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15-minute city – Genesis – inspiration – realisation. Introduction to research in a form of overview

Miasto piętnastominutowe – geneza, inspiracja, realizacja. Wstęp do badań w formie przeglądu

Abstract

The article serves as an introductory review to research on the concept of the fifteen-minute city, accompanied by the author's commentary. It discusses the origins of the idea, rooted in the sustainable design movement and the New Urbanism. It presents inspirations stemming from technological advancements and socio-economic transformations. The author analyzes pilot implementations of the concept in European cities and highlights the need for further exploration in the development of the idea.

Keywords: 15-minute city, smart cities, sustainability, urban processes

Streszczenie

Artykuł stanowi wstęp do badań nad koncepcją miasta piętnastominutowego w formie przeglądu opatrzonego komentarzem autorki. Omawia genezę pomysłu, którego korzenie sięgają nurtu projektowania zrównoważonego i Nowego Urbanizmu. Przedstawia inspiracje wynikające z rozwoju technologicznego czy przemian społeczno-gospodarczych. Autorka analizuje pilotażowe formy wdrożenia idei w miastach europejskicho oraz wskazuje na potrzebę dalszych poszukiwań w zakresie rozwoju idei.

Słowa kluczowe: miasto piętnastominutowe, procesy miastotwórcze, urbanistyka, zrównoważony rozwój

1. INTRODUCTION

The desire of a safe and comfortable environment is a basic human need. This feeling is not limited to a specific age group or material status of the people. Rather it is the universal aspiration of all people. Cities have been the centre of human civilization for thousands of years, providing people with a place to live, work and interact. However, one of the most pressing issues is the dominance of motorized transport, which led to congestion, pollution and many other problems. Furthermore, the COVID-19 pandemic has highlighted the importance of local access to basic services and facilities. Lockdowns and restrictions on movement have made it difficult for people living in areas with limited access to essential goods. Many cities, especially those that are centres of agglomerations such as Paris, London, or Las Vegas, have been struggling with monocentricity, gentrification, urban sprawl effects, and socio-economic consequences associated with these aspects for years. To meet these and other challenges, many cities around the world have begun implementing new policies and initiatives aimed at promoting sustainable transportation options, such as public transport, cycling, and walking. In search of meeting the expectations of city users, the concept of the 15-minute city emerged, formulated on the basis of the chronourbanism trend. This concept was born in the 1960s and its roots can be found in the ideas of expressionism, modernism, and functionalism. The modern approach to chronourbanism focuses on reducing the time required to travel between different parts of the city, as well as increasing access to services and amenities. The goal is to create a city where residents can live more efficiently and effectively while enjoying a high quality of life. Currently, this trend, enriched with insights from research on the impact of social relations on the city, is gaining in popularity and is seen as a way to define sustainable urban development.

The article aims to show the genesis of the creation of the 15-minute city, present its main assumptions and confront them with previously created currents in urban art. In the following, it provides an overview of the implementation in selected European cities, with additional commentary by the author. Collecting material regarding the scope of the influence of the idea of Carlos Moreno on European cities is review-based and is a prelude to further research on the issue of introducing the concept to Polish cities.

2. DIGRESS ABOUT THE 15-MINUTE CITY

2.1. GENERAL ASSUMPTIONS

The statement that a city resident should have access to the essence of urban sensations is based on the idea of a 15-minute city. This idea was first proposed by Carlos Moreno, professor of urban planning at the Sorbonne in Paris, as a way to create more friendly and

