

Cyclomobility: Perspectives of a moving culture

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ABSTRACT

This article is derived from a research effort associated with the concerns present in many works and practices produced today on the subject of mobility, which highlight the importance that the bicycle has been assuming in society. The debate, when inserted in the appreciation of the culture of cyclomobility, tends to reveal new meanings to the contemporary city and to promote the use of bicycles in Brazilian cities as an expression of a culture in motion. In reproducing the character of descriptive and exploratory research, this Article shares some reflections about the growing impact of cyclomobility in the ways of life of the citizen and in the context of the urban space. And in advancing investigations, the analysis aimed to highlight variations in the theme, with results that problematize and project meanings of the use of bicycles in the urban space, aiming at interpreting current trends. It is expected that the reflections presented here can serve as an incentive to discussions on cyclomobility as a culture in motion, inspiring new research and practices.

KEYWORDS: Cyclomobility. Bicycle. Cycling culture. Urban Mobility.

1 INTRODUCTION

This Article¹ is aligned to a research effort² derived from the concerns present in many works produced today on the subject of mobility, emphasizing the importance that the bicycle has been assuming in society.

This perception of the theme, related to the new demands of society, can be explained by the benefits it brings to the cyclist's health, such as better physical conditioning, and the public health of the entire population, by the contribution to low carbon policy, by the bias of more efficient urban mobility, and by the possibility that its use provides for apprehension and experience of the urban space of the city, encouraged by an ongoing activism.

The culture of mobility travels through layers that demand new meanings to the contemporary city, facing several motivations. In Brazil, the Mobility of Urban population 2017 survey³, published by the National Confederation of Transport (CNT) and the National Association of Urban Transport companies (NTU), reveals mobility as the fourth largest problem in cities. In the universe of this research, in order to know and locate the major problems faced by users of public transport in Brazilian cities, the theme of mobility comes as a result of problems such as safety, health and unemployment.

To the extent that the dynamics of a city are known to change continuously, it is necessary to establish rules for the use of spaces and means of transport in advance. Thus, the city's managers should carry out a long-term, structuring planning, suitable for urban mobility encompassing all types of transport and the activities of the population centers (CNT, 2017, p. 13).

For this look, the National Urban Mobility Policy, among its legal attributions and scope, presents as its main objective the orientation of the cities regarding the integration between the

¹ Lecture given on the theme axis "built environment and sustainability" of the I Latin American Symposium City, Architecture and Sustainability, entitled "Cyclomobility: Perspectives of a culture on the move. On the occasion, the idea was to present a critical study of the theme in accordance with a agenda committed to the relevance and repercussion of the theme today. The purpose, despite keeping the same in this Article, gains variations that the theme awakens, as it shares concerns and encourages debate to contribute to adding value to ongoing research and the formulation of related public policies.

² This study is part of the City Research Group, Urban and Environment processes, registered at CNPq, and is housed in the Postgraduate Program in Architecture and Urbanism of the Universidade Federal Fluminense.

³ For more information, check Search Urban population Mobility 2017, available at: <https://cnt.org.br/mobilidade-depopulacao-urbana>. Access on: Dec. 20 2022.

different means of transport and the improvement of accessibility and mobility of people and cargo in the municipality territory. Enacted in 2012, Law No. 12.587, which establishes policy guidelines in reference, is revealed as a legal/institutional framework for municipalities to develop their urban mobility plans and define projects and actions to improve urban commuting in the light of sustainability. In addition to this normative to stimulate new practices in the field of mobility in Brazilian cities, in 2015, transportation as one of social rights was included in Article 6 of the Federal Constitution⁴ of 1988, reinforcing integration with other sectoral policies.

In view of the above, the need to reinforce the articulation between management and planning of urban mobility is evidenced. Actions that consider the stimulus to collective transport should be added to efforts to make the population aware of the reduction in the use of individual transport vehicles, as well as to encourage modes of active transport, such as the bicycle.

