PANDEMICS AND PUBLIC SPACE

A META-ANALYSIS Alonso Molina Adame August 1st, 2020 This document serves the purpose of an interim accountability document to show progress and present the research I've done during the summer. What I've found so far and how I am going to continue during the fall term. I divided it in five main topics, to show scope and direction in present and future work. It is very important to state, that as the current context we are living in —COVID-19 pandemic— might change, so will the prospective work.

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1.0 RATIONALE

The objective of this research is to understand the close relationship between public space, epidemics and the public's behaviour, by doing a meta-analysis on existing discourse, and conducting case studies.

After the resolution of the COVID-19 pandemic, the relationship between people and cities will arguably have transcendental changes. At the same time, the design of public space itself will be modified.

Budds wrote, "how we design and inhabit physical space, has been a primary defence against epidemics" (2020). This is the main reason why this research is relevant. Designers have used public space as a strategy to fight or stop epidemics. By analysing different approaches, I can reflect upon the findings, in search for principles that can inform future designs.

2.0 **CONTEXT**

Epidemics and pandemics present key humanitarian challenges, but they have been pivotal points in fields such as medicine and education, as well as major cultural shifts. Today, we are living a pandemic within a unique social context, because of the characteristics of the virus and the connection the world has within, such as international trading and dependable economies.

This section attempts to explain the background of the project. I will define some key words and terms, which will give the reader a better understanding of the project. Then I'll show not only the current situation, but also a history of how some cities evolved because of other pandemics. Pandemics have shown to be catalysts of change, reimagining cities, and their infrastructures.

2.1 KEY DEFINITIONS

It is very important to define the difference between a pandemic and an epidemic. An epidemic is a disease that spreads over a wide area and many individuals are taken ill at the same time. Pandemics are epidemics that escalate further, which affect even wider geographical areas and a significant portion of the population. (Merriam-Webster, 2020)

Public

Talking about public space is talking about the people that use it. The public is a group of people who organize around a shared concern. (Dewey, 1927) So, when this organization takes place it is usually within a public space.

Public Space

There are many different types of public space, but for the purpose of this project I will concentrate on only two: common and official. The official public space, is what Ibelings describes as "usually a monumental square in front of an equally monumental building, used for exceptional occasions" (2020). As an example, we can think of the Zócalo at Mexico City, surrounded by government palaces and cathedrals, or the Tiananmen Square in Beijing, which in turn has its gate and museum. We also have the common public space: parks, streets, and piazzas, that are part of everyday life and serve the public with much flexibility and openness. Designers take the same care and attention with the common public spaces as the official ones, but without too much curation or prescription (ibid.). But size and placement are not the only things that define public space. People, or the public itself, define the use of the space and what it means. So, in a way, these spaces exist because of our need of connection to others (Harraut, 2020).

The common public space — which will be the one I will be focusing on, for the purpose of this research — is the democratic place par excellence. Which, with the pandemic, has been idealise as a space for freedom (Monteys, 2020). Is where we, as the public, can walk, run, and encounter casual conversation, even with social distancing. Where our mind can disconnect, as the home and work space have merged into one. Its the place we long, where communities and friends meet carefully, bringing each their own things and food. As an example, we can think about a neighbours' meeting, that moved from the closed-up room, to the park where everyone had their space, but all were participants of their common issues.

2.2 PUBLIC SPACE AND BEHAVIOUR

The Colombian anthropologist, Arturo Escobar, mentions how "...design is literally everywhere; from the largest structures to the humblest aspects of everyday life, modern lives are thoroughly design lives" (2018; p. 21). This suggests that design is not only material, but also abstract, such as policy making. We can think of public space as a highly designed environment, which strives to find a balance between social recreation and what is socially accepted behaviour.

How the residents of any city behave, is a concern to any government, and public space helps in many ways. Just as Bachelard establishes, there are rooms in a house that become spaces of bliss (1964). A city also has its spaces of bliss, where you can do many activities you can't anywhere else. These public spaces are the focus of this research.