sustainable cities. La ville du quart d'heure (en. The 15-minute city) refers to the idea that all necessary amenities and services such as shops, schools, healthcare facilities, parks and public transport, should be available at a distance of 15 minutes walking or cycling. This concept is based on several key principles. First, it aims to reduce the need to travel by car by providing residents with easy access to everything they need, at a short distance. This can help reduce traffic jams, air pollution and carbon dioxide emissions. Secondly, it seeks to create more life-friendly and socially connected communities by promoting walking and cycling as a means of transport. Finally, it aims to promote economic development by creating more vibrant and diverse neighborhoods that attract companies and residents (Allam et al., 2021; Niedźwiecka-Filipiak, 2022).
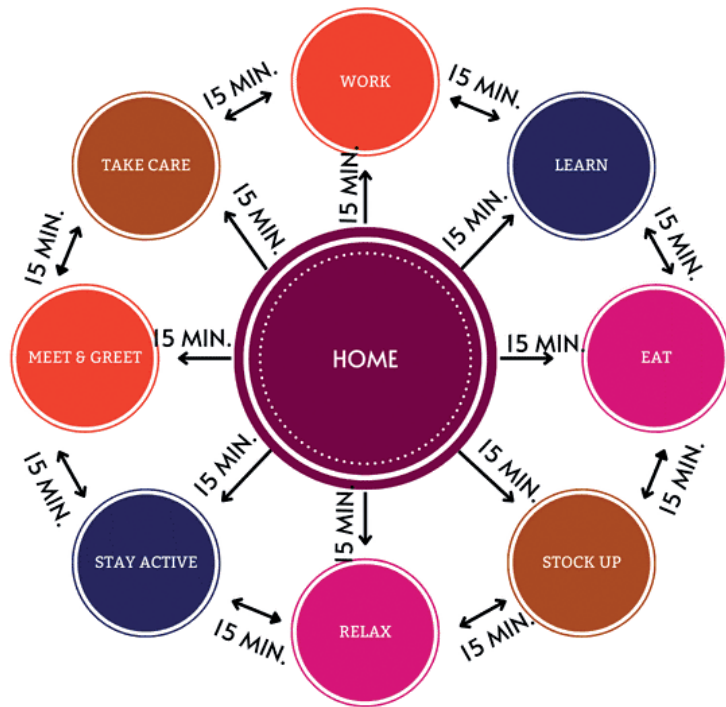

Fig. 1. Graphical representation of the idea of the fifteen-minute city (own elaboration)

In the description for his concept, Carlos Moreno included four main parameters. One of the key features of a 15-minute city is its proximity, which refers to the idea that basic services and facilities should be located a short distance from homes. This includes access to public transport, grocery stores, healthcare facilities, schools, parks and other community resources. By limiting the need for long commutes or car travel, proximity can help reduce traffic jams, air pollution and carbon dioxide emissions, while promoting physical activity and

social interactions. Another important feature of a 15-minute city is diversity, which refers to the variety of services and facilities available in the area (fig. 1) This includes not only basic needs such as food and healthcare, but also cultural and recreational opportunities such as museums, theatres and sports facilities. By providing a variety of options a short distance from homes, cities can promote social inclusion and encourage residents to discover and engage in their communities. Density is another key feature of a 15-minute city. Higher density of population can support more efficient use of land and resources, while promoting walking and public transport. However, that population density alone is not enough to create a residential urban environment. Other factors such as access to green areas, affordable housing and community involvement can also improve the condition of the city. Finally, digitization is becoming an increasingly important feature of a 15-minute city in the age of technology. This includes high-speed internet access, intelligent infrastructure systems (such as energy-
-saving buildings and smart grids) and digital platforms enabling access to services such as telemedicine or online shopping. These technologies can further reduce the need for car travel while improving the quality of life for residents (Moreno et al., 2021; Noworól et al., 2022).

2.2. A DISCUSS ABOUT THE CONCEPT

To achieve the goal of a 15-minute city, urban planners, designers, architects, as well as city decision-makers and investors, should focus on creating compact and multifunctional neighborhoods that are designed for people, not just for cars. This means prioritizing pedestrian and cyclist infrastructure over car infrastructure, street design for lower speeds and safer passages, and creating public spaces that encourage social interaction and community involvement. The definition of short distance that Moreno uses can be freely defined depending on three parameters.

The first is the type of unit to which it relates. The term defined as „n-minute city" will contain a broader thought of space development due to scale than „district" or „n-minute neighborhood". We have to realize that thinking about the neighborhood in the context of short distance, we are not able to provide all the amenities offered in the city. Therefore, an important condition is granting access to all spaces to all residents, not just residents of a separate area. Moreno stated that the implementation of his idea should therefore apply to every territorial unit that is part of the city, which may be more difficult to implement in the case of territorially developed metropolises. However, the excuse determining changes in other constituent units may at first be the part of the city that will show the direction of development. It also shows that the idea is still new and requires further analysis and more specific specification for further development in larger assumptions (Moreno et al., 2021; Noworól et al., 2022).

