

# Historical city center in the XX – XXI centuries: back to pedestrian

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**Abstract.** The article describes the main factors that affect the change of the public space paradigm of city planning throughout the XX – XXI centuries. The authors cover cities of Europe, America, and Russia. The research is theoretically based on the works of Scott McQuire, Jan Gehl, Jeff Speck. The research outcome presents two groups of the factors: those affecting change of the city-planning paradigm towards car drivers in the first half of the XX century, and back towards pedestrian in the second half of the XX century. The authors choose the space planning model of the medieval European town as the benchmark.

## 1. Introduction

Popularity of the pedestrian-oriented design of the historical city centre in the cities of Europe, Russia and America has been and still remains the order of the day since the 60-ies of the XX century (**Figure 1**).



**Figure 1.** Photo of Strasbourg historical city center (2014). Street and square spaces are pedestrian-oriented.



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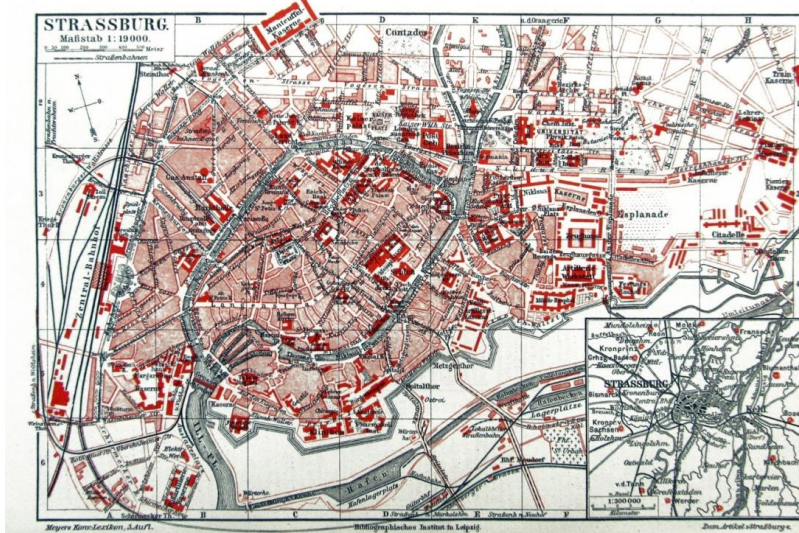
But before the pedestrian-oriented design became the essence of the modern urban development, the cities have undergone their path of ousting the walking areas from the streets and squares in favor of automobiles. Throughout the XX century, the city planning doctrines have been changed, affected by the historical events, objective factors of political, social, economic life, architectural and urban development, research and technology. The observed changes of the city planning paradigm are reflected in the space planning changes of the urban environment.

## 2. Materials and Methods

The article is based on theoretical research of the urban development processes of the cities of Europe, America and Russia in XX – XXI. Works of such authors as Scott McQuire, Jan Gehl Hon, Jeff Speck [1,2,7,9,10] have been classified and summarized.

## 3. Results

By the beginning of the XX century, the cities enjoyed well-developed public spaces that have been historically formed in the European cities and presented a continuous extensive network. The traffic way was not separated from the pedestrian area. Pedestrians and vehicles used to move along the same street space, with the pedestrians outnumbering the cars (**Figures 2, 3**).

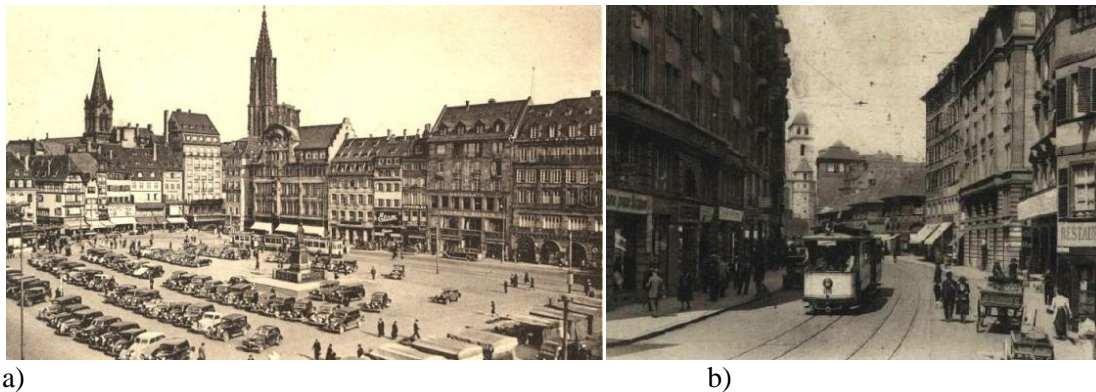


**Figure 2.** Archive plan of the French city of Strasbourg (1899) that shows the perplexed network of the streets designed mostly for pedestrians.