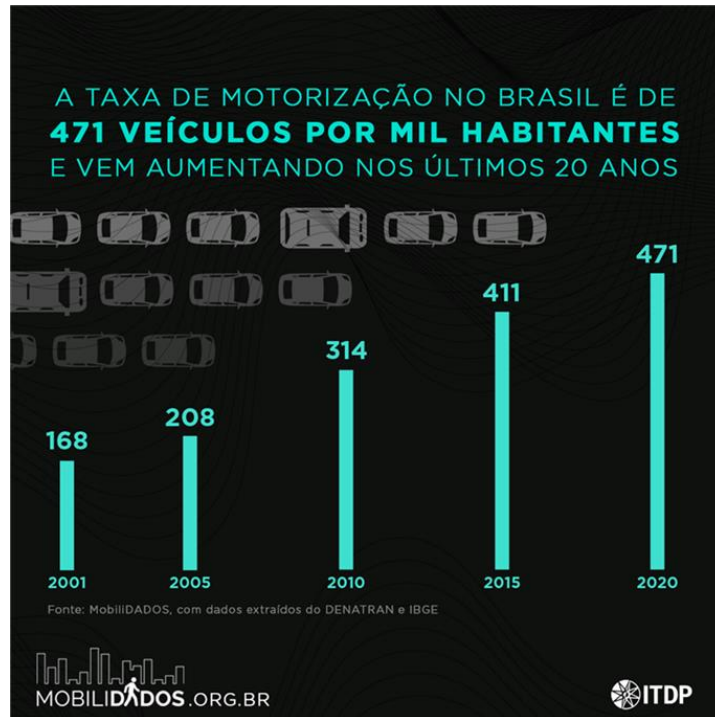
The simple look at the growing rates of motorization practiced in Brazilian cities call for changes, as a phenomenon to be faced. And are they actually occurring?

However, this issue is not a problem only in Brazilian cities, which leads to the need to create strategies to enhance the image of public transport combined with the inhibition of the use of private vehicles, especially in large urban centers. For CNT (2017, p. 18), “urban mobility planning and management should take into account the functions and activities developed in each city, institutional, social, and political actors” within a multidimensional perspective, making it essential to make land use compatible with the road system and to prioritize collective public transport and non-motorized displacements. The analysis of the data of this research reinforces the idea that combined planning and management actions can exert greater attractiveness to active transport and the more efficient use of the public space, together with the idea of reducing the emission of pollutants, since climate change is a worldwide concern. In this context, to compare the motorization rates practiced in the country with the desire to break with this cycle finds a strategy to be pursued in the use of the bicycle.

According to data from the MobiliDADOS Platform (PTO, 2022), the growth of the use of individual automotive vehicles in Brazil has been proving expressive in the last twenty years, as shown in Figure 1, with impacts even on the reduction of public space for active modes.

⁴ Constitutional Amendment number 90 of September 15thm 2015, which introduces transport as social law. Available at: https://www.planalto.gov.br/ccivil_03/constituicao/Emendas/Emc/emc90.htm. Access on: jan 3rd 2023.

Figure 1 – Motorization rate in Brazil from 2001 to 2020



Source: ITDP (2022)

According to Ricardo Henrique, an expert in urban mobility and sustainability management and President of the Mobilicei Foundation⁵, we are currently faced with a committed mobility, which calls for his urgent insertion in the Brazilian urban and environmental agenda.

Figure 1 reveals the conflict experienced by the theme of urban mobility in Brazilian cities. And, in this sense, the specialist suggests⁶ that the solution would be to seek active mobility practices, focused on cycling, since there are numerous references to this aspect from countries such as Holland and Denmark, which can bring light to the Brazilian scenario. Associated with a process of cultural change, such practices need to be investigated, especially regarding their potential for incorporation into public sector policies.

We recognize, in fact, that the pandemic has played a decisive role⁷ in breaking motorized habits and the most recent research records have been found to support this new culture. Such new mobility habits, according to Berto (2016), in the light of digital mobility, are about increasing the use of delivery and ride applications, but also in practices driven by experiencing the city on foot or by bicycle. The potential offered by the cycling culture gains an important dimension in the discussion of the changes experienced by contemporary cities, since the cities are not the same.

In this regard, the discourse of the right to transportation, based on political dynamics

⁵ Text presented by the author (Instagram @mobilicei) of the mobility column at www.blognovocontexto.com.br, in a report on the theme of the Culture of the Mobility Cycle, on February 27th, 2021. Available at: <https://blognovocontexto.com.br/a-cultura-da-ciclomobilidade/>. Access on: Jun 06th 2023.

⁶ For the specialist, it is currently estimated that the majority of the Brazilian population will use the bicycle to make their daily trips, work, school or leisure.

⁷ According to a survey by *NZN Intelligence* in partnership with the Summit Mobility State, the Brazilian intends to maintain habits acquired during the pandemic. Available at: <https://summitmobilidade.estadao.com.br/ir-e-vir-no-mundo/1-ano-de-pandemia-o-que-mudou-na-forma-de-se-deslocar/>. Access on: Feb. 03rd 2023.

in the Brazilian cities, especially, from the demands arising from the June 2013 manifestations, became permeable to the idea of the right to the city. It is a fact that investments in mobility have improved the access of the population, with repercussions on their quality of life and urban spaces. This drives to see in the right to use the bicycle in the city an opportunity, which should be better explored.

