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The development of mobility doesn't necessarily need engines – the conflicts of interest that hinder active mobility.

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Abstract:

On a global scale, what we know today as urban mobility was treated in the city, in its historical context, as a hegemonically motorized means of travel from the beginning of the last century, without considering the accessible integration between the various existing means of mobility. This hegemonic idea came to have meant mainly due to the domination of the means of production in series and differentiated scale, with the advent of the Industrial Revolution, which began in the mid-nineteenth century, changing, significantly work and production relations. This has determined the technological process, creating distant and disconnected cities, predominant till the last decades of the XX Century.

In the mid-60s of the twentieth century, this motorized and non-inclusive model registered expressive movements of resistance and questioning, with alternative proposals that pointed to accessible solutions based on the inclusion of non-motorized means, either through exclusive spaces for pedestrians, or through exclusive spaces for bicycles, both accessible and integrated with each other. without, however, eliminating the motorized environment.

As a result, accessibility has become the object of city planning,

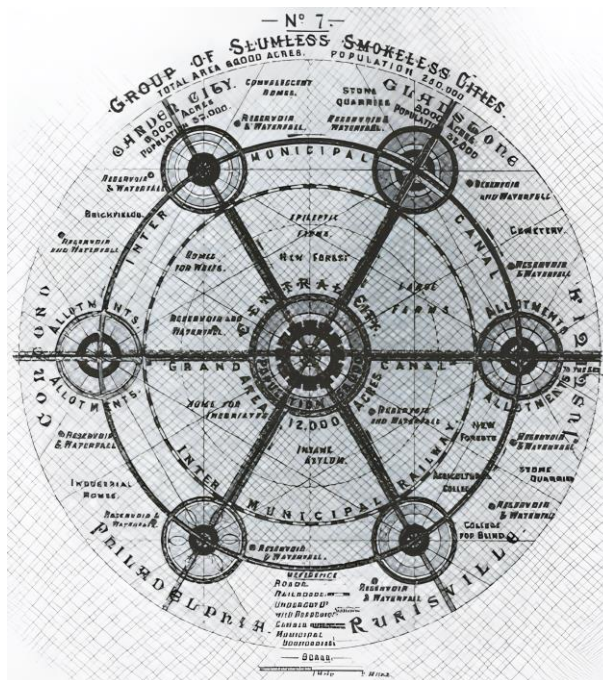
from the end of the twentieth century and the beginning of the twenty-first century, also due to the inclusion of the non-motorized modal in the transport system. The city of Campos dos Goytacazes, Rio de Janeiro, Brazil, is a good example of this recent conception of planning, even during the observed conflicts.

Introduction:

In the historical context, from the industrial-scale dominance of the motor vehicle as a means of transportation in the city, the automobile was introduced in this environment as the main element, capable of providing independence and agility.

Imagined as sufficient, the thesis was that it did not matter where the occupation would be in the city, since in particular the automobile represented an efficient means of travel, with relative independence, speed and safety.

In this sense, Sir Ebenezer Howard, considered an English pre-urbanist, idealized at the end of the nineteenth century, the utopian Garden City, a plan that inspired several interventions in cities around the world, to solve the problems they presented. Until then, there was no term urbanism, which began to be practiced in the 1940s in the twentieth century, coming from CIAM, the International Congress of Modern Architecture, created by a group of architects for an international debate about the directions of Modern Architecture, whose first realization was in 1928, with 10 CIAMs, the last one in 1959, in Yugoslavia.



Graphic scheme of the Garden City with its radial axes. Source: Ebenezer Howard and the Garden City - Urbanities - Urbanism, Urban Planning and Master Plans

The golden age of the automobile occurred from the 50s of the twentieth century, with large industrial production of automobiles, concomitant with several urban plans for the opening and improvement of avenues, such as those of Prestes Maia, in the city of São Paulo and that of Pereira Passos in the city of Rio de Janeiro, inspired by both Howard's model, and in Haussman's, this one, in Paris. However, individual transport has reached its limit as a possibility of solving displacements in cities, which has promoted the need for collective public transport systems, such as trains, trams, and urban buses. The main issue becomes the long periods of displacement necessary for the classical relations of the essence of the human being's life in the city, that is, work, leisure, and rest. With a visible compromise in the balance of this tripod,

the quality of life in the city was seriously compromised, which made this model be questioned.

