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*Superblocks - The Future of Walkability in Cities?*

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## Back to basics approach

- *Historical Context of Cities and Walkability*

Throughout history (e.g. medieval times), cities were predominantly built for pedestrians. (Figure 1.)

With the rapid industrial development at the turn of the 20th century, cities developed to meet the needs of the higher use of cars. This resulted into car-oriented cities that constantly change and expand into suburbia, while failing to fit the needs of pedestrians.

- *Walkability as an interface between the urban form and well-being*

The scale and form of buildings has a big impact on walkability. Active frontages are important for both the local economy and safety of streets. (Law et al, 2020) Streets with retail frontage, decent quality lighting and street activity provide much safer environment for



Figure 1. Chester | Photo Credit: Jorge Franganillo/Flickr

pedestrians. Building access should be inviting and pedestrian-friendly, encouraging people to enter.

Furthermore, building scale significantly influences internal walkability as well. People are more likely to use stairs in the four-storey building than the fifteen-storey building. Furthermore, corridors and stairs in buildings need to be well designed and well lit, more inviting and safe in order to encourage internal walkability.

The scale and the design of streets can affect the attractiveness for walkability as well. There is tangible evidence, gathered over the centuries, regarding how the relationship between height and the width should respond to building pedestrian cities. If the streets are too wide, the sense of scale is blurred, and people are might not be motivated to walk. Features that relate to vehicular traffic, such as crosswalk, traffic lights and pedestrian signals, have a negative impact on the attractiveness for walkability, even though they are beneficial to pedestrians. (Adkins et al, 2012)

Well-designed green streets, separated from traffic with good pedestrian network enhance the pedestrian environment, while at the same time making the human-scale perception of the

street.

Urban form has an enormous impact on walkability, both internal and external, as well as well being. Encouraging people to walk more by designating pedestrian streets free of traffic, as well as enhancing internal walkability will have a big impact on both the physical and mental health, and the well-being of the community.

## Healthy people, healthy environment

- *Future of cities- mobility and well-being*

Current state of cities does not prioritize and accommodate the needs of pedestrians. The recent outbreak of the virus COVID-19 demonstrates how sidewalks are not designed to accommodate the necessary physical distance of two meters in order to avoid risks of contamination. Future of the cities should lead to more pedestrian oriented streets, in which people can move more freely and keep physical distances if required.

Forced to self-isolation, people are starting to be more aware of the importance of walking and physical activity for both the physical and mental health. The increasing public consciousness on pedestrianisation, as well as number of pedestrian-only streets, has been well received by the citizens. (Mofidi et al, 2010) This unfortunate opportunity needs to be used to increase the public health, as well as the general well-being.

- *Healthy People + Healthy Environment = Healthy communities*

Apart from its environmental benefits, walkability has an abundance of health benefits, including lower body mass index, reduced chances of diabetes and obesity, as well a longer and better quality of life. (Frank et al, 2006) There is a direct relationship between safety, walkability and well-being of people living within the community. The more walkable the community is, the safer and healthier people are. In order to promote activities that contribute to general health, planners need to consider walkability as well as safety and crime prevention. (Doyle et al, 2006). Evidence based research shows that areas with high crime rates, when pedestrianised, crime rates of street drastically drop. This is mainly due to the fact that there are more people, more eyes on the street. (Klinenberg, 2018)

Recent research from RIBA found that UK taxpayers could save nearly £1bn a year in obesity related healthcare costs if people could be persuaded to walk more each week. (ARUP, 2017) It is important to realize the impact walkability has on the success of cities. Walking brings direct benefits to society and environment, as well as the economic prosperity of cities. (ARUP, Cities Alive: Towards a walking world 2016)

More walkable neighbourhoods result in higher life satisfaction of residents. (Pfeiffer et al, 2020) Happier places bring people together and create inclusive and more equitable societies which foster positive social interaction. Places that are walkable, inclusive and friendly not only boost mental health and achieve the goals for social justice, but also increase the general well-being and happiness of the community. (Montgomery, 2014)

## 15-Minute City (Paris)

Walkability and access to all services must be a priority for all cities. An example of the back to basics approach is proposed in Paris by its mayor. In order to reduce pollution, create socially-mixed districts and improve the well-being and quality of life for residents, 15-minute city (*ville du quart d'heure*) is a model in which the city will be made out of zones, in which all necessary services will be accessible in the 15-minute walking radius. (Figure 2.) This will not only have environmental benefits, but also will improve the social interaction and prosperity of these neighbourhoods.

However, this model does not focus on walkability and reducing vehicular traffic. Its main vision is to bring services to residents and to green the existing streets.





Figure 2. 15-minute city in Paris. Source: Paris en Commun

## Superblock Model in Barcelona

- *The Urban Block*

The 'ideal' urban form through history was presented as an urban block, which serves as a spatial unit of a walkable community. But, reducing energy use, traffic and creating more liveable environments still remain issues that urban blocks need to address. (Pakzad, 2018) Urban blocks, with the grid pattern streets, have always preached the importance of a walkable

community by providing pedestrian routes in-between blocks and hierarchy of well-defined areas, while on the other hand building setbacks to street edge and restricting building depth. (Smith et al, 1997) But, in order to create a genuine walkable environment, the provision of pedestrian-only streets must be increased, and vehicular traffic must be reduced to a minimum.

- *Streets as a heart of communities*

Superblocks model in Barcelona, composed by nine blocks (approximately 400x400m) of the Cerdà grid, limits the vehicular traffic to arterial road only, while giving internal streets to people. (Scudellari et al, 2019) In the superblock model in Barcelona, streets became the heart of the community, which accommodate the needs of all residents.

