Density as a politics of value:
regulation, speculation, and popular urbanism

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Abstract
Density is at the centre of urban change, and is often politicised. Building on Geographical and Urban scholarship, we set out a critical approach to understanding density through a focus on value. Following a review of key approaches to density, we show that while value is often at stake in efforts to manage, change, defend, or promote densities of different kinds, it has rarely been the explicit focus of critical research. We address this by outlining how density propositions entail a politics of value through three inter-related urban domains: speculation, regulation, and the popular, followed by consequences for future research.

Keywords: density; value; proposition; urban development; politics.

Introduction
In this paper, we develop a framework for critical research on urban density. We focus on the politics of value, as the ways in which density 'propositions' emerge and become contested in different urban contexts. In doing so, we argue that the relational production of urban density is a central political question for the city and its future, from questions of land, housing, and labour, to economic inequalities, sociality, and climate.

In recent years, density – the concentration of people in space - has become an increasingly central research and policy concern for cities and the multiple challenges they face. In debate about the climate emergency, building more compact urban form is often portrayed as a vital part of the solution, while in relation to labour and economy, dense urbanisms continue to be seen as important in fostering innovation and creativity (Angel *et al*, 2021; Holland, 2020; Kern 2021; Kjærås, 2021; McFarlane, 2021). While the COVID-19 pandemic prompted renewed questions about what it means to live together in compressed proximities, density has remained central to debates on urban development (Carozzi et al, 2022; Joiner et al, 2022).

At the heart of the growing critical research agenda on density is not so much a concern with what density is, but with how it is represented. This includes the claims that are made on its behalf. Rather than defining density, the focus in critical geographical and urban research – as we discuss below – has been on how density relates to all manner of concerns, from climate and post-pandemic health to economy and sociality. In the background of these debates are two key factors. First, the role of value, including what is understood to be valuable about density, and by whom, and the kinds of value – social, economic, ecological, or otherwise – that density may or may not generate. Density is not produced in a neutral way, but instead involves well-documented processes of direct and indirect displacement, the valorisation and prioritisation by states and markets of some forms of urban density over others, and the disinvestment or abandonment of particular sites (Madden and Marcuse, 2016).

The second factor at work here is the relational connection of density to specific matters of concern, ie the view that density is best understood not in and of itself, but in its relation to questions such as climate, health, inequality, creativity, innovation, and so on. These two factors – value and relationality – are entwined, giving shape to how density is understood as an urban phenomena. Yet while they are key to how density is implicitly understood in Geography and Urban Studies, they have not been explicitly drawn out. Our argument is that doing so is useful for advancing a critical understanding of density and for identifying alternatives.

Our focus is on how different kinds of urban density are used to make different types of urban value. In doing so, we develop an approach to density as a field of contested propositions. We are interested in how propositions for, or against, different kinds of urban development entail, implicitly or explicitly, value claims about density. In propositions that seek to build or change high density sites, the presence or absence of density plays important roles in how value is positioned, projected, takes shape, and is contested. The promise, for instance, of large concentrations of residents, economic activity, or cultural life shape proposals for urban development. At the same time, the presence of dense configurations of people in a site is often important for how propositions to defend or otherwise develop that site emerge, and here too value is a vital part of the politics. This approach, we suggest, makes three contributions to geographical and urban research on density.

First, it brings value explicitly into the centre of debate on density, which is important because it is, we argue, always present, albeit typically implicitly or in the background. For example, when the value of density is reduced to questions of speculative profit on land or housing, existing popular neighbourhoods that are value producing in other social and economic ways are devalued. At the same time, alternative propositions might be put forward by residents and activists that articulate other forms of value in relation to density. Second, it widens the scope of the range of actors included in critical research on density, which tends to focus on how powerful actors propose certain visions and models of density. Attending to the nature of different and contested propositions and the politics around them can reveal the unequal power relations that structure the urban context. And third, it is an approach that is useful for understanding density's role in the larger urban condition, given that dominant forms of density proposition and the politics around them play vital roles in the remaking of cities and urban space. In particular, we show how a politics of value emerges in the entanglement of density propositions and urban production and reproduction.

Conceptualising density: from measurement to proposition
The past, present and future of urbanization is unthinkable without density. Densities of all kinds: residential densities, transient densities in city centres - from busy weekends to festivals or protests – building densities, or densities in and around public and private transit. Density is contingent on the political histories of making and remaking urban space, and caught up with the reproduction of urban inequalities, economies, and everyday living. There is a long history of research here that we identify through four broad approaches, cutting across Geography, Urban Studies, Planning, Sociology, Architecture, Economics, and Political Science: *defining density, optimising density, contextualising density,* and *experiencing density*. Our argument in this section is that there has been a broad shift in Geography and Urban Studies from efforts to *measure* density to one centred on the *politics* of density, and in particular to an emphasis on how density is contested through different propositions. Our focus on value aims to further advance that agenda.

The first approach we see in the literature seeks to define density through debating the merits of different measures across contexts, from people per hectare to ambient population density (population numbers by area over time). There is no consensus on how best to measure density in the city (Dovey and Pafka, 2016). Some approaches use thematic definitions (population, jobs, buildings, etc.), others spatial (administrative boundaries, postcode areas, districts, etc); all with their strengths and omissions. Definitions of people per hectare, for example, say nothing about the size of homes, buildings or households, while measures of gross (built-up plus non-built-up areas) and net (built-up areas only) densities do not always distinguish between public spaces or streets and parks. Work using spatial science has measured the number of people living in an area over 24 hours, including data on journeys to work, residential location, and places of employment (Cohen and Gutman, 2007; Taubenböck et al, 2016). Across this work, density tends to be presented as neutral, there to be measured as an objective, if changeable, feature of cities.

The optimising approach aims to augment densities via techniques ranging from building height or congestion charging, to calculations of distributions and infrastructural 'carrying capacity'. Architectural engineer Susan Roaf (2010: 37), for example, argues that the question is not 'are high-density settlements sustainable' but 'what is the optimal density for this city'? This is assessed by factoring in resource capacity and constraints, supporting infrastructures, land, and so on: "Welcome to the new age of capacity calculators" (*ibid*). There is something of a consensus in these debates – and this is where the question of value is most visible - around the potential of 'compact cities' to enable environmentally, socially, and economically 'sustainable' and 'innovative' cities (Kjærås, 2021). These accounts are often accompanied by an 'anti-sprawl' position, more recently focussing on the '15-minute city' or the 'walkable city', which has become more prominent following the COVID-19 pandemic (Calafiore et al, 2022; Pozoukidou and Chatziyiannaki, 2021; Wainwright, 2023; Willberg et al, 2023).

