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REVIEW

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Everything about climate change is disproportionate: Principles for spatial justice in urban climate action

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Abstract

As climate change makes the future of urban living appear increasingly daunting, many people and communities are already experiencing climate impacts. This paper highlights the disproportionate nature of climate change, from unequal historical responsibilities to unequal climate impacts that fall on the most vulnerable and unequal prospects that hinder people and countries from adapting to a changing climate now and in the future. Through an arts-based literature review, the paper demonstrates that climate change's effects and responses often reinforce existing inequalities, systematically pushing people, communities and entire countries into further vulnerability. Acknowledging that spatial processes play a critical role in creating, shaping and perpetuating inequalities and oppression, we advocate for spatial justice in climate action and offer eight principles to support spatial scholars and practitioners in adopting a critical perspective on climate change in urban contexts.

KEYWORDS

cities, climate urbanism, spatial justice, spatial planning, urban inequalities

1 | INTRODUCTION

Extreme weather events have become a normality. In 2021, multiple events caused immense social and economic losses worldwide: heavy rainfall led to severe flooding in parts of Western Europe, particularly in Germany and Belgium; extreme spring heat waves in India and Pakistan with temperatures almost unbearable for human life; severe flooding in Ghana, Niger, India, Afghanistan and South Sudan; drought and heatwaves in Central Asia; Tropical Cyclone Seroja, which hit Indonesia in early April; and Hurricane Grace, which hit Haiti two days after it experienced an M7.2 earthquake. In 2022, heavy rainfalls led to severe flooding in Pakistan, displacing millions of people; China, Europe and the United States witnessed dangerous and often unprecedented heat waves; Hurricane Ian hit Florida, leaving millions displaced. The years 2023 and 2024 were no different, with extreme wildfires in Chile, Hawaii, Canada and Greece;

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heavy rain in Pakistan, India and the Philippines; historical flooding in north-eastern Libya, Mozambique and Malawi, Myanmar and parts of Bangladesh and in the South of Brazil. The list goes on and on.

The impact of climate change is so severe that the previous paragraph had to be updated several times during the writing of this paper. However, while climate change impacts urban areas worldwide, climate vulnerabilities and adaptive capacities are unevenly distributed across spatial scales and social dimensions. People and countries are not equally exposed to climate risks, nor do they have the same capacity to recover from disasters or adapt to a more extreme and unstable climate (Raju et al., 2022; Sultana, 2022). Cities and urban areas are particularly affected by climate extreme events because of the overlap of dense populations and stark inequalities, which amplify the risks associated with climate change, particularly for the most vulnerable groups (Goncalves et al., 2022; IPCC, 2022, 2023; Reckien et al., 2017).

At the same time, cities play a crucial role in addressing the climate crisis due to the significant socio-environmental impact associated with modern urban lifestyles in global cities (Satterthwaite, 2008, 2009). This has led to various institutional efforts aiming to make cities climate-neutral, more sustainable, resilient, circular and so on. The idea of a resilient city, for example, has gained significant attention in the context of climate change (Meerow et al., 2016). Other city concepts have emerged to address specific urban challenges or a combination of them, including the smart city, the 15-min city, the circular city and, more recently, the sponge city.

However, these urban concepts have been heavily criticised for being overly technical with limited incorporation of justice considerations in their development and implementation (Alizadeh & Sharifi, 2023; Ashton et al., 2022; Calisto Friant et al., 2023; Kitchin et al., 2019; Meerow et al., 2019; Rosol & Blue, 2022; Ziervogel et al., 2017). Critical research and empirical evidence highlight how these initiatives not only often fail to deliver on their promises but also instead exacerbate inequalities and create new forms of dispossession (Amorim de Oliveira, 2021; Rose et al., 2020; Rosol & Blue, 2022; Savini, 2019; Sultana, 2022; Thatcher et al., 2016).

As even the most progressive urban models fall short in addressing inequalities and unfair structures, debates about justice in the city continue to re-emerge, now also in the context of climate change (Newell et al., 2021). Calls for justice in urban climate action resonate with long-standing and increasing calls for environmental and climate justice (Agyeman, 2008; Carmin & Agyeman, 2011; Schlosberg, 2004; Schlosberg & Collins, 2014), and they also present an opportunity to build solidarity globally (Bazzani, 2023) but also across feminist, labour and anti-racist movements (Agyeman & Evans, 2003; Sultana, 2022).

Social justice scholarship now offers a trivalent conceptualisation of justice along the dimensions of distributive, recognition and procedural justice (Schlosberg, 2004; Schlosberg & Collins, 2014; Walker, 2012). They are not exclusive and should be addressed together, as inequitable distributions of benefits and burdens, misrecognition and limited participation in decisions all work to produce and reinforce injustices and claims for justice (Schlosberg, 2004). Another important concept related to climate change is intergenerational justice (Corvino, 2021), which emphasises present and future dynamics, covering questions of historical responsibility and capacity to cope and adapt to climate change in the long term (Schlosberg & Collins, 2014). Such temporal framing is not exclusive to earlier conceptualisations of justice and actually complements and broadens the trivalent justice lens already established in justice scholarship.

In spatial research and practice, the notion of spatial justice holds particular significance. Drawing on the work of Mustafa Dikeç and Edward Soja, spatial justice highlights how the spatial dimensions of (in)justice influence society and social life, just as social processes, in turn, shape the spatial expression of (in)justice (Dikeç, 2001; Soja, 1980, 2009, 2013). A fundamental but often overlooked contribution in Soja's book *Seeking Spatial Justice* is his stretching of the concept to its maximum spatial scope: 'We can speak of unjust geographies involving the human body, as in debates about abortion, obesity, stem cell research, the transplantation of body parts, sexual practices, or the external manipulation of individual behaviour. At the other extreme, the planet's physical geography is filled with spatially defined environmental injustices, some of which are now aggravated by the uneven geographical impact of socially produced climate change and global warming' (Soja, 2013, p. 31).

It is this multi-scalar understanding that links spatial justice to climate change: the responsibility and the impact of climate change are unequal across scales, from the individual (the body) to the global level (the planet). Seeking spatial justice in climate action thus means addressing the injustices that fall on individuals cumulatively and disproportionately across the intersectional dimensions of race, gender and class, among others, as well as (post)colonial dynamics that continue to shape the relations between former colonial powers and other countries homogenised into the 'Global South' collective (Bhambra & Newell, 2023; Mahony & Hulme, 2018; Sultana, 2022; Tabassum, 2021). Furthermore, because of the complex nature of urban spaces (Meerow et al., 2016), planning for spatial justice in climate action in cities requires a deep understanding of underlying inequalities, interconnected urban dynamics and their relation to climate change.

Without such understanding, urban climate action risks not only perpetuating existing inequalities but also creating new ones through processes of maladaptation (IPCC, 2022; New et al., 2022).

While acknowledging existing scholarly contributions that have already been engaging with questions of justice in urban research and practice, for example, in energy and transport research (Kraaijvanger et al., 2023; Pereira et al., 2017), we call for an explicitly dialectical perspective that considers the spatialisation of (in)justice (Soja, 2013). With this perspective, a trivalent lens of justice would consider how benefits and burdens are distributed across space and how space influences such distributions (distributive justice), how systemic oppression and misrecognition shape space and how space contributes to systemic oppression (recognition justice), and how decision-making sustains spatial injustices and how space influences fairness and representation in decision-making (procedural justice). Similarly, an intergenerational approach to spatial justice considers the role of space in shaping historical responsibility and in supporting claims for loss and damage reparations. This perspective also connects to spatial planning and practice, as decisions made today will have lasting effects on future generations, both locally and globally.

This paper explores the complex relationship between climate change and urban inequalities through an innovative methodology that combines narrative literature review and artistic illustrations (Section 2). Using a ship as a metaphor for a city, we delineate the disproportionate nature of climate change, covering the unequal historical responsibility as well as unequal impacts of climate change and burdens of urban development and climate action, which ultimately influence the future of peoples and communities in cities (Section 3). We show that climate change and urban inequalities are globally and locally intertwined processes that disrupt people's livelihoods socially and spatially (Section 4). Underlying the urgent need for an alternative agenda to guide climate action in cities, we call for a spatial justice perspective in urban climate action and offer eight principles to support researchers and practitioners in this endeavour (Section 5).