Another parameter will be determining the time dimension of the short distance. Moreno has defined a 15-minute barrier for access to the most necessary services. However, must the operating framework be rigid? The current lifestyle in the city determines the

faster pace of development. This is contrary to traditional urban planning, in which city--forming processes are strategically written for long periods and based on patterns of space and society. Moreno suggests that the concept of the 15-minute city should focus on providing easy access to daily services and amenities located in our immediate vicinity. Therefore, the allocation of "less utilized" urban resources should be concentrated in areas between the 15-minute zones. Therefore, an important aspect of the scope of the issue is to ensure mobility for residents so that they are not solely dependent on the space around them. Limiting the share of car transport in favour of efficient public transport is intended to make users realize that they do not have to determine their way of life based on the type of transport. It is more important to understand how roads work, taking into account various parameters affecting road traffic and considering specific conditions prevailing on the roads (e.g., traffic volume, vehicle capacity, frequency of services, road surroundings, etc.) and their characteristics (efficiency, safety, comfort, economics, etc.) (Moreno et al., 2021; Gondek, Ostrowski, 2017).

The last parameter related to the others is the arrangement of components within the prescribed time limit for the unit. Moreno has not ruled out that narrower availability ranges cannot be specified within a 15-minute unit, depending on the degree of demand. Moreno assumes that the closest to the residential unit should be the functions of the first need, i.e., a grocery store or a bus stop. The further away from home, the more specialized the space function is. This also applies to the scale of urban resources, where their escalation progresses within the growing distance from home. A dispersed radial functional diversity with a wide range of services aims to improve the quality of life for residents, regardless of their social status. An important aspect is also the distance to jobs, which in previous trends determined the increased need for means of transport. The fifteen-minute concept assumes the possibility of working in small office spaces located not far from the place of residence and the possibility of remote work is taken into account. This, of course, does not correspond to all types of work performed (especially physical or concentrated in industry), but this aspect of access is to be regulated by the parameter providing transport communication (Moreno et al., 2021; C40 Cities Climate Leadership Group, C40 Knowledge Hub, 2021).

3. CONNECTIONS WITH EARLIER IDEAS

3.1. A MIX OF URBAN TRENDS

The concept of a 15-minute city is an attempt to consolidate the most important ideas of sustainable development, enriched with insights into socio-economic phenomena. Although the concept of a 15-minute city has gained popularity in recent years, it is worth noting that similar ideas have already been implemented in various places around the world in the past.

The earliest concepts that could have influenced the development of the 15-minute city were garden cities and satellite cities. The Garden City concept, authored by Ebenezer Howard in the 19th century, involved creating new, small towns on the outskirts of large metropolitan areas that would provide residents with a healthy living environment surrounded by greenery while also having access to employment opportunities and services. Satellite cities, on the other hand, were built to provide residents with job opportunities outside of central urban areas, reducing the need for long commutes (Węcławowicz-Bilska, 2015).

However, the greatest influence on the concept of the 15-minute city was the ideology associated with the New Urbanism movement, which emerged in the 1980s in the United States. The goal was to create more socially and environmentally integrated and sustainable cities by designing public spaces to be more user-friendly. The aim was also to reduce dependence on cars and improve residents' quality of life by providing easy access to various services and entertainment in their neighborhoods. Another important concept that influenced the 15-minute city was the compact city concept, developed by Charles Jencks in the 1990s. The compact city aimed to limit urban development in rural areas and encourage the building of cities in existing urban areas. This concept aimed to provide residents with easy access to various services and places in their immediate surroundings, such as shops, schools, playgrounds, and parks. Both New Urbanism and the compact city provided the foundations for the development of increasingly newer urban trends, which differed in the details of their component parameters. However, the main goals were to create a sustainable environment in which it is enjoyable to live (Węcławowicz-Bilska, 2012; Stangel, 2013; Cysek-Pawlak, 2022). Spatial planning in 15-minute city also follows the model of chronourbanism, based on the main assumption of saving residents' time through intelligent city planning. Within chronourbanism, it is important not only where one lives, but also how quickly and easily one can get to the places where they spend their daily lives. The concept of a 15-minute city follows the same direction, suggesting that residents should have easy access to all necessary services, which in turn can increase their quality of life and sense of autonomy (Moreno et al., 2021).