Some Municipal Urban Mobility plans, such as the cities of Niterói and Rio de Janeiro, can be considered advanced, but municipal administrations need to get them out of the paper, moving even in the field of digital mobility. Among its guidelines is the priority for pedestrians and bicycle use, as well as for collective transportation.

Some concerns about the implementation of transport and urban mobility policies, in general, and urban cyclomobility, in particular, already indicate the need for cities to introduce a cycle-road agenda, correlating the relevance of articulation between their own public policies with the actions of actors linked to the cycling movements. All together and mixed! Authors such as Alves (2011) and Azevedo, Vasconcelos and Ferreira (2019) discuss the necessary articulation of sectoral policies with urban mobility policy, thus electing active mobility as a way for more sustainable cities. In this scenario the bicycle, along with a road system suitable for its use, defies the cities' resilience.

Today, the bicycle can also be valued as an element of resistance to sediment the idea of a living city. And this idea of living city can be emphasized in the transformative spirit that the use of bicycle in the city can provide, in line with the planning of sustainable urban mobility.

In addition to this introduction, this text is organized in the following sections: objectives, methodological approach (explaining the theoretical basis that has been referring to the research so far), results extracted from the confrontation between practical experiences and public policies, mobilized for the analysis in the research and, finally, conclusion, that we hope will not be exhausted in the discussion that has been presented.

2 OBJECTIVES

The objective of this Article is to promote the debate about the use of bicycles in Brazilian cities as an expression of a culture in motion.

Bringing this debate into the socio-political or, better, sociocultural process, with emphasis on the field of urban planning, presents a transforming perspective of moving city, in which political commitments and dedication can contribute to cyclomobility as a culture in motion. That is how we want to invite them to reflect on this Article.

We need to leave the field of narrated cities for experienced cities, where what becomes meaningful becomes shared. And why not sharing that knowledge that using the bike gives us?

3 METHODOLOGY

The methodological approach aimed to prioritize, based on the literature review and the balance of theoretical fundamentals, other sources that have been contributing to the expansion of the discussion on the subject, made available in websites and blogs whose theme is mobility or cyclomobility. The presentation of practices in Brazilian cities seeks to better understand the relationship between the functioning of urban life and the circulation of

pedestrians and cyclists in a context of the implementation of the public policy of sustainable urban mobility, in addition to the accumulated experience of research on this subject as potential applicabilities. In advancing the investigations, the analysis also focused on the theme variations, both in the problematization field of urban mobility and in mechanisms that design urban meanings to interpret current trends that consider the use of the bicycle.

From the Brazilian Mobility by Bicycle Program: Bike Brazil (2007), the bibliographical review stage sought to include titles associated with the studies of bicycle use in contemporary cities, especially experiments while living spaces. For the next stage of the research, it was intended to adopt the application of questionnaires to deepen the perception of how cyclomobility has been gaining body in the city of Niterói (Rio de Janeiro), as a case study, from different groups. Knowledge of people's opinion will contribute to the understanding of how the bicycle fits into the city and how to strengthen the associated public policies. The confrontation of these contributions with the deepening of the reading of the municipal planning instruments of the target city, such as the City Master Plan (2019) and the Sustainable Urban Mobility Plan (2019), will result in the prospecting of development scenarios that may be conducted by the ongoing public policies, by the municipality of Niterói.

Since 2012, when the new National Urban Mobility Policy (PNMU) was established by Law 12.587/2012, with guidelines for municipalities to plan the future of urban displacement of their citizens and, later, the improvement of this policy with Law Number 13.724/2018, which establishes the Brazil Bicycle Program, and the review of Mobility Policy, through Law 14.000/2020, the purpose was, in addition to ensuring the best functioning of its transport, infrastructure and development services, to walk forward prospecting urban practices aimed at a better city.

The definition of mobility established in the legislation in the field is associated, above all, with the new sense attributed to the planning of the displacement of people and loads in the cities, envision the improvement of the relations of individuals with the space in which they live, of individuals and of urban spaces between them, from objectives and strategies defined for this.

The purpose that was sought with these laws was to seek adequate urban mobility through transport and circulation policies, making people and cargo accessible and mobile in the urban area, prioritizing, above all, collective transport modes, combining them with active mobility.

