completion of an initial training program, you do not necessarily have the choice of where you work. The choice is made slightly easier depending on financial means.

This is because the city's land has a value, which notably depends on the amenities provided by local authorities. Public services are at the heart of this value: water, sanitation, electricity, gas, telecommunications, household waste collection, cleaning and maintenance of public spaces; not to mention means for transportation, education and health, commerce and sport, leisure and culture.

In terms of accommodation, luxury is primarily gaged through surface area: 50 m2 for an apartment in Paris has the same value as a beautiful house with 150 m2, 30 km away. And if you cannot afford either of them, then there are more modest choices to be made if you can travel between 10 km and 30 km from the centre of Paris. Segregation has established itself in and around the city; it expands as the city continues to grow.

The distance between home and work in kilometres has increased as a result. The commuting times of Parisians lasts 50 minutes a day, while the inhabitants of the Outer Ring spend on average 2 hours and 20 minutes in transit. Conditions and travel times have deteriorated for most people. So much so that a minority prefers to live an hour away by TGV train from Paris — therefore, combining the quality of life of the countryside with the pace of urban life.

Housing is thus becoming ever more removed from job locations, creating a growing need for commuting. The latter is a source of financial and health costs, and weighs on productivity and public finances.

It is as if the city's planning is responsible for creating problems and the transportation system is responsible for finding solutions.

Once installed somewhere, an individual's habitation is more than just a roof that provides shelter, a safe place to sleep almost every night, a family home. It is also the heart of multiple social connections with others, through children and their friends, through spouses, friends, relationships, merchants, neighbourhood life, the nearby city and countryside. Once you have set up somewhere, it is not easy to move.

The residential path has the same characteristics as the professional path, with additional constraints tacked on: you live 12 years in owner-occupied housing, half in rented housing. But with an average of 10 different companies in an employee's professional history, the change in workplaces comes out to every 4 years, not including changes in job titles. The distance between home and work, i.e. commuting, increases with age. For craftsmen, freelancers, self-entrepreneurs, this adjustment is measured by the kilometres travelled each week, from the company to the customer.

TGV BETWEEN PARIS AND STRASBOURG

source : SNCF

VIEW OF THE RER IN THE PARISIAN SUBURBS

source : WITT/SIPA

PASSENGERS AT A RER STATION

source : Le Monde

THE SCOOTER, A MORE AND MORE SPREAD USE

source : Matrott

TRAFFIC JAMS ON PARIS RING ROAD

source : Marc Verhille / Mairie de Paris

The ability to change companies or customers without moving from one's home directly depends on the size of the city and its mobility system, especially if the profession is specialised or its market is evolving. Gigantism is the logical horizon of a healthy metropolis, somewhat contradictory to the desire for personal well-being.

In a recent poll, French people expressed the sentiment that in 10 years' time, the essential quality in this changing world will no longer be experience but mobility, in both France and abroad.

On the one hand, interactions are increasingly global with multiple and borderless networks, and universal and instantaneous connections. And on the other hand, the search for a happy proximity and friendly sharing is at the heart of everyone's expectations. It is as if the absolute openness to the idea of a global city means a return to the founding values of community solidarity found in the villages of yore.

Will the city of the future – a connected global city – be the city of proximity and sharing? Will it be a place to rediscover the happiness of being physically with others, to work and create, to cultivate a garden, to cultivate a cultural project, to find amusement in life. Neighbourhood cafes, repair and recycling workshops, community gardens, car sharing programs and start-up incubators are constitutive elements of tomorrow's city that are as important as multinational headquarters and the metropolitan's heavy transportation infrastructure.

DIGITAL TECHNOLOGY: AN END IN ITSELF OR THE MEANS?

DOES THE CONCEPT OF A DIGITALLY CONNECTED CITY PUT INTO QUESTION THE CITY'S STRUCTURE?

As we begin the 21st century, megacities are expanding, fossil fuels are running out and the space available for new buildings is scarce. Faced with this dreaded chaos, new technologies (digital, nanotechnologies, cognitive robotics, etc.) could be our salvation. New technologies hold the promise of reconfigured, sustainable, rational and safe cities.

The concept of the «smart city»

The aim of the smart city is to improve environmental quality through the intensive use of smart grids composed of sensors that transmit large quantities of analysed data. The desired result: a reduction in peak loads and in return a reduction in installed power, an optimisation of consumption and therefore costs, and the well-being of users.

In concrete terms, residential buildings, offices and activities are equipped with communicating meters, which make it possible to collect data in real time on the overall energy consumption in order to optimise the management of the network. Street lighting also benefits from this technology. Lampposts, like rooms, are equipped with sensors that allow the lighting to be dimmed according to traffic and/or a physical presence and also according to the time of day or season.

Reducing traffic congestion and related pollution is also one of the key objectives of smart grids. Their effectiveness will only be complete if new travel solutions are found. Self-driving cars and smart highways are some of the many innovations that are in the making. The RATP and Île-de-France Mobilités are experimenting on several routes with self-driving shuttle buses that offer greater flexibility and adaptability. In this field, tomorrow's industrial choices are well known: electric, hybrid and hydrogen engines; self-driving vehicles and smart parking. Will they be obsolete in 10 years? Or will they remain in place like the intermodal system developed by the SNCF over 20 years ago?

MINORITY REPORT DIRECTED BY STEVEN SPIELBERG

Futuristic cities

As was true in other the developed countries in their day, in Saudi Arabia, Egypt, but also South Korea, India and China, large population movements are the consequence of rural exodus. City lights have long been the symbol of the lure of Western cities. However, such influxes of populations create a host of problems with water, food and energy supplies. In response to this phenomenon, new futuristic cities are emerging all over the place: prototypes of green cities that are hyper-connected and bursting with digital technologies and ecological features. Their aim is to strike a balance with historic cities and stand as alternatives.

The most prominent example is probably South Korea's Sondgo, an airport city between China and Japan that is expected to have 70,000 inhabitants by 2020 after a $35 billion construction project.

In addition to the fact that green spaces cover almost 40% of the city's surface area, Songdo is characterised by its technological surfeit. Songdo is a laboratory entirely controlled by computers that analyse, collect and transmit thousands of bits of data.

While on paper, the developers have, in theory, thought of everything, one of the major risks of these ultra-connected cities is that they become computers insufficiently protected from viruses or are designed with software that is barely adaptable. The construction of security systems is an absolute requirement that the designers of these smart cities must integrate into their plans at a very early stage.

Whereas its optimisation is comprehensive, its technical nature greatly outweighs the pleasure of living in the buildings or wandering the streets. In Sondgo, urban space is not, or rarely, seen as a social, cultural and sentimental place. «Disorder struggles to find its place and residential spaces become isolated areas. These quasi-maniacal technological solutions allude back to the question of the role of the urban dweller in these smart cities».*

* Philippe Boyer, V*ille connectée - vies transformées - notre prochaine utopie ?*, 2015

THE KING ABDULLAH CITY PROJECT, SAUDI ARABIA

CONFLANS-SAINTE-HONORINE

source : Diagnostic Immobilier Conflans

What place is there for aesthetics?

