



# Urban green grabbing: Residential real estate developers discourse and practice in gentrifying Global North neighborhoods

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## ABSTRACT

In the movement towards building greener and more sustainable cities, real estate developers are increasingly embracing not only green building construction but broader strategies and action related to urban greening. To date, their motivations and role in this broader urban greening dynamic remains underexplored, yet essential to dissect how greening is sustained and real estate development legitimized in revitalizing neighborhoods. With an eye to better understand green urban capitalist development processes underway amidst financialized nature and urban growth, and the equity impacts they entail, we explore residential real estate developers urban greening discourses and practices. Through a novel dataset of 42 interviews with private and non-profit residential real estate developers in 15 mid-sized American, Western European and Canadian cities, we uncover three differentiated but interconnected discourses around (i) financial benefits, (ii) consumer- or investor-driven demand and (iii) social dimensions behind developers' interest in urban greening. We argue that developers embark on urban green grabbing through “green” discursive and material value appropriation and rent extraction strategies. Urban green grabbing is conceptually useful in depicting who benefits and how/when developers extract additional rent, surplus value, social capital and/or prestige from locating new residential projects adjacent to new or up-and-coming green amenities. Our work contributes to debates about urban greening's perceived position as a value-producing and rent-extracting good from both a political economy and political ecology perspective.

## 1. Introduction

In the past decade, research on real estate development and greening has boomed. Quantitative econometric studies on the topic abound, focusing on green building characteristics and consumer choice (Qian et al., 2013; Sah et al., 2013; Zhang et al., 2018) and on property value gains from green projects (Immergluck and Balan, 2018; Conway et al., 2010; Czembrowski and Kronenberg, 2016). Geographers, planners and political ecologists have also started to examine the intersection between urban development, greening and economic growth. Community activists and researchers argue that urban greening — rail-to-trail parks, cleaned-up waterfronts with green promenades, canal remediation,

greenways and green streets, or large-scale parks — contributes to build a green urban brand (García-Lamarca et al., 2021) and acts as a pivot for urban green development (Argüelles et al., 2021; Immergluck, 2009; Triguero-Mas et al., 2021). New environmental amenities become part of neighborhood marketing and renewal (Krueger and Gibbs, 2007; Tretter, 2013) as they elicit hopes of economic growth and deepened investment (Dooling, 2009; Quastel, 2009). In other words, urban greening often forms part of a new form of growth machine supported by planners and elected officials (DuPuis and Greenberg, 2019; Gould and Lewis, 2018; Loughran, 2014). A range of financial strategies have furthermore been mobilized to fund urban greening (Bigger and Millington, 2019; Castree and Christophers, 2015; Loftus and March 2016;

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Jones et al., 2020), often helping legitimize early investment and “risky” financing in previously disinvested neighborhoods and thereby paving the way for large-scale urban transformations and new real estate projects that benefit some residents over others (Anguelovski et al., 2021).

Within this expansive literature, research critically assessing the role of urban greening in relation to real estate developers’ discourses and strategies is absent. We believe this is a particularly important question due to the role that real estate developers play in shaping cities and materializing the increasingly predominant resilient green city orthodoxy (Connolly, 2019). It furthermore has critical implications for questions of equity and justice in urban environments, because the monetization and financialization of greening creates speculation and rent capture for a few (Anguelovski et al., 2019a), challenging the growing imaginary that green is universally “good” (Angelo, 2021). The concentration of investment and profit in the hands of high-end developers, investors and wealthy residents usually occurs at the expense of historically marginalized groups (Heynen et al., 2006; Byrne, 2012; Anguelovski et al., 2018). While existing work related to green gentrification points to the influx of new (luxury) developments near green amenities (Dooling, 2009; Checker, 2011), the only qualitative study considering residential real estate developers and greening focuses on a wealthy (white) suburban neighborhood near New York City (Beuschel and Rudel, 2010). A critical gap thus exists in our understanding of how real estate developers relate, respond to and even attempt to shape urban greening more broadly and in a wider variety of geographies.

Drawing from interviews with 42 residential real estate developers active in 15 cities in the US, Western Europe and Canada, our paper begins to address this gap, towards helping to identify how developers understand the supposed social and economic “added value” derived from green interventions (Angelo, 2021; Knuth, 2016). We ask: How are residential real estate developers in gentrifying neighborhoods in the urban Global North mobilizing urban greening? What are developers’ “greening” discourses, uses and imaginaries? While differentiating between private and non-profit developers, we argue that both exhibit urban green grabbing through rent extraction and value appropriation strategies rooted in discourses we uncover of urban green-related (i) financial benefits, (ii) consumer and investor demand and (iii) aspirational, apolitical ideas of socio-environmental good.