2.3 PUBLIC SPACE AND EPIDEMICS

Design of public space is closely linked to the relationship between public space and public behaviour. This is why designers change the priorities depending on the context in which they are living. This is even more important, when public health is at risk.

The exposure to diseases and new challenges to control outbreaks, have come because of massive increase of the global urban population. Therefore, we need to research these relationships between urbanization and infectious diseases (Connolly, et al., 2020). During the current pandemic, we've experimented the public space differently. On one hand, we had people with accessible public space, who were able to frequent it easily and responsibly. On the other, we saw places where public space was centralized, designed for big crowds that couldn't enjoy them. Each comes from a very different urbanization plan, but ultimately had the

same goal: to serve the population as a place of recreation and entertainment.

2.4 HISTORICAL BACKGROUND

We can refer to – maybe even remember – past pandemics that left enduring marks in many regions, such as the Spanish flu of 1918 in United States, the AH1N1 pandemic of 2009 in Mexico, or the Ebola Virus of 2014 in West Africa (Klaus, 2020). But, we haven't seen such radical changes in urbanization like the sanitation system done by the London's Metropolitan Board of Works in response to the cholera epidemic (ibid.). Nor the fresh water system built in the 1800's as a result of epidemics, that swept New York City, (Budds, 2018). Systems which are still the ones their cities rely on.

Before the 1880 with the arrival of the germ theory of disease, the miasma theory disapproved/outdated — changed the cities' urban planning. The belief was, that harmful nauseating bad air caused all diseases. So, to prevent this, designers thought that the correct flow of air and men was of the outmost importance in cities. Many cities such as London and Paris, saw renovations which included parks, sewage systems and aqueducts, to ensure clean air, clean water, and waste control. Although these renovations were based in an obsolete theory, the designs worked, as they minimized epidemics such as cholera, typhoid, and tuberculosis outbreaks by providing sanitation to otherwise unsanitary industrialized cities.

2.5 CURRENT SITUATION

To do the research, I must understand modern cities and their challenges. The head of architecture at MIT, de Monchaux, reflects on them, stating that "for all their faults, cities are the infrastructure of equality" (2020). In this world of inequities, public space should be a place for anyone, accessible and equal. The life we are experiencing right now is very different from a few months ago. Activities in a spacious outdoors have become paramount on our daily basis, they have become our way of coping with the new set of rules that have emerged as a result of the pandemic. Crowds are scattered and social distancing is encouraged.

Albeit not a pandemic, 9/11 is an example of a recent event that changed drastically norms and regulations. Airport spaces were redesigned and security has never been tighter, and controlled. As Sennett explained "regulations governing public gatherings, controlling access to buildings, and specifying how bomb-proof buildings should be constructed remained on the statute books" (2020).

We can infer that the COVID-19 pandemic, will do the same and that the new rules and regulations that govern the public space, dictating social distance, and dispersing crowds will persist even after we have the medical means to suppress the disease (ibid.). This regulations have already made different designers think and theorize how the world could look like in the aftermath.

When a pandemic - such as COVID-19 - that has no cure nor vaccines to protect us from, Twilley reminds us that the most effective solutions become physical and spatial, such as quarantine, social distancing, and isolation, almost making urban design medical (as cited in Budds, 2020). Actions such as social distancing, isolation and guarantine have been taken around the world, to combat the SARS-COV-2 virus contagion. The actions have left a mark, Raviv called them a "surreal décor of our new reality — empty streets and duct-taped stores — will forever be the iconic image of this times. In times of social distancing we are presented with the challenge of adapting public spaces to keep distance from one another" (2020). By mid-pandemic, these measures took place by signage in the form of stickers and vellow tape, serving only as a reminder of the policy more than an actual design solution. But as the pandemic progresses, we see also other types of more permanent solutions, such as plexiglass walls or barriers, and service providers wearing masks or face shields.