2 | METHODOLOGY

The study employed an innovative arts-based approach to literature review research. We combined a conventional literature review process with artistic illustrations to create a narrative exploring urban challenges, their interconnections and their intersections with climate change and spatial inequalities. The first and last authors carried out the literature review steps while the second author created the artistic expressions. The iterative methodological process is illustrated in Figure 1.

In short, the research started with a conventional literature review process, which led to a critical description of seven overarching urban challenges in the form of a literature compendium, which is presented in the Data S1. The literature review also led to eight principles for the pursuit of spatial justice in urban climate action. Next, the literature compendium was used as input to the artistic process, which iteratively produced illustrations until the narrative of the paper around the metaphor of 'the city as a ship' emerged. The narrative creation was a collaborative and iterative process through a series of meetings with all three authors. The metaphor and the final illustrations (Figures 2–4) were used to structure the results, while the literature compendium provided scientific evidence and key insights to substantiate the narrative. The process is explained in more detail below.

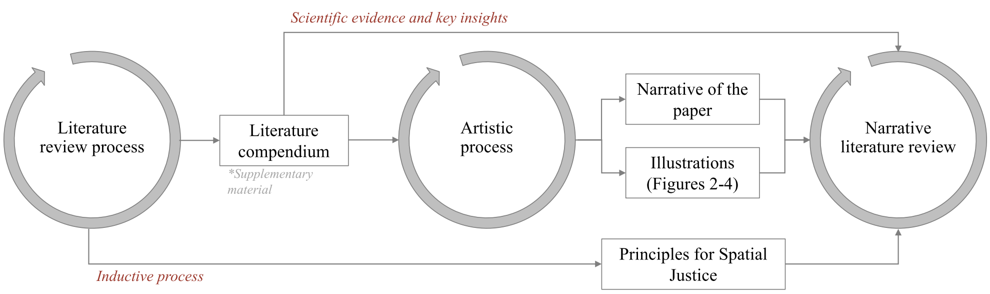

FIGURE 1 Iterative methodological approach combining conventional literature review with arts-based methods to create a narrative literature review.

2.1 | Literature review process

First, the first and last authors compiled and analysed over 300 academic publications. Grey literature, including reports from reputable institutions, as well as academic books, were also included. This approach allowed for a flexible synthesis of diverse sources from different disciplines, providing a comprehensive view of the interconnected challenges cities face and their implications for spatial justice. Importantly, these two authors are trans/interdisciplinary scholars, being able not only to synthesise research from different disciplines but also to have a critical understanding of different types of quantitative and qualitative research approaches. The literature review process was iterative and thematic, involving four main steps, as follows:

Step 1: A list of key urban challenges faced by global cities was compiled. Acknowledging that urban challenges are multiple, interlinked and unique to each urban setting, any attempt to exhaustively describe them would be, at best, naive. Rather than an exhaustive, a comprehensive set of urban challenges was defined. Starting from key sources (Babí Almenar et al., 2021; Leach et al., 2019; Meerow et al., 2016; Raymond et al., 2017; Soe et al., 2022), the final list with seven challenges emerged from an iterative process of thematic reorganisation to ensure comprehensive coverage and logical structure. The challenges identified are: consumption and environment degradation, economy and labour, changing demographics, urban poverty and social vulnerability, health and well-being, infrastructure (transport, housing, public spaces, water, food, energy and waste) and urban governance.

Step 2: Each urban challenge was analysed in relation to spatial inequalities. This was done by consulting academic and grey literature from reliable sources, such as United Nations reports, to provide key figures on global inequalities. Academic literature was also used to highlight inequalities at other spatial scales, such as across the city or among social groups. By doing so, we show that inequalities overlap and compound, further marginalising specific groups in society.

Step 3: To illustrate the relationships between the identified urban challenges, we drew upon key sources specific to each challenge. This allowed us to describe how these challenges reinforce or exacerbate one another in urban contexts. The nexus energy-water-food and the relationship between public spaces and health are examples. This was also an interactive process, as we moved from one challenge to another and discovered new relationships.

Step 4: Finally, each challenge was analysed with respect to climate change. Here, we also drew from key academic and grey sources specific to each challenge. This enabled us to reveal how specific sectors contribute to but are also affected by climate change. Energy systems, for example, are one of the main contributors to climate change due to carbon emissions associated with fossil fuels and at the same time need to adapt quickly to a changing climate since local climates are changing, creating new demands in terms of heating and cooling.

The analysis delineated above led to the creation of the literature compendium (Data S1), which critically describes and combines scientific studies and grey literature. Such critical analysis also led to eight principles for spatial justice in urban climate action, which aim to respond to gaps and limitations in the literature analysed. These principles were inductively defined through iterations with the literature and discussions among authors (see Figure 1).

While the approach described above serves the purpose of this paper in providing a comprehensive yet critical literature compendium and delineating principles for spatial justice in climate action, it is important to highlight its limitations. First, the selection of sources, although comprehensive and reliable, is not exhaustive or systematic. This introduces the potential for bias in source selection. Second, the iterative thematic organisation process, while valuable for synthesising insights, is inherently subjective and may lack replicability. Lastly, the review focuses on broad themes and interconnections, which may limit the depth of analysis for specific urban challenges or localised contexts. Future research could address these limitations by adopting a systematic review methodology and/or focusing on case-specific studies, such as specific geographical areas.

2.2 | Artistic process

The visual narrative was produced through an iterative, dialogic process based on the authors' transdisciplinary perspectives. The aim was to integrate insights from the paper with imaginative modes of understanding. As Roes and Pint (2017) note, artistic interventions in research can facilitate a dialogue with someone who does not share the same lived space but is able to engage visually. To do this, an accessible visual grammar was incrementally and exploratively developed. This required taking into account how the different compositional elements would come together in the series of visuals (Figures 2–4) to develop the concepts, gradually breaking down their complexity.

Initial sketches were collaboratively refined to challenge universalised representations. For instance, the normative Eurocentric cartographic projection was done away with, as it was antithetical to the paper's decolonial stance. Instead, a South-centred map was adopted so as to foreground colonial histories, extraction zones and possible alternative futures (Figure 2). In addition, science fiction literature and media helped point to interesting metaphors of spatial justice. For instance, the show 'Snowpiercer' depicts how survivors of a climate catastrophe, aboard a sealed train, reproduce hierarchical divisions through competition for engine control. This imagery served as the initial inspiration for conceiving cities as vessels on the move, such as trains or ships, whose trajectories are guided by powerful actors making decisions on the changing climate.

The idea behind the metaphor was to reflect on the complex relationship between cities and climate change. The narrative of the metaphor was strengthened by building a sequence that understood the ship temporally, socially and politically. A constellation of seafaring, navigation and shipbuilding elements supported the visual logic of understanding the ship from different angles, much like urbanisation processes. An example of this was the analogous process of a ship constructed deck by deck to a city built over time through successive layers of infrastructure and utility networks (Figure 3). A ship's spatial, economic and social stratification was highlighted to represent both city and global stratification.

The concluding visual that represents the avenues for spatial justice in urban climate action (Figure 4) evokes the image of a ship's radar to represent how cities can navigate climate change through spatially just principles. Through this analogy, urban polities are shown as ships/vessels guided by the eight different principles presented in the paper. A lighthouse was incorporated to signify a universal symbol of seafaring guidance that also doubled up to clearly distinguish between the different dimensions of justice (i.e. distributive, procedural and recognition justice).

To follow the principles within the visuals, sectional and isometric perspectives were deliberately employed rather than traditional top-down or plan views. This helped to present the inner workings of physical and human infrastructure, which are usually concealed. One influence for this was the 'Ship of Theseus' paradox, to interrogate whether selective and surface level changes towards climate action suffice or whether a radical reconceptualisation of efforts is required. Through successive discussions, the visuals were refined to illustrate that superficial retrofits within city policies rely largely on an underlying (neo)colonial and capitalist framework without addressing historic injustices at their root.