The contextualising approach has examined why and how some forms of densification are celebrated, while others are portrayed as a problem. Densities are seen as the product of wider structural conditions, including inadequate investment in provisions to some areas. A key focus of this work is on the socioeconomic consequences of densification ideologies and processes (such as 'compact cities'), and on how dominant political, economic and cultural drivers shape processes of de/re-densification (McGuirk, 2011; McFarlane, 2016; Pérez, 2020). Dense *low*-income neighbourhoods are sometimes demolished in the name of building supposedly dense *high*-income urban developments, which are also increasingly portrayed as 'green', 'sustainable', and 'vibrant' (Merrifield, 2014). Much of this work is critical of boosterist discourses of generating 'urban laboratories' and entrepreneurial urban ecosystems through 'collision density' innovation, where creative actors come together spontaneously to foster new ideas, as it often pays little attention to the social and physical diversities of the city and urban inequalities (Cohen *et al*, 2016).

Research in this tradition is not always explicitly focussed on density. For example, whilst Neil Smith's *Uneven Development*, (1984) was not about density, his examination of how capital moves in a seesaw fashion between spaces and regions is helpful to understanding how value is produced through de/re-densification. In his terms, investment in the suburbs came at the explicit costs of the inner city, and capital followed suit, whereby devaluation lead to a ''rent gap' – between the actual and potential ground rent' (Smith, 2010: 200), until new development is drawn in. To move from 'developed' to 'underdeveloped' areas "is the geographical manifestation of the equally constant necessary movement from use-value to exchange-value and back to use-value" (*ibid*. 199). This account connects densities 'here' with those present,

gone or forming 'there', to a politics of value that accounts for the relational, processual production of density. Alongside the economic processes Smith described, policies such as rezoning or verticality restrictions work as part of a changing set of propositions about how urban space and life might be organised for certain economic ends, entrenching social inequalities (Atkinson, 2020; Graham, 2016; Livingstone *et al,* 2021; Lees *et al,* 2008).

Another important implication from this body of work is that the geographies of density must be understood as relational. As Kristin Kjærås (2021) has argued, there has been a tendency in geographical and urban research to see density as a phenomena that occurs in a particular site – for instance in a neighbourhood – thereby obfuscating the translocal processes of production and consumption through which densities are formed and upon which their existence depends (Keil, 2018; Haarstad et al, 2023). A focus on de/re-densification processes and value is a helpful corrective against this historical tendency, and opens up new ways of understanding the politics of density. For example, as Wachsmuth *et al* (2016) argue, seemingly 'green' compact urbanisms often come at the cost of environmental harms elsewhere (Moran *et al*, 2018).

Indeed, the relational geographies of de/re-densification that underpin contemporary urbanization are increasingly in flux, and part of a larger dialectic of concentrated and extended urbanization (Brenner and Schmid, 2015). As the world becomes increasingly urban, the dominant trend is for cities to expand rather than densify, fuelled by peripheral urban development of different kinds (Keil, 2018; World Resource Institute, 2019). This includes the production of increasingly massive suburban developments, as Güney *et al* (2019) have shown, from Cairo and Istanbul to Manila and Johannesburg.

Finally, a fourth approach emphasises the experience and perception residents hold of urban density, including how they form and change it, live and contest it (Chen *et al*, 2020). There is tradition of such urban research, from Jane Jacobs' work on social diversity to AbdouMaliq Simone's work on the social thickness of dense urban markets and neighbourhoods (Jacobs, 1962; Simone, 2014; Rao, 2015). Relevant here is work, mainly in Sociology and Psychology, examining crowds as particular kinds of instantiations of transitory density, from the 'anonymity' of the city crowd, the 'mass' of the industrial crowd travelling to and from the factory, the conviviality of the festival crowd, or the highly politicised and often stigmatised protesting crowd (Borch, 2012; Canetti, 1961). This research relates to the larger question of what makes citylife and the modern urban experience, from the Chicago School on (Chowdhury and McFarlane, 2021; Joiner et al, 2022). Across this tradition, value is typically located in the social mix, in collaborations, in spontaneous social creativity, and in the potentials of everyday living and assembly.

Together, these four approaches have informed geographical and urban research in three key ways. First, they have exposed the central role of density for managing and living in cities, and – notwithstanding the differences in approach – collectively offer distinct insight into the drivers, forms, and experience of urbanization and citylife. Second, they remind us that the meaning and significance of density is not pre-given, but emerges from particular intellectual and political contexts, understood in relations of unequal power and voice, lived and put to work in very different ways. And third, especially in the third and fourth approaches, density ceases to be a straightforward urban 'good' and instead becomes a contested arena of knowledge, politics and value.

Our contribution builds on and connects the final two approaches, advancing how density is contextualised and experienced. These two approaches reflect a more general research shift from efforts to define and measure density to one focussed on the contested politics of density. In this shift is a growing focus on the 'propositions' made in relation to urban density. We use 'proposition' here as a short-hand for claims made about density in relation to proposed or existing urban development. Propositions might include discourses, proposals, plans, agendas, images, ideas, and hopes for how density should be known, understood, or ought to be, including efforts to contest and to call for alternative ways of imagining, organising, planning or maintaining densities of different kinds. They are arguments for what could be, ranging from "conversation starters" and imaginations to more formal blueprints (Baptista and Cirolia, 2022).

Propositions include articulations and assertions. Articulations are explicit and pronounced views of the state of densities and/or how they ought to be (Featherstone, 2011; Hall, 1996). This includes formal policy or planning, or proposals from think-tanks, urban design institutes, architectural groups, or developers, through to activists elaborating political positions and manifestos by bringing new aspects into view. Assertions are less detailed, often indeterminate ways of keeping a range of possible conditions or futures open. They may emerge as "orientations to events" such as urban demolition or dispossession in the name of density, including acts of protest, slogans based on social or ecological dimensions of density, or a felt sense that particular densities should be protected, supported, grown, and so on (Simone, 2014: 119). Propositions might be about engendering longer-term futures, or supporting everyday arrangements. In the hands of developers and, often, states, propositions are frequently linked to economic speculation, perpetuating frontier capitalisms seeking out ways to exploit new or existing densities for profit. Amongst residents and activists, propositions might be connected to the defence of present densities or the calling into being of larger, more inclusive densities. Residents also form propositions rooted in the experience and perceptions of making density work. Unlikely and complex coalitions can form across actors to create, foster or challenge various value arrangements.