In terms of population density, the city of fifteen minutes is a counterweight to the idea of a city-garden, where the population density was much lower. This approach has been found to determine the spread of urban space on the basis of suburb development (Solarek, 2011). For larger urban teams, division solutions into smaller districts are proposed, which will be interrelated with the collective communication system. The transfer of the conurbation date to a smaller scale of the city is aimed at trying to equalize the potentials, while enabling the creation of the individual identity of each subcenter (Khavarian-Garmsir et al., 2023).

The institutional nature of the 15-minute city should be based on the intelligent form of its planning, financing and management. Considering the aspect of the concept name, the inspiration was the planning tool of the n-minute neighborhood, used in creating

proposals for newly designed urban assumptions of cities. The tool was first used when creating the plan for American Portland in 2010, followed by similar planning concepts for Melbourne, Bogota or Liverpool. In these planning documents, monofunctionality for the integration of spaces with different purposes (mixed-use areas) was questioned and a new mobility policy was proposed. The city of short distances is to offer residents the gradation of offered facilities in terms of demand. In this way, not only the functionality of space is diversified, but also its relatively even distribution is allowed. The difference between the ideas created by Moreno is the fact that the city of fifteen minutes is also to concern existing urban development and its adaptation, not just the newly composed one (Beim, 2021).

According to the urban planner Dr. Łukasz Drozda (2017), the tendency to gentrify existing spaces and to make inefficient transformations in an existing urban environment significantly affects the degradation of diversity. The Moreno's concept assumes that the unification of space can be avoided by linking its pluralism with modularity. Hence, in the concept of a 15-minute city, you can see inspiration by interpreting the concept of „fractal city". The original idea about geometric shaping of urban tissue was transferred to the thought of functional universality, self-organization and permeability to the changing, multipolar social mosaic, which can be described graphically using fractal theory (Beim, 2021). The ability to create functional diversity can also be reflected in the designed architecture. Hybrid buildings, which in their idea show susceptibility to demand, are more resistant to economic fluctuations and do not determine the existence of space from the given function (Palej, 2010).

3.2. VISIONS OF MOBILITY SYNTHESIS

The transport perspective of the concept of a 15-minute city means the possibility of covering short distances between the place of residence and the place of work, study or services by bicycle or on foot. The designed communication areas within individual zones show a variety of alternatives to car use, which significantly affects the safety of users, according to transport policy, known as complete streets. At the same time, the restriction of the use of road communication by residents for an efficient public transport system is to allow movement between districts. This is to be guaranteed by planning focusing on the sustainable use of transport space and the availability of publicly available public transport (Transit Oriented Development) (Salat, Ollivier, 2017). This is especially important in the case of functionally distinctive existing spaces in cities composed of many equivalent centers. Car communication in the area of the discussed concept of the urban center is kept to a minimum but is not prohibited. At the same time, the city of fifteen minutes should not assume the complete elimination of the share of road transport from the use of residents. Regulatory methods may constitute provisions of the local plan regarding the indicator of designed parking spaces for newly designed units, introduction of a high-ticket tariff or