Thus, the established guidelines have become fundamental to the adoption of a planning committed to inclusive and sustainable mobility. However, data from the survey on the situation of the Urban Mobility plans⁸ published on April 17th, 2023 point out that of the 1.912 municipalities that were supposed to elaborate and approve their respective Urban Mobility plans, only 365 municipalities effectively elaborated such plans and only 273 approved them. A lack of necessary investment and technical training is evident. And this lack of balance between the standard, form and practices still noticeable ends up negatively affecting the socioeconomic and sociocultural function that mobility comes to fulfill in the development of the city.

For Maciel (2015) and Maruyama and Simões (2013), the lack of urban mobility creates problems in the proper functioning of a city, while good mobility is sustainable as it provides

⁸ The Survey on the situation of Urban Mobility Plans aims to monitor and support the evolution of Law number 12.587/2012. Available at: <https://www.gov.br/cidades/pt-br/acao-a-informacao/acoes-e-programas/mobilidade-urbana/sistema-de-apoio-a-elaboracao-de-planos-de-mobilidade-urbana/levantamento-sobre-a-situacao-dos-planos-de-mobilidade-urbana>. Access on: Aug. 10th 2023.

quality of space and life. According to the authors, in order for the achievement of the goals established in the National Urban Mobility Policy to be successful, it is important that the Board plans associate specific budget allocations for each segment, thus seeing cyclomobility as an interested party.

Cyclomobility is a form of displacement that has gained space and attention in cities. Riding a bike brings many benefits, both point and global, and all very visible and efficient.

The Brazilian Traffic Code itself (BRASIL, 1997) considers the bicycle as a transport vehicle, even the non-motorized versions, and the cyclist is guaranteed the right to travel on the roads, with priority over the automotive vehicles.

In Article 21, it states that:

It is the responsibility of the executive road bodies and entities of the Federal Government, the States, the Distrito Federal and the Municipalities, within their constituency: (...) II – Planning, designing, regulating and operating the transit of pedestrian and animal vehicles, and promoting the development of the circulation and safety of cyclists (BRASIL, 1997).

Starting from this premise, we approach some keys of interpretation to understand cyclomobility in the perspective of a culture in motion, organized into four distinct and complementary looks: Activism as a cycling culture; policies and urban practices capable of impacting the design and management of the pro-bicycle city; the culture of the bicycle and its multiple dimensions; and the bicycle as a means of ecological transport and also of socio-spatial inclusion.

This Article, although reproducing the character of the descriptive and exploratory research adopted, shares some reflections about the growing impact of cyclomobility in the ways of life of the citizen and in the context of the urban space.

4 RESULTS

The shared results follow the methodological path described from four different perspectives on the theme, that is, activism as a cyclic culture; urban policies and practices capable of impacting the design and management of the pro-bicycle city; the culture of the bicycle as a right; and the bicycle as a means of ecological transport and of socio-spatial inclusion.

4.1 Activism as a cycling culture

The activism cycle, in general, has sought since its insertion in the contemporary world to fight for more space on urban roads, promoting cycling as the main means of sustainable transport for cities and considering the process on the move.

One of the main movements in this direction was the *Critical Mass*⁹, a movement of the 1990s, which appeared in the United States in order to defend the rights of cyclists in the use of public roads, aiming for better conditions to ride and the popularization of the bicycle as a vehicle.

⁹ Such movement arose with the purpose of generating greater visibility on the increase of people who adopt bicycles as the main means of transport. The movement has become known worldwide and has been incorporated into global urban agendas. Their demands have reflected the greater circulation of bicycles and new directions for cyclists. For more information see: <https://bikeitau.com.br/blog/cicloativismo/>. Access on: Jun. 02nd 2023.

In Brazil, this movement ultimately influenced the creation of another cycle-activism movement called **Bicicletada** beginning in 1997, in the city of Blumenau (SC), and in 1998, in São Paulo (SP). The objective was to combat the culture of the car and promote the use of bicycles in the cities. In 2002, the Bicicletada movement also began to happen in other cities, such as Rio de Janeiro (RJ), Curitiba (PR), Vitória (ES), Recife (PE), Fortaleza (CE), Florianópolis (SC), among others.

This culture on the move can be translated into spontaneous movements, encouraged by people or interest groups related to the theme and more formal movements or initiatives supported by governmental bodies and the private sector.

