

Thessaloniki for People: Developing a Postmodern Vision for Sustainable Urban Mobility

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<https://doi.org/10.15488/15159>

Abstract

Modernist urban planning emerged in the 20th century as a solution to conflicts of use between industrial production and housing. However, these originally visionary guidelines are increasingly coming under criticism. Especially the resulting dominant car traffic causes problems today. In order to design more liveable and climate-resilient cities for the future, new planning approaches are needed. These are developed in the following article for the Greek port metropolis of Thessaloniki.

1. The emergence of modernist urban planning

For a long time in human history, living and working spatially coexisted next to each other. In the Middle Ages for instance, different guilds were separated by street, but people were mostly living and working in the same house. Almost two hundred years ago industrialisation fundamentally changed the cities in Europe eventually. The centuries-long neighbourhood of living and working now became a challenge due to harmful environmental impacts of factories and workshops. Due to the intensive use of coal and chemicals the air and water quality were poor and thus living conditions in the cities often inhumane (Eberth et al. 2022: 28).

In response to the challenges in the cities, architects and urban planners developed the “Charter of Athens” at the “Congrès Internationaux d’Architecture Moderne” in 1933 (Congrès Internationaux d’Architecture Moderne 1933). Important findings were that the city as a functional unit is subject to the main urban functions of living, working, recreation and movement and that these functions should be separated from each other. Thus, transport was supposed to play a major role in connecting the divided key urban functions. Based on the Athens Charter, ideal cities should locate the central business functions in the urban core as well as separated zones for industrial activities as well as housing in the outskirts. Additionally, the creation of satellite cities in the periphery dedicated to a purely residential function were intended. The proposed strict separation of living and working was thus implemented in order to create improved living conditions for the inhabitants of cities.

The implementation of these new urban planning ideals was supported by the emergence of new building techniques and materials. Reinforced concrete, for example, made it possible to erect taller buildings at lower costs. As a result, high-rise housing estates were implemented in the suburbs of many cities, providing daylight, green spaces and clean air for all. However, this structured and dispersed city also required an expansion of the transport infrastructure, as the urban functions were now separated. With the increasing spread of private cars in the second half of the 20th century, the „automotive city“ (car-oriented urban planning) became an important guiding principle of the modernist urban development in many cities (Eberth et al. 2022: 28).

In Thessaloniki the legacy of modernist urban planning and a focus on the private car are visible in many places, too. The extensively developed road network provides car-oriented transport within the city and features ring roads around the city centre, as they are typical for the “automotive city” (see Fig. 1).

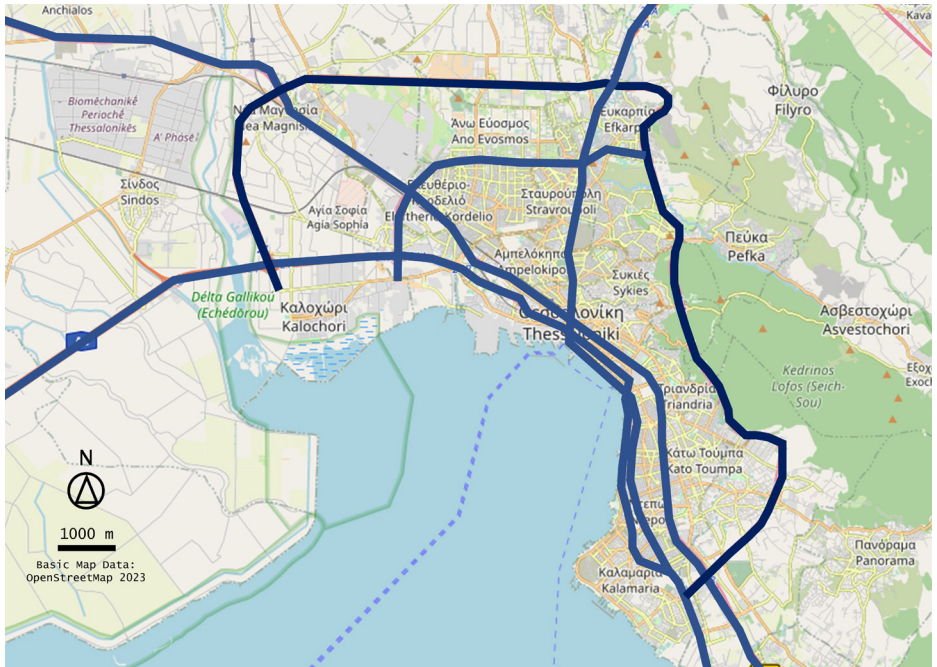


Fig. 1: The main road network of Thessaloniki as a legacy of the car-oriented city (source: own depiction based on OpenStreetMap data)