3.0 METHODOLOGY

This section explains the logic of the research. Taking a qualitative research tradition starting point, and with a Critical Design point of view that challenges the status quo, thinking deeply about the possible future consequences of present choices. I will explain how a meta-analysis of existing and prospective design within a series of case studies will allow me to identify possible design principles.

3.1 META-ANALYSIS

Parks as part of common public space, are regulated spaces. But they are not as guarded as official public spaces, such as squares or museums. So, to regulate common public space, designers and urban planners usually make use of strategic resources. One of these strategies is defensive architecture, that ensures accepted social behaviour. This strategy is a type of affirmative design, as it reinforces the status quo. In contrast, they are other strategies that can encourage other types of behaviour such as physical fitness or promotion of mental health.

The analysis of existing and prospective design within the case studies, and the benefits of a Critical Design point of view, will allow me to identify possible design principles which will be different from what already exists. Therefore, a meta-analysis approach to the project is more efficient and helpful, rather than a design solution.

3.2 CRITICAL DESIGN

Popularized by Dunne and Raby, Critical Design provides a "critique of the prevailing situation"(2001) as it "uses speculative design proposals to challenge narrow assumptions, preconceptions and givens about the role products play in everyday life" (n.d.).

3.3 CASE STUDIES

I'll be using case studies as a kind

of qualitative research which is an interpretative process of investigation based in different methodologic traditions (Vasilachis de Gialdino, 2006, p. 2).

In this document I'll explore three case studies, which have experienced very different situations not only in this pandemic, but in others too. I'll attempt to construct a complete image by presenting different points of view and perspectives. This is the base work for the research and analysis, as it will help me find some clues on how they dealt past pandemics and how that work influenced the outcome of the current pandemic. Also, I might be able to identify the cities' prospective work and emerging opportunities, while they are storming out COVID-19 pandemic.

3.4 SPECULATIVE DESIGN

There is palpable uncertainty of how the current pandemic is going to affect the public space. With uncertainty, fear of uncontrol and need for mitigation emerge. But, Akama, Pink and Sumartojo remind us that working with uncertainty is only an approach to a problem space. Creatives that have uncertainty embedded in their practice "working with the possible, the imaginative and the speculative, take an important step away from the imperative to certainty that characterize some design research and practice" (2018, p.36).

Uncertainty develops space for creation. Places in crisis with the COVID-19 pandemic, have an opening to remake them. To not just survive the crisis, but create opportunities for the future. (de Monchaux, 2020) "The idea that safe, generous and accessible common space is fundamental to public life is an essential American idea" (ibid.). With this and the ongoing research through the fall, I am hoping to get to a speculative design point.

4.0 CASE STUDIES

In this section there are three case studies, although they might seem very similar, as there are from western regions and I reference the different work they did in the 19th century as a way to counter the multiple pandemics that were present at the time, there are very dissimilar from each other. In a way, they took a different approach with the same idea in mind.

With each of the study case I will present different important aspects of the research. The first study case about two cities of the north-eastern Mediterranean coast of Spain will focus on behaviour. The second case study on New York City, the reader can expect a focus on centralization and crowds. Whilst Paris which is the third study case, will focus on future urban projects.

4.1 SPAIN

HISTORIC (BARCELONA)

The capital city of the Catalonia region is a city recognized by its buildings from architects like Gaudí and Meier, as well as its urban planners. It is also a very dense



Fig. 1 Satellite Image of Ciutat Vella (Google, n.d.)

city. Most of the apartments according to consultancy firm Afi, are between 73 and 115 meters squared with the median family consist of three to five people. (as cited in Faus Onbargi, 2020) Its famous Gothic Quarter is the historic centre of the old city or Ciutat Vella (fig. 1), which has some buildings dating since medieval times, made up of a labyrinth of small streets which will open into small squares. In contrast, the Eixample (fig. 2), built in the late 19th and early 20th century, has a strict grid pattern with inner parks and square blocks with chamfered corners, accommodating better ventilation in accordance with the miasma theory believed and followed by the time. (Ajuntament de Barcelona, n.d.)

