Article

Resilient cities and the dispute about the risk and disaster reduction agenda discourse

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Resilient cities and the dispute about the risk and disaster reduction agenda discourse

Abstract

Resilience is a concept used to reflect on how to deal with the dynamics that arise after disturbances caused by a natural hazard. It emerges as a key concept for thinking about forms of recovery and reconstruction that seek not only to return to pre-disaster normality, but to question and overcome the vulnerability. Based on the Pecheutian discourse analysis method, the concept of resilient cities is problematized, mobilized as a sign of fictitious capital in the era of financialization of housing and urban space, transforming environmental disasters and the climate crisis into yet another business model. Rescuing the meaning of socio-ecological resilience and articulating it to the theories of socio-spatial practices of resistance and common spaces, it becomes possible to think of resilience to disasters not as a neoliberal category, but as a social, political, and collective practice of adaptation and mitigation to climatic changes.

Keywords: resilience; disaster; urban space.

Cidades resilientes e a disputa sobre o discurso da agenda de redução de riscos e desastres

Resumo

Resiliência é um conceito que busca refletir sobre como lidar com as dinâmicas que surgem após perturbações causadas por um evento natural perigoso (como deslizamentos). Ela surge como um conceito-chave para se pensar formas de recuperação e reconstrução que buscam não somente retornar à normalidade pré-desastre, mas questionar e superar a vulnerabilidade das populações expostas. A partir do método de análise de discurso pecheutiana, problematiza-se o conceito de cidades resilientes, mobilizado como um signo de capital fictício na era da financeirização da moradia e do espaço urbano, transformando os desastres ambientais e a crise climática em mais um modelo de negócios. Resgatando o significado da resiliência socioecológica, e articulando-o às práticas socioespaciais da resistência e aos espaços *comuns*, torna-se possível pensar a resiliência a desastres não como uma categoria

neoliberal, mas como uma prática social, política e coletiva de adaptação e mitigação às mudanças climáticas globais.

Palavras-chave: resiliência; desastre; espaço urbano.

Ciudades resilientes y la disputa sobre el discurso de la agenda de reducción del riesgo de desastres

Resumen

Resiliencia es un concepto utilizado para reflexionar sobre cómo hacer frente a las dinámicas que surgen después de las perturbaciones causadas por un peligro natural. Surge como un concepto clave para pensar formas de recuperación y reconstrucción que busquen volver a la normalidad previa al desastre, y también cuestionar y superar la vulnerabilidad. A partir del método de análisis del discurso pecheutiano, se problematiza el concepto de ciudades resilientes, movilizado como signo de capital ficticio en la era de la financiarización de la vivienda y el espacio urbano, transformando los desastres ambientales y la crisis climática en un modelo de negocio. Rescatando el significado de resiliencia socioecológica y articulándolo a las teorías de prácticas socioespaciales de resistencia y espacios comunes, se hace posible pensar la resiliencia no como una categoría neoliberal, sino como una práctica social, política y colectiva de adaptación y mitigación a lo cambio climático.

Palabras-clave: resiliencia; desastres; espacio urbano.

Initial considerations

The field of disaster studies is a dynamic interdisciplinary research arena. In recent decades, the concept emerging in the discourse on disaster risk is resilience (Berke; Campanella, 2006; Turner, 2010; Cutter, 2019). Resilience is understood as a concept that points to the problem of how to deal with rapid changes in the environment around us – as in the case of a socio-ecological disaster (Kuhlicke, 2013). From a risk perspective, resilience aims to build, develop, or reinforce response and adaptability capabilities in local communities or even entire systems, whether recovering from past or preventing future disasters.

However, resilience, an emerging category in Ecology, began to be translated into resilient cities rather than resilient systems or societies. The hypothesis of this discursive shift is guided by the advancement of new global urban agendas driven by neoliberalism. This process is understood as a "scientificization of politics," as Acselrad (1999) points out in his reflections on urban sustainability. So, here we start with the question: Would this agenda be another strategy for implementing the *city-company metaphor* that projects some of the supposed attributes of investment attractiveness onto the "resilient city?"

To understand this discursive shift in resilience, this article undertakes a discourse analysis (Orlandi, 2012; Pêcheux, 2008) of texts enunciated by the United Nations Office for Disaster Risk Reduction (UNDRR) and the World Bank, which are: (1) the *Handbook for local government leaders* (UNISDR, 2012); (2) the report *Options for Disaster Risk Financing in Brazil* (Banco Mundial, 2014).

The choice of discourse analysis as a method resides in understanding the meaning used for resilience, an essential category in today's risk and disaster management agenda caused by geological and hydrological phenomena. At the same time, other signifiers that appear linked to it in these documents and guidelines (which also guide public policies on a national scale) are indicated, highlighting the place, both material and symbolic, from where the discourse and its conditions of production are enunciated. Based on this analysis, resilient cities are problematized to the detriment of socio-ecological resilience.

The rationale for this analysis is based on the fact that the class occupying dominant positions in social space also occupies dominant positions in producing representations and ideas (Acselrad, 1999). After all, whoever dominates the discourse dominates the world that this discourse expresses and that is implicit in it. Finally, reflections are proposed on the *socio-spatial practices of resistance*, a concept proposed by Ribeiro (2018), based on the idea of commonality (or the *commons*) as a possibility of dispute around the meaning of the significant *resilience*.