2. A model in transition

In the meantime, however, this originally visionary orientation of urban planning and its impacts are being criticised. Jan Gehl, Danish architect and urban planner, also points out in his book „Cities for People“ that this concept needs to be reoriented.: “For decades the human dimension has been an overlooked and haphazardly addressed urban planning topic, while many other issues, such as accommodating the rocketing rise in car traffic, have come more strongly into focus. In addition, dominant planning ideologies – modernism in particular – have specifically put a low priority on public space, pedestrianism and the role of city space as a meeting place for urban dwellers. [...] The traditional function of city space as a meeting place and social forum for city dwellers has been reduced, threatened or phased out.” (Gehl 2010: 3)

Car traffic itself is also being criticised. While it is needed in order to connect the separated functions of a modernist city on the one hand, its dominant impact also leads to the reduction of urban public life on the other (ibid.). In particular,

areas for pedestrian and bicycle traffic have been reduced. In the meantime, the rapid increase in car traffic leads to additional problems. In urban areas in particular, the local environmental impacts of motorised traffic, such as nitrogen oxides or noise, have a negative impact on a large number of residents (Lanzendorf & Klinger 2018: 30). Studies show that “ambient air pollution is a major environmental cause of morbidity and mortality worldwide. Cities are generally hotspots for air pollution and disease” (Khomenko et al. 2021: 124). The question of appropriate design of urban infrastructures becomes all the more important due to the effects of climate change (Eberth et al. 2022: 28). A higher heat load is to be expected in cities in the future (Warner 2018: 117 f.). Car-oriented urban infrastructures also cause an above-average emergence of urban heat islands and thus have a negative influence on the urban climate (Lamberg & Śnieg 2018: 119 ff.). In addition, the displacement of the other functions of the road needs to be mentioned (Zemlin 2008: 341).

In order to design cities for people as well as to protect the climate, mobility must be organised differently in the future. For this change to succeed, it is necessary to promote alternatives to the private car as part of a new urban transport policy: “the potential for a lively city is strengthened when more people are invited to walk, bike and stay in city space” (Gehl 2010: 6). Additionally, the implementation of a well-developed and efficient public transport system as an attractive alternative to the use of private cars is also necessary (Prieps 2019: 145 & 167). This shift in transport policy needs to be aligned „with a significant reduction in car mileage and the number of passenger cars. A change in mobility behaviour is also necessary“ (Blanck & Zimmer 2018: 142). Various studies show that a change in the urban mobility behaviour is possible. Young people living in cities in particular are increasingly no longer interested in owning a car and obtaining a driving licence. A change in values can be observed. Especially the car is no longer seen as a status symbol (Monheim 2018: 133).

3. Potentials arising from modernist planning in Thessaloniki

As a result of modernist city planning, also many places in Thessaloniki are dominated by the car. This not only limits other forms of mobility, such as walking, but it also causes diverse risks for its participants. Car traffic itself is also negatively affected by the increasing number of vehicles parked in public space. Furthermore, a significant decline in public life can be observed. Where the car dominates, urban life no longer takes place. The limited resource of space in the city is used below average and is monofunctionally dominated by the car (see Fig. 2).



Fig. 2: The dominance of the car hinders the emergence of public life (own depiction)

In order to overcome car-oriented planning concepts a significant reduction in car traffic is proposed for Thessaloniki as well. Alternative forms of mobility including public transport, bicycling and walking may possibly be promoted within the motorway ring road in the future. Intercity and regional transport relations would not be affected by these measures, as the ring road is still in place.

4. Public transport as a backbone for future urban mobility in Thessaloniki

As has been made clear in the previous remarks, the focus on the car in cities reduces public urban life. If the city centre can be reached comfortably by public transport instead of the private car, new space for urban life can be created in the city centre. To promote alternatives to the use of the private car, the expansion of an efficient public transport network is important. Especially trams and light rails can provide solutions as they significantly reduce local emissions of polluting gases (Ortego et al. 2017: 387f). As vehicles are parked in depots on the outskirts of the city, fewer parking space is needed in the city centre. Instead, social activities can be promoted. Tram tracks can also be developed as a part of vibrant public areas, unlike streets. New space can thus be created for pedestrians or even green areas (grass tracks).

New transport development in Thessaloniki may also include local public transport in order to provide an attractive and high-capacity alternative to the use of private cars in the city. The implementation of a metro line, which is currently under construction (Attika Metro 2023), could be part of a solution. However, it is important that this mode of transport is expanded from an isolated line to a city-wide network in the future. Alternatively, the metro could be supplemented by a light rail system. As evidence from Berlin shows, the construction costs for an underground can be ten times higher than for a light rail (Tagesspiegel 2015). Significantly lower construction costs could lead to a city-wide public transport network more quickly, which is necessary to reduce the impacts of car traffic on the urban environment. The former tram network of the city demonstrates, that a light rail system in the city can successfully be implemented (see Fig. 3).