Inspired by Fairhead et al.’s (2012) conceptualization of green grabbing—defined as the appropriation of land and resources for environmental ends—and building from research considering land grabbing in urban contexts (Feola et al. 2019; Hettiarachchi et al., 2019; Safransky, 2017; Steel et al., 2017; Zoomers et al., 2017), we further theorize urban green grabbing as has been called for by recent scholarship (Anguelovski et al., 2019a). Our analysis shows that urban green grabbing illustrates how and for whom residential real estate developers appropriate additional surplus value, extract rent, social capital and/or prestige through locating developments adjacent to new urban greening projects. Here, playing part in building a green and sustainable city is embedded in housing development discourse and practice. We unpack developers’ strategies of urban green grabbing and their insertion into broader circuits of green capitalism (Prudham, 2009; Wallis, 2009) towards seizing green rent gaps. In doing so we seek to make a broader contribution to the role that greening plays in urban development through the financialization of nature (Brand and Wissen 2014, Ouma et al., 2018; Sullivan, 2013) and the financialization of urban growth (Weber, 2002, 2015; Rutland, 2010), from the perspective of residential real estate developers. We thus aim to deepen reflections on (urban) greening, real estate development, value and rent (Andreucci et al., 2017; Knuth, 2016; Ward and Aalbers, 2016; Weber, 2015) from both a political economy and political ecology perspective.

The paper unfolds in the following five sections. Section two unpacks urban greening and real estate development considering processes of, and inequalities generated through, (green) value and rent relationships. Section three explains our methodology, while the following details our empirical findings. In section five we analyze our findings

through the urban green grabbing lens. Finally, we conclude the paper with brief reflections on the contribution of our conceptualization, how urban green grabbing dynamics can be addressed now, as well as further considerations and research gaps.

## 2. Urban greening in real estate development: (green) value, rent and urban inequality

As climate change and ecological disaster loom large, cities have been designated as the key sites for climate mitigation, adaptation and resilience-building (Bulkeley and Castán Broto, 2013). The ever more consolidated green resilient urban planning orthodoxy (Connolly, 2019) is bolstered by the UN’s Sustainable Development Goals and regional and local greening plans. An increasing number of real estate developers, often attracted by “green” profit margins, are also picking it up through more sustainable building practices and locating projects in recently greened, or greening, neighborhoods (Gould and Lewis, 2017). Indeed, many real estate players increasingly push (certified) green properties as an investment that is inherently more valuable, or that will even “grow” in value in the future (Chegut et al., 2014; Knuth, 2016; Nelson and Rakau, 2010).

Yet real estate developers’ broader visions of and strategies for making this future green city a reality and selling it is an underexplored topic. Various facets of the real estate development industry writ large have been explored (Harvey, 1982; Healey, 1994; Coiactto, 2009; Fainstein, 1994; Guy and Henneberry, 2000), as has real estate developer behavior (Antwi and Henneberry, 1995; Coiactto, 2001). More recent critical research has considered real estate development in relation to finance capital, value and rent extraction (Butcher, 2020; Flynn, 2016; Guironnet et al., 2016; Halbert and Rouanet, 2013; Rouanet and Halbert, 2016; Searle, 2014; Weber, 2015). The latter three concepts are insightful when analyzing developers’ discourses and uses of urban greening not only because of their prominent role in capitalist urban development processes but also because of the way finance capital is mobilized and (green) rent and (surplus) value are captured by private developers in particular, processes which often deepen existing urban inequalities (Anguelovski et al., 2018).

Developers’ actions ripple throughout urban space. They transform urbanization patterns, local urban development politics and sometimes even manipulate/manage dissent as they channel finance capital and investment into the built urban environment (Brill, 2018; Halbert and Rouanet, 2013; Guironnet et al., 2016; Leffers and Wekerle, 2020; Rouanet and Halbert, 2016). In this process, space is made for capital, the latter understood as value in motion, and this value in turn becomes internationally legible—especially from/in the Global South—as Llerena Searle (2014) underlines. Robin’s (2018) research in London suggests that the type of urbanity created by developers is the concrete materialization of profitability goals, what she calls real estate value(s). Real estate developers in the UK context furthermore often profit from regeneration, extracting rent and evading affordable housing requirements (Flynn, 2016). Rent-maximizing strategies are pursued by greenfield affordable housing developers in Johannesburg through seizing differential rents from land made cheap from the city’s racialized development patterns and accruing monopoly rents thanks to developer power (Butcher, 2020). In the rent creation process, the role of financial institutions is key in order to ensure an operation’s financial feasibility and security while undermining the rights of working-class and racialized property owners. In Washington, DC, for example, a project like the 11th Street Bridge Park is only able to move forward thanks to the financial support of global banks who also further legitimize the project (Anguelovski et al., 2021).