In adopting alternative forms of narratives and artistic transdisciplinary knowledge-production, the entire process from deliberation to the final images demonstrates that collaborative visual praxis can meaningfully supplement analytical research and foster engagement beyond the academic spheres.

2.3 | Narrative literature review

The narrative literature review combined the results from the (conventional) literature review and artistic processes. The illustrations and the narrative based on the ship metaphor created in the artistic process defined the structure of the results, while the literature compendium was used to substantiate the narrative with scientific evidence and critical perspectives (see Figure 1). The principles for spatial justice in urban climate action inductively derived from the literature review were also integrated into the narrative as a concluding section that offers concrete strategies for spatial researchers and practitioners.

3 | EVERYTHING ABOUT CLIMATE CHANGE IS DISPROPORTIONATE

The metaphor of 'the city as a ship' emerged from the iterations between literature and artistic expressions as a response to narratives around climate change as a global phenomenon that overlook historical and spatial injustices by asserting that 'we are all in the same boat'. While we may all be navigating the turbulent seas of climate change, the ships we travel in, the seas we cross, and the destinations we move towards are not the same. Based on this, Figure 2 illustrates the historical and spatial dimensions of climate change. The three different ships in the figure serve as metaphors for the structural forces shaping past, present and future climate injustices. Together, they show that climate change is not just a technical or environmental issue, but a deeply socio-spatial and historical phenomenon, driven by intersecting processes of colonialism, capitalism, patriarchy and race and class domination. The reasoning behind each ship is explained in detail next.

The carrack sailing ship, 'Extracting Benefits', represents the era of colonial expansion during which European empires extracted wealth, labour and resources from colonised territories. This ship alludes to the historical responsibility,

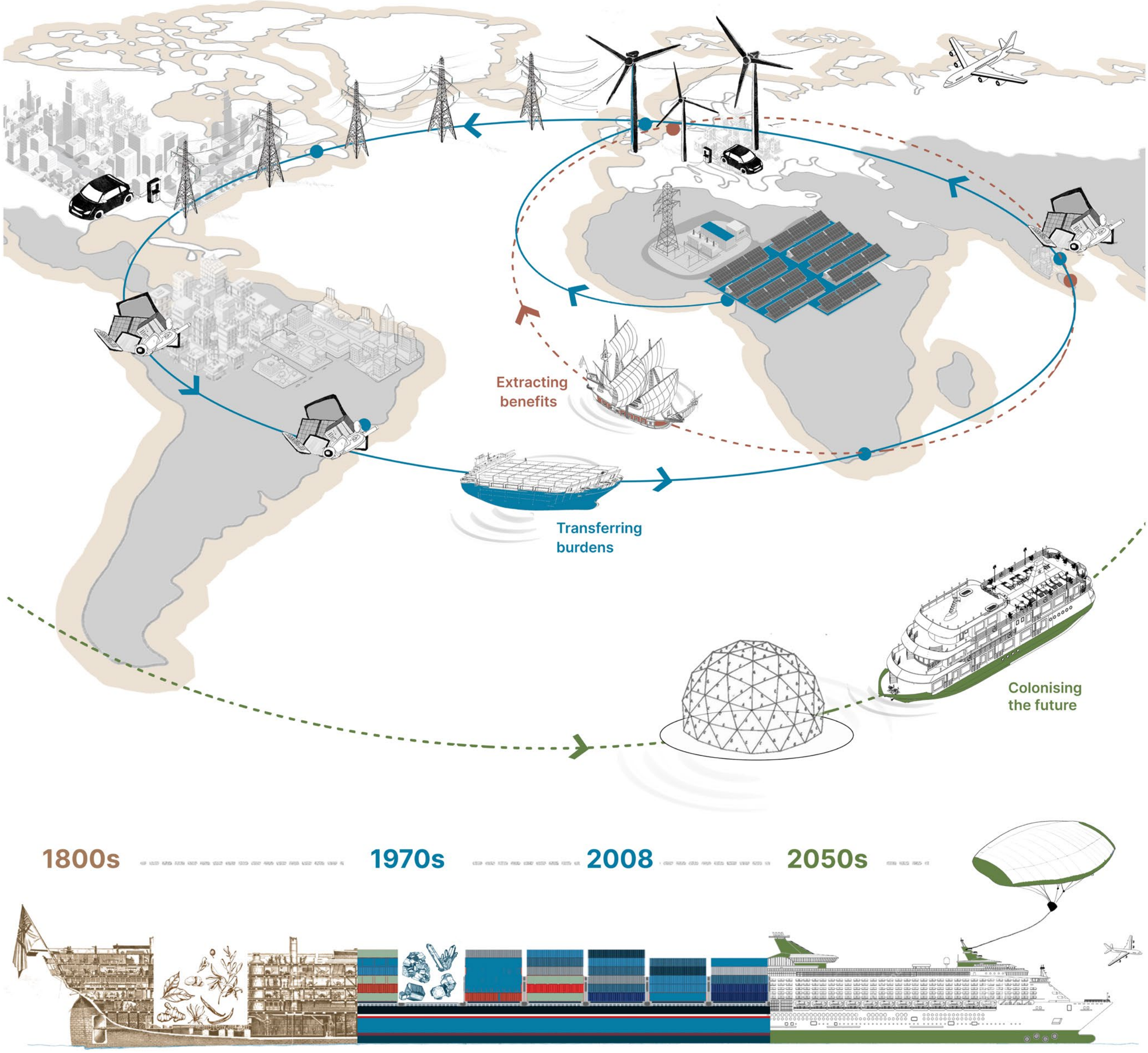

FIGURE 2 Everything about climate change is disproportionate. The metaphor of the city as a ship invites reflection on who steers urban futures, who bears the costs of past and present trajectories, and who is left behind in the wake of climate crises.

pointing to how industrialisation and urban development in the colonies were built on enslavement and appropriated land and resources. It is well documented that high carbon emissions driving climate change are associated with a carbon-intensive lifestyle typical of high-income countries and large cities—and wealthier people therein (Ghosh et al., 2022). While there is no consensus on how to address questions of historical responsibility for climate change (Perry, 2021; Schlosberg & Collins, 2014), high-income nations and global corporations have pledged and provided funds to lower-income countries to support a diverse range of climate-related projects and partnerships. This is not new and has been happening for decades in the name of 'progress and development'. The outcome of such development projects has often been the privatisation of public assets with the transference of profits to the private sector and the socialisation of losses with mounting debt and government austerity guarantees that further push low-income nations and people into deprivation (Hamouchene, 2023). Climate-related development projects are no different: Through various technofinancial instruments, they operate under the guise of sustainability and climate adaptation but systematically transfer wealth from low to high-income countries (Hamouchene, 2023; Perry, 2021).

The cargo ship, 'Transferring Burdens', represents the period of globalisation and its continuation of (post)colonial logics. It refers to how economic and environmental burdens are transferred spatially, often from the urban cores of the high-income countries to peripheral regions in the poor and middle-income countries. This global pattern is expected to worsen as new technologies are produced along different manufacturing stages in various locations across the world in a global supply chain with enormous socio-environmental impact, particularly in countries where labour and environmental laws have been systemically dismantled (Alsamawi et al., 2014; Amos & Lydgate, 2020; Child et al., 2018; Simas et al., 2014; Stock, 2021; Taylor & Paul, 2019; Wiedmann & Lenzen, 2018). The transfer of socio-environmental impacts from high- to low-income countries does not only occur at the extraction and manufacturing stages but also at the end of the life cycle of devices, with extensive transboundary disposal of hazardous waste happening for decades now (Goel, 2017; Perkins et al., 2014; Widmer et al., 2005). Through processes like offshoring pollution, land grabs for renewable energy and carbon trading, among others, this ship metaphorically carries the hidden externalities of contemporary urban lifestyles and climate action. The ship also illustrates the interconnectedness and asymmetries of global supply chains, in which middle and low-income countries remain a site of extraction and sacrifice to sustain consumption in high-income ones.