introduction of architectural barriers preventing parking. The departure from the use of cars is also to be reduced by designating dedicated multi-storey car parks construction zones on the districts, which is to trigger a specific psychological response. The car in this concept is the last link in the transport selection chain in the city (fig. 2) (Beim, 2021; Bibri et al., 2020).
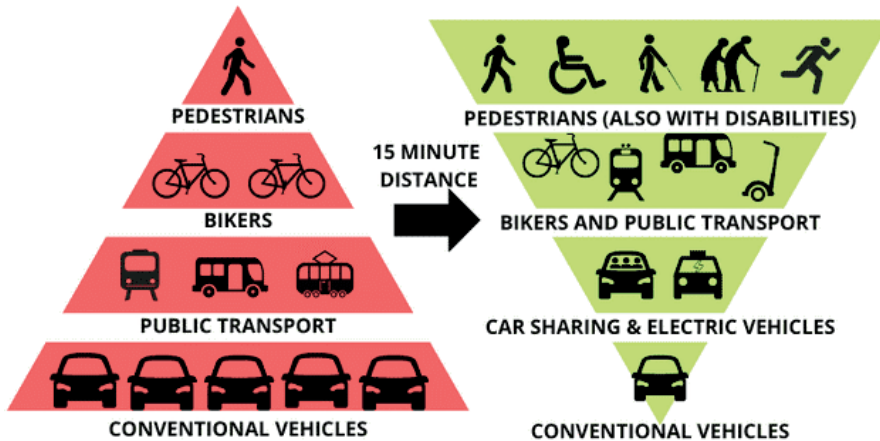

Fig. 2. The change in the classification of the frequency of using means of transport in a 15-minute city due to the impact of a change in accessibility (own elaboration)

3.3. MORE THAN A FUNCTION

Equally important in urban design is maintaining ergonomic standards and urban security, which in a quarternance city seems to be simpler to ensure. Separating autonomous districts with administrative units can improve social and sociological conditions in society. It should be noted that the division of a large city into quadratic zones should be suggestive and take the form of recommendations. Inhabitants of cities or districts based on the short access system cannot get the impression that they are legally imprisoned in a closed space. Suggested access to facilities at walkable distance is to help society develop better habits in connection with movement. In the context of the user-city-nature relationship, the 15-minute city also refers to the Swedish idea developed in the planning document for the city of Goteborg (2014). This idea introduces care for ecological resilience, care for user relations with space, competitiveness of quality of life and fair self-sufficiency. It also has a secondary goal to strengthen interpersonal relationships, unleash identity with the place of residence and influence the development of a sense of responsibility for the environment, which in the contemporary realities of the alienation of society is very difficult to reach (Urban Transport Committee, 2014).

The multi-threading of the city's 15-minute plan makes it difficult to characterize its final form in the form of definitions. This concept is relatively fresh, shrouded in media coverage

due to the circumstances in which it adopted. In this respect, it may be overinterpreted in the strict sense or misunderstood in a broad sense. On the one hand, it can introduce a lot of good to previously poorly managed or crisis-stricken space. On the other hand, it can exist as part of a political game or social blackmail that over-regulates the way of life. However, in terms of the reality of implementing the idea, it requires work on how to parameterize individual elements in the face of economic, economic, social or ecological conditions. The challenge is to closely link ideas to practice, which should initiate researchers to further discuss methodology, while developing analytical tools, both research and planning, as well as commercial.

4. CONNECTIONS WITH OTHER IDEAS

4.1. PARIS, FRANCE

The capital of France was with one of the first, encouraged by the noisy slogan created by Moreno, which began to implement the concept. The mayor of Paris, Anne Hidalgo, in 2020 appointed Carlos Moreno with her „special envoy for smart cities" and in her election campaign, where she fought for re-election, offered several initiatives, to make the city even more friendly and sustainable. Previously, as a Parisian mayor, it operated and supervised the introduction of the program called „Paris Respire" (eng. „Paris breathes"), which aimed to reduce emissions in the city (fig. 3). In 2016, the city introduced a ban on car traffic on a 5-kilometer stretch along the right bank of the Seine, which has now been transformed into a pedestrian and cyclist-friendly zone (fig. 4). The city has also introduced a low emission zone in the city center, which limits access to vehicles that are highly polluting. Paris also promotes active modes of transport such as walking and cycling. The city expanded its network of bicycle paths and popularized the public bicycle system such as Vélib'. The city also introduced pedestrian-only streets and created more public spaces where people can gather and meet. In addition, it implemented a plan to transform parking spaces into green areas and recreational squares (Gongadze, Maassen, 2023; Willsher, 2020; Pozoukidou, Chatziyiannaki, 2021).