The **Bike Observatory**¹⁰ stands out as a platform that provides publications, events, agenda and news associated with the theme in order to contribute to the dissemination of information in the field of the culture of cyclomobility. Another device of equal importance is the **Brazilian Association of Cyclomobility**¹¹ (ABC), which has been fostering and encouraging the use of bicycles in a context of healthy practice to the body and mind. According to ABC, the experimentation of the city on top of the two wheels gains prominence as it allows you to be sensitive to what's around you, feel and be part of the living city.

In this context, the **School of Bicycle movement**¹² that supports its actions in the relationship between the bicycle and the cyclist, exploring the bias of the displacement of the population to attend its daily activities, seeking social, economic and environmental balance, especially, in a scenario of medium and small cities.

The tenth edition of the **World Bicycle Forum – Rosario 2021 Moving Masses (FMB10)**¹³ held in September 2021 in Rosário, Argentina, still in the midst of a covid-19 pandemic, proposed to raise a discussion with cyclists from several countries. The shared experiences were diverse, with the purpose of bringing people closer to the theme that is highlighted in the countries' urban and environmental agendas.

The **Union of Cyclists from Brazil – @UCB**, still in the pandemic, asked cyclists and pedestrians for help to influence the traffic education campaign, promoted with the support of the Federal Government to score a statement of impact for the National Campaign of Traffic Education that the Ministry of Infrastructure promotes every year. UCB's suggestion was to adopt the slogan “Priority for cyclists and pedestrians” and/or incorporate more suggestions.

The **Revista fraude, UFBA**,¹⁴ in its issue 17, in digital format, presents cycloactivism, a political-social movement, as a lifestyle. And with the objective of spreading this culture on the

¹⁰ The Observatory of the Bike or ObservaBici presents itself as a collaborative platform aimed at training knowledge, educating public opinion, justifying requests and subsidizing the development of actions regarding cyclomobility. An initiative sponsored by Banco Itaú, since 2019, has produced content related to the use of bicycle as resistance and transforming element of society in a context of social political activism. For more information check: <https://observatoriodabicicleta.org.br/sobre/>. Access on: Jun. 02nd 2023.

¹¹ The Association by sharing an agenda of clinical events provides awareness and reproduction of the experience of the living city, aiming to promote articulation between environmental quality and quality of life. Available at: <https://ciclomobilidade.org.br/>. Access on: Jun. 04th 2023.

¹² The idea of the movement is based on the analysis and encouragement of the use of the bicycle in daily practices in medium and small cities. Available at: <http://www.escoladebicicleta.com.br/cicloativismoEB.html>. Access on: Jun. 03rd 2023.

¹³ The call video of the Forum, on the YouTube platform (<https://youtu.be/8Is8-h8lExs>), called for everyone to participate in this moment of transformation of the world, society and cities, from four axes (transformation, empathy, action and being a team) for the purpose of building the reality we want, with balance and confidence, with a bicycle.

¹⁴ *Fraud magazine* is a digital Journal of cultural journalism. For more information, see: <https://www.revistafraude.ufba.br/novafraude/va-de-bike/>. Access on: Jun. 05th 2023.

move and discussing active mobility, the matter highlights the cycle-activism groups that have emerged in the country as a support network movement, such as the Bike Angel initiatives, La Frida collective and Girls on the Pedal help strengthen and unite more and more cyclists. These are initiatives that work from volunteering, where cyclists are ready to contribute to experts in the city by wheels.

The National event **BiciCultura** – Brazilian Meeting of Mobility by Bicycle and Cycleactivism¹⁵ – an annual meeting organized by civil society to celebrate and promote the culture of the bicycle as a means of mobility in Brazilian cities. In its version for 2023, the Floripa Bikeculture¹⁶ will be carried out by the local organization Amobici – Association for Bicycle Mobility and Sustainable modes, in the city of Florianópolis, in Santa Catarina, having as its greatest expression to invite the amateur and professional cyclist to an immersion in the world of the bicycle.

4.2 Urban policies and practices capable of impacting the design and management of the pro-bike city

Some recently published experiences reinforce that view. The first would be the **Paranaense de Ciclomobility Program – CICLOPARANÁ**¹⁷ based on the articulation of sectoral policies of citizenship, road safety, health and education in transit, also seeking to link its practices to the incentive of sustainable tourism in the State.

Linked to the initiative presented, the experience of the **CICLOVIDA – UFPR Program** created in 2008 presents the Federal University of Paraná (UFPR) as the radiator core of a culture of healthier and more sustainable urban mobility with an emphasis on bicycle use. This experience has been reported in a book “Guidelines for the elaboration of public policy of cyclomobility”¹⁸ (2016), disseminating experiences of the program.