Resilient cities and neoliberal appropriation

In the economic policies of the capitalist system, the house is transformed from a social asset into a financial asset centered on accessing wealth. Use value is subordinated to exchange value (Harvey, 2017; Marx, 2015). The commodification of housing and its use as an asset embedded in a globalized financial system profoundly affects the exercise of the right to adequate housing worldwide (Rolnik, 2019). In Brazil, for example, if the land is not economically equitable for the entire society, it is impossible to talk about access to housing in environmentally safe locations – concerning areas at risk of disasters. Safe and urbanized places are not widely available because real estate speculation has pushed a large part of the population into areas of environmental risk.

In New Orleans, United States, after the disaster caused by Hurricane Katrina in 2005, African Americans and impoverished people were the most affected because they lived mainly in flood-prone areas. The post-Katrina response actions by the federal and state governments were insufficient to guarantee the affected population's access to affordable housing, mainly because it involved supporting low-income tenants (Rolnik, 2019). In 2010, in Pakistan, people displaced by floods consisted mainly of landless workers living in temporary or semi-permanent places (Rolnik, 2019). Although land tenure and ownership conditions are included in reconstruction agencies' reports, they are rarely addressed in policies, strategies, and priorities implemented for post-disaster needs.

The 2010 earthquake in Haiti, in turn, worsened and highlighted the terrible conditions that characterize the informal settlements in which the majority of Port-au-Prince's population resided. These settlements were self-built, and authorities never formally recognized them. Reinforcing precariousness, they had access to little or no infrastructure and essential sanitation services. Sixteen months after the earthquake, 634,000 people still lived in around 1,000 temporary occupations improvised by the government (Rolnik, 2019). Furthermore, the slow decline in the number of people in these camps suggests they had nowhere else to go. Alternatively, they decided that, no matter how precarious the conditions were, they were still better than their places of origin.

The examples mentioned above, reported by Rolnik (2019) after her field experience as rapporteur for the UN Right to Adequate Housing, show how the condition of occupation of areas susceptible to disasters is directly related to housing policies and territorial planning in cities. The impact on the rights to land and housing of the poorest and most vulnerable is essential to the global process of financialization of cities. The exposed and affected people find themselves at the mercy of the interest of rentier capital or the political goodwill of the State.

Other elements are added to this territorial analysis: the right to the city is inseparably related to the crossings of gender and race. Akotirene (2020) uses *intersectionality* intending to give "theoretical-methodological instrumentality to the structural inseparability of racism, capitalism, and cis-heteropatriarchy" (Akotirene, 2020, p. 19). This intersectionality (re)produces segregations in urban space that result in ghettos, peripheries, *favelas*, and subnormal agglomerations – there are several names for socio-spatial vulnerability. This segregation conditions (non-) access to urban facilities and public services by postal code, a characteristic of the racialized socioeconomic apartheid of Brazilian territories (Gonzalez, 2020, p. 85). Furthermore, with more than half of the world's population currently living in urban areas and climate change bringing increasingly noticeable impacts, building cities safer from disasters triggered by extreme weather events – which are increasingly recurrent – is a challenge. Amid these issues, and with the advancement of international debates about climate change, the discourse of the *resilient city* emerges.

According to the document *Handbook for local government leaders*, prepared by the United Nations Office for Disaster Risk Reduction (UNDRR), "extreme and changing climate, earthquakes, and emergencies triggered by man-made hazards are increasingly putting pressure on people and threatening the prosperity of cities" (UNISDR, 2012, p. 7). Therefore, resilience, risk, and disaster reduction must be considered central elements in urban territorial planning. In

this sense, the handbook (UNISDR, 2012) aims to "support public policy, decision making and organization as they implement disaster risk reduction and resilience activities" (UNISDR, 2012, p. 7). The publication presents practical guidance for understanding and applying ten essential steps for building resilient cities, as described in the global campaign *Making Cities Resilient: My City Is Getting Ready!*

The document provides "an overview of key strategies and actions needed to build resilience to disasters, as part of an overall strategy to achieve *sustainable development*" (UNISDR, 2012, p. 7 [emphasis added]) because "Climate change and extreme weather events are likely to increase the city's exposure to hazards and risks. DRR[1] is an *investment*… it increases business returns" (UNISDR, 2012, p. 7 [emphasis added]). These statements allow us to raise the hypothesis that the disaster agenda has been mobilized as an opportunity for new business models, given that sustainable development rests on the centrality of economic mechanisms with privatizing interests guided by a "green economy." As Moreno (2016) points out, from this perspective, the environmental crisis would not be a political issue but a market failure that a market solution must correct.

There is, therefore, a fetishization of abstract theoretical definitions of resilience for the reality of the built environment that depoliticizes the debate. These abstractions hide the actual forces that act to produce observed forms in spatial organization (Gottdiener, 2010). The interactions between hegemonic discourse, power relations, and social innovations guide governance models and trajectories of resource involved in risk and disaster management (Paidakaki; Moulaert, 2017). Consequently, the effects linked to the determination of land use and exchange values, the role of economic forces in spatial organization, monopolistic spatial control, and the importance of the State in the production of the built environment (Gottdiener, 2010; Rolnik, 2019) need to be considered in resilience research.

Who would benefit from the mobilization and imposition of a biased understanding of resilience, and for what purpose? This issue emphasizes the need to show the background behind the production of urban space and the perpetuation of the vulnerability of populations exposed to environmental risk. Without considering this gap, efforts to build resilient cities become neoliberal forms that reinforce socio-spatial segregation and do not contribute to reducing the risk of urban disasters, especially in the Global South.