Given that, as Federico Pérez (2020) has argued, density is a 'centrepiece' of urban agendas globally, it is vital that critical geographers and urbanists interrogate the range of ways it is portrayed and enacted. As Pérez shows in his work in Bogotá, densification is an epistemology and a political project, often claimed by developers, planners and mainstream urbanists as an urban good that can produce climate-friendly socially inclusive creative urbanisms. He shows how the commitment to higher densities in the city, and the potential benefits that might flow from it, came to be seen as the natural and right direction for Bogotá's development. Over time, however, these propositions are increasingly subject to contestation, with alternative, more socially inclusive propositions put forward by a range of actors in the city. Our use of propositions builds on Pérez's call to both critique and de-centre the epistemic politics of density. To do that, propositions both emerge from the critical literature on urban density and serve as the entry point to our key concern in this paper: the politics of value.

Value and Density
Value is a relation between people, things, and social and economic conditions (Eden, 2012). If we understand density as a process of reproducing numbers of people in a particular space, value is differentially produced through inter-connected labour, land, material, and financial processes. There are three crucial valuation processes at work here: first, the development of particular spaces; second, activities within these spaces, including that generated by the development and maintenance of space, or that are reproduced by workers themselves through

waged and non-waged labour and social reproduction; and third, the ways in which the culture reinforces norms to make particular value arrangements possible and desirable. By the politics of value we mean the way in which different density propositions produce value for particular actors, and the ways in which these are differentially (de)prioritised because of what they produce or defend, and how this is perceived. In so doing we wish to open up the politics of how certain density domains are perceived as valuable, whilst others are not.

Land is key here. While a commodity's value is defined through its relation to other commodities in both its use value - which addresses a social need - and its exchange value in the market, land is unlike other commodities because it is fixed in place. Land is an assemblage of materiality, technologies and discourses packaged into distinct boundaries in order to be made a 'productive' commodity (Murray Li, 2014). Developing an urban land use theory, David Harvey (2009) explores how occupiers, from owners to renters and other tenants, often attach different kinds of value to land than estate agents, landlords, developers, financial institutions, or government institutions. Housing has use value, but land value, levels of initial cost, and the operations of financial infrastructure such as mortgages can draw occupiers into long-term debt and future value speculation, even changing their own relationship with its value (Harvey, 2015). These arrangements have been intensified through new financial instruments in which banks, developers, and states are drawn further into their reproduction. Dominant density propositions typically call for 'higher-end' urban developments that often end up catering to more affluent residents or investors (Ahlfedt and Pietrostefani, 2019).

Whilst in a traditional Marxist framing, social reproduction might have been seen as outside of value production, it is vital for making density work. Social reproduction is central to value and reveals a larger set of propositions around density (Federici 2019). The reproduction of dense urban life is as much a product of the care, maintenance and bodily reproduction – all of which produce forms of value – as land, (dis)investment, and built environment. In addition, attending to reproduction takes us beyond value as wage labour and draws in relevant debates in feminist scholarship (see, for instance, Mezzandri [2021] on the 'value theory of inclusion').

At the same time, the cultural justification of certain value producing rationales, such as market approaches to housing, have become commonplace across the urban world. This cultural politics emerges from longer histories rooted in the devaluation of certain places and people, including women, racialised bodies, and the working classes, histories that have been shown to be actively embedded in urban development policies (Skeggs, 2014; Taylor, 2019; Imbroscio, 2021). The (de)valuation of some of land and culture is reliant on assembling boundary devices to render land investible – classified, for example, as Tanya Murray Li (2014: 592) argues, on "'underutilised' or frontier land, or sometimes as marginal, idle or waste land" – often despite peoples past, present or future claims to be there. Density propositions can work to make land investable by ensuring that it becomes vacant, or *terra nullis* (Noterman, 2021) - as Murray Li (2014: 592) writes, "empty of people histories and claims but full of potential of new and improved use." The making and politics of value in relation to density, then, entails an expansive spatial and temporal process connecting land, built environment, capital, social reproduction, and culture.

Why value matters to urban density arrangements
At stake in a focus on propositions and value is how density is framed through a politics of *interacting values*, including the economic, cultural, moral, and political (Gidwani, 2013; Skeggs, 2014). We can see these interacting values at work, for example, in the ways in which 'dominant' and 'marginalised' densities are materially and discursively produced. In her work

in Toronto, Jay Pitter (2020) has identified two density types: 'dominant density' and 'forgotten density'. Dominant density is the aspirational urban form often forwarded in mainstream urban propositions, where "an emphasis is placed on large parks, generous pedestrian infrastructure, proximity to jobs and chic gentrifying coffee shops" for predominantly middle class white groups (Pitter, 2020: no page).

At work in dominant density propositions is not just the material production of urban economic value, with the attendant political economies of land and housing we allude to above, but a discursive politics about what ought to be valued in urban space, about what kinds of urban spaces ought to be produced and for whom. In contrast, 'forgotten densities' are typically devalued economically and often discursively. These include, Pitter suggests, "favelas, shanty towns, factory dormitories, seniors' homes, tent cities, Indigenous reserves, prisons, mobile home parks, shelters and public housing" (*ibid*), places that typically include "ageing infrastructure, over-policing, predatory enterprises like cheque-cashing businesses and liquor stores, inadequate transportation options, and sick buildings – structures that contribute to illness due to their poor design, materials and maintenance." As Katherine McKittrick (2013) has shown through her conceptualisation of planation futures, past violence and inequality persists in the unmaking of geographies of Blackness in the city.

Of course, proponents of dominant densities do not straightforwardly 'forget' these densities – indeed they actively require them for the value that can be extracted from them in the form of cheap labour, or as sites of potential future dispossession and speculation. At the same time, forgotten densities are nonetheless the context for many other propositions about how densities might otherwise be, often shaped by different kinds of economic, social and political value (Habermehl, 2021; McFarlane, 2021).

Approaching density as a field of unequal and contested propositions that entail a politics of value provides insight into the larger urban condition, including the inequalities of urban life and the transformation of cities. This includes a critical focus on how claims about density and its future are developed and put to work, their impact on urban space and life, and how they are contested. The impact of any density proposition is contingent and reflects the differential power of particular actors, and here those that conform with more dominant thinking and agendas on cities and their futures tend to have the greatest recognition and potential. Of course, densities are formed by all kinds of historic, economic, political, and cultural processes, and not by propositions alone. Likewise, value, as we are indicating here, is shaped by more than propositions alone. Nonetheless, a focus on proposition and value, and how different forms of value relationally interact, contest, and entail different visions of and for density, is a useful one for critical geographers and urban researchers concerned the making and remaking of cities.