**Figure 3.** Ancient engraving of the Strasbourg Cathedral (1890) that shows the fragment of the street mostly occupied by the pedestrians and the horse-driven transport in one space, without any split of the pedestrian and transport ways.

The 20 – 40-ies of the XX century were characterized by the development vector of the city planning paradigm changing. Walking spaces were gradually ousted out of the urban environment with the highways and parking spaces (**Figure 4**).



**Figure 4.** a) photo of the Place Kléber b) a street in Strasbourg (France), 1920. Squares and streets are filled with cars. The walking space is dramatically ousted.

### 3.1. Three factors changing the development vector of the city planning paradigm from the people-friendly city to the car-friendly city.

As a result of their research, the authors have identified three main factors of changing the development vector of the city planning paradigm from the people-friendly city to the car-friendly city: *architecture and city planning factor, research and technology factor, and political factor.*

*The architecture and city planning factor* is related to the modernistic city planning paradigm of “the car-friendly city” as response to the growth of car users. In the 20 – 40-ies of the XX century, the city planning approaches change towards extending the corridor streets (**Figures 5**). The process of official takeover of streets and squares by cars and ousting the pedestrians had begun. The city planning principles of that time were articulated at the International Congress of the Modern Architecture (CIAM) and to the greater extent, by the provisions of the fourth CIAM Conference in 1933 (The Athens Charter) devoted to the Functional City. The Ottoman idea of zoning and integrating the functions in the planning structure of the city vs. the disorganized medieval street come to prominence. Scott McQuire notes that enhanced mobility of the population and improvements in hygienic conditions may be referred to the positive outcome of these actions. And their negative effect is walking spaces disappearing. [1].

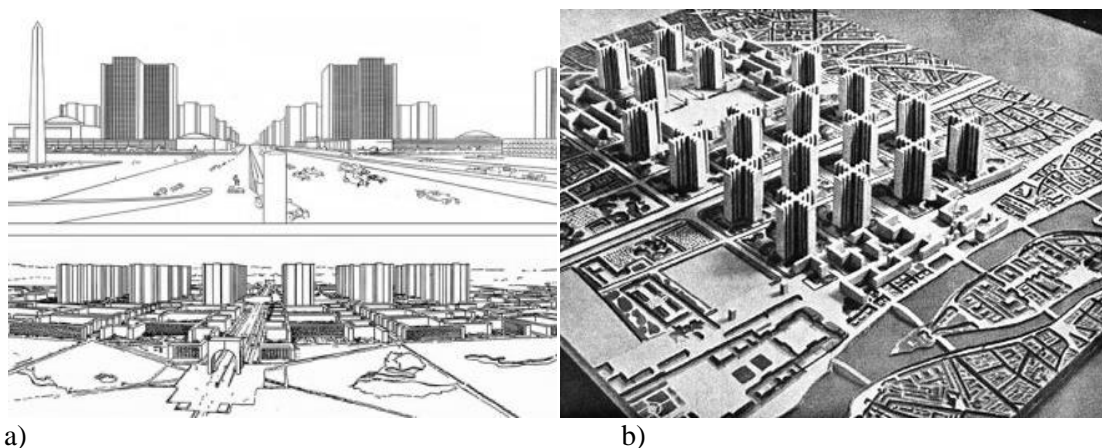
One of the most prominent architects of the XX century, Le Corbusier, was a passionate proponent of the total urban planning turning streets into traffic arteries. His attention was focused on the automobile as the main consumer and the image of success of the city. As a result, division of the pedestrian and traffic functions of the streets was confirmed by such mighty popularizers as Lewis Mumford and Sigfried Giedion.

There is a hypothesis that rationalization and structuring of the urban space (to the greater extent, streets) were required to control the population. The open-viewed straight streets make it impossible for people to unite in revolutionary-minded populace. [1].

*The research and development factor* is related to the progress of media technology that gained rapid pace in parallel with the modernistic concepts and car industry development [2]. Television and radio make people informed of what was going on around them without the need to go out and the telephone communications contributed to development of indirect contacts. Dayan and Katz approached the media development mostly as the public sphere going private, since media allowed people to experience virtually all public events at home, in front of TV screens. [3].

Not everybody saw the media technology as the threat to public life. For example, Robert Venturi sticks to the opinion that Americans tend to feel more natural when at home or at work, while it's more comfortable for them to watch the streets and squares from inside their cars. [1].





**Figure 5.** a) Design of the modern city for 3 million people (Le Corbusier, 1922). b) Plan Voisin design of Paris reconstruction (Le Corbusier).