So far, few studies have revealed the contentious nexus between pro-equity and pro-growth rhetoric, resilience plans, and disaster governance, as Paidakaki and Moulaert (2017) point out. The concept of a resilient city, appropriated by neoliberalism, has become a sign of fictitious capital contributing to urban gentrification. Disaster resilience in territories thus acquires a symbolic value that translates into the potential for exchange value; after all, it mobilizes a series of interventions in space that contribute to real estate speculation. One of the main drivers of global population displacement and dispossession processes is extensive infrastructure and urban renewal projects for post-disaster reconstruction (Rolnik, 2019).

1 DRR: Disaster Risk Reduction.

Several social facts exemplify this "success story" – to use market language. After the devastation caused by the 2004 tsunami in the Maldives Islands, in the Indian Ocean, the relocation of the local population living in areas considered at risk caused a profound impact on their subsistence activities, as they were fishing populations. On the other hand, after its removal by the State, resorts for luxury tourism emerged in these areas (Rolnik, 2019). In Chile, in 2010, after the earthquake followed by the tsunami, the reconstruction of the affected areas was the private sector's responsibility. However, the construction companies built the new homes in areas located on the city's outskirts, not in the central areas – valued and of interest to the market – where residents lived before the disaster (Rolnik, 2019). These examples show how dispossession in risk areas often serves interests guided by the logic of economic power.

These practices point to a new form of colonization, which operates through the superimposition of structured projects based on a business model that aims to replace existing life forms in the territories. The post-disaster scenario provides a space for action for capitalist social relations to renew themselves. Thus, land and labor are mobilized in order to produce commodities (housing) with an eye towards the fulfilment of embodied exchange value. This, in turn, renews cycles of accumulation of wealth(Harvey, 2017; Moreno, 2016).

The handbook for resilient cities (UNISDR, 2012) translates into economic terms the costs and business and profit opportunities of climate change and the environmental disasters. Socio-ecological crises, therefore, are transformed into an economic case. The following excerpt demonstrates this discursive orientation:

> *Businesses and private investors* may shy away from cities with a perceived indifference to disaster risk reduction actions. Integrated disaster risk management is *more attractive* when it simultaneously addresses the needs of different audiences. (UNISDR, 2012, p. 19) [emphasis added]

The speech production conditions in UNDRR documents point to the context in which "public policies are planned, and decisions are made to implement disaster risk reduction and resilience actions". (UNISDR, 2012, p. 7). Which ultimately defines the orientation of urban planning processes and the trajectories of the scientific and political discourse on disaster resilience (Paidakaki; Moulaert, 2017). Furthermore, UNDRR's discursive orientation focuses on resilience as an objective, a result to be achieved in the search for sustainable development, shifting its central role from a process that would involve a series of events, actions, and changes that would increase the adaptive capacity of the community affected by a disaster.

Nevertheless, the resilient cities handbook analyzed here presents a discourse close to the interests of the most extensive financial capital media coverage group, The Economist. Belonging to The Economist Group, Economist Impact is both a think-tank and a media brand that aims to "engage an influential global audience." Under its umbrella is the Sustainability Project, The Economist Impact's first major initiative, which combines the capabilities and expertise The Economist known for – policy research and insights, data visualization, custom storytelling, events, and media – under a single business. (The Economist, 2021). This think-

tank works by partnering with corporations, foundations, NGOs, and governments on topics such as sustainability, health, and the changing shape of globalization to, according to them, "catalyze change and in the world enable progress" (The Economist, 2021).

The Safe Cities Index 2021 is a report from The Economist Intelligence Unit that classifies the safest cities, among other parameters, to extreme weather events (The Economist, 2021). The report is based on an iteration of the index that ranks 60 cities across 76 indicators covering health, infrastructure, and digital, personal, and environmental safety. According to Economist Impact, it is necessary to invest in infrastructures resilient to the effects of climate change and environmental degradation, in Nature-based Solutions, and in disaster warning systems, which is why this assessment is relevant. The group's interest lies in creating models of partnership and collaboration and leveraging collective strengths to unlock opportunities, driving, according to them, progress.

Another business model that opens up in disaster scenarios is that of insurance companies. According to the report *Options for Disaster Risk Financing in Brazil* (Banco Mundial, 2014), in recent years, several insurance companies have started operations in Brazil, at the same time as there was a trend towards consolidation of the leading insurance companies. In 2011, 116 insurance companies operated in the country, but around 60% of total basic insurance premiums were concentrated in the seven largest insurance groups. Brazil has the most extensive primary insurance market in Latin America (1.08% of GDP) (Banco Mundial, 2014). For the World Bank, greater private property insurance coverage would reduce government liability concerning these sectors. However, a contradiction can be noted: despite the State being responsible for guaranteeing access to decent housing in safe areas, as recommended by the Universal Declaration of Human Rights and the Brazilian Federal Constitution (FC), there is an attempt to remove responsibility for this agent.

Structural vulnerabilities cease to appear as collective processes of denial of rights and become established as a problem to be technically managed, faced with addressing poverty issues in terms of focused and local assistance, with the mediation of the financial market. This fact is evidenced in the following excerpt from the World Bank report:

> Developing a national disaster risk financing and insurance strategy would strengthen the Brazilian government *fiscal resilience* as well as that of local governments, removing funding gaps that amplify the effects of natural disasters on economic activity and welfare, while simultaneously promoting prevention and *resilient reconstruction*. (Banco Mundial, 2014, p. 13) [emphasis added]

In the excerpt above, it is noteworthy the orientation toward promoting "fiscal resilience," "removing funding gaps that amplify the effects of natural disasters on economic activity and welfare" (Banco Mundial, 2014, pp. 7, 11, 12, 20). In this case, resilience to disasters becomes guided by the search for resilience in the economic system. Linked to financial capital, private institutions benefit from the socioeconomic abyss that structures our societies to turn the gears

of capital, even in the scorched earth scenario that constitutes disasters. There is a neoliberal appropriation of resilience as "business opportunities" (UNISDR, 2012, p. 16) for the expanded reproduction of capital.