But more important than its urban landscape is the behaviour of its residents. For Barcelonians the solidarity through family networks is very important. People tend to be very close to their friends and families, where bonds with elders are strong. The residents of Barcelona have a highly embedded outdoor urban life, so they usually disregard measures like confinement and quarantine, as it goes against what Faus Onbargi calls "the Mediterranean way" (2020). All of these combined result in cramped homes, which in turn are usually the place where people only sleep, this is why "life is outside, and Barcelona has long fostered an environment to pursue 'la vida de carrer',



Fig. 2 An aerial view of the District of l'Eixample (Upmanis, 2019)

or street-based lifestyle." (Faus Onbargi, 2020) The public space becomes important as it is where the people encounters and has its social life. Visiting cafés and bars that take as much as the street as possible is an activity that people strive to do any given day. Barcelona has also access to the beach and the mountains, and organizes many cultural events outside, surrounded by historic buildings and parks. Crowds and large conglomerations of people that take entire streets or parks are very common. These features makes Barcelona one of the most attractive cities for tourists, that will almost double the city's population exponentiating the density in an already crowded city.

CONTEMPORARY (VALENCIA)

Valencia is not only an autonomous community, but also a city. Like Barcelona, it shares access to the Mediterranean Sea, it also has an old quarter called Barrio del Carmen, with some buildings dating to the Roman times. But its biggest difference is that Valencia (*fig.* 3) is one of the "cities with an existing decentralized network of small green spaces" (Honey-Rosés, et al., 2020).

During the COVID-19 pandemic, in cities with stay at home orders, we observed more use of green spaces, especially the small neighbourhood parks. (van der Berg, 2020). It also helped people to abide by these new rules, which is consistent with the data where Valencia slowed and mostly stopped contagion, almost two weeks before other regions in Spain, like the neighbouring Catalonia and Castile



Fig. 3 Map of Valencia (Apple, n.d.)

La Mancha (*fig.* 4), even with the latter having half the population and at least thrice as much territory (Ministry of Health, 2020).

Smaller green places seem to be undergoing a renaissance as "the pandemic might force us to revisit our existing green space typologies, with local neighbourhood parks, pocket parks, avenues, and informal green spaces getting greater focus as larger parks may take on a different function and use" (Honey-Rosés, et al., 2020). So, cities such as Valencia, will be better prepared to provide easily accessible opportunities for the enjoyment of nature. (ibid.)

Fortunately, the idea of decentralized smaller green spaces isn't new, as Velarde, Fry and Tveit remind us that not only makes it is easier for people to access them, but "even visual access to nature has been shown to have important physical and mental health benefits" (2007).

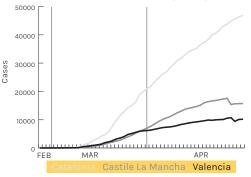


Fig. 4 COVID-19 cases in Catalonia, Valencia and Castile La Mancha

4.2 NEW YORK

HISTORIC

We can think of New York City as the city that has been shaped to what we know today thanks to epidemics like cholera, measles, small pox, scarlet fever and tuberculosis, that swept the city in the 1800's killing almost 1 in 20 New Yorkers (Budds, 2018).

Such epidemics led to the Citizens Association publishing the "Report upon

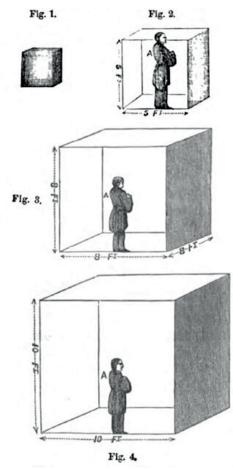


Fig. 5 Comparative volumes of air as metric for sustaining human health. (Citizen's Association of New York , 1866)

the Sanitary Condition of the City" in 1866. It was an exhaustive survey of 29 'Sanitary Districts' in the city that focused on the relation between disease and the spatial morphology of the urban fabric. The study shows a comprehensive understanding of the relationship between health and urban space (Plunz and Álvarez-Dávila, 2020).