The tourist-like ship, 'Colonising the Future', represents unequal prospects for the future, in which a small privileged minority continues to benefit from historical accumulation and dispossession cycles while displacing climate risks onto future generations and peripheral communities. Dystopian literature and cinema give us a glimpse into this possible scenario: Space Sweepers (Jo, 2021), Snowpiercer (Bong, 2013; Friedman & Manson, 2020—2024)—based on the book Le Transperceneige (Lob & Rochette, 1982), Parable of the Sower (Butler, 1993), Blackfish City (Miller, 2018), among others. Despite being fiction, these plots sound less fictional when persistent poverty (Kalina, 2021) and pervasive inequalities (Kalina, 2021; Nijman & Wei, 2020; Soederberg & Walks, 2018) are juxtaposed with the dominant approach to climate action that is overreliant on technocratic expertise and disingenuous financial instruments, ignoring the root causes of the climate crisis (Robin & Broto, 2021). This ship captures the idea that the future itself is being colonised, as dominant groups assert control of cities (Sadowski, 2020) and even of the imaginaries of what a future can be under climate change (Bina et al., 2020; Levy & Spicer, 2013).

At the bottom of Figure 2, four key moments are depicted. The 1800s symbolise the colonial dynamics of the eleventh-to-nineteenth centuries and the extractivist relations between the 'old and new' worlds, and later colonies and empires. As recently recognised by the Intergovernmental Panel on Climate Change (IPCC), colonialism is a historical and ongoing driver of vulnerability for both ecosystems and people (IPCC, 2023). The 1970s represent a period of change characterised by significant social, political and cultural movements that prompted urban scholars to engage with questions of justice (Fainstein, 2014; Harvey, 2005, 2009) and marks the moments when capitalist dynamics further transformed urban spaces through processes of surplus capital investment (Harvey, 2005, 2012). Looking towards 'the future', represented by the 2050s, the figure also illustrates the current approach to climate action, largely technology and capital-driven, that continues to build on colonial dynamics and largely ignores questions of justice (Hamouchene, 2023; Tabassum, 2021).

Although Figure 2 represents the global-scale dynamics of climate change, its consequences are experienced at the local level through the disruption of local livelihoods and displacement of millions of people worldwide. Evidence about the disproportionate impact of climate change on socially and economically disadvantaged communities is unequivocal (IPCC, 2022, 2023). Low-income communities are more affected by landslides, storms and flooding events for many reasons, such as higher population densities, poor-quality buildings, lack of risk-reducing infrastructure and services and lack of resources to prepare for and recover from disasters (Goncalves et al., 2022; IPCC, 2023; Reckien et al., 2017). These communities also have a significant part of their assets in physical forms (e.g. dwellings, household appliances, vehicles), which are more vulnerable to climate hazards (IPCC, 2022, 2023). Some specific groups also bear higher burdens: when compared to men and boys, women and girls not only experience disproportionately higher climate risks but are also associated with higher mortality rates, both directly and indirectly, via related post-disaster events (Andrijevic et al., 2020; Neumayer & Plümper, 2007). Children, the elderly and people with health conditions are also particularly vulnerable to climate impacts because of their greater sensitivity and dependence on caregivers for appropriate preparedness and response (Ebi & Paulson, 2007). Climate change therefore affects people intersectionally (Sultana, 2022), across class, gender, age, etc., creating a cumulative exposure to climate risks and burdens.

4 | URBAN INEQUALITIES AND CLIMATE CHANGE: A COMPLEX RELATIONSHIP

Acknowledging that everything about climate change is disproportionate requires the acknowledgment of the complexity of urban environments, particularly in relation to climate change. Figure 3 richly illustrates this complexity by

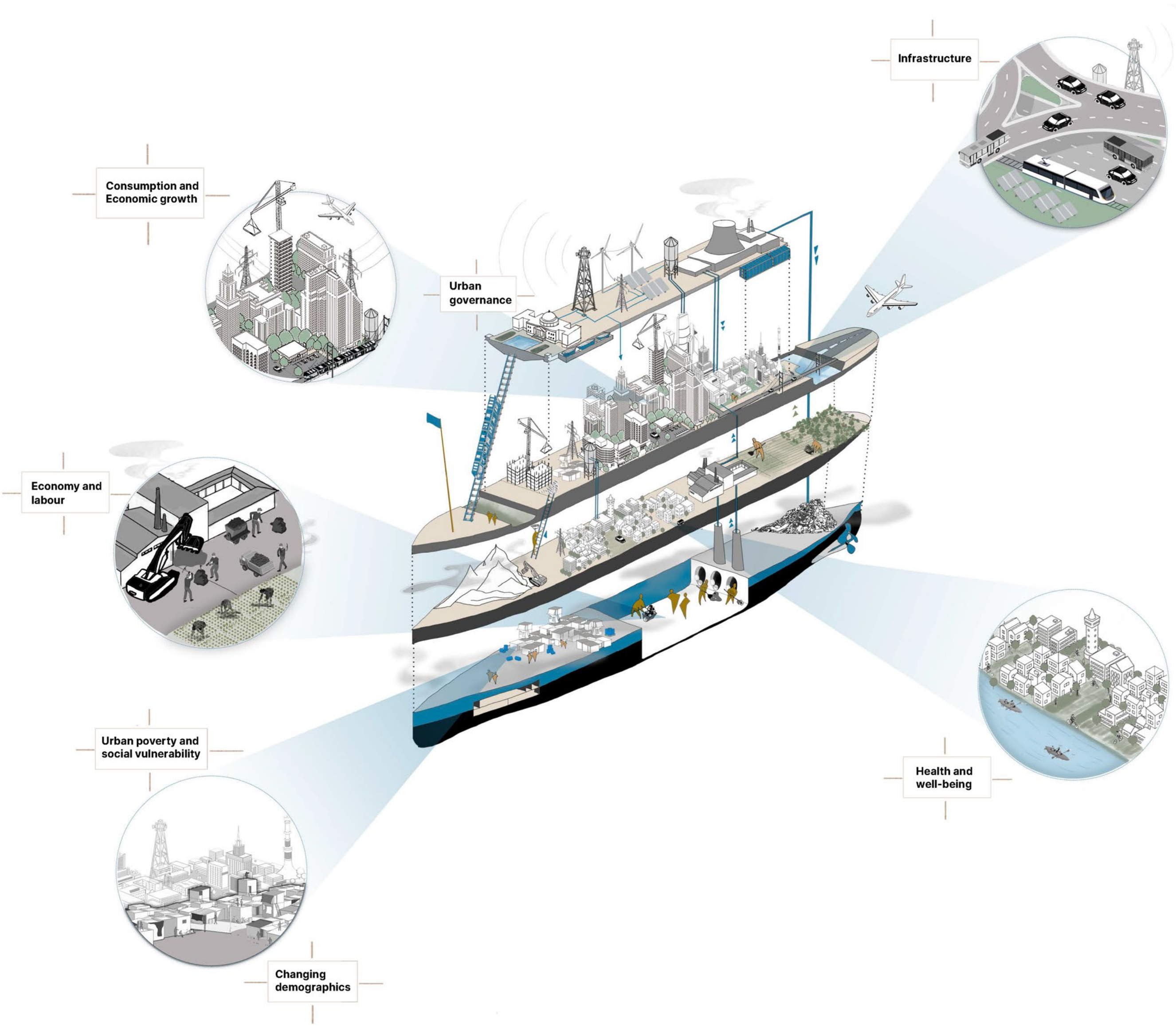

FIGURE 3 A ship with four decks of inequalities in cities under climate action: dispossession in the truck, extractivist relations in the crew's floor, infrastructures of inequality in the main deck and inadequate governance in the captain's deck.

revealing the inequalities on which urban life is built. The figure expresses the dispossession flow from the trunk of the ship, which hides extreme poverty and social vulnerability and is maintained by oppressive relations cutting across class, gender and race, to the crew's floor, which represents the ongoing extractive relations among people and countries and between people and nature, to the main deck, housing the global cities and their infrastructure of inequality, to the captain's deck, where neo-liberal governance and (post)colonial dynamics steer the ship towards an unsustainable and unfair future. The next sections describe these four levels in detail.