In *A Workbook on Planning for Urban Resilience in the Face of Disasters* (Shah; Ranghieri, 2012), prepared by the World Bank, five components relevant to development, climate change, and disaster risk management are established. Among them, component 4 stands out, which deals with a family revolving fund for the sanitation program. The World Bank suggests:

> Revolving funds will be established in each city to *provide small loans for construction of household sanitation facilities*. [...] Eligibility criteria and loan terms and conditions are designed to en*sure that low-income households are able to access the loans*. (Shah; Ranghieri, 2012, p. 145) [emphasis added]

Once again, attention is paid to the lack of responsibility of the State as an agent promoting environmental public health and the right to the city and dignity, as recommended by the FC. According to the World Bank, the use of loans to finance works and services that are the responsibility of the State is considered a planning guideline for urban resilience in the face of disasters. This is yet another facet of the capitalization of disasters and neoliberalism, which individualizes false solutions to collective and social problems.

Peripheral countries are today under the aegis of the predominance of rentierism, such as financialization and reprimarization, which highlights new and old forms of extractivism and has repercussions on the production of urban space (Ribeiro; Diniz, 2022). This is corroborated by the observation that, in these countries, long-term (risky) bank loans for the industrial productive sector were replaced by short-term loans for low-income families (less risky) (Kaltenbrunner; Painceira, 2008). It is also worth noting that the guidelines prepared by the World Bank (Shah; Ranghieri, 2012) are based on management and DRR experiences in Vietnam, a country considered underdeveloped, reiterating the hypothesis of updating colonial practices of plunder by neoliberalism.

Therefore, it is believed to be essential to consider the forms of overdetermination imposed by the mode of production and organization of space and occupation of risk areas, which influence the proposition of disaster resilience plans. This is the way to understand the panorama of resilience to disasters – driven, in recent decades, by the slogan of "resilient cities" – and what is at the essence of the discursive process that involves the resilience category in international agendas (which influence urban planning and management and DRR at the national level). However, resilience, as a research category in the sciences that proposes to think about management and DRR, emerges in a different context from which it has been mobilized over the last few decades by financial capital and neoliberal urban agendas. Therefore, it is essential to historically recover the epistemological conception from which the resilience category originates.

Socio-ecological resilience: neither mechanism nor abstraction

The resilience category has been used in several fields, especially in DRR. However, there are multiple definitions of resilience in the literature. Resilience is derived from the Latin word *resilio*, which means returning to a previous state. In Ecology, it gained popularity after the work of Holling (1973), entitled *Resilience and Stability of Ecological Systems*. However, part of the literature states that the study of resilience evolved from the disciplines of Psychology and Psychiatry in the 1940s, based on the analysis of the risks and negative effects of adverse events in children's lives, such as divorce and traumatic stressors (abuse, neglect, and war, for example) (Manyena, 2006). Anyway, the concept appears in different areas, highlighting its capacity and conceptual potential as a field of interdisciplinary and transdisciplinary dialogue.

The emergence of multiple conceptualizations of resilience in the environmental science literature came from three areas of research: climate change (Adger, 2006), natural hazards (Cutter; Ash; Emrich, 2014), and sustainability (Turner, 2010). More recently, Cutter (2019) has tried to converge the first two when addressing the issue of community resilience to climate-sensitive natural risks and climate change. This approach is urgent based on the assumption, already demonstrated in studies (Benevolenza; Derigne, 2019), that climate change directly interferes with disasters caused by natural phenomena (such as droughts, floods, and landslides), making them more frequent and more intense. Furthermore, in a hegemonic and unequal mode of economic production, the concentration of land and wealth and the extraction of profits through the exhaustion of natural resources contribute to the intensification of the problems that arise in both theoretical lines. This fact makes converging debates even more necessary to construct a commonplace of ideas.

For some resilience researchers, it is necessary to consider the dynamics and complexities that occur in socio-*ecological* interactions (Adger, 2006; Berkes; Colding; Folke, 2003; Turner *et al.*, 2003). This perspective recognizes the synergy and interdependence between society, the natural system, and the built environment (Adger, 2006). Natural systems refer to geophysical and biophysical processes, while society is built from rules and institutions (Berkes; Folke, 1998). The socio-ecological view of totality reflects the idea that human actions and social structures are integral to the natural environment and, consequently, the dualistic distinction between nature and society is arbitrary, an abstraction of reality (Adger, 2006). Even because social interactions occur in the natural system and mediate the metabolic interaction with the planet and the modes of production of the built environment, this is a point that Marxist ecology seeks to rescue, as does the work of Foster (2005) and Saito (2021).