Where are we in the history of urban development? Is this the trampling of the barbarians? Or is it the first assembling of a new, more beautiful construction?

New metropolitan areas inspire people to dream when talking about their energy and economic performance or lament over the chaos of the suburbs and their ugliness, adding some contempt for those who live there... who are in fact the majority of those who populate metropolitan areas. Is it not an opportune moment to rediscover the desire to combine beauty and utility?

The achievements of the late 19th century shaped the Paris of today, known and recognised for its many qualities. It is the result of two generations of leading figures who can be said to have invented urban planning. They combined functional aspects with a desire for urban composition. Thus, the underground networks, surface circulation, plantations, the rules of design that constituted the main public space, were at the origin of today's city — a city praised for its beauty, harmony and practicality.

What fate lies ahead for metropolitan areas? Traditional cities have disappeared, they have become sustainable cities, «Archipelago» or consolidated cities, linear cities and any other abstract notions that can be drawn on a map.

Will the big cities of tomorrow relegate productivity, speed, consumption and invisible networks to their proper places, leaving the priority to clarity and beauty?

Beauty is to be found in local places, places of everyday life, where you can enjoy the pleasure of coming together. Beauty is also found in the great horizons, silhouettes and landscapes that offer various impressions on the play of colours, lights and ever-changing arabesques of the clouds.

Shouldn't the ambition of smart cities be first and foremost to advance the city on the road to improving its beauty and quality of life, through the wise management of natural resources, aided by new technologies?

How will we ensure that digital technology is only a means and not an end? How can we ensure that those we elect care, on our behalf, about the public space and how it is used?

«There is nothing smarter and of more sustainable than a city»

Luc Belot, ancien député français et auteur du rapport sur la smart city à l'Assemblée

DO CONNECTED CITIES GENERATE NEW USES THAT CHANGE THEY WAY WE EXPERIENCE CITIES ?

Only the individuals who make up the city, and their institutions, bestow the city with its intelligence. It is they, these citizens, entrepreneurs and elected representatives who innovate, create and interact with technology in fields as varied as mobility, energy transition and digital technology. In this new, ever-changing world, new uses are changing the way in which we are EXPERIENCING the city.

How will today's and tomorrow's metropolitan areas evolve towards a more fluid, collaborative, sustainable and participative model?

A more fluid metropolitan area: is digital technology leading to the reconfiguration of travel?

Self-service car and bike services

Cars and bicycles are examples of the successful marriage between the «desire for mobility», a «connected city» and a «shared object».

Cars are at the centre of the sharing economy in our cities. Car-sharing allows city dwellers to share something that was once a symbol of social success. Autolib' is the first public service for self-service electric cars that has been developed on the scale of a large European metropolis. It demonstrates a shift in transportation modes that changes the way we look at the city.

Recently a new generation of self-service programs called Free Floating, a concept invented in China, has been introduced for bicycles (Gobee.bike — Hong Kong) and electric scooters (Cityscoot). It allows you to pick up and drop off a vehicle at any point in a given area without having to make a reservation beforehand and without a fixed station. Free floating car-sharing operates in 12 countries and 43 cities in Europe and North America and accounted for nearly 20,000 cars and 2 million subscribers by the end of 2015.

What impacts will these shared vehicles have on tomorrow's public spaces? How can these spaces be designed while taking into account their flexible nature?

Source : Pool/Kovarik Isore Morissard/IP3 PRESS/MAXPPP

The mobile phone equipped with GPS

Since the smart phone integrated a reliable GPS chip, it has evolved into a entirely new entity! Mobile phones now allow you to save time by finding the best way to get around. This is possible thanks to georeferencing, which enables you to find your location on a map and transmit it in real time. On foot, by car, by train... multiple apps provide you with the shortest route and information about your trip!

In the Paris metropolitan area, there are a myriad of apps collecting information from the metro, buses, Vélib's, Transiliens trains, RERs and taxis to offer a comparative multimodal service. For example, the Transilien app uses a flood of information to anticipate traffic on the suburban trains while informing users about the seats available in its train cars.

For drivers, apps like Waze are a powerful support: offering GPS capacity to inform them of traffic in real time and a community that shares useful information. These apps also search for the cheapest petrol stations in the area...

Will the possibility of chance therefore be eliminated from life in tomorrow's metropolitan areas? Will there be no surprises? Is there not sufficient reason to question the power gradually being seized by Google, Apple, Facebook, and Amazon (GAFA) in this connected world?

Third places for working without (too) much of a commute

Given that the expanded city is what it is, the home-work distance can also vary over time through the altering of workplaces. A large number of tasks can be performed alone, without the need for physical proximity to other company members. Digital technology allows this work to be done remotely, a few days a week, from home or in third places, such as the local train station. The SNCF will launch its first third place using this model at the beginning of next year.

With the use of videoconferencing and augmented reality, will we be everywhere and nowhere all at once?

In many organisations, virtual meeting systems have emerged. They are radically changing the way work is organised, saving on travel costs and time spent moving around. They are platforms for the fast and easy virtual networking of workplaces. Programs such as Mikogo, TeamViewer and Citrix GoToMeeting allow you to connect remotely with colleagues, employees or customers and organise productive meetings all around the world.

The programs are quick to install, allow for remote access to other computers, provide chat capability and a meeting function for fast communication. There is also the potential to share presentations, work in teams and exchange larger data files.

Source : Quora : https://fr.quora.com/Quelle-est-la-différence-entre-réalité-virtuelle-réalité-augmentée-et-réalité-mélangée

Virtual reality, augmented reality, is this the post-smartphone era?

What is the difference between virtual reality and augmented reality? Virtual reality is experienced through a helmet; the goal is to be immersed in a setting created entirely for the occasion. It doesn't matter where you are, because the whole setting is recreated through the helmet.

Augmented reality uses actual reality as a base and adds virtual layers visible through glasses or headsets. Here, the notion of a virtual layer is important because it is on your table (which is real), where you will make a hologram appear.

source : Getty Images

source : Getty Images

Facebook recently acquired the German startup company Fayteq, which specialises in augmented reality.

For Mark Zuckerberg, virtual reality and augmented reality can «make our reality better» by adding information to photos or a map in case of mobility, by adding or removing elements from images, or by replacing physical objects with virtual ones. The head of Facebook is convinced that the leading platform of the future will be glasses with mixed reality, connected (or not) to phones and powered by artificial intelligence (computer vision, deep learning, etc.).

Other companies are already in the starting blocks: Google, Microsoft, Apple... Their advances could rapidly democratise this technology, which for the time being remains secretive, accelerating innovation in the field and further transforming how we live.

Sylvain Rolland, «Réalité augmentée : pourquoi Facebook muscle son jeu», *La Tribune,* 16.08.2017

A more collaborative metropolis: More and more, the value of use takes precedence over property. Why own when you can share?