The paradigm shift:

Especially from the 1960s onwards, names such as Jane Jacobs (*Death and Life of Great Cities*, 1961) and Jan Gehl (*Pedestrian Zone, Urban Pedestrian Areas, Denmark*, 1965), began to publicly criticize urban interventions based on the automobile and the model of sprawl of the city disconnected from people, as well as the compromise of quality of life and, in the absence of accessible and complementary means by non-motorized means to the transport system in the city, with aggravation in the last decades of the twentieth century.



Stroget Street, Copenhagen, Denmark. Source: Jan Gehl: Biography, Phrases and Projects of the Great Icon of Urbanism (vivadecora.com.br)

From the debates that began in the early 60s, of the twentieth century, the problems of displacement and quality of life in the city have only worsened. In this scenario, not only the model of

occupation and use of urban land is discussed, but also the transport system as an effective and efficient means of displacement, where the inclusion of means that make it possible, especially, to travel over short and medium distances should be considered by non-motorized modes, whether human or road, as well as both in an integrated and complementary way.

In Brazil, the course of this debate occurs late, at the beginning of the twenty-first century, in a process that is still truncated, not exhausted with the advent of the so-called Citizen Constitution of 1988, in the twentieth century. However, these articles were only regulated 13 (thirteen) years later, in Law 10.257/2001, which became known as the Statute of the City and established a new paradigm for the development of the city.

The City Statute defines that the Master Plan is the basic instrument of city planning, understood as a whole, without segregated or neglected spaces, mandatory for cities with more than 20,000 inhabitants, or in an environmental condition of vulnerability.



Presidência da República
Casa Civil
Subchefia para Assuntos Jurídicos

[LEI Nº 10.257, DE 10 DE JULHO DE 2001.](#)

Regulamenta os arts. 182 e 183 da Constituição Federal, estabelece diretrizes gerais da política urbana e dá outras providências.

Source: L10257 (planalto.gov.br)

With this important achievement of Brazilian society, the revisions of the Master Plans began to take place in a participatory manner, with the holding of Conferences of the Cities, at the three levels of the Federation for the formulation of urban development policies integrated by the Federative Pact. This process brought to light

the reality of inequalities that exposed a scale of hardship beyond what had been imagined.

One of the most important inequalities found was related to the transport system, urban mobility, mainly due to the urban planning model focusing on motorized modal displacement, based on the automobile, worsened with the crisis of the 90s of the collective public transport system. In one of his critiques of this model, architect and urban planner Jan Gehl, published his book *City for People*, in 2010, which dialogues with the work and work of Jane Jacobs, whose proposal is the reduction of the urban scale in the context of people, favoring the displacements in the city made from the inclusive, non-motorized, walkable and bicycle means that were incorporated by Ghel in his hometown, Copenhagen, which becomes a great and successful laboratory for the experiments of accessibility and inclusion, based on its urban concepts that spread around the world. The so-called boardwalks and bike lanes originate from this practice.

In this book, the Danish architect and urban planner harshly criticizes the modernist city model, in the Brazilian case, the city of Brasilia, in what he conventionally called the "Brasília Syndrome", properly considered by the file (File and Summary of the book *Cities for People* – Jan Gehl – UNIVERSITY OF FRANCA LABORATORY – Studocu):

"The three levels were to be treated and amalgamated into a compelling whole that would provide an inviting space for people in the city. Here, too, the problem is pointed out in models, especially the modernist ones, where we can observe only two scales, the large and the the medium, not taking into account the small scale, and because of that, when these buildings are

built, they are beautiful only to the eye from above and far, but uncomfortable at eye level and impractical for humans, this is what happens with Brasilia, which has large buildings, wide streets, long and straight paths that seem exhausting. In order to avoid this problem, the three scales in priority levels must be taken into account, following the principle: first life, then space, and only then buildings."