In this sense, the characterization of *socio-ecological resilience* includes not only the capacity of the affected system to return to the state(s) that existed before the disturbance but also to advance through a state of learning and adaptation – "build back better" (Adger, 2006; Cutter *et al.*, 2008; Folke; Colding; Berkes, 2003). Given this, resilience to disasters involves three parameters: (1) response to the disturbance, (2) ability to self-organize, and (3) ability to learn and adapt (Folke; Colding; Berkes, 2003). Cutter *et al.* (2008) conceptualizes resilience as:

> The ability of a social system to respond and recover from disasters and includes those inherent conditions that allow the system to absorb impacts and cope with an event, as well as post-event, adaptive processes that facilitate the ability of the social system to re-organize, change, and learn in response to a threat. (Cutter *et al.*, 2008, p. 599)

It is also necessary to situate disaster resilience as a result or process. It can be seen as a concept that describes the desired outcome of a DRR program (Manyena, 2006). As a process, resilience can be defined as continuous learning and accountability for decision-making that increases the ability to deal with hazards (Cutter *et al.*, 2008). The problem of treating resilience as an outcome, as recommended by the resilient cities handbook proposed by the United Nations Office (UNISDR, 2012) and the metrics accompanying it, lies in the tendency to reinforce the traditional disaster management practice of reactive orientation. In turn, treating resilience as a process involves a series of events, actions, and changes that increase the ability of the affected community to face shocks and stresses, emphasizing the human role in disasters and historical development (economic, social, and political) of the condition of vulnerability.

Methodologies have been developed to calculate the resilience index (Cutter *et al.*, 2008; Cutter; Ash; Emrich, 2014) and the vulnerability index (Cutter; Boruff; Shirley, 2003). Unlike vulnerability to disasters, expressed in geographic census variables, such as monthly income, racial distribution of the population, access to sanitation, age group, etc., the resilience and adaptive capacity of a community cannot be measured, as they are anchored in subjective elements of coping with disaster. Vulnerability, however, can and needs to be quantified, as it informs us about the material reality of territories. However, data alone are not enough to understand the genesis of the processes of socio-spatial segregation and the anthropic production of disasters, whose qualitative-quantitative data analysis cannot do without a historicized contextualization of urbanization and the occupation of risk areas.

Mechanistic research suggests the existence of laws that determine the evolution of societies and make it possible to predict the results of collective actions. An idea that does not consider the subjectivity of each individual. Thus, the hypothesis of mechanistic determinism is unfeasible since the totality of reality cannot be reduced to the sum of the parts into which we divide it to observe and measure. Therefore, resilience is an unquantifiable category for dealing with the reality of disaster. At the same time, the importance of collecting data for territorial analysis is highlighted here to guide the direction of public policies and social interventions for more efficient risk management.

The dichotomy between realistic-objective and idealistic-subjective epistemological paradigms translates into opposing quantitative and qualitative research methods and techniques. However, the opposition between quantity and quality can be considered complementarity without ignoring each approach's peculiarities and limits. After all, it is not a question of hierarchizing quantitative and qualitative methods but of understanding that the choice of methods for spatial analysis actually depends on the research question.

It is necessary to establish a common place where it is possible to address both perspectives. It is crucial and necessary to quantify specific parameters to guide the formulation of public

policies, such as vulnerability. However, non-mechanistic research means considering local perspectives, knowledge, and ways of life so that territorial planning becomes horizontal and built on democratic and participatory decision-making, essential for strengthening the socio-ecological resilience of the territory. This will make it possible to think about resilience to disasters in a way that does not limit itself to the limited quantitative character presupposed in metrics that express "discourses in dispute over the most legitimate expression" of sustainability and resilience (Acselrad, 1999).

That said, refusing the non-dialectical movement of importing external DRR and generic resilience parameters and policies is necessary. In this sense, it is necessary to bring ontological, historical, geographic, and political conceptions about the urban crisis that involves disaster scenarios. Although vulnerability represents the potential for losses (Cutter; Boruff; Shirley, 2003) – regardless of material or immaterial loss – it varies geographically and over time, according to different social groups and the parameters adopted in analyses. This means that vulnerability varies across time and space. And resilience, too.

Vulnerability to disasters as a historical process

A disaster is the product of the convergence, at a determined time and place, of two factors: *threat* and *vulnerability* (Wilches-Chaux, 1993). *Vulnerability* is, by definition, eminently social, as it refers to the conditions and characteristics that prevent a given social system from adapting to a change in the environment. Similarly, *risk* is also, in essence, a social factor since a natural phenomenon only acquires a risk status when its occurrence is expected to affect a space lived by the population vulnerable to that phenomenon (Wilches-Chaux, 1993). Thus, it is stated that (socio)natural disasters also constitute social phenomena.

The risk that arises after human occupation in geologically sensitive areas is aggravated by the deforestation of the slope and the lack of sanitation and rainwater drainage systems. The absence of urban facilities is common in these already exposed and vulnerable areas, especially regions without land tenure regularization, with no legal support for public authorities to provide essential services. Therefore, due to vulnerability, new risks may arise for the exposed group or adjacent areas (Wilches-Chaux, 1993). This is how the risk of mass movements and floods appears as a consequence, often, of settlement in geotechnically unstable areas without urbanization – mainly composed of populations economically incapable of carrying out costly mitigation works and bearing the costs of housing in neighborhoods that are environmentally safe and urbanized. As a result, vulnerability elements intersect, producing escalating risks.

Although structural processes of inequality and social injustice are present in the persistence and spread of disasters across the country, the way these crises have been interpreted institutionally also contributes to this problem (Valencio, 2014). The "institutional technical and operational personnel practices," as Valencio (2014) calls it, are guided by mechanistic discourses that treat risk management based on purely quantitative indices, based mainly on the constructive characteristics of housing – such as its infrastructure and location. From this perspective, vulnerability and resilience are treated in housing terms, as if the built environment were the object of DRR actions.