The densely populated city is a powerful playground for the sharing economy, which is shaking up many sectors. The young urban population is keen to take advantage of all the goods that the city can offer but in an economical, friendly and «ecological» way... With the ease of the Internet, digital initiatives are multiplying to pool and share goods, services, places... We have entered the era of the «vie share» (French term used to describe collaborative consumption).

According to Médiamétrie's figures, one in three French people are registered on at least one collaborative website. This new form of the sharing economy may well be on the verge of overwhelming classical capitalism as we know it.

Among the services that give rise to the collaborative economy are the renting and exchange of everyday objects. In France, ShareVoisins is a loan service for everyday objects between neighbours: DIY tools, childcare equipment, small household appliances, books, CDs or DVDs. An interactive map of your neighbourhood displays all the objects shared by your neighbours. It is simple, practical and completely free of charge; and in return, you are strongly encouraged to list the treasures you hold that could be of service to the people who live in your neighbourhood.*

Car sharing is already used by 30% of people under 35. The success story behind BlaBla Car began with Frédéric Mazzella, a young engineer preparing to spend the holiday season with his family. But there was a problem: Frédéric did not have a car, and all the trains were sold out... This is when he created a new form of car sharing. It is a combination of a sharing philosophy (similar to the spirit of hitchhiking in the 70s), several technologies (telephone, Internet and geolocation thanks to smartphones), real economic pressure (reducing transportation costs) and ecological awareness (the fight against global warming).**

The collaborative economy also intervenes in how trips are planned and transforms the ways in which people travel: apartment exchanges, sharing of activities and experiences, meals in the homes of local residents... Collaborative sites, especially social networks for travellers, are multiplying, based on the principles of exchange or the transaction between an individual with another and on the values of conviviality and mutual assistance. Some of them are free, others are fee-based, and sometimes even fairly expensive... Indeed, having recognised the full potential of this new economy, commercial websites have entered this growing niche.***.

* http://family-hub.fr/5-plateformes-de-pret-dobjets-entre-particuliers/
** https://www.europ-assistance.fr/fr/presse-actualites/actualites/blablacar-succes-symbole-dune-revolution-en-marche
*** http://www.routard.com/dossier-pratique-sur-le-voyage/cid132428-l-economie-collaborative-en-voyage.html

PICTURE OF SONGDO IBD, SOUTH KOREA

EXPERIMENTAL SELF-DRVING SHUTTLE BUSES IN PARIS

PICTURE OF SONGDO IBD, SOUTH KOREA

AMAP SHARE / BOX DISTRIBUTION

RESILIENCE STRATEGY IN PARIS

LOCAVOR ORDER PICK-UP SITE

source : korben.info

A more sustainable metropolis: Consumption as a civic action?

Our consumption patterns have evolved, the development of local food systems has made its way into our consumption patterns, whether through open-air markets, via community-supported agricultural associations (called AMAPs — Associations pour le maintien d'une agriculture paysanne — in France) or websites.

The emergence of this new consumer culture in metropolitan areas poses a real threat to «classic» companies. Disintermediation is underway and could eventually threaten the all-powerful position held by supermarkets and food manufacturers.

Many metropolitan residents are members of an AMAP, an association run by a group of volunteers that links local producers and consumers. Members contractually commit to pre-purchase part of the production at the beginning of the season. This means that members pay in full from the start for the entire year's worth of food bundles. Pre-financing the harvest represents an important safety net for farmers, especially in the face of adverse weather conditions and possible health problems.

Other more flexible consumption models, linked to e-commerce platforms, have been very successful. Created in 2013, Locavor.fr is a website that enables customers to consume locally, by ordering what they need each week via the website. No commitment, no surprise packages, no imposed rhythm... the way it is used is identical to a drive-through supermarket but the products are local and the link with the producer is direct.

This model works on the citizen initiative principle, where a volunteer becomes the manager of a «Locavor». He or she makes contact with local farmers and producers, promotes the service, lists the products available every week online, manages the reception of orders and welcomes members at the distribution point. For this, the volunteer receives a compensation of 9% of what is sold, while 7.5% goes to the Locavor.fr website and the remaining 83.5% to the producer.

Most importantly, through the mere act of eating healthier food, citizens are engaging in responsible behaviour: reducing waste, encouraging the traceability of products, reducing intermediaries, reducing energy consumption and supporting local agriculture.

Sources : Korben.info, 11/06/2017, https://korben.info/locavor.html ; Naturasciences, 25/05/2017, http://www.natura-sciences.com/agriculture/ruche-qui-dit-oui-amap776.html

ECONOMIC AND CULTURAL APPEAL: WHY? FOR WHOM?

«I posit, as a matter of principle, an almost irrefutable fact: that man is an animal who does not simply accept nature as it is given, he rejects it. He thus alters the natural outer world, drawing from it tools and manufactured objects that make up a new world, the human world.» Georges Bataille

The lights of the city did not wait for globalisation to be a force of attraction. Venice and Lyon before the discovery of America, Paris and New York a short time later, and today's Shanghai and Mumbai are, among others, economic, financial and cultural attractors. Only their standing in the hallowed rankings has changed. As in school or in life, prosperity, and the desire for power and influence are core values that shape urban strategies.

The metropolitan areas where so many activities, wealth and talents are concentrated compete with each other, both within their own countries and globally. The attractiveness of a territory is the means to gain a place of distinction in this competition.

According to INSEE, attractiveness depends on the ability of a territory to attract external resources: a blunt or rather one-dimensional definition but concise. Rightly or wrongly, attractiveness is primarily understood in economic terms. Everything else is just a means to an end.

The globalised world is characterised by, among other things, the mobility of assets and goods. The attractiveness of the world's metropolitan areas is also defined by their ability to be such prominent destinations. Attractiveness is therefore relative, measured in relation to the capacity of the territory in a geographical, economic and productive environment that is favourable or not.

The following is an exchange between Pierre Veltz and Klaus Kunzmann on the drivers of growth for tomorrow's metropolitan areas, as summarised by the Rennes Urban Planning Agency:

«In a world where value chains are fragmented and manufacturing production is 'made in the world', wealth creation is mainly focused on strategic sectors, ahead of design and innovation and behind services and user relations. As such, cities with a network of universities and research laboratories on which companies can rely as well as a sizeable consumer market have a considerable advantage.

The new geography emerging from these developments flouts distances and transport costs. This is why it is important to be located within these hubs, which are becoming strategic nodes on a global scale, where relationships of trust and growing opportunities for trade are key elements of economic dynamism — [this means becoming part of] 'binding ecosystems where its more expensive for companies to leave than to stay and develop further'. Finally, and the example of Berlin confirms this, in a context of competition between territories, it is imperative that these areas be attractive to a creative workforce, that they be financially accessible [along the lines of] 'New Idea, Old Buildings' and that they provide amenities and an urban planning capable of creating a «desire for the city».