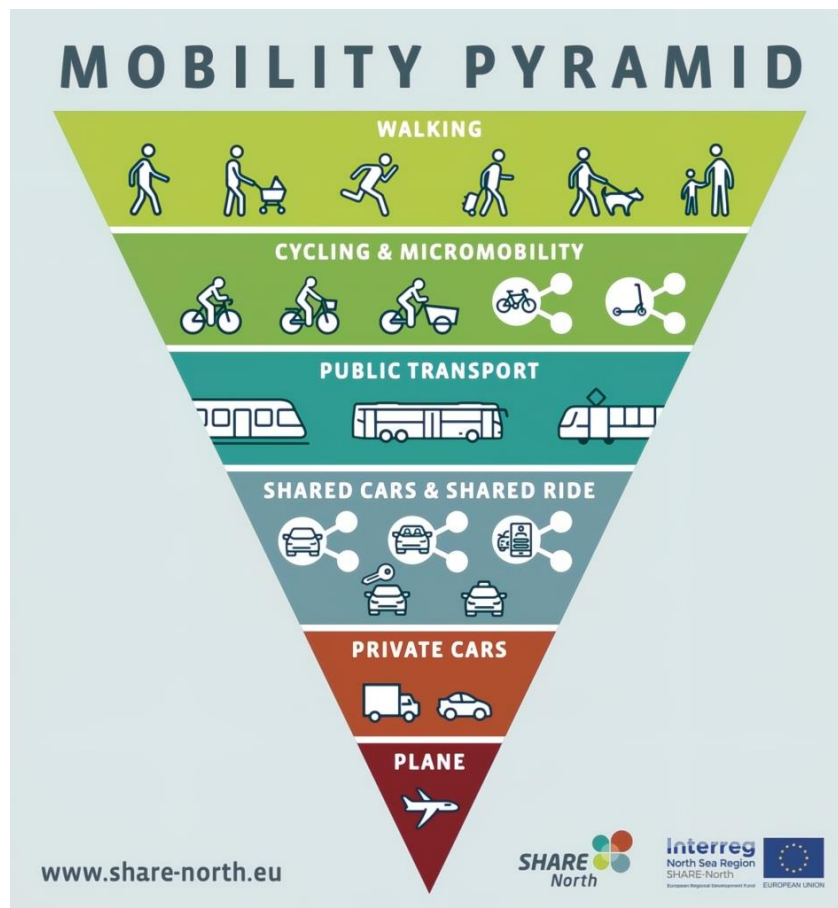
**Cities for people - Source: Internet*

The national and local contexts

Brazil:

The repercussion of this movement also involved Brazilian cities, culminating in Law 12.857/2012, which instituted the National Urban Mobility Policy, with the radical inversion of the mobility pyramid in the country, below, where non-motorized means are now prioritized, with an emphasis on walkability and the use of bicycles, to the detriment of motorized means, especially the

automobile. Once the legal framework was consolidated, the city's planning methods began to have mandatory content dedicated to the inclusion of non-motorized modes, through accessibility and adequacy of urban spaces, since the available infrastructure is primarily dedicated to motorized means with an emphasis on the automobile. Therefore, the challenge is to meet not only the inclusion of non-motorized means, but the integration and complementation with motorized means in the promotion of quality of life for the population, especially by reducing the emission of toxic gases.



Source: Internet

Campos dos Goytacazes/RJ:

The municipality of Campos dos Goytacazes, in 2022, has

approved its Sustainable Urban Mobility Plan, Law 9.137/2022.

Located in the northern region of the State of Rio de Janeiro, it is the largest municipality in territorial extension of the state, with 4,032 km². With a flat urban topographic surface, it has culturally the use of bicycles by the population, whose travel radii are around 8 km. According to data released by the Bicycle Observatory – Research shows the profile of cyclists from Campos and 15 other Brazilian cities - , based on a survey carried out by technicians from the Municipal Institute of Traffic and Transport (IMTT), in 2022, which involved 670 people, the following data were presented regarding the use of bicycles in the municipality:

From the interviewees:

"82.1% of cyclists ride five or more times a week, while the national average is 72% for the same frequency range. The results of the survey show a higher concentration of cyclists in the age group of 30 to 39 years (23.9%), followed by the groups of 40 to 49 years (21%) and 20 to 29 years (19.7%). The survey also reveals that 82.9% of cyclists in Campos use bicycles to commute to work.

72.8% to make purchases; 79.2% socially; and 4.2% to go to school or college. The survey also indicates that, in the Covid-19 pandemic, 44.9% of people changed their routine to ride a bicycle and 5.4% increased their commute with a bicycle."