One of the key initiatives that Paris implemented to achieve a 15-minute city was the creation of local markets and stores. The city encourages the development of small businesses and local markets that provide residents with access to fresh products and other everyday items within walking distance of their homes. The Paris authorities also focused on transforming educational institutions into community centers of local districts. The flagship initiative of the city authorities was opening school and nurseries after hours and on weekends to provide residents with public recreational spaces. This has been complemented by the „school paths" program for pedestrians to encourage non-motorized people to travel

safely to school. Urban development focused on residents also causes changes in the way the city is managed. New measures convey aspects of shaping the urban policy of districts and close cities of the Paris agglomeration. The opportunity to participate in planning greening, embellishing, small architecture and improving micromobility on a neighbourhood scale is one way to implement the participation of residents in the development of the city. A budget dedicated to these goals of EUR 75 million was also created to be allocated to the implementation of civic projects (Gongadze, Maassen, 2023; Barbieri et al., 2023).

Fig. 3. "Paris Respire" promotional poster, Julian Walker.
Source: https://flic.kr/p/9yjzNL [access: 12.05.2023]

Fig. 4. Low speed zones in Paris, Suisse. Source: https://flic.kr/p/2odZ65A [access: 12.05.2023]

In general, Paris's efforts to create a 15-minute city have been well received by both residents and urban planners. Prioritizing active modes of transport, creating car-free zones and promoting local companies, Paris creates a more friendly and sustainable city for its inhabitants.

4.2. MILAN, ITALY

The COVID-19 pandemic has strongly verified the share of urban space in the face of the crisis. Italian society was one of the most affected at its peak. The critical situation caused a change in thinking about the organization of the city, which resulted in the development of new strategies that were to develop stronger adaptability of space. The term „new normality" was used to describe lifestyle changes and behaviors that occurred as a result of the COVID-19 pandemic. One of the most significant changes resulting from hygienic and sanitary restrictions was the transition to remote work. Because many companies implement a homework policy to reduce the risk of disease transmission, office buildings in Milan have become largely empty. This led to a reduction in traffic and air pollution in the city center, as well as to a reduction in noise levels. Another change was the increase in the use of external spaces for social gatherings and recreation. Because indoor gatherings were limited or

banned, many Milan residents have started using parks and other outdoor areas. This led to an increase in the demand for places where you can spend time outdoors. This also applied to catering outlets that needed to expand their space by occupying roadside lanes or patio areas. as well as for the development of bicycle paths and pedestrian zones, which were previously in a much worse condition than before the pandemic. Finally, „new normality" has brought changes in the way people shop and consume goods. Because many stores are closed or operate with limited performance, online shopping has become more common (Tricarico, De Vidovich, 2021).

Fig. 5. Piazza Sicilia in Milano as an example of "Piazza Aperta", Suisse.
Source: https://flic.kr/p/2n5TsnR [access: 12.05.2023]

The developed Milan development strategy includes a wide range of initiatives and policies aimed at reducing environmental impact, improving social cohesion and supporting economic growth. Planning records in connection with development are very similar to those offered in Paris. The Lazaretto District was supposed to be the pilot area for implementing the idea based on polycentrism, proximity, hybridization, and advanced solutions related to workspaces, developed during the pandemic. The project introduces

programs such as "piazze aperte" (eng. open squares), which takes into account the creation of quality public spaces, or "strade aperte" (eng. open streets), associated with increasing the safety of pedestrians and cyclists through the adaptation of sidewalks, reducing speed limits to 30km/h in certain zones, and introducing covered gardens by restaurants (Italian for dehor) in multifunctional spaces (fig. 5) (Bortolotti, 2022; Sicignano, Caljé, 2022).