HANNOVER

source : Wikimédia

The example of Hannover, Germany

The merging of two governmental agencies, for the environment and the economy, in 2008, was an unprecedented institutional innovation in Europe. The newly created department led to the joint-implementation of an economic development policy, a land and municipal building management policy, and an environmental, energy and green space management policy. Together with the region, it also exercised control over the economic development agencies for tourism development and waste management, as well as over the regional energy supplier. The municipality therefore acquired a powerful instrument enabling it to carry out many innovative and ambitious operations simultaneously in terms of local economic development and sustainable development.

* L'agence de développement et d'urbanisme de Mille Métropole : Séminaire 1; 15 Octobre 2015, Quels leviers pour renforcer l'attractivité de la métropole lilloise ? Attractivité économique, p. 33

So is it just a matter of bringing what was outside in? Evidently not, neither for Rennes nor for Lille:

«The ultimate purpose of all these concerns is to create an attractiveness that is shared and profitable for all. The aim is to build an economy in which everyone can find his or her own place, to stimulate development that will enable members of the population to find — or regain — a job in their communities, and finally to guarantee a decent and enjoyable living environment for businesses and residents.»

«These resources can be new activities or specific professional skills (appeal of economic productivity growth), as well as inter-territorial revenue transfers generated by commuters, retirees or tourists (residential economy attractiveness). This exogenous approach to attractiveness is based on the assumption that the external forces attracted to the territory (companies, specific professional profiles, investors), thanks to the resources they bring along with them (integration into markets, performances, innovation capacities, talent pools), can support local development and increase the competitiveness of the territory. This approach leads territories to compete with each other to attract these rare and limited forces.»

«Faced with the dangers inherent in this approach, the territorial economy is conceived and developed as an endogenous approach to attractiveness. It is based on the hypothesis that a territory can grow by cultivating its own resources (using a strategy of distinction vis-à-vis other territories); by mobilizing external economic agents through the integration and creation of networks based on the exchange and flow of information rather than actually drawing these agents directly to the territory.

[An] endogenous approach to attractiveness replaces the notion of competition with that of cooperation between territories on various scales and valorises the territory's own resources, which are enriched through contact with others according to the principle of cross-fertilisation. The development of the territory is achieved not only by drawing on local resources (by mobilising existing forces or attracting exogenous economic agents) but also by tapping into available resources from the territory.»

Cooperation is not competition; cooperation-competition does exists, but attractiveness extends to the question of why and for whom.

«[In this proposal,] 'territorial' development is not measured in terms of GDP points or revenue growth, but by a sustained and sustainable increase in people's living standards.

Therefore, by insisting only on the way in which we are going to market the territory, so as to attract investors from time to time, we are perhaps neglecting the cooperative dimension of the economy. And this consists of strengthening exchanges, initially on a local level, which can then be projected onto global production scales.

In short, by developing public policies aimed at strengthening coordination, exchanges and cross-fertilisation, it is certainly possible to promote a territory's assets [... Thus demonstrating that] economic development is also achieved through associations that contribute to the networking of economic actors, and through administrations and citizens who cooperate both locally and via long-distance exchanges.

What makes metropolitan economic development unique is that it does not occur in an endogenous economy, but in relation to different and complementary territories.»

And to conclude with a quote from the Urban Planning Agency of Strasbourg:

«These conceptions of attractiveness, one exogenous and the other endogenous, are not opposites but complementary.»

Thus, if we were to go further, the need to see attractiveness as having a multidimensional nature is ultimately accepted as a fact. It is important to underline the extent to which the attractiveness of a metropolis is highly political, in the sense that it is based on the area's ability to develop strategies and a system of governance that highlights its assets.

The importance of culture as a decisive factor of attractiveness

Bilbao, in the midst of a desperate economic situation, focused entirely on cultural facilities more than 20 years ago as a means of creating its much needed financial growth. What has been called the «Bilbao Effect» continues to hold its place in history as the archetype of the revitalisation of a territory thanks to a cultural project. The museum designed by Frank Gehry has positioned itself as the driving force behind this Basque city of 345,000 inhabitants.

«Before, it was a post-industrial city in economic decline. The crisis was severe, the unemployment rate high. The city was dark, grey. I had never seen tourists there before. Projects, including the museum, have made the city more pleasant.»*

«No one believed in the project. It was felt that construction funds should be put elsewhere. Its instant success was a surprise. Thanks to its activity, nearly 7,000 jobs have been created and the economic spin-offs are estimated at several billion euros. Bilbao has been revitalised. Ever since then, we've been proud of it because it has made Bilbao known worldwide.»**

AXE MAJEUR, CERGY

In one way or another, each person, on his or her own scale, looks for ways to shape other possibilities, contribute to the writing of a new page in our history, become immersed in a community of human beings endowed with traditions, laws, language, religion and habitus***. He or she creates and shapes representations of the world throughout his or her life; some — creative individuals, artists — embed themselves within the memory or the material, as if to survive.

Clearly, culture is not limited to what is usually referred to as economic "spin-off", but instead plays a significant role in generating global attractiveness.

France, in order to distinguish culture itself from the economy of culture, uses the expression "cultural exception", a concept that covers all the solutions adopted to defend cultural diversity and its specific character.

The arts, letters, sciences, lifestyles, laws, value systems, traditions and beliefs, that which constitutes culture and cultural diversity, are meaningful. Culture is attractive because it enriches. The fertile ground of metropolitan areas is where it is most concentrated and frequented.

What we call culture, which in itself is a construction, can unite, divide, exclude, enrich, dominate or emancipate, reject or attract — places of culture attract like magnets of iron. Jean Monnet, Europe's founding father, is credited with this statement: "If I had to do it again, I would start with culture".

* Interview with Begoña Martínez Goyenaga, curator of the Guggenheim Museum in Bilbao, *Journal Ouest-France*, October 2017

** Interview de de Rogelio Díez, manager of the museum's facilities and maintenance. *Journal Ouest-France*, October 2017.

