



## NEW POSSIBILITIES IN THE POST PANDEMIC ERA IN THE DESIGN OF PUBLIC SPACES

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**Abstract.** *We are the witnesses of extraordinary pandemic crisis due to COVID-19 virus in the whole planet. One of the most important measures to protect from this invisible enemy is creating bigger social distance. Also, increasing of usage of individual eco transport options like bicycles or electric scooters will diminish the usage of common public transportation which represents bigger risk for public health. Our task as urbanists is to propose several possible options in order to increase the space for pedestrian communication, to stretch the width of bicycle lanes and to create new zones and paths for its users. The lessons that we have learned during this crisis could be used not only as a temporary planning solution. The changes in urban landscape should be implemented as permanent urban improvements. The process of pedestrianization and car banning in centers of towns was already started in more developed countries decades ago. But now, even these countries are reconsidering the public space in order to make it even more cars free and more pedestrian and bicycle friendly. The challenging question that is imposing nowadays considering Macedonian towns is related to capability of our authorities to enable this urban necessity into our car congested and air polluted cities in order not only to defend ourselves from COVID-19, but also to provide much more sustainable prosperity of our towns.*

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### 1. GLOBAL URBAN CHALLENGES DURING AND AFTER THE COVID-19 PANDEMIC CRISES

Car congestion is one of the most common issue is almost all Macedonian cities. We are not talking only about the pollution aspect due to the omnipresence of vehicles. The occupation of immense territories serving as open parkings, multilevel car garages buildings and the invading road infrastructure are simply limiting the possibilities of the improvement of public space in general. Sidewalks are used more for car parking zone then space for pedestrians. Instead of increasing its pedestrian zones, Skopje is struggling by constant attack of cars within the promenades of river Vardar or in the very few car free areas.



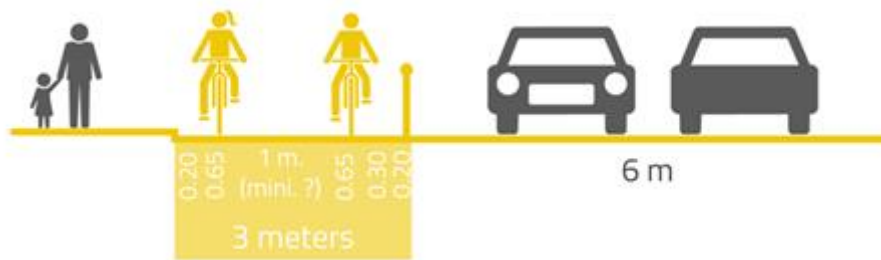
**Figure 1** Car congestion

Nowadays there is another challenge that should be integrated in the contemporary approach of town planning. One of the most important recommendations from WHO against COVID-19 is to provide 1.5 meters minimum distance between people. This measure means that we should adapt our cities in order to serve to this health protocol during the crises.

Is it possible to improve our cities making them less polluted but also safer regarding the COVID-19 crises in the same time? How the world important towns act and react in order to enable safer public space? There are some answers that will illustrate the contemporary tendencies in the town planning called "Tactical Urbanism":

*1.1. READAPTING THE STREETS IN ORDER TO INCREASE THE WIDTH OF THE PEDESTRIAN AND BICYCLE LANES IN EVERY PART OF THE CITY. (POP-UP BIKE LANES)*

Introducing of Pop-up bike lanes is part of the Tactical Urbanism that by definition means short term and not expensive interventions in the cities in order to improve and increase its public space. Pop-up lanes are created by simple preadaptation of the current car roads switching its users from motorcars to bicycles and electric scooters. This change is easy, cheap and fast to implement in the majority parts of the cities. Therefore, this preadaptation was wide world implemented regardless the economic power of the town.



**Figure 2** Pop-up bike lane profile dimensions



**Figure 3** Pop-up bike line: implementation

### 1.2. PREADAPTATION OF CURRENT PUBLIC OPEN SPACE IN ORDER TO ENABLE COVID-19 PROTOCOLS

There are several examples in Europe when the common public spaces like squares, pedestrian zones are becoming part of the open dining area or lounge area of bars. For instance, Lithuania's capital, Vilnius, has borrowed its public space to bar and restaurant owners so they can put their tables outdoors keeping physical distancing rules.