Indeed, it is worth acknowledging that the approach we are developing here does not require density itself, but could be useful to for critical Geographical and Urban Studies more generally. Our specific interest lies in how propositions that seek to make or change density in the city, whether numbers of people or buildings, and the forms of value embedded in or contesting those propositions, but the production and reproduction of urban space entails propositions and value claims irrespective to whether density is important to the case or not. This is not to say that density is irrelevant to our case, of course. As we will show in the next section, density makes a significant difference to the forms of value at stake.

Some propositions, for example, position densities of people and/or buildings as a source of profit. Other forms of value emerge from the thick social worlds of those already living in a place, and here value might be attached to the forms of labour or social support that exists in a place, and which may, or may not be under threat from more profit-driven propositions. Rather than seeking an objective value of density, our focus is on how density either has forms of value attached to it by different actors, or in how value is generated by forms of high density urban life. Below we develop this line of thinking through three inter-related 'density domains' in which different density propositions arise, and which entail different kinds of value which are relational and in process: *speculative, regulatory,* and *popular*.

Density domains: speculative, regulatory, and popular
Speculative Density
The first and most common way that value is acknowledged within scholarship on urban density is through the development of land, the packaging and speculation of it into saleable commodities as part of a long history of de-revaluation, frontier-making, red-lining, and zoning. As a shorthand, we call this domain 'speculative'. Speculative propositions position value within market-based dynamics, in the form of global real estate markets and a set of regulatory and policy technologies that turn land, space, and infrastructure into investment opportunities above and beyond supporting economically and socially diverse urban lives (Stein, 2020). Key actors in this domain include real estate firms, developers, builders, different forms of investment capital, and supportive state authorities, as well as individuals through financial methods such as mortgage investments. Value here can work to colonise future land use through racialised capitalism, expropriation and dispossession (Pulido, 2016; Noterman, 2021).

Often facilitated by state and city planning, speculation can lead to new geographies of de/re-densification through displacement, real estate change, and gentrification. In some cases, we can see the development of high density urban architecture as directly led by financial speculation. This is especially pronounced in larger and heavily financialised cities like London, New York, Mumbai or Hong Kong, where hyper-intense political economies of housing are global in scope (Merrifield, 2014). What results are often elite high-rise apartments and leisure complexes. Top heavy tower blocks, which increase in size as they go up, are one example (Englefield, 2021). Buildings such as the 'walkie talkie' building in London were designed to be bigger at the top than the bottom, not only maximalising developed space from smaller land footprints, but in response to the higher prices garnered from top floor real estate. While building taller is typically seen to increase residential density, they do not always do so. Sometimes these cases may even take the form of empty or near-empty buildings (Stein, 2020) – residential or commercial structures that function as investment vehicles and which densify via built form rather than people (Graham, 2016).

Regulatory density
Our second density domain is regulatory. Here, attempts are made, successfully or unsuccessfully, to harness developing density for social and ecological interests. This includes attempts to balance economic and social use, such as through the planning system, in order to ensure for instance a proportion of affordable housing, or public amenities such as parks, playgrounds, or public transit connections. The key actors developing density propositions here are local governments, campaign groups, and the national government (eg forwarding social proposals, setting density ceilings, or being called upon for dispute resolution).

The level to which regulation propositions can change, control or modify densities depends on the aims and strength of national and local level actors (Perez, 2020). Much of the debate unfolds in the power relations between different state bodies, and in the limited capacities of local states to enact regulations and meet aims in a market economy in which developers, builders and other real estate actors are typically the most powerful voices pushing for higher densities (Atkinson, 2020). For example, while in London there have been, until recently, clear guidelines on density ceilings for new developments, in practice they were regularly flouted to make way for the new mega-developments we see in areas like the Isle of Dogs (Raco and Brill, 2022).

Of course, the state is often an enabler of speculative densities that actively exclude urban majorities (Goulding et al, 2022). Often, regulation and speculation density propositions are allied to further market growth (Ormerod, 2020). However, notwithstanding decades of a neoliberal discourse of market-driven planning, regulation in spheres like planning also remains tied to logics and functions beyond economic value, including anticipating social and ecological challenges and creating public goods (Inch, 2021). The Superblocks project in Barcelona is one example of rethinking urban priorities, challenging car-centric policies to create greener urban space, responding to high densities and lack of green space alongside urban climate demands (Ajuntament de Barcelona, 2021; Postaria, 2021; Eggimann, 2022).This is a domain of constant contradictions, compromises and challenges, as different state institutions at local or national level play a role in facilitating the market or forwarding social interests.

One high-profile example of the tensions within regulatory propositions would be the pencil towers in New York, hyper thin exceptionally tall buildings. This phenomenon has been driven by an interaction of speculation and regulation propositions, whereby housing is increasingly seen as an asset by super-rich alongside a technical change in the way the planning system allocated maximum heights. In this case the trading of 'transferable development rights' (TDR) of "unmaximized" airspace, whereby existing "smaller buildings" could trade "unused airspace", to allow for an increased height in other buildings (Wainwright, 2019). In this context, extracting economic and social value for urban majorities is near impossible.

The balance of speculation and regulation in different cities has powerful impacts in the resulting densities we see in the city around us. The push for higher densities on scarce and economically highly marketable land may be increasingly successful and evident, but planning can sometimes draw out provisions for social value, from affordable housing to public amenities like children's playgrounds, community centres, or green spaces. Yet, depending on local or national policy contexts, planners committed to visions of a more inclusive city may not feel they have adequate tools to recoup social value from investors. In London, for example, we have been conducting research on densification and several planners have complained about their lack of power against lucrative proposals pushed by developers, and often bemoan too that lack of support from the national state.

Popular density
Our third and final domain is popular density. Here, we are referring to the economic and social value created through inhabiting dense urban spaces, including through maintenance, repair, waged and un-waged labour. The key actors developing popular propositions are diverse groups of residents, activists, and visitors who inhabit dense urban spaces and make them work.

This domain does have a history in density literature, especially in the work of Jane Jacobs (1962), who found value in the form of dense social diversity (and see Moroni, 2016). Jacobs' work sought to open up lived, social value as a counter to density propositions shaped by economic speculation or large-scale modernist planning in cities such as New York. This is an important set of arguments, but it is also a line of thinking which has both sometimes overlooked inequalities of class, race, ethnicity, and gender in its celebration of social diversity, and inattentive to how such celebrations can be repackaged in processes of gentrification. Indeed, processes like gentrification and creative city discourses often rely on the packaging of diversity and proximity of dense communities for financial speculation, which can lead to the dispossession of long-term or working class residents (Zipp et al, 2021). Here, value is attached to particular types of residents and workers, over and above others with significant class and race impacts. Such examples can use diversity to create speculation, particularly without adequate regulatory frameworks to protect long-term residents.