***Arrangement, way of being inherited from our registration in a group, an environment
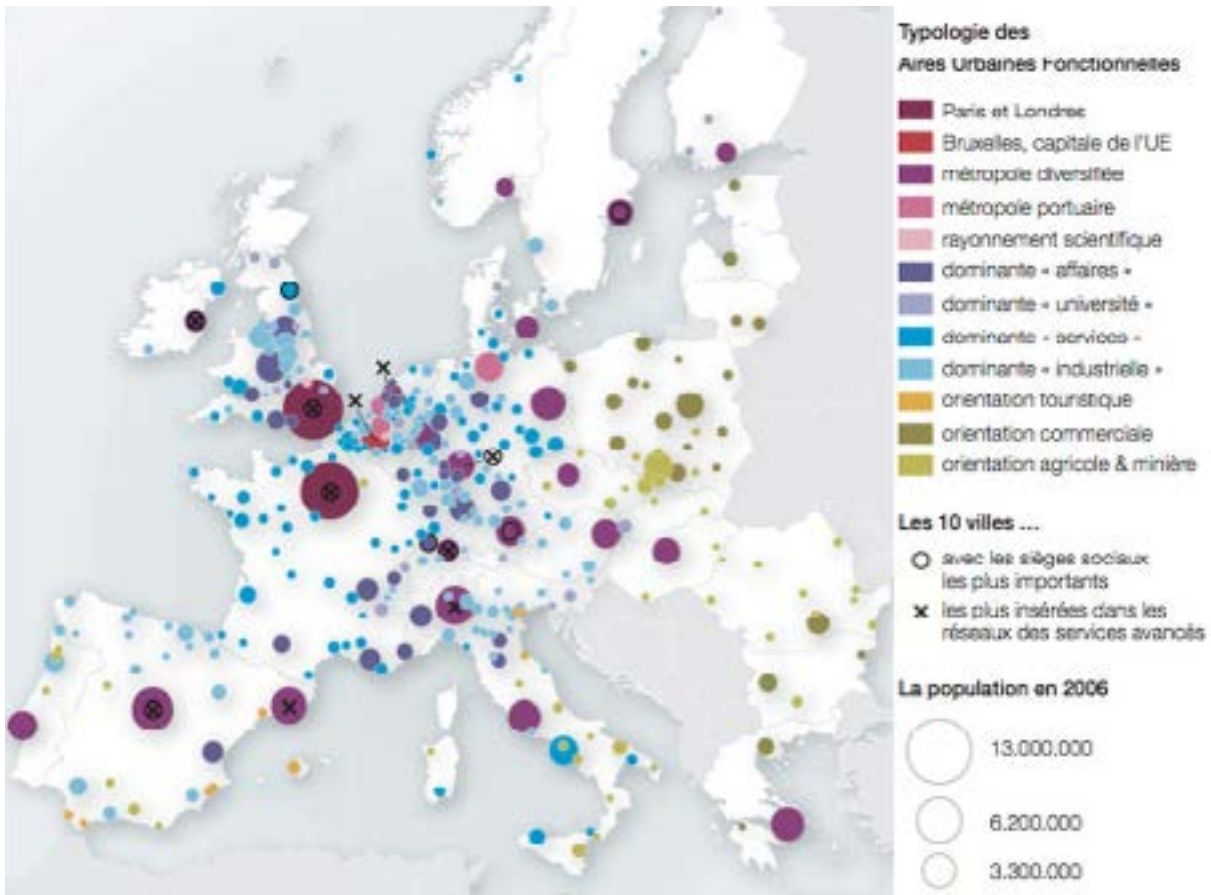
TYPOLOGY OF FUNCTIONAL URBAN AREAS

source : Halbert et al., 2012, map created by Rémy Yver, adapted by C. Vandermotten

Source : photos by Jean-Michel Vincent

INDIVIDUAL AND COLLECTIVE INITIATIVES:
A HOTBED OF INNOVATION AND A SOURCE OF INSPIRATION FOR PUBLIC POLICY

More involved and engaged

The various initiatives mentioned above show that digital technology has generated, among other things, a movement of citizen cooperation. It has made it possible to see that a greater number of everyday situations in urban life can be managed on a participatory basis by autonomous neighbourhood groups, creating inter-connected networks on a city-wide scale.

The relationship with the public space finds itself also revitalised. Social networks and connectivity are changing the way we «live the city» or experience it, how we come together and think about living together. The city seems more readily accessible, it is also becoming ever easier to divert it from its original purpose, thanks to the organisation of unplanned or uncontrolled events: political rallies, citizen gatherings or activities for pure amusement.

The major popular movements experienced by the world in recent years — the Arab Spring, student strikes in Hong Kong and Nuit Debout in Paris — have benefited from social networks to multiply their impact and visibility.

Through the magic of smartphones, citizens are now able, in real time, to gather, inform themselves and describe to the world the situations happening in these cities.

source : website of Nuit Debout, a citizen movement started in 2016 in Paris

A place for citizen initiatives

It is now a firmly established fact, thousands of new uses have appeared and are appearing every day. Our lifestyles have been transformed at an accelerated pace over the past generation. Metropolitan areas are now functioning based on multiple experiences and new patterns of life that are linked to the daily practices of living, working, leisure and travelling.

Citizens are innovating, creating and interacting across a wide range of fields and places. Social networks, digital connectivity, and the grouping of people into associations, offer a renewed relationship to the public space and the ways in which we live in the city, meet, cultivate and think about life together. Faced with the risks of saturation and the question of the sustainability of metropolitan areas, a wave of social and solidarity innovations is developing and structuring the metropolitan landscape in an alternative manner.

As an illustration of this point, the short film festival Mégacities ShortDocs invites citizens to showcase their inspiring local solutions when confronted by the challenges presented by metropolitan areas. By screening these films in the world's largest cities, the festival links the local and the global by starting with the people who live there.*

By adopting usage as a starting point, we can better learn about the lifestyles, practices and attitudes that question and shape the development model of tomorrow's metropolitan landscape. This is a diverse, singular and collective model that concerns the consumption practices of both material and cultural goods, the uses of space and time, the modes of working and living, etc.

* http://megacities-shortdocs.org/

Starting with usages to reimagine metropolitan areas

It is no longer a matter of drawing up a master plan, but rather of reflecting on a development method that bears the test of time and that can accompany the transitions and adaptations required by the acceleration of climatic, economic, technological, social and cultural changes.

We propose to start by building on existing usages with the newly emerging ways of living, consuming and working to (re)set territories in motion.

In Germany, Internationale Bauausstellung (IBAs), or International Architecture Exhibitions, are used to pursue these objectives. Initially territorial, these tools increasingly address everyday life. They are neither a show of strength nor a beauty contest. IBAs often seem to have the ability to capture the spirit of a moment, to embrace shared concerns. The analysis of usages in relation to the territories and the economic and ecological context makes it possible to deduce actions related to the diversity of populations. This way of doing things invites you to travel, to shift your perspective...

*Antoine Loubière and Morgan Poulizac , Hambourg à l'heure de l'IBA, *Revue Urbanisme,* Automne 2013

Are we headed to an implied standardisation of metropolitan lifestyles?

Conversely, in recent years, a new form of consultation has been occurring in the development of French metropolitan areas. Beyond their overall ambition for innovation, calls for projects primarily represent an experiment by public authorities to test a new way of appealing to the private sector.

City centres therefore concentrate the attributes of power, with the urban project and architectural body acting as tools of valorisation and ensuring the economic transformation and symbolic regeneration of the city. As such, we are witnessing a standardisation of the metropolitan area, its uses and lifestyles.

Three major criticisms can be levelled: spatial selectivity, social selectivity and the absence of a solution for the threat of climate change. Centralised spaces act as windows to metropolitan areas that are non-inclusive and where the privatisation of public spaces is becoming the norm...