**Figure 4** Vilnius gives public space to bars and cafes to allow physical distancing

Other example regarding these pop-up urban transformations is coming from the United States of America. In San Francisco, in the park called "Dolores" the authorities have painted circles of 2 meters diameter arrayed on the lawn creating "human parking lots" that will keep the safe distance between people and enabling them to enjoy the nature in the same time. The whole idea of adapting to the new pandemic protocols is that the people will not lose their usual habits but they will just remodel them.

### 1.3 BANNING CARS IN THE CENTERS OF TOWNS

The worldwide tendency of banning cars in the center of towns is not decreasing its developing curve. Being commenced since the second part of the 20th century, this act of liberating main city squares from car invasion is just more accelerating during these pandemic times. These urban transformations are basically not completely forbidding flow of vehicles. The point is to redefine, sometimes redirect, and "repack" that flow in to the public transport and to individual transportations (bicycles, electric scooters etc.), all with ecological character. That will allow more green area as well in the center of the towns, and in the same time it will give them more human character, cleaner air, more flexibility of urban design in general. The arguments for pedestrianization and increasing the bike network so far were connected with ecological factors, public health reasons, and aesthetics reasons.

Most of the developed and smart countries, are already implemented not only these methods of inner city's traffic improvements, but in Netherlands and Germany there are constructed bike highways between two cities.

"Paris en Commun's" 15-minute city concept is certainly part of this movement in urbanism. The whole idea is that Parisians should be able to meet their essential needs within a short walk or bike ride. Developed by Deputy Mayor of Paris, Christophe Najdovski (Macedonian origin), "Paris in 15 minutes" in which citizens' basic needs, such as work, shopping, health, or culture, should be available within 15 min of their home. This concept has started before the COVID-19 crisis but "Paris in 15 minutes" is perfectly suitable for the current safety protocols encouraging the citizens of the capital of France to use their bikes or to walk. This new healthy habit represents not just temporary measures against the pandemic, and if the Parisians will prefer bicycle instead of car in the future, they will have not just cleaner and safer city, but much prettier as well.



**Figure 5** Paris en Commun's 15-min city concept. From the top, clockwise, the headings read: Learn, Work, Share and Re-Use, Get Supplies, Take the Air, Self-Develop and Connect, Look After Yourself, Get Around, Spend, and Eat Well.

## 2. MACEDONIAN CAPITAL AND ITS PUBLIC SPACE DURING THE PANDEMIC CRISES

The diagnostics of current appearance of public space in Skopje before COVID-19 represents a typical car-centric town, constantly losing its free public space especially during its last decades. The consequence of unstoppable eagerness for more comfort of each citizen regarding the number of cars per family is a congested city with no awareness of ecological or sustainable prosperity.

Speaking of awareness, there is also lacking of acceptance from the majority of Macedonians about the new COVID-19 context. On the other hand, parts of the citizens during the first lockdowns have decided to use bicycles instead of public transport avoiding risks of being infected. The tendency of purchasing bikes is rapidly increasing during the pandemic.

The biggest question that is imposing is: why the Macedonian society, the Macedonian authorities and the Macedonians them self are not implementing none of the urban measures for improvement of public spaces elaborated in the previous chapter. There are no pop-up bike lanes, no additional public space in service for the coffee bars and restaurants, no bigger pedestrian zones, no car banning in the center of the town etc.

Therefore, we are proposing several possible methods to response to current urban challenges divided in three categories: short term, mid-term and long-term measures.

### 2.1 SHORT-TERMS MEASURES POSSIBLE METHODS TO RESPONSE TO CURRENT URBAN CHALLENGES

- Pop-up bike lanes in Skopje, as immediate traffic modifications all around the city.
- Readapting the current public open spaces in order to enable enough space for social distancing
- Instant (pop-up) pedestrianization of critical parts of the town

### 2.2. MID-TERMS MEASURES POSSIBLE METHODS TO RESPONSE TO CURRENT URBAN CHALLENGES

- Massif campaign organized by central and local authorities endorsing car banning in centers of towns, widening of bike lanes, increasing the infrastructure for bicycles and electric scooters penetrating in every part of the city...