Playgrounds for children were integrated, seating areas for elderly, social gathering spots with different amenities, running tracks in order to encourage physical activities. These small interventions have a massive benefit for the well-being, happiness and health of people, businesses and environment.

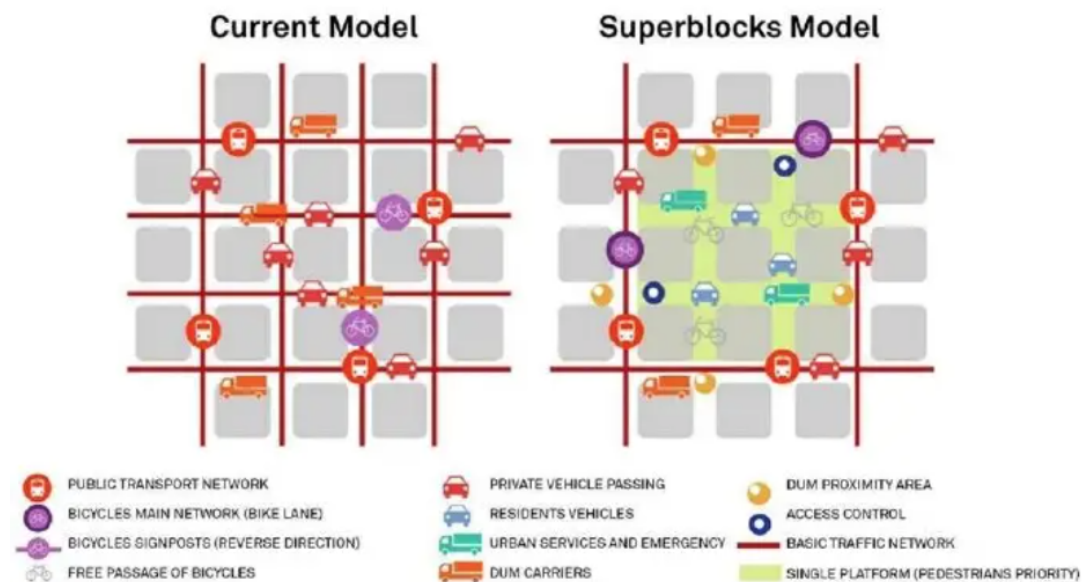


Figure 3. Barcelona Superblocks model. Source: Urban Mobility Plan of Barcelona PMU 2013-2018

- *Limiting traffic to arterial roads only*

With limiting traffic to arterial roads only, superblocks in Barcelona redeemed 60% of the streets and turned it into ‘citizens’ spaces’ for leisure activities, culture, recreation and com-

munity. Noise levels and pollution caused by the traffic have been drastically lowered. Although, Barcelona has a grid which makes this transition to superblocks much easier, through careful and thorough planning, this can be achieved in many cities around the globe.

(Kan et al, 2017)

Transformation of these neighbourhoods in Barcelona showed decline of pedestrian travel times by 4-5%, mainly due to the reduction of obstacles found in these urban areas (mostly traffic), which significantly improved the pedestrian mobility. (Delso et al, 2018) The main mode of transport in cities should be walking. The streets would be less polluted which would lead to significant decrease of current environmental issues. Limiting vehicular traffic to arterial roads would make these neighbourhoods safer (there would be no collisions) and healthier (no exhaust gasses). A further advancement would be greening the streets. Relating back to the current situation with COVID-19, a virus which ‘emptied’ the streets of all the cities in the world, an amazing opportunity arose to enhance the streets with greenery. Cities can use this unfortunate opportunity, this momentum to become more sustainable ‘green’ cities with enhanced walkability.

## Conclusion

When dealing with the issues of health and well-being, which are strongly depended on quality of urban form, it really depends on the level of reconstruction and improvements of these streets and neighbourhoods. Adding facilities within those streets such as exercise equipment, outdoor theatres’ etc. will further foster community well-being, community identity and belongings which directly provides tangible results of community happiness. The superblock model is a good start, it has benefits for both the mental and physical health, but it needs to be further developed. Bringing habitats to the neighbourhood and establishing a solid green infrastructure while creating a healthier, more inclusive and resilient walkable environment.

The newly-proposed Paris model, in which all necessary services will be within the 15-minute radius, has tangible economic benefits for these zones. Public health (physical and mental), social interactions and well-being of all people are significantly improved. However, even though the vision in this model is quite clear, implementing this vision into the existing urban fabric might prove challenging. How will employment, healthcare and public buildings (e.g. libraries) be provided equally in every zone? It could be argued that the pedestrianisation of streets should be gradual process which will slowly grow within the existing network of streets, allowing solid and favourable pedestrian movement in-between these zones.

On the other hand, Barcelona’s superblocks address the traffic, the necessary improvements of the pedestrian realm, but fail to bring services to the residents.



Back to basics approach is needed. Merging the Paris and Barcelona models into one would create a healthy, walkable and car-free environment, in which all necessary services will be available within the walking distance, while at the same time improving both physical and mental health, as well the well-being of all residents.

## Further Discussion

The word limit has restrained the author from exploring other superblock models and comparing it to the examples from Barcelona and Paris. It would be interesting for further discussion to explore how superblocks in China, with their massive urban form, can be transformed and re-invented as more porous, pedestrian-friendly developments. The impact of the re-inventing of these urban blocks must be carefully evaluated.

In order to understand the impact of well-designed streets on the well-being of residents, it would be useful to explore smaller models, such as the Third Street Promenade in Santa Monica, California.

This short paper is just a beginning of a more in-depth research of walkable and ‘healthy’ urban forms which will explore the complex relationship between the history of urbanism, urban form, urban design, social processes and well-being.

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