In New York, like many cities at the time, John H. Griscom believed that the free movement of air and importance of light would eventually control the epidemic outbreaks. His study, Uses and Abuses of Air, published in 1854, was among the first to propose a spatial metric for the amount of air needed per person (fig. 5),



Fig. 6 Parks and green space New York City map. (Schorzman, 2005)

to overcome the negative consequences of high densities (ibid.).

Another big problem was that marginalized and poor communities, were critically hit by the epidemics. As they did not had access to public space, and linger public services and infrastructure. Many times, their homes lacked windows or ventilation, creating a heavy and sick environment, where diseases would thrive.

As a result, the fresh water system was built during this time, which the city still relays on. As well as major green spaces or parks – like the famous Central Park – and other centralized public spaces were developed (*fig.* 6) that could accommodate big crowds. Building codes were also updated, accommodating more windows and air shafts. (Budds, 2018)

CONTEMPORARY

At the beginning of March, when the first cases started to appear, Mayor de Blasio and President Trump took a similar stance, without worrying to much about the novel coronavirus, with the Mayor encouraging the public to "go on with your lives + get out the town despite Coronavirus" (de Blasio, 2020). In contrast Governor Cuomo ordered the first containment zone in Westchester County in New Rochelle. (Torres, 2020)

Around mid-April, New York State's total of 181,026 cases, were higher than Spain's



Fig. 7 . Subway Message for Commuters (Lee, 2020)

(161,852 cases) and Italy's (152,271), countries with populations many times larger than New York. Making it the epicentre of the COVID-19 pandemic not only in the US but worldwide. New York City and its suburban counties — Nassau, Suffolk, Westchester, and Rockland were responsible for 93% of the state wide case count (Sepkowitz, 2020).

Another outstanding statistic in comparison to other cities, is that NYC's mortality was the highest among all other US cities (NYC Health, 2020). Also there is a big disparity in the confirmed deaths between the different race or ethnicities that live in the city. Hispanic/Latino and Black/African-American communities were the most hit. (ibid.) This suggests that just like in past pandemics, marginalized communities were the most affected. This communities usually have less access to public services and recreational spaces.

Aside of the political differences between President Trump, Mayor de Blasio, and Governor Cuomo, which inevitably left the public divided and confused, New York City's density played a major role for the rapid spread of the virus. New York is the densest city in the United States, but still pales compared with the density of some cities in Asia which weren't affected as much because of the COVID-19 pandemic. But because of the space regulations such as social distance and crowd dispersing, meant that New Yorkers couldn't make use of their big green spaces, suggesting it became harder for people to comply with quarantine directions.

4.3 PARIS

HISTORIC

In the 19th century, five cholera pandemics hit Europe, amongst many other diseases, and Paris was one of the cities where it hit the hardest. The city's centre had not changed much since the Middle Ages. The French philosopher Victor Prosper Considerant described it in 1845 as "an immense workshop of putrefaction, where misery, pestilence and sickness work in concert, where sunlight and air rarely penetrate. Paris is a terrible place where plants shrivel and perish, and where, of seven small infants, four die during the course of the year" (as cited in de Moncan, 2002, p.10). The 1848 cholera epidemic killed almost five per cent of the inhabitants of its centre.

According to the health beliefs at the time, the city needed to let air and men circulate to prevent health epidemics, which was a major issue. So, in 1853 Napoleon III appointed the title of prefect of Seine to Georges-Eugène Haussmann. With the title, a massive urban renovation of Paris began. New boulevards, parks, and public works, encompassed what is commonly referred to Haussmann's renovation of Paris.