Image of the main bike path in the municipality – Avenida 28 de Março. Source: Internet

With this case study, in line with the guidelines of the Sustainable Urban Mobility Plan, as well as Law 12.857/2012, an audacious program of expansion and integration of the municipal cycling network was initiated, which until then accounted for 50 km of extension not properly integrated and not accessible. In addition to the expansion and integration, there was the installation of two-way bike lanes, which until then did not exist, with the exception of the bike path on Avenida 28 de Março, in a process that goes against the premises of the city's Mobility Plan, aiming at accessible integration, with the human modal and with the motorized modal, both in an integrated and inclusive way, which concomitantly provide improvements to the health of the population by active means of displacement.



Bike lane – two-way – Avenida Alberto Torres – Source: Author

However, the process of expanding the cycling network has not been smooth. On the contrary, it has generated numerous complaints and demonstrations, especially from merchants in the central area, the Historic Center, according to a report by the Folha da Manhã newspaper – Merchants demonstrate asking for the removal of bike lanes in Barão de Miracema.



Burnt tires – Photo: Reproduction Folha da Manhã – Source: Internet

Among the complaints are the requests for the removal of the bike lanes, as recorded in the report above, on the occasion of the installation of the bike lane on Rua Barão de Miracema. Trader Jorge Pessanha said:

"We are being harmed by the bike lane. The time we stay here, it's rare to pass by a bike. It has peak hours, which is from 6 am to 6 pm. Other than that, bike lanes are a white elephant. The reason for the demonstration is to see if the public agency, the manager or the engineer, has a little more study of the site and can come and see the need for the bike lane. There's no way our customer can stop here."

An understanding corroborated by another merchant, Luiz Cláudio Franco, who adds:

"The bike lane is harming our commerce....We run the risk of closing the doors due to lack of customers."

The complaints extend to taxi drivers, hospitals and health clinics, since the places where they carried out their work activities, in the case of taxi drivers, or the use of boarding and disembarking areas, in the case of hospitals and clinics, have been occupied by the new bike lanes. This has been the common scenario in all other stretches of expansion of the cycling network with the new bike lanes, such as in the following places: Tenente Coronel Cardoso Street, Gilberto Cardoso Street, Alberto Torres Avenue, Goitacazes Street, among others, some of which also conflict with places of embarkation and disembarkation of public transport and commercial loading and unloading. Most of the complaints stem from the complete lack of dialogue on the part of the city hall with

the population, despite the fact that since 2017 there has been a law of the Municipal Council for Urban Mobility, COMURB, Law 8754/2017. However, this has not been installed, which undermines the participatory process in decisions related to urban mobility, which in this aspect make the complaints of a significant part of the population justified.

Notwithstanding the complaints observed, there is still a conflict of use, by other modes, where the undue occupation of the new bike lanes was registered, as recorded by J3News – You can't solve a problem by creating another one in the issue of bike lanes in Campos – J3News (jornalterceiravia.com.br) – pictured below:



J3News Reproduction - Source: Internet

It is noticeable that in all the reports and demonstrations, there is still no record of any reference to the improvement of the quality of life that the active media can offer to the population.

Conclusion:

It is necessary to understand, both on the part of the city hall and on the part of the population, that the paradigm related to urban mobility has changed, where the best mobility will be the product of the combination of the various modes, especially the non-motorized and the public collective, in this aspect the municipality registers a crisis of aggravation over 40 years. Therefore, in the current process of new modeling for the accessible and sustainable urban mobility system, the principle of relationship and exchange of knowledge, through a legitimate management instrument, which is the community council, in this case COMURB, in order to advance in the improvement of the condition of truly sustainable urban mobility, is appropriate. inclusive, by giving priority to the use of non-motorized resources, where, in particular, in the case highlighted, there is recognition of the natural and cultural vocation of the population, so that conflicts of interest are harmonized.

The desired, recognized and necessary expansion of the cycling network cannot mean loss, lack of inclusion and accessibility to other urban mobility needs, so the manager in his planning for the expansion of the cycling network must include the stretches of conflict of use with this infrastructure, so that they are properly mapped, signaled and well communicated, to do so, enable a safe and broadly compatible means of access in the construction and improvement of an urban environment truly for all, with well-being, where it is understood that the active modal can be an important ally in offering conditions that improve both mobility and the quality of life of the population in the city.

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