Despite this, it is possible to think of resilience as a collective strategy for adaptability and response to disasters. Thus, resilience would aim not only to return to the pre-disaster state of "normality" but to question this so-called normality and move forward concerning the material and vulnerability conditions that existed before the disaster and worsened by it. This also starts from questioning the viability of agendas for resilient cities that impose unattainable objectives for peripheral capitalist countries, such as Brazil, when a paradigmatic change that aims to be anti-colonial is not debated.

The theoretical-epistemological construction of *socio-ecological resilience* in the sciences that study management and DRR emerges as a discursive dispute of conceptual narrative. When thought of from anti-colonial epistemologies, resilience, as a category, seeks to confront the space occupied by guidelines imposed by the World Bank and multilateral bodies in which decision-making is the responsibility of countries at the center of the capitalist system. Bodies and countries that do not centralize colonization as a structuring element of peripheral urbanization (Ribeiro; Diniz, 2022) and disaster scenarios as products of modernity. In this sense, the practice of resistance and the theory of the *commons* emerge as a possibility of confrontation and dispute around the category of resilience, currently appropriated by neoliberalism.

The socio-spatial practice of resistance and the resilience of the *commons*

As the discourse analysis demonstrated, resilience was transformed into a sign of fictitious capital linked to a business model in the era of the financialization of the city. As a result, the disaster scenario, although imminent, becomes a space for action for capitalist social relations to renew themselves. As it is known, the production of space is the objective and object of capitalist accumulation strategies that deepen social inequalities expressed spatially. Thus, socio-spatial segregation – concurrently economic and racial – is promoted, which results in risk scenarios based on this differentiation of space. Lefebvre (2000) presents the dialectical triad of the production of space in modernity that, in one way or another, leads to urban environmental disasters: *homogenization*, *fragmentation*, and *hierarchization*.

The tendency towards homogeneity facilitates management and control methods and the repetition of production processes (such as the metrics and guide for resilient cities highlighted here). Fragmentation is represented in the smallest parcels in which lots are divided around private appropriation, with plots of land divided into smaller parts, organizing an also fragmented city experience, as the possibilities for socializing in *common* spaces are cut off. Hierarchization, in turn, socio-spatially segregates according to class, race, and gender: industrial spaces, residential spaces in affluent neighborhoods, spaces for the marginalized, and violent and environmentally unsafe spaces for specific groups. As a result, contradictions and conflicts of class, race, and gender are also engraved in the spatial forms of cities.

The *practice of resistance*, in turn, materializes in an experience of these conflicts that tensions norms, prohibited codes, and jurisdictions, thus employing ways of life that are unproductive to capital and confronting these determinations. This resistance takes place in different ways, whether by occupying abandoned properties, bringing together marginalized ghettos in empty spaces, organizing acts of street closures and political demonstrations, or

articulating collectively in moments of response to disasters (anticipating the public authorities' action). Resistance, therefore, goes in the opposite direction to fragmentation, as it presupposes a collective movement in relationship with the Other and the experience of the Other.

Since spatial production is a condition, means, and product not only of material production but of social reproduction, it involves understanding that these spatial forms are organized on different scales, ranging from the city or a productive park to the home. In the socio-spatial practice of resistance, the scale of analysis starts from the place and everyday practices, where the relations of production and reproduction of life are constituted in their minimum cell. (Ribeiro, 2018). The place is the real and material foundation for using time, where life unfolds and identities, bonds of trust, recognition, and belonging are built (Ribeiro, 2018).

It is essential to highlight the importance of these emotional ties to the territory, considering that the collective political body constitutes a circuit of affections (Safatle, 2016). Fear as a central affection of social cohesion drives us towards the logic of the condominium, as there is a fear of others, public space, and what comes from outside the family nucleus. This is a central element in thinking about resilience since Wilches-Chaux (1993) understands vulnerability to disasters as a synonym for insecurity: insecurity for existence, insecurity facing everyday history, and insecurity in the face of the surrounding world. In a society governed by the expectation that the threat of danger may materialize, individual insecurities do not disappear. They transform, making it difficult to build resilience in territories.

"The reorganization of the housing and public space structure is a question of labor, power, and safety" (Federici, 2019, p. 353). In this sense, the geographic aspect of cities becomes a facilitator for gender, class, and racial vulnerabilities. Poorly lit and deserted streets, walls getting higher and higher, and people shutting themselves in their homes. This is the inverse logic of occupying urban space. If the street is dark and empty, there is a fear of occupying it. If the space is not occupied, it then remains empty. Thus, violence and fear feed each other, generating a circuit of affection that leads us to individualization and *defragmentation* as a collective body. At the same time, those who live in a risk area have fear as a central affection, whether living with the possibility of an imminent disaster – a fear that worsens considerably during rainy periods – or the fear of expropriation due to the interdiction of housing by the authorities responsible for supervision.

Affections concern "our capacity for interactivity, our capacity to move" (Federici, 2019, p. 338). Sociability networks are woven from the place and the affective relationships that are established there. It is also where the foundations of a broader resistance unfold and are built, enabling the emergence of political reflection and strategies that escalate these practices to other scales. Ribeiro (2018) draws attention to the fact that this process, in turn, is neither linear nor evolutionary, as it presents ruptures and discontinuities influenced by the political situation. At the same time, these socio-spatial practices of resistance record in space a grammar of struggle that produces material forms. When we occupy space in certain ways to the detriment of others, circulating specific affections to the detriment of others, we leave these modes of occupation recorded. After all, the conception of Marxian historical and dialectical materialism focused on

Hegelian idealism precisely to bring light to the concreteness of material life. In other words, we imagine space as we produce it in a dialectical relationship.