On the other hand, we can place the work “Mobility by Bicycle”¹⁹, of 2021, which positions itself in the discussion of mobility and bicycle, contextualizing and justifying its relevance today, the motivations for its adoption, as well as the planning required for its appropriation by the city and government as a public policy, permeating the phases of a planning committed to designing and institutionalizing practices and investments. Another reference of equal importance is the book “Mobility demand management”²⁰ (2020). This work discusses the issue of mobility management, based on pilot initiatives that allow the opportunity to measure

¹⁵ It is a space of conviviality, knowledge sharing and alliance formation between cyclists, cycle activists and other enthusiasts and stakeholders, from all social sectors, actors that converge by the purpose of the democratization of the bicycle in the urban space, in a scenario of environmental sustainability and quality of life.

¹⁶ The video of the event, available on the YouTube platform (https://youtu.be/8iCfuSa_0_w), highlights city exchanges and experiences that the bicycle provides as an opportunity to celebrate a new way of living in contemporary cities. The dissemination can also be appreciated on the website of Bicultural on Facebook. Available at: <https://www.facebook.com/groups/bicicultura.br>. Access on: Jun. 03rd 2023.

¹⁷ Program instituted by State Decree 1517/2015, which translates into implementing actions that consolidate the use of the bicycle as a means of transport, sports and leisure practice in the state of Paraná. Available at: <https://www.conexaoambiental.pr.gov.br/Pagina/Ciclomobilidade>. Access on: Jun. 02nd 2023.

¹⁸ The book has as authors Silvana Nakamori, who is technical-administrative at UFPR, the technician José Carlos Assunção Belotto, who coordinates Ciclovida, and Professor Antonio Goncalves de Oliveira, of the Master's Program in Planning and Public Governance (PGP) of the Federal Technological University of Paraná (UTFPR). This work is available at: <http://www.ciclovida.ufpr.br/>.

¹⁹ The book was promoted by the Inter-American Development Bank (IDB) and the Ministry of Regional Development (MDR) and as Global Environment Facility (GEF) funder.

²⁰ The project was supported by the BID and the MDR, in addition to GEF funding.

its effectiveness and attract support, both from the population and from investors, with a view to financing urban mobility measures which, once integrated with the other measures surrounding city management, they contribute to the articulation of the various modes.

Both projects reflect government initiatives in partnership with an international development agency, reflecting the specificity of the moment in discussing low-carbon urban mobility and the most appropriate management for this confrontation, considering the role of the bicycle as a driver of this transformation.

Another initiative would be the²¹2016 “Mobility per Bicycle in Brazil”²² of 2016, which addresses, from an enthusiastic and critical descriptive line, the production of knowledge to promote mobility by bicycle in Brazil. This work presents a series of practices carried out, with emphasis on the modal bicycle, its appropriation and experiences that can provide cyclists and cities. And in line with the current situation, it relates challenges and obstacles to be considered as subsidies for the formulation of public policies targeted to the segment. As a first national research on the profile of the Brazilian cyclist and his or her motivations, the work stands out, while contributing, for presenting relevant and, in a certain way, unprecedented information about the habit of cycling in ten of the most important Brazilian cities.

Still in the field of publications we can quote the work “Provisional infrastructures for active mobility: mobility cycle measures to adapt the streets in the fight against the pandemic”²³ of 2020. This work is part of the perspective of a handbook of good practice, based on international references to be pursued in the post-pandemic, electing tactical urbanism as a concept to be addressed in the recommended conceptions. The experiences generated by the pandemic have also led cities to opt for encouraging long-term bicycle use. Prioritizing the bicycle has become the main transport policy at a time when we talk about the gradual exit of the confinement (MOREIRA et al., 2020, page 12-13).

Another aspect presented in this work is in line with the ongoing revolution in the world of work, also influenced by the pandemic, called Cyclologistics. According to the authors, this is the sector that covers a series of activities from different sectors: companies, bicycle delivery riders, and the public sector. For the authors, a large part of these services can be performed by bicycle, optimizing delivery times and scales (MOREIRA et al., 2020, pages 16-17). However, the authors draw attention to the need to regulate these practices, such as cyclable practices, reconciling aspects ranging from traffic safety, public safety, parking and rest areas and labor issues. The manual, as the book mentioned may be associated, presents a “study based on examples of changes in the road system, aiming at helping cities to calm traffic and to build secure and low-cost cycle infrastructure as soon as possible” (MOREIRA et al., 2020, p. 56). It is a work of affirmation of the use of the bicycle and of consolidating the modal as a tool for new practices of planning and managing cities today.