While it is unsurprising that profit-making and rent-maximization strategies are core drivers especially for private real estate developers, what Robin (2018) calls real estate value(s) deserve deeper consideration. Real estate value(s) are built relationally. In other words, developers not only produce urban space and make space for capital, but

also engage in social forms of production because their development interests and actions are shaped through relations with the state, investors, consumers and civil society more broadly (Ballard and Butcher, 2020; Leffers and Wekerle, 2020) and their associated discourses and practices. As public officials, urban planners and environmental nonprofits increasingly push the green city agenda, more explicitly articulated socio-ecological forms of production increasingly characterize real estate developers as more extensive/intensive forms of urban greening make new markets, and forms of profit, possible, especially in the context of green capitalism (Prudham, 2009; Sullivan, 2013). This process arguably affects real estate value(s) at multiple levels. It can be seen materially through studies showing that green buildings can be profitable over their entire life span (Zhang et al., 2018) or that green Real Estate Investment Trusts (REITs) have a higher return on assets than their “less green” peers (Sah et al., 2013)—and in turn developer and investor desire to pursue these promising profit-making avenues. Such findings have serious implications for urban (in)equality because as residential green building programs are becoming mandatory in some municipalities (Aroul and Hansz, 2012), studies have found that green buildings and neighborhood certification can have a gentrification effect (Bouzarovski et al., 2018; Chegut et al., 2014; Benson and Bereitschaft, 2020, Rice et al., 2020).

How does “green” value relate to such real estate value(s)? While value theory has been long and heatedly debated, discussions have resurged about the relation between value and nature in the context of growing environmental degradation and climate catastrophe. Recent critical explorations (Christophers, 2018; Kallis and Swyngedouw, 2018; Kay and Kenney-Lazar, 2017; Robertson and Wainwright, 2013; Walker, 2017) agree that while socially necessary labor time is what creates value, absolutely fundamental in this process, as Marx underlined long ago, is the intimate interrelation between labor and nature. Capital—understood as value in motion—in essence appropriates nature. “Capital robs the fertility of the soil and power of the worker,” as Giorgos Kallis and Erik Swyngedouw (2018: 41) note. In this line of thought, nature is free of charge, the worker is paid (as little as possible) for their labor power, and all surplus value produced by both nature and labor goes to the capitalist—who in turn continuously seeks to maximize surplus value. In this way, value, relationally created, emerges from the metabolic relationship between capitalist societies and the biophysical world (Heynen et al., 2006). And as Cindi Katz (1998) and Neil Smith (2007) stated, under capitalism, and arguably even more so under green capitalism, nature is an accumulation strategy.

Similar to value theory, land rent—closely related to (green) value in the context of real estate development—has a protracted legacy of fierce intellectual debate between and among Marxist- and neoclassical-inspired thinkers. As land has increasingly become a financial asset in recent decades, rent has become a pressing concept to unpack in order to better understand how investment moves through land in the finance-real estate relationship (Haila, 1988; Harvey, 1982; Guironnet et al., 2016; Purcell et al., 2020; Swyngedouw, 2019; Ward and Aalbers, 2016). While value is created in the development process through the productive relationship between labor, nature and capital, as explained previously, rent exists solely as a payment made to landowners for the use of land and related—yet abstracted—investment flows. In broad brush strokes, monopoly rent arises due to a unique or non-substitutable feature of the land and the very existence of the rentier class, and differential rent is generated by the increased productivity resulting from a specific feature of land or investment upon it (Ward and Aalbers, 2016). For example, Sian Butcher (2020) points out how residential real estate developers in Johannesburg appropriated differential rent through controlling “land made cheap through racialized regimes of value and waste” (p.355), while monopoly rents were obtained through specific articulations of developer power. Residential developments located adjacent to newly greened urban areas can arguably increase both monopoly and differential rents, which can then be seized by developers, investors and homebuyers through green rent gaps (Heynen et al., 2006;

Byrne, 2012; Anguelovski et al., 2018). The power exerted through the rent relation harkens the term value grabbing (Andreucci et al., 2017), a concept that politicizes rent as a taken-for-granted payment and highlights the possibilities of transforming social relations underlying the distribution of surplus value.