In this sense, it is not enough to just map conflicts, risk areas, and resistance practices related to them. A thought-action needs to understand and qualify how these practices work to impede, even if local and/or temporally located, the reproduction of the commercial logic of space and the forms of life that take place there. However, the emergence of revolutionary subjects puts capital at risk, and precisely for this reason, the oppression of these spatial insurgencies is the primary way to contain them. Precisely for this reason, a neoliberal spatial and ideological production tends to atomize subjects into increasingly smaller nuclei, united by fear, removing them from the (co)living of communal spaces.

This atomization of the collective body into groups that do not communicate hinders the ability for mobilization, response, adaptation, and resilience. In an abrupt landslide scenario, older people who live alone, people with disabilities who need mobility assistance, and single-parent families headed by women with young children are examples of conditions that increase vulnerability to disaster. When there is no individual awareness of the conditions in which the surrounding community is inserted, the ability to respond to avoid loss of human life in these events and the recovery and resilience ability of that territory is reduced.

As Federici (2019) states, if the idea of *commons* has any meaning, it must be the production of ourselves as a common subject, as there are no *commons* without community. Not a community understood as a surrounding reality, a group of people who come together for competing interests that separate them from others, but "community as a quality of relations, a principle of cooperation and responsibility" (Federici, 2019, p. 318). At this point, it is essential to highlight that socio-ecological resilience to disasters considers social and ecosystem interrelationships at different levels. The socio-ecological resilience emerging from Ecology, therefore, does not atomize the subjects, being, essentially, a collective category. At the same time, the resilience that denies its neoliberal categorization – as in the case of resilient cities – starts from construction with a centrality in the social, not infrastructural, character. It is not the city and construction that need to be resilient, but society and the urban ecosystem.

Thus, it becomes possible to think of resilience as a social, political, and collective practice. After all, the future of cities will also depend on the co*ncepts that constitute the future project* constructed by the relevant agents in the production of urban space (Acselrad, 1999). With disaster resilience being one of the concepts currently evoked, this work sought to expose a relationship between the "socio-spatial practice of resistance" and the production of *common* spaces to overcome the commodification of territory in disaster scenarios. The article's proposal is guided by a thought-action that considers the struggle for space as a central axis in constructing a praxis structured in communality. The socio-spatial practices of resistance, which seek to question and tension the financialization of space and life, point to a direction of confronting the condition of social and ecological crisis like the one we are experiencing and toward the construction of resilient (socio)ecosystems, and not of resilient cities – as capital proclaims.

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References

ACSELRAD, H. Discursos da sustentabilidade urbana. **Revista Brasileira de Estudos Urbanos e Regionais**., n. 1, p. 79-90, 1999. https://doi.org/10.22296/2317-1529.1999n1p79

ADGER, W. N. Vulnerability. **Global Environmental Change**, v. 16, n. 3, p. 268-281, 2006.

AKOTIRENE, C. **Interseccionalidade**. São Paulo: Editora Jandaíra, 2020.

BANCO MUNDIAL. **Lidando com Perdas**: Opções de proteção financeira contra desastres no Brasil. TORO, J. *et al*. (ed.). Washington: Banco Internacional para Reconstrução e Desenvolvimento; Associação Internacional de Desenvolvimento, 2014.

BENEVOLENZA, M. A.; DERIGNE, L. The impact of climate change and natural disasters on vulnerable populations: A systematic review of literature. **Journal of Human Behavior in the Social Environment**, v. 29, n. 2, p. 266-281, 2019.

BERKE, P. R.; CAMPANELLA, T. J. Planning for Postdisaster Resiliency. **The Annals of the American Academy of Political and Social Science**, v. 604, n. 1, p. 192-207, 2006.

BERKES, F.; COLDING, J.; FOLKE, C. (ed.). **Navigating social-ecological systems**: building resilience for complexity and change. Cambridge: Cambridge University Press, 2002.

BERKES, F.; FOLKE, C. Linking social and ecological systems for resilience and sustainability. *In*: **Linking social and ecological systems**: management practices and social mechanisms for building resilience. Estocolomo: BEIJER Institute of Ecological Economics, 1998. Available from: https://dlc.dlib.indiana.edu/dlc/bitstream/handle/10535/4352/berkes-linking_social_and_ecological_systems_for_resilience_and_sustainability.pdf

CUTTER, S. L. *et al*. A place-based model for understanding community resilience to natural disasters. **Global Environmental Change**, v. 18, p. 598-606, 2008.

CUTTER, S. L. Community resilience, natural hazards, and climate change: Is the present a prologue to the future? **Norsk Geografisk Tidsskrift - Norwegian Journal of Geography**, v. 74, n. 3, p. 200-208, 2020. https://doi.org/10.1080/00291951.2019.1692066

CUTTER, S. L.; ASH, K. D.; EMRICH, C. T. The geographies of community disaster resilience. **Global Environmental Change**, v. 29, p. 65-77, 2014.

CUTTER, S. L.; BORUFF, B. J.; SHIRLEY, W. L. Social vulnerability to environmental hazards. **Social Science Quarterly**, v. 84, n. 2, p. 242-261, 2003.