The renovation made the city how we know it today. Haussmann built 24 new green spaces in the neighbourhoods, and four major parks with each of the cardinal points (*fig. 8*). But Haussmann's goal was to have one park in each of the eighty neighbourhoods of Paris, so that no one was more than ten minutes' walk from a park (Jarasse, 2007).

CONTEMPORARY

To provide better and less crowded transportation, Paris Mayor Anne Hidalgo open more than 650 kilometres of pop-



Fig. 8 Map of Paris with Haussmann's renovations in red colour. (Destugues, 2011)

up bike lanes. This strategy known as 'coronapistes', is built by closing lanes in the roadways which encompassed most of the city, even connecting both airports. Bicycles are thought to be a great tool of transportation while maintaining social distancing. (Compagnon and Corby, 2020) The lanes were deployed quickly, but will gradually update them as the Mayor called returning to the car-dominated status quo as out of the question, already making permanent changes fuelled by COVID-19 pandemic (Holland 2020). This aggressive strategy is backed up by a major overhaul of the city planning.

Before the pandemic, Mayor Hidalgo, announced that Paris was going to be a 15-minute city (fig. 9). With the help of Carlos Moreno, a French Colombian researcher at the Sorbonne, they explained that 15-minute cities is a proposition of the reorganization of urban life based in transforming cities in a multicentre organization, in which every inhabitant can walk or bike for 15 minutes to reach its basic places (2020). This proposal would mean a 15 minute cycle or walk to a health centre, grocery shopping, schools, parks, and work. This model encourages less use of cars, potentially creating more spaces in the city by reclaiming roads from oil-era priorities in what Moreno calls a postvehicle era (as cited in Wakefield, 2020).

I find it very interesting how Paris now proposes their 15-minute city, when even Haussmann in the 19th century wanted to build a network of parks, one in each

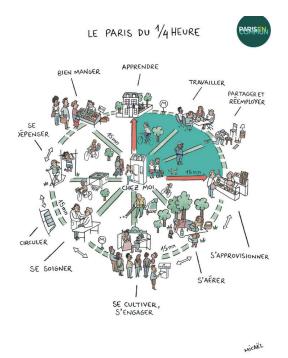


Fig. 9 Le Ville Du Quart D'Heure or city of 15 minutes. (Micaël, 2020)

neighbourhood of Paris, so that everyone would be at a 10-minute walk to a park.

But there are other cities that recognize the need of decentralization of public space and services. There is an international coalition of cities – called C40 – that believes that the only path forward, to overcome the crisis that COVID-19 has left, is for mayors to fund green stimulus plans focused on job creation. One of its recommendations in their agenda is that "all residents live in 15-minute cities" (Sisson, 2020).

5.0 **PRELIMINARY SPECULATION**

This section serves as a reflection space. Here I present my findings from the case studies, as well as which direction will future work could take. I also reflect upon work of academics and what do they mean for the purposes of this research.

In all three case studies, we can see that there is a need for a balance between outdoor public space and health. I've established that common public space is necessary to maintain a healthy urban life, and that designers shaped today's public space to promote said healthy urban life which was thought to fight epidemics such as cholera in the 1800's and obesity in the 2000's. Another recurring theme is the accessibility of public space and services.

It is possible to infer then, that designers have the responsibility to create new strategies, that take these factors into consideration. The way they will shape common public to fight pandemics such as COVID-19, – that have become more common – will shift. Prospective models that already speculated a pivotal shift of urban designing, such as the 15-minute cities will probably be the starting point for new designs in public spaces.

Another model that could work is the ReGen Village proposed by James Ehrlich, a sustainable community that practices organic farming and circular waste management. Instead of huge housing developments where living space is priority, places that not only provide a home, but also create their own energy, repurpose their waste and produce its food making *liveable* a priority. Everything integrated with Artificial Intelligence and machine learning management in a neighbourhood scale (as cited in Peters, 2020).