Finally, outside but directly related to questions of unequal distributions of (green) value and rent, the not-at-all new process of appropriating nature gained a new lexicon a decade ago through the interrelated concepts of land grabbing (Borras et al., 2012) and green grabbing (Fairhead et al., 2012). Both refer to a diversity of actors and power relations driving large-scale land deals. Land grabbing occurs for commercial food or energy crop-oriented agriculture or resource seizure, while green grabbing captures land in the name of the environment (e.g. conservation or climate mitigation). Both concepts emphasize how grabs materialize control and consolidate the position of wealthy landowners, large corporations, the state, international agencies and benefits for large-scale capital, while the poor and marginalized are often (violently) dispossessed of their land and livelihoods and/or incorporated as workers on seized land (Li, 2018; Rocheleau, 2015; Borras et al., 2012). In this process, unexpected socio-spatial impacts and conflicts sometimes emerge in local social relations and through the (re)creation of new hierarchies (Chettri, 2020).

While the bulk of the literature on land and green grabbing considers rural areas appropriated mostly for energy-related projects in the Global South, explorations of *peri*-urban and urban land grabbing have emerged in recent years across a variety of geographies (Feola et al. 2019; Hettiarachchi et al., 2019; Safransky, 2017; Steel et al., 2017; Zoomers et al., 2017). Critically, much of this literature illustrates how different governance processes and actors can kickstart urban capital accumulation, socio-spatial inequality and gentrification dynamics in urban land grabs (Steel et al., 2017). For example, in Colombo, Sri Lanka, where in the neo-liberal era the city’s extensive wetlands became an urban real estate market commodity, real estate developers, urban development agencies, local and international capital and the urban upper-middle class benefited from grabbing wetlands and turning them into real estate, parks and canals, while poor and marginalized urban populations suffered eviction, dispossession and environmental hazard (Hettiarachchi et al., 2019). In Detroit, “vacancy maps” have been used by planners, officials and private developers to designate parts of the city as a blank slate, where developers and entrepreneurs are welcomed to embark on productive green ventures and create new “value” (Safransky, 2014). In the real estate development and urban greening relationship we are considering in this paper, land is not always physically seized or developed through the unequal enforcement of land use regulations (as it is often in the Global South, see Anguelovski et al., 2019b), but such conceptualizations can certainly help us think through the relationships and processes in question.

(Green) value, rent, grabbing: how can these concepts help us understand how residential real estate developers in gentrifying urban areas in the Global North mobilize urban greening, as well as their discourses and imaginaries? Before articulating our results and analysis, we turn to explain our methodology.

### 3. Methodology

Our paper was built from the analysis of qualitative data systematically collected as part of a European Research Council-funded project which analyzed the social impact of urban green amenities and their relationship with green gentrification. Fieldwork was conducted between 2018 and 2020 in 24 mid-sized cities (between 500,000 and 1.5 million residents) in Western Europe, Canada and the United States, with cities representing a diversity of development pathways (i.e. industrial and post-industrial, economically growing or shrinking; compact or sprawling). After a comprehensive review of grey literature, media articles, analyses of real estate and demographic change, together with local expert input, we selected one or two gentrifying

neighborhoods as our focus for qualitative field work in each city.

According to the parent project inclusion criteria, focus neighborhoods were experiencing or threatened by gentrification processes linked with urban renewal or revitalization, high-end and luxury (re) developments, retail changes and socio-demographic changes marked by the arrival of socially privileged residents and increased real estate prices. Some of those changes were taking place in post-industrial neighborhoods with large amounts of cleaned-up or/and regenerated land (i.e., Amsterdam, Glasgow, San Francisco) while others were located in more consolidated areas (i.e., Cleveland, Montreal, Washington). We verified these trends with quantitative data analysis wherein gentrification was measured through a neighborhood-scale index of multiple social and real estate indicators. All neighborhoods had also been or were about to be the site of different types of greening projects, including new or rebuilt parks, gardens, greenways, community gardens, waterfronts, canals and/or riverways. All our cases were furthermore situated in marginalized neighborhoods, that is, places which had historically suffered from under-investment and abandonment, and where historically marginalized groups—working class and racialized people—were and are often still stigmatized. Each case represented a unique urban history, specific gentrification dynamics and redevelopment projects, reflecting diverse relations between greening and development.