FEDERICI, S. **O ponto zero da revolução**: trabalho doméstico, reprodução e luta feminista. São Paulo: Editora Elefante, 2019.

FOLKE, C.; COLDING, J.; BERKES, F. Building resilience and adaptive capacity in social-ecological systems. *In*: BERKES, F.; COLDING, J.; FOLKE, C. (ed.) **Navigating social-ecological systems**: Building resilience for complexity and change. Cambridge: Cambridge University Press, 2002. p. 352-387.

FOSTER, J. B. **A ecologia de Marx: materialismo e natureza**. São Paulo: Boitempo, 2005.

GONZALEZ, L. **Por um feminismo afro-latino-americano**: ensaios, intervenções e diálogos. Rio de Janeiro: Zahar, 2020.

GOTTDIENER, M. **The social production of urban space**. 2. ed. Austin: University of Texas Press, 2010.

HARVEY, D. **17 contradições e o fim do capitalismo**. São Paulo: Boitempo, 2017.

HOLLING, C. S. Resilience and stability of ecological systems. **Annual Review of Ecology and Systematics**, v. 4, n. 1, p. 1-23, 1973.

KALTENBRUNNER, A.; PAINCEIRA, J. P. Financierización en América Latina: implicancias de la integración financiera subordinada. *In*: ABELES, M.; CALDENTEY, E. P.; VALDECANTOS, S. (ed.). **Estudios sobre financierización en América Latina**. Santiago: CEPAL, 2008. p. 33-67.

KUHLICKE, C. Resilience: A capacity and a myth: Findings from an in-depth case study in disaster management research. **Natural Hazards**, v. 67, n. 1, p. 61-76, 2013.

LEFEBVRE, H. **A produção do espaço**. 4. ed. Paris: Éditions Anthropos, 2000.

MANYENA, S. B. The concept of resilience revisited. **Disasters**, v. 30, n. 4, p. 433-450, 2006.

MARX, K. **O Capital.** Livro 1: Crítica da economia política. São Paulo: Boitempo, 2015.

MORENO, C. As roupas verdes do rei. *In*: PEREIRA FILHO, J.; BREDA, T. (ed.). **Descolonizar o imaginário**. São Paulo: Fundação Rosa Luxemburgo, 2016. p. 256-293.

ORLANDI, E. P. **Análise de Discurso** – Princípios & Procedimentos. Campinas: Pontes, 2012.

PAIDAKAKI, A.; MOULAERT, F. Does the post-disaster resilient city really exist? A critical analysis of the heterogeneous transformative capacities of housing reconstruction'resilience cells'. **International Journal of Disaster Resilience in the Built Environment**, v. 8, p. 275-291, 2017.

PÊCHEUX, M. **O discurso**: estrutura ou acontecimento. 5. ed. Campinas: Pontes Editores, 2008.

RIBEIRO, F. V. A prática socioespacial da resistência. *In*: CARLOS, A. F. A.; SANTOS, C. S.; ALVAREZ, I. P. (ed.). **Geografia urbana crítica**: teoria e método. São Paulo: Editora Contexto, 2018. p. 53-64.

RIBEIRO, L. C. Q.; DINIZ, N. Financeirização periférica, neoextrativismo e urbanização dependente na América Latina. *In*: PÍREZ, P.; RODRÍGUEZ, M. C. (ed.). **Las políticas neoliberales y la ciudad en AL Desafíos teóricos y políticos**. Buenos Aires: Universidad de Buenos Aires, 2022. p. 25-52.

ROLNIK, R. **Guerra dos lugares**: a colonização da terra e da moradia na era das finanças. 2. ed. São Paulo: Boitempo Editorial, 2019.

SAFATLE, V. **O circuito dos afetos**: corpos políticos, desamparo e o fim do indivíduo. São Paulo: Editora Autêntica, 2016.

SAITO, K. **O ecossocialismo de Karl Marx**: capitalismo, natureza e a crítica inacabada à economia política. São Paulo: Boitempo, 2021.

SHAH, F.; RANGHIERI, F. **A Workbook on Planning for Urban Resilience in the Face of Disasters**. Washington: Banco Internacional para Reconstrução e Desenvolvimento ; Associação Internacional de Desenvolvimento ; Banco Mundial, 2012.

THE ECONOMIST. The Economist Intelligence Unit. **Safe Cities Index 2021**: New Expectations Demand a New Coherence, 2021. Available from: https://city2city.network/safe-cities-index-2021-new-expectations-demand-new-coherence. Acesso em: 05 ago. 2023.

TURNER, B. L. *et al*. A framework for vulnerability analysis in sustainability science. **Proceedings of the National Academy of Sciences of the United States of America**, v. 100, n. 14, p. 8074-8079, 2003.

TURNER, B. L. Vulnerability and resilience: Coalescing or paralleling approaches for sustainability science? **Global Environmental Change**, v. 20, n. 4, p. 570-576, 2010.

UNISDR – United National International Strategy for Disaster Reduction. **Como construir cidades mais resilientes**: um guia para líderes do governo local. Genebra: UN Office for Disaster Risk Reduction, 2012.

VALENCIO, N. Desastres: tecnicismo e sofrimento social. **Ciência e Saúde Coletiva**, v. 19, n. 9, p. 3631-3644, 2014.

WILCHES-CHAUX, G. La vulnerabilidad global. *In*: MASKREY, A. (ed.). **Los desastres no son naturales**. Ciudad de Panamá: Red de Estudios Sociales en Prevención de Desastres en América Latina, 1993. p. 1-140.

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