4.3. OXFORD, GREAT BRITAIN

Reports from the beginning of 2023 regarding the introduction of the concept of a 15-minute city in this British city were shrouded in considerable scandal. Controversy was aroused by the willingness of the authorities to introduce a number of treatments under the Local Plan 2040 in adapting the districts to 15-minute availability, according to the Moreno concept. The Local Plan 2040 also aims to solve problems related to disparities in the provision of services. The controversy was introduced by the so-called "modal filters", used to limit street crossings by specific means of transport. A modal filter in physical form can be a barrier, as well as a row of posts or pots at the end of the thoroughfare, which can also be introduced temporarily. In turn, the formal form of the filter may take the form of a road sign and a recipe behind it (Cycling Embassy of Great Britain, 2020). The use of such barriers would introduce a restriction on car traffic in order to avoid traffic jams on the main streets crossing the internal urban tissue. Nevertheless, the city council decided to go a step further and voted to introduce a digital transit control system as part of the modal filter. The cameras installed were to scan vehicle license plates and verify the relevant permissions granted to residents with cars. Not allowing travel from district to district would mean granting a strict – one-off mandate of 70 pounds. Moreover, additional regulations in this respect were to control the number of repetitions of journeys. It was noted that it will be possible to use six main intra-urban roads for a maximum of one hundred days per year. After exceeding the limit, the close district will be able to be reached only through the city beltway without any consequences, which determines covering a greater distance from point A to point B. This is to discourage the use of cars for economic reasons. Generating operating costs, as well as the impact on the loss of personal time that needs to be spent on transport, would encourage Oxfords to use public transport, a bicycle or their own legs (Żyro, 2021).

Interestingly, the possibility of using the car within the inhabited district was not regulated in any way, which did not quite correspond to the assumptions of the Moreno concept. Nevertheless, public media, which published a lot of false information about the regulations being introduced or some of them, raised the hot topic. The public's misunderstanding of the thread caused a wave of protests on the streets of Oxford. There have also been numerous critical comments from influential people from around the world who negate the concept of famous and influential psychologist Jordan Peterson, defining

the concept of a 15-minute city as „ part of the well-set plan of tyranny bureaucrats" (Stanford, 2023). The creator of the idea of a 15-minute city tries to discredit critical opinion, arguing that misinformation is trying to diminish the value of its concept. Nevertheless, it shows that the idea needs to be refined, because at this point it raises a lot of doubts and is susceptible to using its description as part of conspiracy theories or declarations of political options, from which she should shun (Larsen, 2023).

5. CONCLUSION

The concept of a 15-minute city has been appreciated for its potential to improve the quality of life, reduce traffic congestion and air pollution, and promote social cohesion. Despite concerns about potential drawbacks and feasibility, the concept has generated significant interest among the public, where it is mainly perceived in a positive light. However, this could be interpreted as a way to gloss over any possible negative aspects, especially since the slogan has become popular in commercial contexts. Nonetheless, it is worth noting specific implementations of this idea, such as in Paris, Milan, or Gdansk, where it has been proven that urban environments can be created with thoughtfulness and good intentions.

One of the main concerns is that implementing this idea might not be attainable in every context. For example, in cities with low population densities or dispersed land use patterns, providing all necessary services within a 15-minute radius might be difficult due to property structures and free-market constraints. Therefore, it is easier to create new urban tissue with the prescribed parameters than to modify existing ones. This way it is easier to direct the use of space. The key issue is to approach the 15-minute city concept in a way that takes into account the unique characteristics and needs of a given area. Unfortunately, developers often abuse this popular slogan, treating it only as a tool to promote their new neighborhoods. Importantly, the initiative to implement the idea should stem from the city authorities, who have a broader perspective on its development and can influence transportation infrastructure. Furthermore, they can influence existing urban tissue, which is far more difficult to modify than create anew. Without this, the concept of access to many zones within the city may prove incomplete and simultaneously untrue. One new district on the outskirts, created as part of Moreno's studied concept, will not necessarily benefit the rest of the city. In reality, such action could have the opposite effect. Isolating oneself from the rest of the city is certainly not a desirable outcome.

While there are certainly many concerns surrounding the concept of the 15-minute city, it remains an intriguing idea that has captured the imagination of urban planners and policy makers around the world. Implementing this idea into life requires a joint effort of various stakeholders, including citizens, planners, developers and policy makers, as well as a long-term vision and investment in infrastructure, public transport and green spaces.

If implemented correctly, Carlos Moreno and his team's vision for the city could provide a pretext for creating a more equitable and enjoyable urban environment. So far, it has contributed to the study of the possibilities of healing the urban tissue, has contributed to a wider discussion on the environment that the city serves us, but above all, it has opened the eyes of those who previously did not pay attention to this aspect of life. The awareness that it is possible to live better is one of the arguments for which the work of a researchers makes them sense.

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