This concern, addressed by Araujo et al. (2023) in investigating the potential that cyclomobility can exercise as a public policy, in the context of the municipality of Niterói, it is also transferred to the need to implement an adequate urban design, the extension of which is considered to be since the reorganization of the available road space, on a temporary basis, such as a temporary infrastructure or, beyond that, permanent infrastructure. With the growing and

²¹ This work is organized by Victor Andrade, Juciano Rodrigues, Filipe Marino and Zé Lobo.

²³ For more information, check Moreira et al. (2020).

rapid movement of delivery service applications, their impact on public spaces and cycle-road infrastructure, and how all this fits into the economic and urban dynamics of the city and the citizen's ways of life still needs to be better investigated.

4.3 The culture of the bicycle as a right

On that issue we can place the Article “The turn of the bicycles?²⁴” (2021) to illustrate the multidimensional character of the culture of the bicycle. The authors, still under the impact of the effects of the covid-19 pandemic, discuss how cyclomobility has been highlighted by being a popular and sustainable form of transport. The article reinforces the idea that “bicycle is one of the most sustainable modes of transport, because it does not emit any pollutants, uses human traction and has the best energy efficiency” (CASTRO; BARROS FILHO, 2021, p. 1). They place the practice of cycling as a biosecurity strategy pointed out by the World Health Organization in this pandemic period, and envisions from recent official data the growth of the participation of cyclomobility in relation to all modes of transport, in the scenario of Brazilian cities.

This contribution, to a certain extent, influenced by the circumstances covered by the pandemic and with the increase in bicycle sales, highlights an increase in demand for cyclable spaces. On the other hand, the article reinforces the idea, based on the survey of specific studies, that there was already a trend in progress, before the pandemic, which demonstrated a well-defined profile of the urban cyclist in the country, with low-income people and schooling, by adopting cyclable practices to go to work or shopping, within a weekly routine, in short periods. This profile of socioeconomic vulnerability is influenced by the poor supply of a high quality public transport, enhanced in the pandemic period by the health restrictions imposed. In a way, this situation brings light to the necessary reflection on the adoption of the bicycle as a revolutionary modal, at the pandemic moment, and on how the public spaces would be dealing with this new assignment. In other words, the authors discuss the role that spatial configuration and sectoral policies play in the dissemination of pro-bicycle culture.

From the perspective of the right to the city, the right to mobility, as a social and universal right, the Article entitled “Right to the city and urban mobility: reinventing the modal bicycle” of 2020 presents the contradictions of urban mobility in the contemporary city. In this context, struggling movements arise for the inclusion of the bicycle in daily life and its recognition as a mode of transport, corroborating the inclusion of this modal in urban policy and in the planning of the infrastructure of municipalities, states and the Federal Government, as a right to the city.

In the follow-up, the author points out that even if the guidelines captured by the social movements are presented in a very comprehensive way, in the search for an equitable city, the theme of urban mobility gaining a prominent role, showing the bicycle as a modal drive for transformations in the ways of life of the populations in the cities.

Despite the fact that the cycle usage situation in Brazilian cities is progressively increasing, several stumbling blocks still present, such as the lack of recognition and respect for the modal by a large number of inhabitants, lack of satisfactory infrastructure for the use of the vehicle with reduced risks to cyclists and other citizens, absence of integration between modal and the lack of stigmatization of the bicycle as

²⁴ Article by Alexandre Augusto Bezerra da Cunha Castro and Mauro Normando Macêdo Barros Filho in the Vitruvius platform – Architextos, year 21, n. 248.01.

transport of users “excluded social” and therefore unworthy respect and attention (COELHO, 2020, p. 56).

For the author, the debate on the subject of mobility today, in the Wake of the worldwide concern about the right to sustainable city, reveals a clear demonstration of the full exercise of citizenship, seeking an inclusive city that will preserve the right to freedom of movement, access to quality public transport, a healthy option to experience the city. Challenges and obstacles still persist in obtaining the right to use them, such as cycle infrastructure and traffic safety, demonstrating that “factors such as public bicycle policies and education on urban mobility followed by more severe and criminal civil penalties” (COELHO, 2020, p. 85) need to go hand in hand.

4.4 The bicycle as a means of ecological transport and of socio-spatial inclusion

The debate on the role of bicycle in an ecological and inclusive context can be seen in the European Parliament's contribution, which was recently presented in 2023²⁵, to the development of a European Union strategy for the use of bicycles. This premise considered, in addition to the international pacts referred to by current crises, an indispensable commitment of the Member States to achieving substantial improvements in the framework around the issue of sustainable urban mobility.