However, by using the term 'popular' density we are signalling the value produced by all residents. This includes often socially de-valued marginalised or low income neighbourhoods, and the forms of living and labour, including beyond waged labour, that can go on in those spaces (The Urban Popular Economy Collective, 2022). Such an approach is attentive to the experiments, intense land use and friction produced through the process of densification 'driven, managed and motivated by sets of social infrastructure which allow for a creativity and orderliness.' (Rubin, 2020:1262). In this domain we are drawing attention to the different ways in which popular density is made, through mixture, self-development, autoconstruction (Caldeira, 2017) and complex entanglements with and outside state bodies, and from which density propositions can arise.

Value is produced through popular density in the ways in which land and infrastructure are developed, and in the socially reproductive activities that reproduce and maintain everyday life. Rubin (2020) offers an account of dense living in Johannesburg described as 'contingent densification', organised through incrementally amassed social infrastructures. Infrastructure is important here, both in how residents manage and develop it (often in response to exclusion from state run services), as well as the dense social infrastructures to support these activities. Also drawing from cases in South Africa, Simone (2004) examines the importance of infrastructure beyond things to include both social spaces and 'people as infrastructure'. This highlights the importance of the labour, spaces and networks that people produce in shaping how density is valued. Yet as Hall (2020: 85) puts it, whilst literature on social infrastructure takes care to note the human aspects of making infrastructure work, "whose human labour maintains these infrastructures?" She calls to us to identify social reproduction, in terms of the labour to make society function as a form of infrastructure in itself, which is critical to understand the making of value in popular density domains.

Value here is more than a feature of social mixture, as in Jacobs, but includes socially reproductive activities upon which waged labour often relies (Andruki at al, 2017; Federici, 2004). To understand the value created in popular densities then there are three aspects: creating and maintaining spaces and infrastructures; the development of social infrastructures through networks of people, spaces and things; and the labour to make these infrastructures work, through care, maintenance waged and non-waged work. Given the erasure of socially reproductive activities in urban contexts, and often in academic work (Hall, 2020), acknowledging the value produced in these spheres is important. From this position, there are important implications both for understanding where value is produced, and for identifying the sites from which dominant density propositions and forms of value might be challenged, from

the home to the neighbourhood, community centre and the formal and informal labour sites (Cavallero and Gago, 2021).

Over the years scholars of social reproduction have debated where value is produced through social reproduction, including debates in Social Reproduction Theory (SRT) (Bhattacharya, 2017; Ferguson, 2019). Drawing on past social reproduction debates and centring work from the global South, Alessandra Mezzandri (2021) maps value (re)production in both informal and formalised labour, or labour beyond the wage, a vital task when so much of the world is reproduced beyond a formal wage relation. Analytical distinctions between production and reproduction can preclude understanding of value in practice, especially in the global South (Federici, 2019). Dense neighbourhoods and markets can open out all kinds of ways of making a living that cut across these divides, including the work of reproducing density itself, from maintaining community spaces or infrastructure to providing mutual aid support or engaging in everyday labours of household maintenance or small-scale production and consumption. Furthermore, dense networks of people, objects and spaces are essential in residents everyday reproduction, including what has been termed the popular economy (Gago, 2017; The Urban Popular Economy Collective, 2021). Here, the term popular, with its sense of prevalent and common as well as number (populous), is particularly useful for thinking about high densities and the propositions and forms of value that are generated, contested, and differentially experienced.

A focus on the popular domain also reveals how in marginalised dense areas urban majorities occupy and become organised through tactics, culture and expanded livelihood approaches (Gago and Mezzadra, 2017; Simone and Rao, 2022; The Urban Popular Economy Collective, 2022). Solly Benjamin's (2008) concept of 'occupancy urbanism' is useful here. He examines the reproduction of occupancy urbanism through three inter-related aspects: the incremental and politicised settlement of land, socially embedded local government circuits shaping public investment and regulation, and the economy of interconnected small production and retail. In these complex webs of relations within and beyond local government, practices of densification operate against market exclusion and the state's inability, or in some cases unwillingness, to provide alternatives. Yet government rhetoric sometimes labels these spaces as full of criminality, disease and chaos, in order to justify tearing down or evicting settlements (Bhan, 2016; Rubin, 2020).

These densifications include what Teresa Caldeira (2017) has called 'peripheral urbanisation', ie the densification of neighbourhoods largely, though not exclusively, through the labours of poorer residents themselves (Reis and Lukas, 2022). These developments operate both within markets but in ways that often bypass more formal planning, real estate and financing processes, including through forms of autoconstruction, underpinning a thick constellation of value-generating socioeconomic practices. The geographies of these forms of 'peripheral' densification are varied; not only on the suburbs and edges of cities, but on the rooftops of apartment blocks in Hong Kong or the backyards of homes in Johannesburg, as well as within empty and unused buildings (Rubin and Charlton, 2020; Coker, 2019; Brown and Mayson, 2020; Dorman, 2020). As Rubin and Charlton (2020) argue in relation to Johannesburg, these kinds of densities not only reflect profound inequalities in land and housing in state policy and development trajectories, they also generate all kinds of 'forced intimacies' between landlords, tenants, and neighbours that involve various forms of cooperation and conflict.

The politics of value at work here is not straightforward; it is not a case of exclusive speculative propositions on the one hand and popular propositions with an alternative politics of value on the other. Debt and the access to credit, or banking institutions are critical motors for these densities (Cavallero and Gago, 2021; Salman, 2021). Non-waged labour can itself become financialised, and marginalised workers can be impacted by, influenced by, and organised around this (Gago, 2018). Dwelling in dense urban spaces often operates from liminalities as a 'double articulation', where value can be both extracted from and generative of urban densities of different kinds (Lancione and Simone, 2021). Here it is not only the material form from which value is produced in dense popular neighbourhoods, but socially reproductive labours enmeshed in physical proximity (even as they might be globally constitutive), diversity, and temporal rhythms of the neighbourhood. Attending to the popular, then, opens out a wider urban canvas from which to locate density propositions and trouble the politics of value, but not in straightforward ways that neatly delineate it from the speculative and regulatory.

Conclusion
Our aim here has not been to set out how to operationalise an approach to density, but instead to make a prior move. What we have sought to do is both review current thinking in critical Geography and Urban Studies on density, and to develop a framework for critical urban research on density. This framework entails attention to how propositions, the politics of value, and the domains of the speculative, regulatory, and popular, take shape. By recognising the different value generating domains operating in density – speculation, regulation, and popular - and the ways in which they become enmeshed, contested, and reshaped as propositions are put to work, we can identify the relational production of urban density as a vital political question for the city and its future. As we have indicated, this includes how density is positioned in relation to land, housing, labour of different kinds, the diversity of economic activity, social life, climate, and ecology.