**The political factor** is related to the apocalyptic event – the Second World War that has changed virtually all spheres of human life (1939 – 1945). Many cities (Stalingrad (Russia); Coventry (England); Hamburg, Dresden, Lubeck, Freiburg (Germany)) that were the battle areas were reduced to rubble. In the post-war years, most European cities held a course for intensive reconstruction through developing the suburban areas and highways, and this did not contribute to creating the high-quality urban environment that would be comfortable for pedestrians. Provisions of the Athens Charter were most prominently implemented in the construction practice, though the leading architects did not see future in the Charter. [4].

During about twenty years after the Second World War, faith in the power of the science and technology progress was strong enough, but by 60 – 70-ies it gets weaker loosened by unemployment, inflation and many other post-war crises. Changes of the development vector of the city planning paradigm towards pedestrian emerge. The people wish for the people-friendly city.

### 3.2. Five factors changing the development vector of the city planning paradigm from the car-friendly city to the people-friendly city.

As a result of their research, the authors have identified five factors that contributed to changing the development vector of the city planning paradigm to the people-friendly city: **ideology factor, political factor, architecture and city planning factor, social and cultural factor and economic factor.**

**The ideology factor** refers to growing national identity after the Second World War and turning back to the sources of the city planning culture. In the context of declined belief in the super power of the science and technology progress, the desire of the majority to turn back to the traditional types of urban recreation and preserve the historic development is observed ever stronger. These ideas were expressed in the urban development plan in re-orienting design of the historical city centre (as a rule, its medieval part) towards the pedestrian.

**The political factor** refers to the changing of political regime from totalitarian to the democratic one in many European countries. Walking public spaces become the icon of democracy and the site for self-expression, communication, creativity, and commerce. In 1965, the Government of the German Democratic Republic issued a special decree of creating walking public areas in connection with the post-war reconstruction of the old historical city centers. Soon, the first walking public spaces were created in many German cities: Potsdam, Erfurt, Quedlinburg, Rostok, Leipzig, and others. Success of the walking public spaced enjoyed in the German Democratic Republic urged the fashion for the walking public spaced in the cities of other countries (France, Spain, Bulgaria, England, USA, Russia etc.).

**The architecture and city planning factor** refers to the increasing interest in cultural heritage conservation seen in the 60-ies of the XX century as a response to the devastating consequences of the

Second World War and the information age. The historical city centers of the Western Europe cities feature the medieval urban fabric based on the human-proportionate pedestrian communications that therefore allow seeing strata of different cultural tiers, to feel the city identity [5].

**The social and cultural factor** covers multiple directions. The first direction is related to the event and mass tourism, arranging the integrated walking public spaces with the routes designed for large number of tourists. For example, when holding the Olympic Games in Barcelona, the special service to manage walking public spaces – Servei de Projectes Urban – was created. The second direction is related to managing the already existing intensive urban traffics of pedestrians. Such cities include capitals (New York, Moscow), tourist centers (Munich and others), and student cities (Strasbourg, Freiburg).

**The economic factor** is related to the effect the pedestrian design has on boosting the retail business and street retail development.

#### 4. Conclusion

The city planning paradigm of the walking public spaces has been changing throughout the XX century as affected by the architecture and city planning, science and technology, and the political factors. Until the 60-ies of the XX century, the city planning paradigm reflected the provisions of the Athens Charter of 1933. First of all, it took the form of city expansion and decentralization. This contributed to the spontaneous growth of automobile use and ousting the pedestrians and walking public spaces out of the historical city centre. In the middle of the XX century, a new generation of architects criticized the provisions of the Athens Charter. The city planning paradigm is being changed towards pedestrian; we can observe a new urban theory is born affected by the ideology factor, the political factor, the architecture and city planning factor and the social and cultural factor.

#### References

- [1] McQuire S 2008 *The Media City. Media, Arch. and Urban Space* SAGE
- [2] Coletta C 2018 Scott McQuire 2017 Geomedia: Networked Cities and the Fut. of Pub. Space *Int. J. of Urb. and Reg. Res.* **42(6)** 1162–1164
- [3] McQuire S 1997 *Intelligent Env. Spatial Aspects of the Inform. Rev.* 682-709
- [4] Sadler S 1998 *The Situationist City*. (Cambridge, MA: MIT Press)
- [5] Hend HYassin 2019 *Alexandria Eng. J.* **58** 251-59
- [6] Hernandez A A S, Leon M T and Mireles M H 2016 *Procedia – Soc. and Behavioral Sc.* **225** 27-33
- [7] Gehl J 2002 Winning back public space *Urb. Design Quarterly* **83** 26-27
- [8] Delo J, Martin B, Ortea E and Van De Weghe N 2019 *Sust. Cities and Society* **51** 101736
- [9] Yuea A, McQuire S, Papastergiadis N 2014 *City, Culture and Society* **5** 157-64
- [10] Speck J 2012 *Walkable City: How Downt. Can Save America, One Step at a Time* **61(2)** 436-57