Considering the United Nations Sustainable Development Goals (SDGs), in particular Objective 11 on Sustainable Cities and Communities, which considers cycling to make cities and human settlements more inclusive, secure, resilient, and sustainable, the bicycle is recognized as a means of ecological transport and of socio-spatial inclusion.

The document points out that the benefits of bicycle use go beyond the health and reduction of road congestion and noise pollution, the improvement of air quality, economic growth and environmental and social benefits, but to provide a sustainable economy as a mode of transport that is fully entitled to life and the city.

By highlighting the role of bicycle today in cities, the document inspires the reformulation of the institutional legal framework, encouraging companies, public organizations and institutions to promote the use of bicycles by exploiting the synergies that the culture of cyclism offers.

We could not fail to mention, finally, the 3rd of June, which we celebrate World Bicycle Day, with various initiatives to encourage the culture of bicycle use. The Bicycle Observatory page²⁶ summarizes some of the events related to the World Bicycle Day 2023, informing about initiatives practiced by Brazilian cities. The event, known worldwide as “World Bicycle Day²⁷”, has

²⁵ Strategy entitled “European Parliament resolution of February 16th 2023 on the development of an EU strategy for the use of bicycles” (Document 2022/2909(RSP). Available at: https://www.europarl.europa.eu/doceo/document/TA-9-2023-0058_PT.html. Access on: Jun 01st 2023.

²⁶ Bicycle Observatory, created within the framework of the Union of Cyclists of Brazil - UCB, with the objective of collaborating in the dissemination of knowledge and articulating initiatives to promote cyclomobility. Available at: <https://observatoriodobicicleta.org.br/dia-mundial-bicicleta-2023/>. Access on: Jun. 05th 2023.

²⁷ International event for the dissemination of the use of bicycles in the world, which has its trajectory based on an academic project, created by Professor and researcher Leszek Sibilski. Available at: <https://blogs.worldbank.org/transport/world-bicycle-day-meet-man-who-made-it-happen>. Access on: Jun. 05th 2023.

emerged as a research effort supported by the United Nations²⁸. There was the recognition of cycling as a right and subject of all, above all, by introducing a “new city vision that presents itself as inclusive and sustainable” (FABIANO, 2016, p. 10).

5 CONCLUSION

It was chosen here to detail this article to the debate that the theme has been providing, today, from some points of view that validate to present the use of the bicycle as a means of transport not only capable of changing the patterns of mobility of the city, but how to provide a more inclusive city landscape socially and ecologically.

Many experts have said that the bicycle meets all 17 SDGs in the UN 2030 Agenda, in a comprehensive way, because that modal shift transforms cities and cities.

From the point of view of the municipality of Niterói, despite the municipal sustainable urban mobility plan, it is committed to encouraging connections with other modes, for authors such as Araujo and Aguiar (2021), Carneiro (2020) and Menezes et al. (2021), the challenge is to enhance the integration of urban mobility systems, prioritizing collective public transport and encouraging active modes, especially bicycle, but without failing to contemplate, as well as Berto advocates (2016), its articulation with digital mobility. The city, not unlike other Brazilian municipalities, presents a movement of expansion of cycle-road infrastructure based on the National Urban Mobility Policy. But much still needs to be done!

However, road infrastructure tends to make the task of implementing bicycle routes a path without return, the attempt to integrate it into the existing urban fabric, to deal with urban sprawl, with the uneven distribution of urban equipment and land use, they are presented as challenges that need to be faced with planning, creativity and investments.

In this sense, some issues stand out in the universe studied as fundamental to insert the bicycle in the design of this contemporary city, either through the vies of the articulation of cycle mobility to the city's mobility policy, or through the challenge imposed by a pro-bicycle culture, through conciliation with multiple interests articulated to digital platforms and common users, demanding necessary readequacies, in addition to the transformative potential that the bicycle exercises over urban space, adding to this a more inclusive, diverse and democratic character. However, the role played by the bicycle reveals a concern for the future of the city, for the citizen and for the environment, it is expected that the reflections presented here will serve to encourage discussions on the prospects of cyclomobility as a culture in motion, inspiring new research and practices.

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²⁸ On April 12th, 2018, this successful initiative was supported by all 193 UN member States in adopting the General Assembly Resolution (A/Res/72/272), which declared 3rd of June as World Bicycle Day.

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