Given the centrality of density to post-pandemic urban health, climate change debate, and growing inequality in an urbanising world, developing conceptual tools and approaches for critically analysing density is increasingly important. The kinds of propositions and forms of value that become dominant matter for how urban density is lived. Research on urban density, like critical geographers and urbanists has a role in excavating forms of social and ecological value that work with, and for, urban majorities.

We end with four implications of our arguments for critical geographical and urban research. First, and most transparently, approaching density as a field of contested propositions entails seeing density as both partial and political. This means rejecting the view still current in some traditions of research that density is a neutral calculation of numbers of people in place. Instead, analysing how density is seen as a 'problem' and 'solution', and by whom, and for what reasons and ends, becomes the starting point of research. The idea of proposition facilitates that effort, in that it begins with the view that there are explicit or implicit claims at work as to how density ought to be. Connecting those propositions to forms of value, and in particular to interacting and contesting forms of value, sharpens a focus on what different renderings of density do and do not do, in terms of the places, groups, histories, and phenomena that are appreciated and sought after or not, by whom and for what ends.

Second, our approach entangles density propositions with the production of value. When the value of density is reduced to the lens of new urban developments, existing popular spaces that are value producing are both devalued and neglected. The ways in which the politics of density domains unfolds, and the value attached to them, highlights the differential and historically

situated nature of existing densities. Particularly important for critical urban research, then, is how different propositions for density emerging from these three different domains clash and interact with one another. Paying attention to how propositions emerge, the forms of power relations that shape them, and the kinds of value that they lay claim to, is a useful route to placing the politics of density in a larger context. We hope the approach developed here supports work examining the politics at work in the reproduction of density in urban space, and the different propositions and forms of value that might be generated by attending to that work.

Third, there are methodological implications to this approach. The focus on tracing propositions and their interactions in unequal contexts of power demands a moving between contexts. It requires an attentiveness to how different claims about density are pieced together, taking in as appropriate actors and discourses within the domains of speculation, regulation, and the popular. What this means is that even if the given research project is on one actor or place – such as the state, a grassroots group, a development initiative, a contested site, and so on – a concern with propositions entail a kind of stepping back to identify how the ecology of actors, places and discourses relate to one another. At the same time, this approach asks that we look at the propositions in a particular light, ie one that seeks to draw out the value claims and forms that are carried with different propositions. Doing so connects a methodological approach to a politics of urban space.

And fourth, and following on, our approach builds on a tradition of critical thinking that connects density to the larger urban condition. Density propositions do not always have an impact, and some are more influential than others, but efforts to shape densities have real world effects. The dominant forms of density proposition are speculative and often classed, racialised, and destructive in their effects, where particular densities – the 'slum' for instance, or the neglected urban market – are positioned as apart from the future aesthetic and aspirations of the city. Either implicitly or explicitly, value is very often factored in. The shuffling, sifting and sorting of populations across urban space from and between centres and peripheries – which underpin larger geographies of de/re-densification - is driven in part by these processes (Güney *et al*, 2019).

References

Ahlfedt, G.M. and Pietrostefani, E. (2019) 'The economic effects of density: a synthesis.' *Journal of Urban Economics*, 111: 93-107.

Ajuntament de Barcelona (2021). Superilla Barcelona. Online. Accessed on 22nd May 2023. Available at: < https://ajuntament.barcelona.cat/superilles/en/>

Andrucki, M., Henry, C., Stinard-Kiel, S., (2017). Beyond Binaries and Boundaries in 'Social Reproduction' *Society and Space Forum on Social Reproduction*. Online. Accessed on 04 /04/ 2022. Available at: https ://www.societyandspace.org/forums/beyond-binaries-and-boundaries-in-social-reproduction.

Angel, S., Lamson-Hall, P., and Blanco, Z.G. (2021) 'Anatomy of density: measurable factors that constitute urban density.' *Buildings and Cities*, 2:1, 264-282.

Atkinson, R. (2020) *Alpha City: How London was Captured by the Super Rich*. London: Verso.

Baptista, I. and Cirolia, L. (2022) 'From problematisation to propositionality: Advancing southern urban infrastructure debates.' *Transactions of the Institute of British Geographers*, 47:4, 927-39.

Benjamin, S. (2008) Occupancy urbanism: Radicalizing politics and Economy beyond Policy and Programs. *IJURR* 32(3):719-729

Bhan, G. (2016) I*n the Public's Interest: Evictions, Citizenship and Inequality in Contemporary Delhi*. Georgia: University of Georgia Press.

Bhattacharya T (ed) (2017) Social Reproduction Theory Remapping Class recentring oppression. London: Pluto

Borch, C. (2012). *The Politics of the Crowd: An Alternative History of Sociology*. Cambridge University Press.

Brenner, N & Schmid, C. (2015) Towards a new epistemology of the urban?, *City*, 19:2-3, 151-182.

Calafiore,A. Dunning, R.Nurse, A. Singleton,A. (2022) 'The 20-minute city: An equity analysis of Liverpool City Region.' *Transportation Research Part D: Transport and Environment* 102.

Caldeira, T. (2017) 'Peripheral urbanization: Autoconstruction, transversal logics, and politics in cities of the global south'. *Environment and Planning D: Society and Space*, 35(1) 3–20

Canetti, E. (1961). *Crowds and Power*. Penguin Books.

Carozzi, F., Provenzano, S. & Roth, S (2022). Urban density and COVID-19: understanding the US experience. *Ann Reg Sci* https://doi.org/10.1007/s00168-022-01193-z

Cavallero, L and Gago, V. (2021) *A feminist reading of debt*. Pluto press

Chowdhury, R. and McFarlane C. (2021) 'The crowd and citylife: Materiality, negotiation and inclusivity at Tokyo's train stations.' *Urban Studies*, 59: 7, 1353-1371.

Cohen, B., Almirall, E., and Chesbrough, H. (2016) 'The City as a Lab: Open Innovation Meets the Collaborative Economy'. *California Management Review*, 59: 1, 5-13

Cohen, M. and Gutman, M. (2007) 'Density: an overview essay'. *Built Environment*, 33:2, 140-144

Coker, A. (2019) 'From informal settlements to harmonious communities: professional squatters and the many actors of urbanization in Metro Manila.' In Güney, K.M., Keil, R. and Üçoğlu, M. (Eds) *Massive Suburbanization: (Re)building the Global Periphery*. Toronto: University of Toronto Press, pp267-284.