4.1 | Dispossession: Extreme poverty and social vulnerability

Living in poverty means people struggle to fulfil their most basic needs like health, education and access to water, sanitation and energy (United Nations, n.d.); it has also been associated with food insecurity, lack of access to healthy food and increased risk of malnutrition (Hıckel & Sullivan, 2023; Vilar-Compte et al., 2021). Poverty has direct consequences on peoples' capacity to meaningfully participate in society, leading to exclusion and segregation (Andreoli et al., 2021; Buzar, 2016; Robinson et al., 2019; Silva-Laya et al., 2020). While in low-income countries urban poverty is often associated with rapid urbanisation and the spread of slums and informal settlements (Lucci et al., 2018; Olalekan, 2014; United

Nations, 2022), in high-income countries, it is particularly visible in big urban centres (Brandolini & Cipollone, 2003; Weisz & Steinberger, 2010). Moreover, certain socio-demographics have been more exposed to poverty than others: Women are more affected than men (United Nations, n.d.), children suffer from long-term effects on cognitive development (Ezeh et al., 2017), and communities of colour and minorities face historic burdens of being trapped in poverty (Brady, 2019; Schlosberg & Collins, 2014).

Poverty and social vulnerability are closely intertwined terms (e.g. Robinson et al. 2019; Robinson & Mattioli 2020). Generally speaking, vulnerability means the potential to suffer loss or harm. It describes the physical, social, economic and environmental factors or processes that increase the susceptibility of individuals, communities, assets or systems to the impacts of hazards (United Nations Office for Disaster Risk Reduction, 2017). Social vulnerability, in turn, refers to the potential for loss of human and social capital. It is shaped by drivers of inequality across multiple dimensions—for example gender, class, race, ethnic origin, age, level of ability and sexuality—which are all framed by cultural norms and practices, local values and institutions, often deliberately and anchored in social and political structures (Covarrubias & Raju, 2020; Raju et al., 2021).

Being a critical concept in disaster management practices, understanding social vulnerability is essential in planning for increasingly extreme and frequent hazards associated with climate change. Poor and low-income communities, forced into social vulnerability and hazardous geographical areas due to socio-political processes of growth, consumption and migration, remain trapped in this condition and now face increasing climate risks due to a lack of risk-informed governance and inadequate social and physical infrastructures. Ineffective climate governance and planning leave people and communities vulnerable to climate disasters and their consequences (Castán Broto, 2017; Raju et al., 2022), ultimately impacting several aspects of their well-being and life trajectories.

Well-being, broadly understood as the quality of life, is multidimensional in nature. This manifests not only in the multiple external factors that influence how an individual evaluates the wholeness of their lives but also in how one's life pans out across critical aspects of their well-being. Several factors affect people's well-being, for example, the provision of adequate conditions for active transportation, such as walking and cycling (Mueller et al., 2015; Su et al., 2019), and access to cultural and recreational opportunities, including parks, squares and playgrounds (Finlay et al., 2015; Hartig et al., 2014; Nieuwenhuijsen et al., 2017; Wolch et al., 2014). In turn, well-being is positively and significantly correlated with more schooling, better health and sustained employment (Asadullah et al., 2018). The global COVID-19 pandemic tragically exposed the intersectional health burdens faced by several groups, as cities worldwide have been confronted with insufficient public health capacity, inadequate essential services and a lack of public spaces, with vulnerable groups being affected the most (Abedi et al., 2021; Carli, 2020; Elmer et al., 2020; Raju et al., 2021; Thorpe et al., 2020).

Well-being is not only determined by access to urban amenities or services (benefits) but also by the level of exposure to negative impacts of urban development (burdens), and both are unequally distributed across urban areas. Higher-income groups have better access to health services (Chavehpour et al., 2019; Zhang et al., 2017), green areas (Wolch et al., 2014) and healthy food outlets (Garcia et al., 2020). In contrast, disadvantaged communities lack similar provisions (Nicoletti et al., 2022) and are more exposed to urban development externalities, such as resource pollution and fast food outlets (Alkon & Agyeman, 2011; Gottlieb & Joshi, 2010; Vilar-Compte et al., 2021), and the burdens of labour deregulation (Benach et al., 2000; Brabant & Raynault, 2012). Furthermore, differential capacities to cope with health and well-being stressors often exacerbate existing inequalities as high-income groups can invest in expensive solutions, including health protection and climate adaptation measures (Noll et al., 2022; Sun et al., 2017).

There is a significant spatial dimension to exposure to resource pollution. Socially vulnerable people are either displaced to already polluted areas (as they seek affordable housing in areas where prices are lower [Mohai & Saha, 2015; Taylor & Paul, 2019]), or pollution is forced into existing vulnerable communities (by building hazardous industry facilities [Mohai & Saha, 2006, 2015] or roads and highways [Stewart et al., 2014; Verbeek, 2019] in these areas). On a global level, with the tertiarisation of the economy of developed countries, resource pollution and environmental degradation have been transferred to developing countries (Wiedmann & Lenzen, 2018), an issue recently intensified by technological transitions associated with climate change (Taylor & Paul, 2019).

It is also in cities that the multiple facets of modern life intersect, creating new challenges to mental well-being. The demands of a neo-liberal meritocratic society lead people to stress and exhaustion (Han, 2015). Economic austerity and precarious employment put people under constant stress and insecurity, with the most vulnerable often under the highest pressure (Benach et al., 2000), including young people and migrants (Brabant & Raynault, 2012). Furthermore, the lack of adequate and affordable housing and exposure to poverty contribute to reduced mental health and overall well-being (Kawachi, 2002; Krieger, 2014), particularly among women, single parents and providers of unpaid care (Robinson et al., 2019). Other challenges to mental health in urban areas include loneliness, violence, high crime rates, homelessness, exposure to noise, drug abuse and insufficiency of mental health services (Okkels et al., 2018).

Inequalities in health and well-being are significantly exacerbated by climate-related hazards (Neugent et al., 2020). Children, for instance, are particularly vulnerable to many climate impacts because of their greater exposure, greater sensitivity and dependence on caregivers for appropriate preparedness and response (Ebi & Paulson, 2007). The prospect of a future under intense effects of climate change is also affecting the mental well-being of many people (Tschakert et al., 2023); causing climate-related anxiety, particularly among the youth (Stanley, 2023). People with disabilities and chronic medical conditions, including the elderly and those living in nursing or assisted-living facilities, are also some of the most climate-vulnerable (IPCC, 2022; McDermott-Levy et al., 2019).

4.2 | Extractivist relations: Nature and people

Although cities occupy only 2% of global land, urban dwellers use about 75% of natural resources and produce 70% of global greenhouse gas emissions and 70% of global waste, leaving an enormous footprint on the climate and environment. While providing crucial insights, this logic of aggregation, however, leads to the misconception that increasing urban population is necessarily associated with rising greenhouse gas emissions. Rather, the strong coupling between economic development and the growth in consumer base (and related consumption) leads to environmental degradation and climate change (Satterthwaite, 2008, 2009). This manifests through striking inequalities in consumption per capita between the wealthy and the poor, with 10% of the world population using 40% of global energy and 27% of global materials (Steinberger et al., 2010). Urban areas, in particular, attract people with a higher purchasing power to consume increasingly more amenities and services, leading to high energy use and consumption of goods (Verma et al., 2021). The rate and intensity of urban *consumption* have been increasing, leading to an increase in the overall level of carbon emissions of urban households, further degrading the environment and exacerbating climate change (Baabou et al., 2017; Duarte et al., 2017; Hirano et al., 2016; Shittu, 2020; Steinberger et al., 2010).

Burgeoning evidence shows that decoupling economic growth from environmental degradation is hardly possible, challenging the pursuit of 'green growth'. Cases of decoupling are either temporary, relative or local, highlighting the need to transform consumption patterns in urban areas, ultimately transitioning to a system that prioritises well-being over economic growth (O'Rourke & Lollo, 2015; Parrique et al., 2019; Xue & Kębłowski, 2022). This is arguably the challenge of the Western way of living, aggravated by the deepening of the geographical disconnection between places of production and consumption since the 1990s. With the globalisation of production chains and increased international trade, the distribution of economic sectors has been re-arranged, leading to the transfer of industry from high- to low-income countries (Penissat et al., 2020). As a result, up to 70% of global social and environmental impacts now occur in geographies divorced from consumption that drives them (Liang et al., 2017; Wiedmann & Lenzen, 2018). Since most climate-related interventions in cities do not dare to touch on consumption questions and ignore these global consumption-production dynamics, climate action in cities is at risk of reproducing and deepening existing global dynamics of environmental degradation and inequality.