The development of new technologies is beginning to radically change how public authorities work by encouraging governments to involve citizens much more closely in local decisions, beyond just traditional elections. Connected citizens also want to be actors and not merely spectators.

The articulation of scales seems to be essential, as well as a shared vision. Likewise, it is vital to build an approach that organises the convergence of initiatives.

With metropolitan areas opening themselves to spontaneous citizen innovations, how can we make the city?

To move forward on this path of collaboration between public institutions and civil society, a number of initiatives are already being used by cities to listen directly to their citizens. It is first and foremost the responsibility of public authorities (national and territorial) to make use of digital technology to bring about a genuine cultural revolution driven by the culture of open innovation, the reconsideration of its modes of intervention and its relationship with users.

LIFE in metropolitan areas is the starting point for the reflection proposed by the Les Ateliers: life and lives in the metropolitan areas of tomorrow. The 2018 workshop will pay particular attention to the initiatives, experiments and creativity of the younger generation, with a multicultural focus on the metropolitan transition and the evolutions and ruptures that accompany or impact it. The work to be produced is eagerly awaited for what it can offer it terms of an outlook for today and the future it sees taking shape.

The «Train du climat», or Climate Change Train, in France

For this reason, during one of the first meetings of the Climate Change Train, which will travel throughout France, the climate change plan for the city of Paris, which was adopted unanimously, was hailed by the president of the Climate Change Train for the collective intelligence that it had built in the heart of the metropolis. This is an important first step, which leads others to consider other less resource-rich territories.

WHAT DOES THE FUTURE HOLD FOR LIFE IN THE PARIS METROPOLITAN AREA IN 10, 20, 30 YEARS?

PARIS: A CITY, A METROPOLIS, A REGION, A CATCHMENT AREA

Paris is an iconic city: the Seine, the Eiffel Tower, the capital of France, the most visited city in the world...

Paris is also a compact city with a limited surface area (100 km2), a very high population density (22,000 inhabitants per km2), and an even higher urban density (38,000 inhabitants, plus employment per km2), a highly efficient but ageing transportion network, a concentric urban area contained by a double ring road, increasingly difficult access to housing, soaring real estate prices...

Faced with this situation, many Parisians either desert the city to live in the countryside — 45 minutes or an hour and a half from their places of work — or organise their lives to have dual residences and an adjusted pace of life.

The Greater Paris Metropolitan Area and the capital region: Assets and capacities for action

Paris is today inseparable from the Greater Paris Metropolitan Area. Launched in 2007, the Greater Paris project aims to transform the Paris conurbation into a major 21st-century metropolis, able to secure its place in the competitive ranks of international mega-cities.

The Greater Paris Metropolitan Area, within its current administrative limits, is an entity covering 760 km2, 8 times larger than the city of Paris. It has a population of 7 million inhabitants and more than 3 million jobs, and will soon be served by a new 200 km automated metro that will encircle Paris within the fabric of the surrounding suburban neighbourhoods.

This limit divides the urbanisation of the metropolitan area and the region in two: Beyond the Greater Paris Metropolitan Area, there are five new towns; two international airports; Paris Saclay, which accounts for a quarter of all research in France; intermediate urban areas, large forests; regional nature parks; large agricultural zones; and, most importantly, 5 million inhabitants and 2 million jobs.

Locally, the capital region, which brings together these two halves, accounts for a surface area of 12,000 km2, 12 million inhabitants and more than 5 million jobs. It covers a vast geographical area, half of which is occupied by agriculture and a quarter by forests and water. It therefore has considerable assets in terms of nature parks, high quality landscapes, historic sites and old town networks. However, these defining features are becoming increasingly impacted by the exponential growth of the urban population. As the metropolitan conurbation expands, it does so through the development of successive rings showing no discernible balance between built and natural spaces.

From this point of view, the Parisian metropolitan area's recent history can be divided into three stages :

1. The first was the post-war period of 1939-1945, during which the city became paralysed by the vision of a Paris devouring all of the country's growth; it locked itself away in the exclusive confines of the city centre.

2. Then in the 1960s, it regained consciousness of a dynamic which could no longer bear being locked up behind walls, even administrative ones intended to provide direction. This was the era of the new towns, the RER and the CDG-Roissy International Airport, followed by the TGV and a spatially organised, polycentric infrastructure, whose development focused on the very long term and the ability to accommodate up to 16 million inhabitants.

3. The third stage, which started in the early 2000's, could be seen as a return to balance with the development of the Grand Paris Express — a transportation system that bears its name well. Centred on a concentric network, it serves as a kind of extension of the metro system that currently ignores the new towns, the CDG-Roissy airport, the TGV train network and the Outer Ring as a whole, which accounts for nearly half of the metropolitan area's inhabitants. And in the future, it may include even more if some of lines are later extended.

The Parisian catchment area and neighbouring regions: Complementary or competing forces?

The city of Paris is also a catchment area that extends far beyond the administrative boundaries of a capital region that measures 100 km by 100 km. Commuter traffic, between homes in neighbouring regions to jobs within the Île-de-France conurbation, comprise nearly 370,000 journeys per day.

The neighbouring regions (within a radius of 100 km) exceed 2.2 million inhabitants and that grows to 4 million inhabitants if an additional 100 km is exceeded. They are served by motorway networks and high-speed train lines, which means that some major cities are less than an hour from Paris.

The notion of a common destiny shared by the capital region and these neighbouring regions is increasingly present. The development of cooperation and solidarity between the centre and the hinterland is underway, particularly in terms of the environment and digital technology.

As part of its strategy of resilience, the city of Paris, at the heart of the territory, is opening up the prospect of cooperation with other territories in order to initiate transitions, through a territorial pact with peri-urban and rural municipalities, around common interests and partnership activities.

AERIAL VIEW OF PARIS

PARIS REGION MAPS (carte d'Etat-Major 1820-1866 / aerial map, IGN)

EXTENDED URBAN AREA OF PARIS

INCLUDING URBAN MUNICIPALITIES (LIGHT GREY) AND
RURAL MUNICIPALITIES (DARK GREY)

source : INSEE 2010

PERIMETERS OF THE MÉTROPOLE DU GRAND PARIS AND THE
ILE-DE-FRANCE REGION

source : Wikipédia

AMINISTRATIVE LIMITS AND LAND OCCUPATION IN THE ILE-DE-FRANCE REGION

source : IAU IDF

PANORAMIC VIEW OF PARIS

COULOMMIERS, SEINE-ET-MARNE

VIEW OF THE ROMAINVILLE IDF RADIO TOWER, FROM LES LILAS

SAINT-PRIX, VAL D'OISE

CONFLUENCE OF THE SEINE AND OISE RIVERS IN CONFLANS, VAL D'OISE

For many years now, the Île-de-France region has been confronted with several phenomena that challenge both the notion of living together and the area's adaptability to change. The territories of the Île-de-France region have developed by generating both positive urban exodus (assumed choice) and negative urban exodus (constrained choice). The inevitable displacements can exacerbate inequalities in access to services, widen the divide between rich and poor neighbourhoods, and lead to discrimination by place of residence, with a growing gap between needs and available supply.

