

Annex. What do we understand as a Light City?

1. The Light City. Introduction

According to World Urbanization Prospects, over half of the world population lives in cities or in their metropolitan areas. The proportion is growing on a global scale, even though it has become stable in European cities.

Madrid is the fifth European city in population and the fourth in metropolitan surface area. Its population grew ten times in size in the 20th century and it is a perfect example of how rapid city growth can increase the scale of the problems: infrastructures, pollution, mobility, etc.

But the increase of problems in cities as a result of their growth does not mean that urban decrease is our best option for the future. Cities still are the highest expression of human civilization. They attract talent, generate resources and create opportunity options. But they also create problems, and those problems need to be addressed.

In the words of Jaime Lerner, former mayor of Curitiba and president of the International Association of Architects: “The city is not the problem, but the solution”

The greatest challenge for the 21st century is to find urban, economic and social models that offer solutions to existing problems and that change the logic that has generated them. These models are not likely to be shaped by huge urban surgery operations, but by new habits and solutions put forward by citizens themselves. As the Canadian writer and urban activist Jane Jacobs said when speaking of cities: “Design is people”. And from the people, new ideas and solutions are being born.

2. To grow or not to grow

The idea that the term Growth itself is equivalent to economic health, welfare and social success has been recently questioned.

The increasingly obvious realisation of the physical limitations of the planet and how these are being threatened by human action, has almost permanently made us collocate the word Growth with the word Sustainable. As if it were a word in conditional freedom.

Thus, using the word Growth in connection with big cities requires as many precautions as adjectives. Especially when we are talking about old European cities whose urban design is a heritage of their long history.

Small is Beautiful.

The title of the book written by the economist E. F. Schumacher in 1973, selected by The Times Literary Supplement as one of the 100 most influential books of the second half of the 20th century, has turned out to be, forty years later, a visionary sentence to approach the problems of the 21st century.

3. Heavy cities, Light cities

Mobility has become the Gordian knot for many of the problems of a city. There are other correlated problems that arise from this, not only those related to everyday life, waste of resources and environmental pollution, but also strategic decisions related to the use of energy, so important in the years to come due to climate change.

To say we live in heavy cities is an understatement. You just need to think of all the citizens that daily commute in vehicles of huge size that weigh close to two tons.

With a considerable use of energy and to usually carry only one person to distances of less than 20km.

We have reshaped our city centres so that thousands of cars may circulate, reach any place and park at any destination. We have built overpasses, tunnels, and urban motorways. We have reduced the space for pedestrians in squares, boulevards and walks to achieve a mobility that is constantly insufficient and generate traffic chaos and pollution problems which have never been fully solved.

The negative effects in our cities of car use are, above all, a symptom of our own incompetence. We cannot speak of Smart Cities while this issue continues unsolved.

4. Lighten mobility, lighten the city

But we cannot make all cars disappear overnight. Among the cities and countries that are pioneers in the search for alternative solutions to this issue, there is an insightful unanimity: there is no unique, fast and simple solution. Urban surgery does not provide solutions either.

Solutions must be found using homeopathy and multi-mobility. That is, by setting up alternative, diverse, small and simultaneous solutions under a new name:

The Light City

- Gradually increase restrictions on large and most polluting private vehicles accessing the city centre and giving priority to smaller, cleaner vehicles.
- Increase the use of bicycles and foot walks. This not only provides individual but also collective health, both with full routes and as part of longer ones, combining it with other means of public transport: train, underground, bus, etc.
- Foster the use of electric bicycles and small motorcycles.
- Promote the use of small electric vehicles for hire through social networks
- Find alternative uses for cars, which in their vast majority are only used an average of 2 out of 24 hours.
- Promote the use of rented cars rather than owning them. This measure is frequent among the most innovative citizens of big cities. Also stimulating the use of motorcycles for hiring.
- Promote carpooling or car sharing, mainly when accessing and leaving peripheral urban centres
- Continuous improvement of public transport.
- Create a new mobility culture in search of reducing daily commutes, bring homes closer to work places, unite family commuters in cars, etc.

5. Light city and urban acupuncture

The Light City is not a term exclusive to mobility. The concept of Circular Economy, born in the 80's to describe the interactions between Economy and Environment, has not stopped growing ever since. This idea emulates the water cycle and other organic cycles given in nature and applies them to social organization, avoiding as many losses as possible in the system and encouraging a proper use and re-use logic: recycle waste, repair industrial machinery on a small scale, reuse technology, and recover resources are just some of the new features that comprise the corpus of business schools and universities, traditional companies, start-ups and public institutions, that are busy managing resources, separating and recycling packaging and managing waste. Reducing costs to the minimum and reusing as much as possible.

To understand circular economy better, a good summary would be: "waste that is not produced is easier for the planet to reabsorb and packages that are not made are easier to recycle". This logic, applied to consumer habits, is already generating important changes in some commercial practices.

In the field of design, businesses, professional studios and schools are increasingly including initiatives based on reuse and recycling in their curriculums, subjects and projects.

The term Light city is also being used to inspire and provide a framework for initiatives linked to alternative use of small spaces. Through a process we call Green Acupuncture, we aim to change the perception of cities by filling them with small green spaces such as urban vegetable patches or vertical gardens, or bigger projects such as the High Line in Chelsea, New York, which uses an old urban railway line to create a green area to walk over the urban arteries of the city.

6. Light graphics vs visual pollution

There is also a new critical trend arising in communications against the constant use of every available space for irruptive communication. This creates a pollution that often has the opposite effect to what it originally intended, causing the citizen to be more weary and reject the idea of publicity, as some surveys by the American Association of Advertising Agencies (4A's) show.

To face this and to value a communication which serves both public and cultural purposes in cities, invisible screens and biometric systems are being tried out. These systems become visible when the citizen is requesting information by stopping in front of them, through sensors.

The objective is to reduce messages to a bare minimum, making them better appreciated and combining them with mapping systems and apps to improve the cities signalling system that can be read by any mobile device and only be present in physical form in well-chosen and designed public signage spaces.

7. Speaking of Madrid

The mobility issue in Madrid is paradigmatic. It is full of spectacular lights and troubling shadows. Madrid has been at the rear when implementing symbolic measures such as urban bikes, which have been present in other Spanish cities such as Barcelona, Seville, Zaragoza or Valencia for years.

Madrid has systematically delayed private vehicle access restrictions to the city centre compared to other cities, despite its high levels of pollution, which, in the city centre, often exceed the limits agreed on with the EU.

Despite this, Madrid has one of the best public transport systems, with an underground network considered to be one of the best in Europe for the quality of its facilities and the extension of its lines. With an integrated regional transport system that coordinates the Commuter trains with the peripheral lines of intercity buses EMT. As well as a new taxi service consisting of hybrid and low emission vehicles.

Madrid must change its Urban Culture, and this starts by changing citizens' mentality.

These changes should not be imposed on citizens but promoted through urban awareness campaigns and examples of good habits. With gradual guidelines to correct negative habits in the city we all share.

This is why we have set up a fine selection of posters, that approach different perspectives, selected by a jury under the motto The Light City to contribute to the improvement and transformation of Madrid.