At the same time, the global industrial transfer, coupled with high-income countries developing more technological and digital prowess, led increasingly to new opportunities for workers in high-income cities globally. People and economic activities agglomerate in larger cities for several reasons. City-level analyses have revealed that larger cities are more productive and efficient, measured by, for example, total wages, income, number of patents or gross domestic product (GDP) (Bettencourt et al., 2007). This, in turn, increases the likelihood of attracting a larger population due to the development of more diverse and specialised opportunities (Bettencourt et al., 2014). While agglomeration analyses at the city level explain economic and migration trends between cities, they hide important intra-city dynamics. The benefits of an increasing workforce agglomerating in cities, such as higher incomes, more production and efficient access to services, primarily favour wealthier individuals (Nicoletti et al., 2022; Sarkar, 2019). Conversely, the burdens of urban development, like rising housing costs, disproportionately affect those with moderate and lower incomes (Heinrich Mora et al., 2021; Sarkar, 2019), a process reinforced by disparities in how wealth accumulates over time (Nelson et al., 2024; Nijman & Wei, 2020; Penissat et al., 2020).

Income and wealth inequalities in cities have been growing since the 1970s when neo-liberal trends in cities have shifted planning practices towards free-market principles, privatisation of public services, commodification of urban spaces, labour deregulation and austerity measures (Harvey, 2007). A global surge of 'flexible employment' has brought along trends towards wage flexibility, loose constraints on hiring and firing and relaxed employment protection policies, which manifest through new employment forms characterised by higher levels of job insecurity and an overall erosion of employment and working conditions (Benach et al., 2014). In parallel, the increasing diffusion of digital platforms in the operation of urban systems and services has exacerbated issues of job security, working conditions and living costs for many (Graham & Anwar, 2019; Richardson, 2020; Sadowski, 2020; Wachsmuth & Weisler, 2018). These precarious working conditions are compounded by other inequalities, such as lack of access to urban services and inadequate living conditions, exposing certain groups to higher levels of vulnerability. Households where a member lives with a disability or illness, the elderly, families with young children and single mothers have been particularly affected by rising living costs and cuts in social benefits (Millar & Ridge, 2020; Robinson et al., 2019). Austerity measures have also significantly affected the working class (Buchholz et al., 2009; Penissat et al., 2020), younger people (Buchholz et al., 2009; Butler & Sherriff, 2017) and people under migratory status (Brabant & Raynault, 2012). Although global cities have become faces of economic growth and prosperity, they are held together by skill-based stratification, rising living costs, precarious working conditions and a migrant workforce.

4.3 | Infrastructures of inequality

Built infrastructures shape all aspects of urban life, from transport and mobility to living conditions and access to energy, water, food and waste management. It is well documented that disadvantaged communities generally have lower access to urban amenities (Nicoletti et al., 2022), while privileged groups benefit from the resulting spatial concentration of jobs, public services and commercial activity around key destination centres in urban areas (Bassolas et al., 2019; Louail et al., 2014; Roth et al., 2011).

Housing is at the core of urban issues because it dynamically intersects with transport infrastructure and dictates access to urban opportunities and services. However, universal access to adequate and affordable housing is far from reality. Neo-liberal and globalising trends of the past decades have completely changed housing systems in many countries, profoundly impacting the right to adequate and affordable housing in different contexts and times (Rolnik, 2019). Through the political idea of home ownership (Ronald, 2008), these trends have shifted the control of housing from states to the market, enabling the takeover of the housing sector by global finance, with a consequent reduction or stagnation in social housing (Rolnik, 2013, 2019). This has led to widespread unaffordability, precariousness and insecurity, especially for marginalised groups such as migrants, women, people with disabilities and low-income households (Nelson et al., 2024; Robinson et al., 2019; Snell et al., 2015).

Another key determinant of access to urban amenities and services is the transport system. However, transport infrastructure and services are often designed to benefit central areas and wealthier populations, through lack of infrastructure for cycling, tax rebates for cars through corporate mechanisms and reduced public transport access in remote and suburban communities (Poorthuis & Zook, 2023). As a result, only half of the global urban population has convenient access to public transport (United Nations, 2022), and the prioritisation of private vehicles and economic hubs contributes to displacement and exclusion (Mattioli et al., 2020). While efforts are being made to expand public transport and cycling infrastructure in many cities, such improvements not only are uneven (Guo & Kontou, 2021; He et al., 2016; Li et al., 2022) but also have negative effects on some groups, such as the working class (Tatham & Peters, 2023).

Housing and transport systems also mediate access to public spaces and services. Spaces such as parks, squares and playgrounds are places where people can interact, playing a vital social role in urban life (Hartig et al., 2014). Access to adequate public spaces is beneficial to all but particularly children (McCurdy et al., 2010), the elderly (Bergefurt et al., 2019; Finlay et al., 2015; Nzabona et al., 2016), and women (Althoff et al., 2017). Furthermore, green and blue public areas promote physical activity and mental health, improving overall well-being, and contributing to reducing air pollution and mitigating heat stress (Finlay et al., 2015; Hartig et al., 2014; Mitchell et al., 2015; Nieuwenhuijsen et al., 2017; Wolch et al., 2014). However, the distribution of these spaces and their quality is often unequal, with affluent groups receiving the greatest benefits (Cui et al., 2022; Hamstead et al., 2018; Su et al., 2019). In contrast, disadvantaged communities not only have fewer choices in general (Nicoletti et al., 2022) but are also more exposed to unhealthy options, such as fast-food outlets (Garcia et al., 2020; Pearce et al., 2007).

Basic infrastructures related to water, energy and waste services are also marked by spatial inequality. Billions lack access to safe water and sanitation, with adverse public health impacts (Koop & van Leeuwen, 2017; United Nations, 2023). Similarly, lack of access to affordable energy is a global issue (United Nations, 2023), with at least 50 and 125 million living in energy poverty and not able to afford proper indoor thermal comfort only in Europe (Buildings Performance Institute Europe, 2014). The impacts of energy poverty are translated into severe public health issues, social isolation, gender inequalities and extreme poverty, mainly affecting disabled people, single parents and people from ethnic minorities (Furszyfer Del Rio & Sovacool, 2023; Middlemiss, 2022; Robinson et al., 2019; Sovacool et al., 2022). Waste management services also show stark inequalities globally (United Nations, 2022). Within cities, the urban poor, often living in informal settlements, bear the burden of insufficient or lacking solid waste management, including illegal waste dumping and associated unhealthy living conditions (Adama, 2012; Kubanza & Simatele, 2016; Niyobuhungiro & Schenck, 2022; Polasi, 2018).

Climate change intersects with and exacerbates all of these infrastructural inequalities. Disadvantaged communities are pushed towards hazard-prone locations via precarious housing, facing higher exposure to climate risks, such as flooding, drought and heat stress (Caretta et al., 2022; Goncalves et al., 2022; IPCC, 2022, 2023; Reckien et al., 2017). A common response to these risks is greening the city, which not only remains unequal but also has led to the displacement of vulnerable residents they were supposed to benefit in the first place, primarily because of increased housing and living costs post-renewal projects (Anguelovski et al., 2019; Cole et al., 2021; Kern, 2022; Wolch et al., 2014). These examples illustrate the need for integrated housing and climate policies, usually overlooked in urban research and policy. Likewise, climate mitigation policies in energy transition often overlook those already struggling with energy poverty (Kraaijvanger et al., 2023; Lihtmaa et al., 2018; Robinson et al., 2019; Sundaram et al., 2024). In addition, the shift from fossil fuels to renewable energy sources has led to the shutdown of many coal power plants with the consequent destabilisation of the economic and labour landscape eventually leading to the decline of whole regions, with the working class more affected (Brock et al., 2021; Penissat et al., 2020). Yet another example is waste mismanagement, already a source of public health risks, is predicted to worsen under climate pressures (Kalina, 2020), also demonstrating how environmental crises magnify the vulnerabilities embedded in unequal urban infrastructures.