This growing inequality is reflected on various scales: in the demographic distribution within the metropolitan area (which demonstrates socio-spatial segregation, including at its core), in access to mobility, housing, services and facilities, but also in access to employment and institutions such as schools and health care centres.

How will the metropolitan model of the future question the relationship between housing and mobility? How will it integrate the poorest populations? How will it handle access to health care? To culture? To leisure and recreational activities? And finally, the notion of living together in the city?

PANORAMIC VIEW OF PARIS

ATTRACTIVENESS: HOW CAN THE METROPOLITAN APPEAL BE MAINTAINED? ECONOMICALLY AND SOCIALLY?

An attractive and diversified economic territory that must transform and support the evolution of industries and lifestyles

The Île-de-France region represents the largest job market in Europe, accounting for 4% of Europe's gross domestic product, ahead of Greater London and Lombardy. Like other major global cities – London, New York, Tokyo and Los Angeles — the Île-de-France region is characterised by an increase in high value-added service activities and the employment opportunities mainly targeting managers and senior managers. However, the latter has been achieved at the expense of lower-skilled jobs and low value-added activities, the dynamism of which has been pushed back into peripheral areas.

Land pressure exacerbates this phenomenon of the specialisation of spaces. It is becoming more and more complicated to find suitable, cost-compatible premises in central areas. This state of affairs pushes existing companies to retreat outwards and contributes to urban sprawl, which is then criticised by public authorities advocating the notion of «sustainable cities».

However, the proper functioning of territories depends on their ability to maintain, over the long term and as close as possible to the needs of users, the functions essential for their activities. The preservation of local services and urban activities, as well as rural activities, is essential for the successful functioning of the metropolitan area and the overall quality of life for its inhabitants.

How can local economic development, efficient freight transport and the coexistence with passenger transport be ensured? How can new behaviours and current and future innovations be supported: e-commerce, deterritorialisation, teleworking, third places, start-ups?

## WHAT SPATIAL SCENARIOS SHOULD OR WILL BE DEVELOPED FOR THE FUTURE?

Just like the world's other major metropolitan cities, the scale of the Parisian metropolitan area is in question. All over the world, cities are home to an increasing proportion of the population. By 2050, cities that are already oversaturated today will host 80% of the planet's total population.

What drivers must we engage to ensure a qualitative evolution of metropolitan life?

Expand the capital region? Loosen Paris's grip? Draw on several centres as opposed to one, so as to benefit from the peripheral cities — their renown, their identities, their living environments and their infrastructure? Intensify inflows and outflows to foster metropolitan dynamics? Maintain a proper balance between the rural and urban on a wider scale?
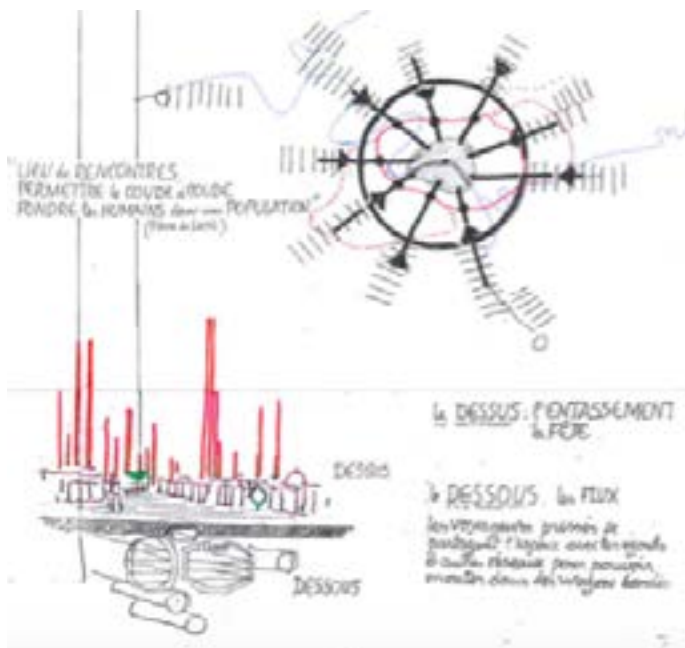
Many avenues of reflection are possible:

• The metropolitan city, whose perimeter extends to two or three hours from its centre

• The global city

• The Vallée de la Seine-Paris, a port city

•A conglomerate of «Millionaire Metropolises» (Metropolitan areas with a million-plus inhabitants)...
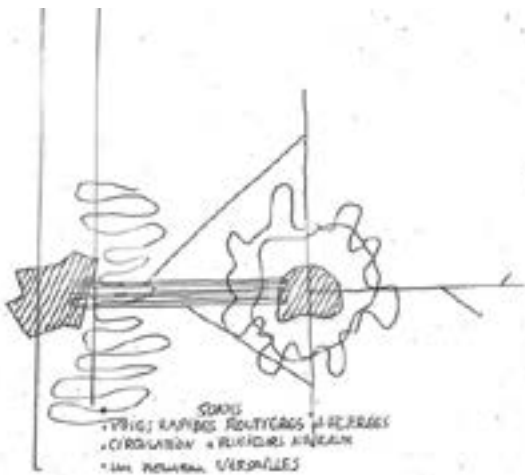
«THE CITY OF ARCHITECTS»

«THE METROPOLITAN REGION ON ANOTHER SCALE»

«THE COMPACT CITY»

«THE REGION OF SUCCESSIVE RINGS»

Illustrations by Bertrand Warnier

29

WHAT ARE THE CRUCIAL ISSUES?

These changes and ruptures represent crucial issues and unprecedented challenges that must be addressed now. In the short term, it is about the quality of life for the inhabitants of big cities; in the long term, it is about the survival of a part of humanity, in other words our civilisations as we know them.

How will we live in the metropolitan areas of the 21st century?

How can these dangers be transformed into drivers of action? That is the question.

On the other hand, how will we live the metropolitan areas of the 21st century?

Where and how will you and your children live in an increasingly urbanised, ecological and digitally connected world?

What kind of lives and lifestyles are emerging in the major metropolitan areas and countrysides that support them? How can a large-scale project of life be developed and implemented in a way that is sustainable and acceptable for all? Which in turn would require a well conceived organisation at all levels, global and local.

In other words, how can we move from a simplified and institutional vision of metropolitan development to the create a real human ecosystem?

By approaching the question through life, lifestyles and usages, how can we combine, over the long term and on a very large scale, the urban and rural, the territory's sustainability and capacity for evolution, its local and global balance, and its individual and collective governance?