- Public media and social networks should endorse the authorities with aggressive promotions of those measures.

### 2.3. LONG-TERMS MEASURES AND POSSIBLE METHODS IN ORDER TO RESPONSE TO CURRENT URBAN CHALLENGES

- Reforms in the education system in Macedonia in all ages and all levels of learning processes (starting with pre-schools and finishing with universities).
- These reforms should provide the best education professionals and best paid teachers and professors in Macedonia.
- What will be the main goal of those radical reforms? The point is to establish new educational methods which will implement new way of thinking about the towns, to learn the kids how to respect the green spaces, the nature, to understand that the common space is for all and that we should all take care of our towns. The final goal is to create new generations starting with the youngest ages that will know what are the benefits from the car free zones, bigger pedestrian areas and the sustainable towns in general. Because if we are promoting and implementing instantly those measures before teaching the younger generations of the benefits of car free towns, the feedback could be discouraging, and the people will not be willing to give up from their cars.

## 3. OUR ROLE AS PROFESSORS REGARDING THE CURRENT CHALLENGES IN PUBLIC URBAN SPACE

What is our role as professors regarding the implementation of those long-term measures?

We should reconsider the lectures and the courses related with Urbanism, Urban Planning and Urban Design in order to respond with the current challenges in modern towns. Our responsibility, as professors of urbanism has significant impact for the future planners of the town.

The scholars that taught us before more than two decades ago, were proclaiming towns dedicated for cars, and not for pedestrians. All the standards and rules for urban planning were serving the space of car and vehicle's infrastructure was the first priority, and not the pedestrian. For example, public city bus was not part of the infrastructure network in the local streets. This urban standard, (still a current standard in urban planning) is only discouraging all the citizens to use public transport, because if the bus station is close only to the main city roads, that will provide less interest of using the public transport. On the contrary, if we provide the bus station that will be up to three minutes walking distance from the citizen's home, it means that the bus line will penetrate in all part of the city. In that case we can say that people will reconsider the car option in the favor of public transport.

Second example of car centric urban planning standard is the radius of street curve. We, as students have been taught that the optimal turning radius for the curve in the city road infrastructure is 6 meters. What does it mean? It means that when the car turns, it will reduce its speed, but not enough to be safe for the pedestrians in the crossroad. Contemporary western towns are promoting 4 meters radius in order to reduce more the speed of cars and to increase the safety for the pedestrians.

Also, about the standard for number of parking spaces for public buildings should be reconsidered. If we are providing huge amount of parking spaces serving some sport's public building, or a concert hall, then we will invite all the people to use their cars and not the public transport or eco individual transport (bicycles or electric scooters) in order to reach those edifices.

Urban standards of town planning should be considered as parameters that should be adaptable to the new needs of their citizens. So, as professors of urbanism we should embrace those positive changes in order to create future architects and city planners that will respond in a much appropriate way to the current and future challenges of our cities.

The most recent challenge is how to react in the public space due to the current COVID-19 pandemics regarding the need for more free space between people keeping the safe physical distance of 1.5 meters. We believe that the improvements of public space, switching the role of the car and the pedestrian regarding its priority, enlarging the pedestrian and bike space and diminishing the role of the car in the city etc. will be compatible with the current requirements for social distancing and promoting safer public space.

## 4. SUMMARY

One of the most important goals of this paper is to propose possibilities how to act as urbanists in order to establish safer public spaces due to Covid19 Pandemic.

Therefore, we proposed some short, mid and long term measures how to implement some urban transformations in order to provide safer public space, not only during the COVID 19 pandemic crises, but also to create open public spaces that will introduce sustainable environment in any part of the cities.

At the end, we would like to finish with some open questions that will serve to continue the research for safer and better open public space in our towns:

- Can Cities Become Car-Free After the Covid19 Pandemic?
- Could we use the pop-up bike lanes as a permanent solution in our towns?
- Do the Covid19 crises could boost our authorities to accept the Tactical Urban

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