Dovey, K. and Pafka, E. (2016) 'Urban density matters – but what does it mean?'. *The Conservation*, May 20th, http://theconversation.com/urban-density-matters-but-what-does-it-mean-58977

Eden, D. (2012). *Autonomy: capitalism, class and Politics*. Surrey: Ashgate

Eggimann, S. (2022). The potential of implementing superblocks for multifunctional street use in cities. *Nat Sustain* **5**, 406–414

Englefield, J. (2021). Ten top heavy buildings that are bigger at the top than the bottom. *Denzeen*. Online. Accessed on 21st October 2022. Available at: www.denzeen.com/2021/11/05/ten-towers-bigger-top-bottom/

Farías, I and Blok, A. (2016) Technical democracy as a challenge to urban studies, *City*, 20:4, 539-548, DOI: 10.1080/13604813.2016.1192418

Featherstone, D. (2011) 'On assemblage and articulation'. *Area*, 43:2, 139-142.

Federici S (2019) Social reproduction theory: History, issues, and present challenges. *Radical Philosophy* 2.04 https://www.radicalphilosophy.com/issues/204

Ferguson S (2019) *Women and Work: Feminism, Labour, and Social Reproduction*. London: Pluto

Gago, V. (2017) *Neoliberalism from below: Popular pragmatics and baroque economies*. Durham: Duke University Press

Gago, V. (2018). What are popular economies? Some reflections from Argentina. *Radical Philosophy*. 2.02. Accessed May 2021. Accessible at: https://www.radicalphilosophy.com/article/what-are-popular-economies

Gago, V. & Mezzadra, S. (2017) A Critique of the Extractive Operations of Capital: Toward an Expanded Concept of Extractivism, *Rethinking Marxism*, 29:4, 574-591, DOI: 10.1080/08935696.2017.1417087

Gidwani, V. (2013).Six theses on wate, value and commons. *Social and cultural geography*. 14(7):773783

Goulding, R., Leaver, A., and Silver, J. (2022) *Manchester Off-Shored: A Public Interest Report on the Manchester Life Partnership Between Manchester City Council and the Abu Dhabi United Group.* White Rose Research Online, https://eprints.whiterose.ac.uk/189304/ (accessed November 8th, 2022).

Graham, S. (2016) *Vertical: The City from Satellites to Bunkers*. London: Verso

Güney, K.M., Keil, R. and Üçoğlu, M. (2019) (Eds) *Massive Suburbanization: (Re)building the Global Periphery*. Toronto: University of Toronto Press.

Habermehl, V. (2021) 'Everyday antagonisms: organising economic practices in Mercado Bonpland, Buenos Aires'. In: The Anti-political conjuncture from the Left: the spatial politics of austerity and "crisis*"*. Beveridge, R. Featherstone, D. Standring, A. eds. *Environment and Planning C.* 39(3):536-554

Haarstad, H., Kjærås, K., Per Gunnar Røe*, P.G., and* Tveiten, K. (2023) 'Densifying the Compact City: A Renewed Agenda for Geographical Research.' *Dialogues in Human Geography*, 13:1, 5-24.

Hall, S. (1996) 'On postmodernism and articulation.' In Morley, D. and Chen K-H. (Eds) *Stuart Hall: Critical Dialogues in Cultural Studies*. London: Routledge, pp. 131-150.

Hall, S (2020) 'Social reproduction as social infrastructure'. *Soundings.* 76: 82-94

Harvey, D. (2009). *Social Justice and the City.* Revised edition. Georgia: University of Georgia Press

Harvey, D. (2015) *Seventeen Contradictions and the End of Capitalism.* Oxford University Press.

Holland, O. (2020). Our cities may never look the same again after the pandemic. *CNN Style (*https://edition.cnn.com/style/article/cities-design-coronavirus/index.html, accessed July 5th 2021).

Imbroscio, D. (2021) Race matters (even more than you already think): Racism, housing, and the limits of *The Color of Law*, Journal of Race, Ethnicity and the City, 2:1, 29-53, DOI: 10.1080/26884674.2020.1825023

Inch, A. (2021) Planning for the Future?, Planning Theory & Practice, 22:3, 341-346, DOI: 10.1080/14649357.2021.1936776

Jacobs, J. (1962) *The Death and Life of Great American Cities*. London: Jonathan Cape.

Joiner, A., McFarlane, C., Rella, L., Uriarte-Ruiz, M. (2022) 'Problematising density: COVID-19, the crowd, and urban life'. *Social and Cultural Geography*. DOI: 10. 1080/14649365.2022.2143879

Keil, R. (2018) *Suburban planet*. Cambridge: Polity

Kern, L. (2020) *Feminist City: Claiming space in a man-made world.* Verso

Kjærås K. (2021) 'Towards a relational conception of the compact city'. *Urban Studies*. 58(6):1176-1192. doi:10.1177/0042098020907281

Lancione, M., & Simone, A. (2021). Dwelling in liminalities, thinking beyond inhabitation. Environment and Planning D: Society and Space, 39(6), 969–975.

Lees, L., Slater, T. and Wyly, E. (2008) *Gentrification*, Routledge: New York.

Livingstone, N., Fiorentino, S., Short, M. (2021) Planning for residential 'value'? London's densification policies and impacts. *Buildings and Cities,* 2 (1) pp. 203-219. 10.5334/bc.88.

Madden, D. and Marcuse, P. (2016) *In Defence of Housing: The politics of Crisis.* Verso

McFarlane, C. (2016) 'The Geographies of Urban Density: Topography, Topology, and Intensive Heterogeneity'. *Progress in Human Geography*, 40:629-648

McFarlane, C. (2021) *Fragments of the city: making and remaking urban worlds.* Los Angeles: University of California Press.

McGuirk, J. (2011) 'Understanding the numbers'. In Burdett, R. and Sudjic, D. (Eds) *Living in the Endless City.* London: Phaidon Press, pp. 292-307

McKittrick, K. (2013). Plantation Futures. *Small Axe* 17 (3 (42)): 1–15.

Merrifield, A. (2014) *The new urban question.* Pluto Press, London

Mezzadri, A. (2021), A Value Theory of Inclusion: Informal Labour, the Homeworker, and the Social Reproduction of Value. *Antipode*. 53: 1186-1205.

Moran, D., K. Kanemoto, M. Jiborn, and R. Wood (2018) "Carbon Footprints of 13,000 Cities." Environmental Research Letters 13. Accessed January 9 2020. https://iopscience.iop.org/article/10.1088/1748-9326/aac72a.