These are only some of the questions raised by Les Ateliers' 36th Paris Region Urban Planning Workshop, whose title is deliberately oriented towards life in metropolitan areas in the 21st century.

source : SEMVR, Union, Tossée

source : Lorie Elies, Stratégie de résilience de Paris

source : Jean-Baptiste Gurliat Mairie de Paris

source : SEMVR, Union, Kipsta

CONCLUSION: A SERIES OF QUESTIONS

HOW CAN METROPOLITAN AREAS BE DEFINED?

Is the metropolitan transition a model of expansion, a driver or an out-dated approach?

Where and how will we live in this ever increasingly urbanised, ecological digitally connected world? How will we build cities?

Which development models will be best suited for which metropolitan lifestyles? For which territorial scales?

How can the different spatial and temporal scales be combined to provide sustainable lives for all?

How can the spread of built and natural spaces be rebalanced within metropolitan areas? How can we preserve the notion of a quality of life for individuals but also the community as a whole: well-being and health, clean water and fresh air for all; a flourishing and convivial life where beauty, poetry and pleasure are the order of the day?

How can we question metropolitan time and space in relation to the daily practices of living, working, leisure and travelling?

What place is there for aesthetics? What place does the future hold for productivity, speed, consumption, invisible networks, inclusion, transparency and beauty?

WHAT ACTIONS ARE NEEDED TO RESPOND TO THE URGENCY OF CLIMATE CHANGE?

How can the threat of climate change be transformed into a driver of action? How will these changes affect the sustainable development of metropolitan areas?

How can a sustainable and innovative metropolitan area reconcile with nature? How can we produce as close as possible to the places where urban dwellers are concentrated?

How can a large-scale project of life be developed and implemented in a way that is sustainable and acceptable? Which in turn would require a well conceived organisation at all levels, global and local.

HOW CAN WE SUPPORT THE GROWING INFLUENCE OF THE DIGITALLY CONNECTED CITY?

How can we imagine urban life and urban planning in terms of self-driving cars, smart motorways, telework, e-health, digitally connected objects and homes?

What impact will car sharing, co-working spaces, delocalised worksites, and so on, have on the public spaces of tomorrow, on mobility? How can we design the space while taking into account its flexibility?

How can we foster the city's new potential usages that have been introduced by digital technology? What impact will this have on daily life in the city?

How will all the practices that are created, established or sought today evolve in the face of the technological innovations already being developed for the future?

WHAT FORMS OF ATTRACTIVENESS FOR METROPOLITAN AREAS, FOR WHOM AND TO WHOM?

What role does the cultural attractiveness of the metropolitan area play? What part does culture have in the dialogue and solidarity of the various scales?

How can innovation be driven by individual and collective initiative?

WILL THE METROPOLITAN AREA OF THE FUTURE — A CONNECTED GLOBAL CITY — ALSO BE ONE OF PROXIMITY AND SHARING?

How can we restore the role of local life in metropolitan areas, in the face of a redesigned and redeployed mobility, the confusion between living and working spaces, between telework and outsourcing, etc.? What services and infrastructure are needed?

How will the metropolitan model of the future question the relationship between housing and mobility? How will it integrate the poorest populations? How will it handle access to health care? To culture? To leisure and recreational activities? And finally, the notion of living together in the city?

Will today's and tomorrow's metropolitan areas aspire to a more collaborative and participatory model?

In other words, how can we move from a simplified and institutional vision of metropolitan development to the creation of a real human ecosystem? How can we ensure that digital technology is only a means and not an end?

WHAT DOES THE FUTURE HOLD FOR LIFE IN THE PARIS METROPOLIS OVER THE MEDIUM AND LONG TERM?

What will be our new geographical landmarks within the metropolitan area? What sort of balance will emerge between urban and rural areas? What complementarities will develop between the city-centre, peripheral and interregional territories?

In the future, how will the capital region absorb the growth and diversity of its people and flows, and the land needs this generates? How can new lifestyles and work patterns be taken into account? How can the need for agricultural production spaces be met?

What are the interfaces between the different rings of the Île-de-France territory? What will be the impacts of the territorial breaks created by the greenbelt of regional nature parks? What spatial scenarios are envisioned?

How will we live in the metropolitan areas of the future?

IN THE REAR, THE TIME OF A WORKSHOP, THE WORLD WILL BELONG TO YOU; THEN YOU WILL LIVE THERE, THE REST OF YOUR AGE.

A UNIQUE APPROACH TO AN EXCEPTIONAL WORKSHOP

The 2018 workshop is exceptional in terms of its subject, the challenges it raises, the range of disciplines it engages and the mobilisation of the many actors participating throughout the entire process. Meeting and discussion points will therefore be essential. An inaugural seminar was held on 25 September 2017, which brought together international experts and stakeholders to ask the first interdisciplinary and cross-cutting questions.

On 12 April 2018, a working seminar will be held to finalise the questions designed to help participants address the workshop's topic. «Metropolitan Evenings» will also be organised around 4 main themes: the ecological and solidarity transition, new home-work relationships, a digital revolution that fosters collective intelligence, and metropolitan attractiveness and cultural appeal.

«Metropolitan Evening» Dates: 8 February, 8 March, 17 May, and 21 June 2018

For each of these evening events, as well as for the seminar, a thematic notebook (referred to as Book N°x) will be published presenting an overview of the main topics of discussion and reflection. This way you will up to date on all developments on the subject and ready, as soon as you are recruited in early 2018, to develop and mature your ideas ahead of the September workshop. A digital platform on our website will be dedicated to exchanges with and among participants.

Book N°1, available online on Les Ateliers' website or by post upon request, is the first stone of this work in progress, whose guiding compass will led by the quality of life.

HOW TO APPLY

The workshop is open to young professionals and students (enrollled at a minimum of a Master's level) of **all nationalities and disciplines** (urban planning, design, architecture, geography, engineering, photography, sociology, economics, landscape design, ecology, the arts, communication, etc.). Twenty-one participants will be divided in to three interdisciplinary and international working groups, supervised by a team of professionals.

Time and place

The workshop will be held from 3-28 September 2018, in Cergy-Pontoise, Île-de-France.

Requests for information and/or documentation

lavie@ateliers.org

Preparing your application

Please read the workshop's Book N°1 and Topic Document. Complete the registration form, available on Les Ateliers' website (ateliers.org), and submit it, along with:

• A CV/Resume of one to two pages maximum

• A short personal essay on the workshop's topic: this document takes the workshop's topic and applies it to another site, preferably one in the candidate's country of origin or the Paris metropolitan area. The purpose of this essay is for applicants to engage in a personal reflection on the themes being addressed prior to the workshop. The work is to be completed individually (3-4 pages in A4 format or 2 pages in A3 format).

The candidates will submit a unique file in PDF including above elements merged and entitled NAME_ Firstname_VIE

Conditions and requirements

Proficiency in English (must be able to work as part of an international team), full availability for the workshop dates, age limit of 30 years old. Registration fee: 200€ - Including the accommodation in Cergy-Pontoise in the students residence, all the travels during the workshop, some collective meals, the visits, the conferences and the drawing material.

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