4.4 | Inadequate governance

Interventions to address the urban challenges, such as the ones described above, cut across sectors and spatial and temporal scales, creating tensions at different levels of governance. Yet, cities currently operate in silos: They are structured in distinct sectors and departments that plan and govern each urban system, usually without oversight of interconnections. Moreover, there is a focus on the short-term horizon of 15–20 years, motivated by various factors, including the complexity of long-term planning, the short-term nature of electoral cycles, and the degree of 'comfort' gained from thinking about short-tem matters compared to uncertain long-term horizons (Dixon et al., 2018). Such a fragmented and short-term governance approach fails to address the complexity inherent in the urban environment and climate action, both necessitating integrative and long-term approaches, which results in sub-optimal decisions and poor governance associated with maladaptation.

Adding to that is the unprecedented level and scope of action necessary to address climate change in urban areas, which requires a collective focus on the most pressing challenges in the contemporary world in ways that span large segments of the socio-political spectrum. Central to this is the involvement of local actors and citizens in climate action decisions. However, literature shows that participatory practices still often remain tokenistic, where certain actors are symbolically included without genuine influence, reinforcing existing power imbalances and inequalities (Gonçalves et al., 2024; Kahila-Tani et al., 2019; Mattern, 2020). In addition, public participation and other public services have been increasingly outsourced to private consultants with an explicit economic responsibility to their shareholders and not to the public (Mattern, 2020; Mazzucato & Collington, 2023). With such outsourcing practices becoming increasingly common, governments risk eradicating trust and transforming community relationship building into a checklist of codified practices (Mattern, 2020).

Another trend in urban governance is digitalisation. Advances in data analytics and visualisation enable the extraction of multiple indicators about urban functioning from datasets created through digital platforms and apps, so-called big data (Kandt & Batty, 2021; Kitchin, 2014). Making decisions about cities assuming that these discrete analytical insights represent real experiences of people in a kind of 'passive' participation is highly problematic, primarily because such datasets simply do not account for the groups who are not users of digital devices and services (Rose et al., 2020). Besides, it creates new power dynamics and forms of (data) colonialism and dispossession, often accentuating existing inequalities (Rose et al., 2020; Thatcher et al., 2016). Digitalisation also influences institutional participation. New digital tools for public participation have emerged, with great potential to reach larger numbers of participants, enabling remote participation and two-way interaction between stakeholders (Afzalan & Muller, 2018; Herzog et al., 2023; Kahila-Tani et al., 2019). However, these possibilities bring new challenges, including concerns about privacy and consent, inequalities in terms of digital literacy and disingenuous use of digital tools in *mapwashing* practices (Afzalan & Muller, 2018; Gonçalves et al., 2024; Kahila-Tani et al., 2019; Mattern, 2020).

Ensuring broad public support for urban climate action requires disrupting the current top-down, expert-driven and technocratic governance system so that bottom-up, community-driven and pluralistic alternatives can emerge (Castán Broto, 2017; Castán Broto & Robin, 2021; Escobar, 2018; Escobar & Frye, 2020; Sultana, 2022). It is imperative to (re)assert the role of citizens and reclaim civic participation in urban governance, especially as data-capital dynamics play out in cities (Mattern, 2020; Sadowski, 2020; Thatcher et al., 2016).

5 | EIGHT PRINCIPLES FOR SPATIAL JUSTICE IN CLIMATE URBANISM

The literature reviewed in this paper robustly shows that climate change and urban inequalities are intertwined challenges in cities. Both are multidimensional, and people and communities face their impacts disproportionately and cumulatively. Existing inequalities overlap with climate risks and hinder the capacity of people and countries to cope with,

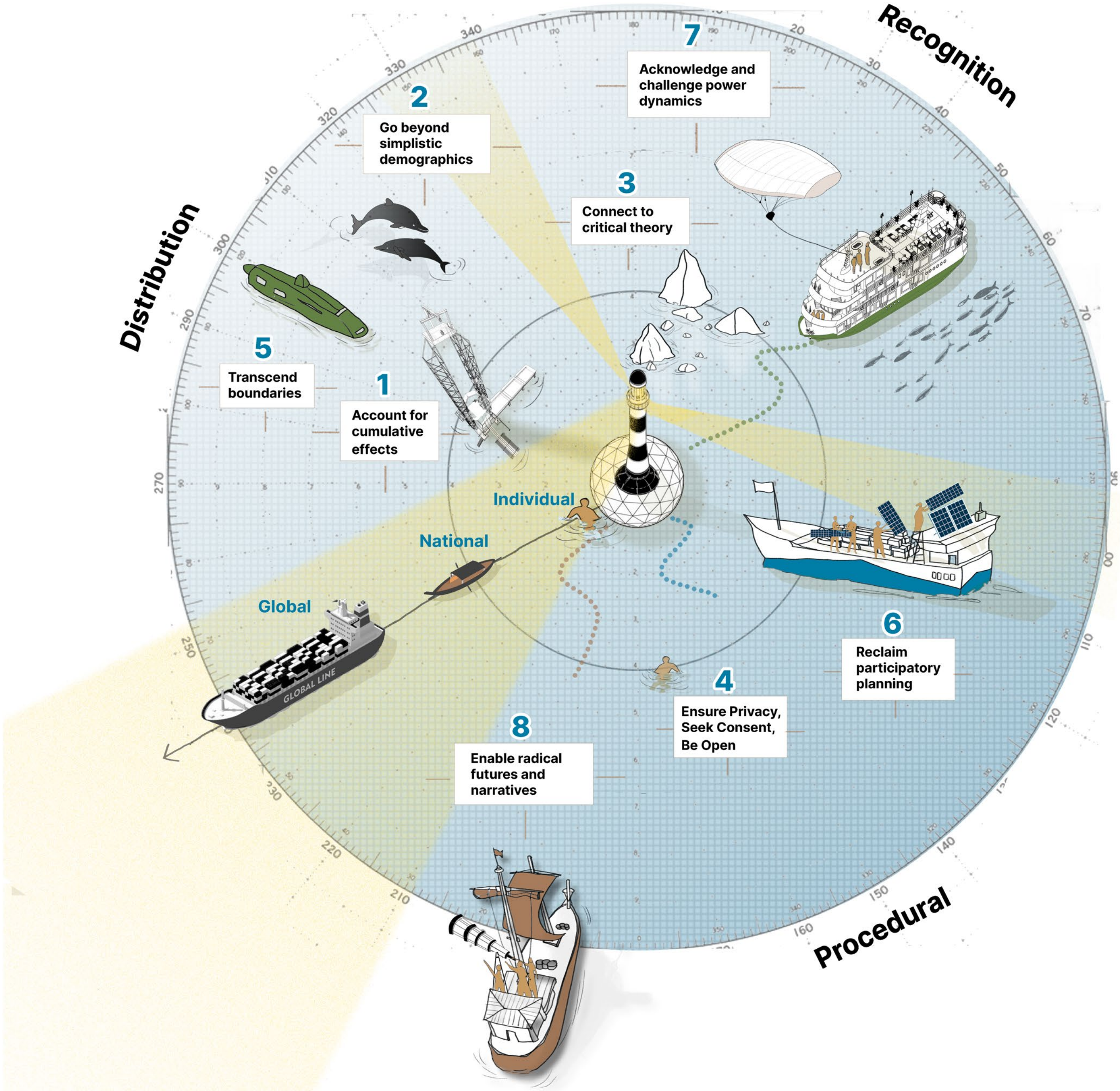

FIGURE 4 With spatial justice as the lighthouse, guiding climate action in cities from the individual to the global scale, this figure illustrates the eight principles we propose in the paper. We leave the interpretation of each element in this image open to the reader.

mitigate and adapt to climate change. Climate change exacerbates existing inequalities, pushing people into further vulnerability and creating new forms of dispossession. Another common thread is their manifestation across different spatial scales, from intersectional risks and burdens on individuals to cities, regions and countries. In the context of dominant city narratives that overlook urban inequalities and their spatial and historical connections to climate change, the main implication of this paper is exposing the urgent need for an alternative set of principles to underline climate action in cities. To this end, we conclude this paper by offering eight principles (P) to advance spatial justice in climate urbanism.