Moroni, S. (2016). Urban density after Jane Jacobs: the crucial role of diversity and emergence. *City territory architecture*. 13.

Murray Li, T. (2014). 'What is land? Assembling a resource for global investment'. *Transactions of the institute of British Geography*. 39:589-602

Noterman, E. (2021) Speculating on Vacancy. *Transactions of the Institute of British Geographers.* (online first) 1-16

Ormerod E. (2020) 'The place of politics and the politics of place: Housing, the Labour Party and the local state in England'. *Political Geography*, 85, 102-308.

Perez, F. (2020). 'The Miracle of Density': The Socio-material Epistemics of Urban Densification. International Journal of Urban and Regional Research. 44(4):617-635

Pitter, J. (2020) Urban Density: Confronting the Distance Between Desire and Disparity. *Azure.* Online. Accessed on 01/ 01/ 2022. Available at: https://www.azuremagazine.com/article/urban-density-confronting-the-distance-between-desire-and-disparity/

Postaria, R (2021). Superblock (Superilla) Barcelona—a city redefined. Cities Forum. Online. Accessed on 26/05/2023. Available at :< https://www.citiesforum.org/news/superblock-superilla-barcelona-a-city-redefined/>

Pozoukidou, G. & Chatziyiannaki, Z. (2021) '15-minute city: decomposing the new urban planning eutopia'. *Sustainability* 13, 928.

Pulido, L. (2016) Flint, environmental racism, and racial capitalism. *Capitalism Nature Socialism*, 27, 1–16.

Raco, M. and Brill, F. (2022) *London.* Columbia University press

Rao, V. (2015) 'Infra-City: Speculations on Flux and History in Infrastructure-Making'. In Graham, S. and McFarlane, C. (eds) *Infrastructural lives: urban infrastructure in context.* London: Routledge-Earthscan, pp 39-58

Reis, N and Lukas, M. *Beyond the Megacity: New Dimensions of Peripheral Urbanization in Latin America*, Toronto: University of Toronto Press, 2022. https://doi.org/10.3138/9781487539719

Roaf, S. (2010) 'The sustainability of high-density.' Ng, E. (Ed) *Designing High-Density Cities: For Social and Environmental Sustainability.* London: Earthscan, pp. 27-39.

Rubin, M (2020) 'Paralleling auto-construction: the danger of misconceptualising density.' *Urban Geography*, 41:10, 1260-1266, DOI: 10.1080/02723638.2020.1837510

Rubin, M. and Charlton, S. (2020) 'Living with strangers: backyarding, density and intimacy in Johannesburg.' In Rubin, M., Todes, A., Harrison, P., and Appelbaum, A. (Eds) *Densifying the City? Global Cases and Johannesburg.* Cheltenham, UK: Edward Elgar Publishing, pp190-201.

Salman, L. (2021) Debtscapes :: the politics of social reproduction in the post-revolution city. *Middle east initiative. MEI working paper 02 online available at :* https://www.belfercenter.org/sites/default/files/files/publication/Working_Paper_Salman%20 FINAL.pdf

Simone, A. (2004) 'People as infrastructure: intersecting fragments in Johannesburg.' *Public Culture*. 16: 3,

Simone, A. (2014) *Jakarta, drawing the city near.* Minnesota: University of Minnesota Press.

Simone, A and Rao, V. (2022) Counting the Uncountable: Revisiting Urban Majorities. *Public Culture* 1 33 (2 (94)): 151–160. doi: https://doi.org/10.1215/08992363-8917150

Skeggs, B. (2014). Values beyond Value? Is anything beyond the logic of capital? The British Journal of sociology. 65(1):1-19

Smith, N. (1984) Uneven Development: Nature, Capital, and the Production of Space. Oxford Blackwell.

Stein, S. (2020) *Capital City: Gentrification and the Real Estate State*. London: Verso.

Taubenböck, H., Standfuß, I., Klotz, M. and Wurm, M. (2016) 'The Physical Density of the City—Deconstruction of the Delusive Density Measure with Evidence from Two European Megacities'. *International Journal of Geo-Information*, 5: 206, doi:10.3390/ijgi5110206;

Taylor, K. Y. (2019). *Race for profit*. University of North Carolina Press.

The Urban Popular economy collective (2021) The Urban Glossary Project. *Cityscapes Magazine.* Online available at: https://cityscapesmagazine.com/projects/the-urban-glossary-project#about-project (accessed on September 18th 2021).

The Urban Popular Economy Collective, Benjamin, S. Castronovo, A. Cavallero, L. Cielo, C. Gago, V. Guma, P. Gupte, R. Habermehl, V. Salman, L. Shetty, P. Simone, A. Smith, C. Tonucci, J. (2022). Urban Popular Economies: Territories of Operation for Lives Deemed Worth Living. *Public Culture* 2022; 9937241. doi: https://doi.org/10.1215/08992363-9937241

Wachsmuth, D., Cohen, D.A., and Angelo, H. (2016) 'Expand the frontiers of urban sustainability'. *Nature*, 536, 391-393, 25th August. Accessible at https://www.nature.com/news/expand-the-frontiers-of-urban-sustainability-1.20459

Wainwright, O. (2019) 'Super-tall, super-skinny, super-expensive: the 'pencil towers' of New York's super-rich.' *The Guardian*, February 5th (https://www.theguardian.com/cities/2019/feb/05/super-tall-super-skinny-super-expensive-the-pencil-towers-of-new-yorks-super-rich, accessed July 5th, 2021).

Wainwright, O. (2023) 'In praise of the 15-minute city: the mundane planning theory terrifying conspiracists.' *The Guardian*, February 16th, https://www.theguardian.com/commentisfree/2023/feb/16/15-minute-city-planning-theory-conspiracists, accessed June 4th, 2023).

Willberg, E. Fink, C. Toivonen, T. (2023) 'The 15-minute city for all? Measuring individual and temporal variations in walking accessibility.' *Journal of Transport Geography,* 106.

World Resources Institute (2019) *Upward and Outward Growth: Managing Urban Expansion for More Equitable Cities in the Global South.* Washington, DC: World Resources Institute.

Zipp, S., Hock, J., and Storring, N. (2021) 'The Forces of Decline and Regeneration: A Discussion of Jane Jacobs and Gentrification". In Linder, C. and Sandoval, G. (Eds) *Aesthetics of Gentrification: Seductive Spaces and Exclusive Communities in the Neoliberal City.*

Amsterdam: Amsterdam University Press, 2021, pp. 27-48. https://doi.org/10.1515/9789048551170-003