I find the ReGen Village model as a longterm future work, as an alternative of new and more living space. But it doesn't take much consideration of what is already there. I can't imagine a government that will demolish and rebuild everything to comply the space requirements of ReGen Villages. It is also not clear the way these villages are supposed to connect to the already established cities. Although, Ehrlich does states that it is something important in the model, as they can't be islands, apart from the rest of society.

Sara Jensen Carr thinks that "six feet could be the new unit we use when we think about cities and public parks" (2020). If this becomes the new unit on how we think and design common public spaces, then what would that mean to parks, which are usually an open space with design features, such as furniture and playgrounds. Thus, the *six-feet* is more than a unit of measurement, as it might become a unit of wellness, where the public can have a specific amount of air, space, and light to be healthy and safe.

Depending on the way the six-feet unit is used, it might have very interesting and different outcomes. This measure immediately wants to disperse the public, but we know that space— or area itself is the one thing we can't change anymore. In the world we live today, space is highly appraised and much guarded. The solution to go vertically sounds too simplistic, it's uncertain it will be viable. I think there is a deeper change needed in society and its terms with space. Take NYC's Central Park, which area is 1.317 sq. mi, and for the purpose of the example lets imagine it is just an empty grassland. There could only be around 325,000 persons in the park while social distancing. Olmsted and Vaux designed it to serve the population of Manhattan, which is more than 1.6 million. That would be around 5% of the population.

The six-feet unit is also a contradictory idea, as urban planners have traditionally place emphasis in human interaction. Designers recognize the value of meeting points as sources of collaboration, inclusion, and community-building. Honey-Roses reminds us that "if you look at the literature on the health benefits of green spaces, one of the primary advantages is social connectivity – people seeing their neighbours and being part of a community" (as cited in Holland, 2020). Naturally this leads to wondering, how can we achieve connectivity with social distance? I believe that connectivity will become more precious and valued, and whoever we let inside our *six-feet unit* space will have to be someone that we fully trust.

There is also an interesting movement that might come from the fact that roadways have been closed to through-traffic. Not only Paris is taking this approach, but other cities such as Oakland, Auckland, Mexico City, New York, Bogota, Quito, and many others are experimenting with this measure to encourage cycling, thus reducing crowds on buses and subways (Holland, 2020). '*Reclaiming*' the streets from cars, can encourage wider sidewalks and more bike lanes, which can be safer methods of transport in a social distancing world.

It is notable as well, that density does not mean a higher risk for pandemics to spread. As the case studies suggest, a poorly managed density is riskier than density itself. As referenced before, a lot of cities in Asia, like Hong Kong, Manila or Mumbai are much denser than Manhattan, New York's densest borough. But all of them were better at managing COVID-19 than the latter. We can see this phenomenon also with Valencia, a much denser region than its neighboring Castile La Mancha. Robert Steutevile reminds us that "there is no clear evidence that density, per se, is the problem. Crowding is distinct from density. Density is the number of housing units, or people living, per unit of land. Crowding is a whole lot of people gathered together in a space" (2020). This last point reinforces the difference between a city that is used to crowds, such as Barcelona, and Valencia, a city that isn't despite their similarities. This fact is important, as many people out of fear, might think that city's density is the problem in need to address against pandemics.

But all the models concur in a need of a network of smaller parks and green pockets being design and constructed in neighbourhoods, that can fit the means of the public. An abundance of green space that serve less people means less crowds and better access, instead of the major green spaces built for big crowds, with a few percentages of the public having easy access. It is not a *new* concept, as there are many examples throughout many cities or neighbourhoods that have achieved this. Personally, I am fortunate enough to live in one. As a resident of False Creek South, I have access to many green spaces. Come to think of it, I kind of live in a 15-minute city, with most of the services within 15 minutes, walking or cycling. The only thing missing is better infrastructure.

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THANK YOU

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