As illustrated in Figure 4, these principles depict cities as ships navigating the seas of complex urban dynamics exacerbated by climate change, as described in the previous section, towards a horizon of spatial justice. Central to the illustration is a lighthouse, which indicates the role of spatial justice in providing ethical guidance but also normative orientation for urban climate action. The smaller elements in the illustration represent the eight principles of spatial justice offered to support urban researchers and practitioners in seeking spatial justice. These principles are not isolated but interdependent and certainly not exhaustive. In addition, their interdependency can be more or less evident. For example, Principles 1, 2 and 3 are closely linked, as they both challenge simplistic approaches to distribute justice. Similarly, Principles 6 and 7 go hand-in-hand, as reclaiming participatory planning (P6) is one way to challenge power dynamics (P7). Principles 5 and 8 are also related, as enabling alternative visions and imaginaries (P8) requires transcending boundaries and challenging established notions of knowledge through transdisciplinary research (P5). The eight principles are described in detail next.

5.1 | P1: Account for cumulative effects

Despite the overwhelming evidence of distributive inequalities at various scales, most studies look at the spatial distribution of one particular infrastructure resource or urban service/amenity. Such an approach has two consequences. First, it does not capture socio-economic barriers that ultimately determine whether people can use urban resources and services. For example, focusing on the distribution of metro stations without considering whether people can afford the tickets. Second, it does not capture inequalities in the distribution of 'real' benefits. For the same example of the metro stations, the real benefits are not the stations but the destinations people reach with the public transportation system and the benefits they get at these destinations (e.g. jobs, recreation, schooling, public health, etc.). Moreover, more attention should be given to the cumulative distribution of burdens, such as air pollution or traffic noise, as they also contribute to cumulative inequalities. In other words, distributive justice must go beyond infrastructure and services to consider the distribution of *real benefits and burdens* in a *cumulative* manner. Multiple frameworks exist to support a comprehensive assessment of both benefits and burdens, including social impact assessment (Franks et al., 2011; Grace & Pope, 2021) or the capabilities approach (Sen, 1990), which have recently gained attention across different fields evaluating spatial justice, for example transportation and energy (Nawaz et al., 2023; Pereira et al., 2019; Robinson et al., 2019).

5.2 | P2: Go beyond simplistic demographics

Inequality studies also often take a simplistic approach to evaluate inequalities across social groups, neglecting how social categories, such as race, class and gender, operate together and exacerbate each other. Here, we argue for a serious engagement with the concept of intersectionality (Crenshaw, 1991). The concept of intersectionality helps to explain how multiple social forces, social identities and ideological instruments work together to reproduce inequalities and legitimise asymmetric power relations. Intersectionality in recognition justice also implies a deeper commitment to decolonising, anti-racist and other progressive scholarships and movements (Rice et al., 2019) and resonates with Indigenous calls for self-recognition (Coulthard, 2014).

5.3 | P3: Connect to critical theory

With overwhelming opportunities for data-driven urban research raising questions about 'the end of theory', we reinforce that critical urban theory remains or becomes even more important to interpret the patterns found in data or to inquire about what is hidden or what is missing in data (Kandt & Batty, 2021; Thatcher et al., 2016). Not only are existing theories essential but also new theories have to be developed to account, for example, for the impact of digitalisation and algorithmic systems that currently shape social realities (Wagner et al., 2021). We argue, in particular, for a critical theory perspective that questions power dynamics in urban climate action, highlighting systemic and structural oppression (Sultana, 2022; Thatcher et al., 2016).

5.4 | P4: Ensure privacy, seek consent, be open

Given the scale at which urban data is being collected (or appropriated), renewed attention should be given to privacy and consent. This is particularly relevant in the context of urban surveillance (Altenhain, 2023), which are highly shaped by colonial and race oppression dynamics. Inspired by the Declaration on the Rights of Indigenous Peoples, we argue that urban researchers and practitioners must attend to three imperatives: consent has to be free (without coercion or manipulation), prior (to data collection) and informed (by complete and transparent documentation). This is linked to the need to ensure ethical and open practices that foster reciprocity, transparency and reproducibility in urban research and practice. We also advocate for digital sovereignty to challenge contemporary forms of techno-capitalism and counteract the increasing commodification of urban data and knowledge (Lynch, 2020; Sadowski, 2020; Thatcher et al., 2016).

5.5 | P5: Transcend boundaries

Given the complex and interlinked nature of urban processes and climate change, we call for transdisciplinary practices to challenge established notions of knowledge. From a pragmatic perspective, a transdisciplinary approach enables collaboration between actors from different sectors (i.e. private, public and/or civil society) around a specific problem statement in a joint process to define new research questions, new methodologies and new ways of inquiring results (Hansson & Polk, 2018; Robinson & Tansey, 2006; Talwar et al., 2011). From a critical perspective, transdisciplinarity enables the creation of new knowledge by combining disciplinary inputs with lived experiences, for example, via the collective documentation of urban processes (Mattern, 2020; Tschakert et al., 2016). This requires going beyond conventional research and education methods: Maps, professional and community education, festivals, exhibitions, manuals, manifestos and social media all contribute to advancing a spatial justice perspective. Also, drawing from feminist and decolonial scholarship, it is imperative to advance knowledge systems that situate urban climate action within existing struggles for justice in the city (Sultana, 2022; Wijsman & Feagan, 2019).

5.6 | P6: Reclaim participatory planning

Reclaiming participatory planning is not only instrumental to counteract tokenism and *mapwashing* practices but is also essential to ensure the democratic right of involving citizens in the decisions that affect them. To this end, we argue that participatory activities must be embedded in the planning process with the explicit goal of influencing decision-making (Kahila-Tani et al., 2019), intentionally transferring decision and action power to people (Arnstein, 1969). This entails new forms of participation that enable multi-way interactions among citizens and other actors for collective decision-making (Innes & Booher, 2004). In this context, we also stress the importance of informal or indirect forms of participation that contribute to the development and design of a place, including community-led and insurgent forms of action (Miraftab, 2009).

5.7 | P7: Acknowledge and challenge power dynamics

Power relations strongly mediate access, use and management of urban systems, directly influencing the achievement of fair decisions and outcomes in cities. We thus argue that urban research and practice must not be naive to the power dynamics shaping the urban environment, particularly in the current context of strong neo-liberal influence in cities (Harvey, 2005). This requires building new alliances (e.g. among labour, environmental and feminist groups) and connecting with community groups and social movements to disrupt existing power relations. We particularly call for a decolonial and feminist approach to shed light on historical and geographical power asymmetries behind the causes of climate change and existing oppression patterns (Sultana, 2022; Wijesiri et al., 2022), which will eventually shape the adaptation of urban spaces to a changing climate.

5.8 | P8: Enable radical futures and alternative imaginaries

Cities have been pursuing sustainability transitions to deal with spiralling socio-ecological crises. Strongly reliant on expert-led processes, transition visions are highly exclusive and detached from citizens' lived experiences. Being at best informed by the needs and aspirations of citizens, they reinforce business-as-usual, perpetuating existing inequalities. The lack of a truly collective vision and narrative leads to public detachment from climate decisions, protests against proposed actions, political polarisation and, ultimately, threats to democracy. We thus argue for urban research and practice to empower citizens and other urban actors to formulate bottom-up agendas from the margins, enabling radical futures and alternative imaginaries for climate action (Celermajer et al., 2024; Levy & Spicer, 2013; Miraftab, 2009; Rigolon et al., 2022; Thompson & Ban, 2022; Wright et al., 2013). From a decolonial perspective, we further stress that such visions and imaginaries must accommodate various ways of living in a pluriverse city (Escobar, 2018; Escobar & Frye, 2020); otherwise, they will only contribute to the further marginalisation of alternative worldviews.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

All data generated or analysed during this study are included in this published article.

ETHICS STATEMENT

This study did not require ethical approval.

PERMISSION TO REPRODUCE MATERIAL FROM OTHER SOURCES

No material from other sources was reproduced in this study.

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