Thus, a well-developed public transport system is necessary to overcome modernist planning ideals. Furthermore, the promotion of walking and cycling is also essential in order to enable sustainable first and last mile mobility in the city. These measures may particularly promote the increase of urban life in the streets of Thessaloniki.



Fig. 3: Tram at the Galerius Arch (Thessaloniki Tourism Organisation)

5. Walking and cycling stimulating attractive urban life in the city centre

The promotion of cycling and walking may form the core of a new urban transport policy in Thessaloniki: “Compared with other social investments – particularly healthcare costs and automobile infrastructure – the cost of including the human dimension is so modest that investments in this area will be possible for cities in all parts of the world regardless of development status and financial capability” (Gehl 2010: 7). In particular, there is a high demand for well-designed public spaces as demonstrated by the newly designed section of the waterfront promenade in Thessaloniki. Slow forms of mobility such as walking or cycling are being promoted and as a result a high level of human interaction is created here (see Fig. 4).



Fig. 4: Attractive urban taking place at the waterfront promenade in Thessaloniki (own depiction)

The existing qualities of this area may now be transferred to other parts of the city centre in order to overcome car-oriented planning ideals. This is especially possible by converting areas for car traffic into pedestrian zones. In particular, there is an opportunity here to reconnect the waterfront area with the old town by improving the walkability of the city centre. Additional measures can also support the promotion of walking. Well-chosen examples can be found in various parts of the city. For example, the indication of distances based on calories may motivate people to walk (see Fig. 5).



Fig. 5: Promoting pedestrian traffic in Thessaloniki (source: own depiction)

In addition to walking, cycling can also play a significant role in a postmodern city (Rissel et al. 2010: 1). This mode of transport is on the rise as the new waterfront promenade in Thessaloniki shows. In the future it can be an opportunity to develop a city-wide cycling route network in order to enable a shift from car traffic towards more sustainable modes of transportation.

6. A new strategic vision for urban development in Thessaloniki

In summary, a new strategic vision may possibly be developed for Thessaloniki (see Fig. 6). There are many opportunities to overcome the city's car-oriented modernist legacy in order to promote a city for people. This includes rail-based public transport as well as an extensive network of cycling routes (orange area). The city centre with all its relevant functions can thus still be easily reached by everyone. In particular, the urban core of the city is redefined on the basis of a

human scale. Especially walking is prioritised here (green area).

This contribution shows that the development of a postmodern vision for Thessaloniki is necessary and possible. The present proposal can now be sharpened on the basis of a dialogue with civil society and local politics. It is likely that a Thessaloniki for the people can also become a Thessaloniki for all.

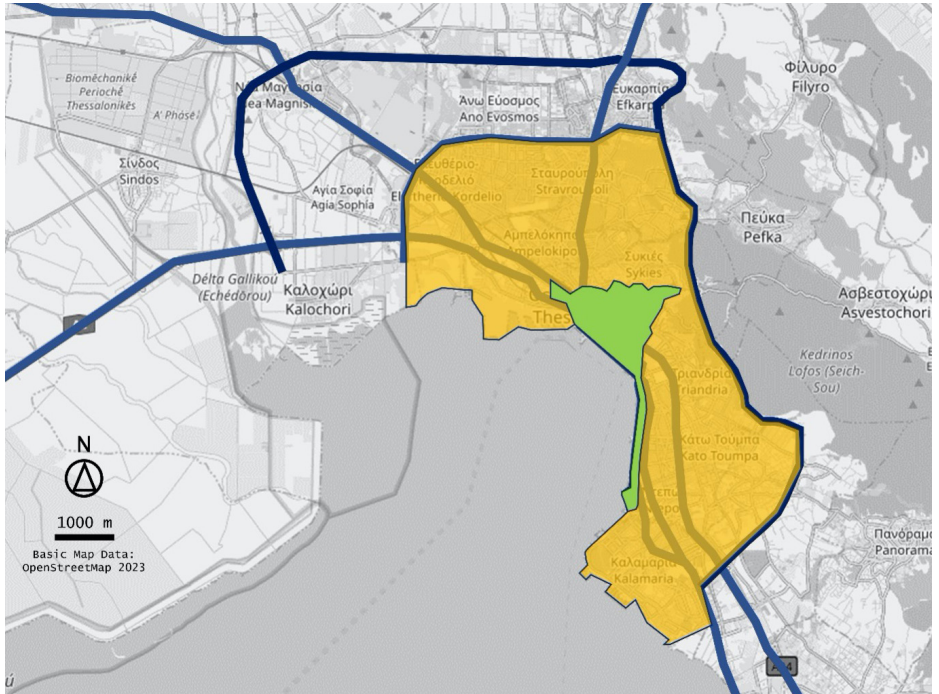


Fig. 6: Possible strategic target picture for a postmodern Thessaloniki for People (source: own depiction based on OpenStreetMap data)

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