### 3.1. Study sample, data collection, and analysis

All case sites, field data collection and analysis followed a similar protocol. We pretested, modified and selected a final set of questions and probes for a semi-structured interview guide based on the overall aim of the larger study, from which this sub-study draws. Overall, all researchers spent approximately one month conducting intensive and targeted fieldwork in each neighborhood/city, after recruiting a diversity of participants representing real estate developers, community activists and city employees to maximize the heterogeneity of perspectives on the topics of interest.

Within this broader research design, for this paper we conducted specific interviews with 42 residential real estate developers active in 15 cities in the US (nine cities, 27 interviews), Western Europe (five cities, 11 interviews) and Canada (one city, four interviews).<sup>1</sup> Our study is unique in its international and broad-scale approach and for our ability to access a diversity of developers across cities. Amidst the wealth of data at hand, we decided to focus exclusively on residential real estate developers due to their underexplored visions for and material role in manifesting the green city and contribution to neighborhood change. Urban housing provision—and especially its quality, location and the amenities to which it gives access—has profound implications for the affordability and accessibility of urban life especially for working-class and racialized residents. While we of course recognize that real estate developers exist and act relationally (Robin, 2018; Ballard and Butcher, 2020; Leffers and Wekerle, 2020), we believe that focusing in greater depth on this actor in different urban contexts can bring valuable insights to their urban greening vision and action.

We contacted residential developers we identified as critical in neighborhood real estate change. By critical, we mean that they played a central role in each place because of their influence, scope and visibility. The developers we interviewed operate internationally, nationally, regionally and locally and in both private (32 interviews) and non-profit (ten interviews) sectors. Interviews lasted from 45 to 75 min, with questions focusing on the developers' general priorities, the motivations for those priorities, the extent to which greening and affordability play a part in their work, partnerships and how greening, city policy and

community activism affect development decisions. All data was fully coded through an initial round of thematic coding in Nvivo, identifying all interview materials related to real estate development, investment and greening in all cities. In a second stage, all authors who conducted interviews with developers completed a table created by the lead author specifying the type of developer, their scale of operation, how they used or mobilized a greening discourse, other relevant points and specific quotations of interest. A grounded theory approach was then taken, grouping together responses to identify specific discourses and imaginaries around greening. In some cases original interview transcripts were revisited manually to cite exemplary statements made by developers.

In addition to primary data, we collected relevant secondary data to complement our analysis of urban development changes in each neighborhood from 1990 to present, as this date signals the rise of the urban sustainability agenda more broadly (Beatley, 2011). Secondary data included documents and fact sheets, reports, or policy documents from a variety of local organizations and city planning documents outlining greening and/or redevelopment projects and investments in each city. We also used developers' websites to obtain specific data on rental costs and apartment size. Data from these sources was used to triangulate and verify the accounts of interviewees, and to identify additional development information, dates of relevant events or results of unpublished studies which respondents mentioned.

We now turn to our empirical material to respond to our research questions: How do residential real estate developers in gentrifying neighborhoods in the Global North mobilize urban greening? What are developers' "greening" discourses, uses and imaginaries?

## 4. Financial value, consumer demand, social good: developer discourses on urban greening

Three broad themes emerged from our interviews with residential real estate developers as they discussed urban greening in relation to their development visions and strategies. The first, and most prevalent, was the financial dimension of greening. This was discussed in terms of the value urban greening is perceived to have or create and its value as a development incentive. The second theme was consumer- or investor-driven demand for green development, a particularly prevalent discourse among private niche market or luxury developers at all scales of operation. Here, developers depicted themselves as responding to consumer or investor desire and discussed greening as increasing the attractiveness to and consumer acceptance of new, and especially denser, development. The social and health dimensions of urban greening was the third dimension of developers' discourses. In this case, greening was discussed in an aspirational and utopic light, as a luxury wellness good, as part of developers' DNA or—as underlined especially by non-profit real estate developers—a social benefit for residents' health and well-being. These themes are detailed in the subsequent three sections, followed by an analysis and conceptual exploration of all dimensions.

### 4.1. The "value" of greening: profit-making, seduction, development incentive

Around one quarter of all developers we interviewed underlined, in a variety of different ways, that urban greening either "has" or "creates" economic value. These developers were mostly private, operating from local to international scales. Several developers openly celebrated the increased property values that urban greening brings (Heckert and Mennis, 2012; Beuschel and Rudel, 2010). For example, in relation to converting an abandoned rail bed into a greenway, a local private Boston developer stated that "there's no question, I believe that it should be increasing property values just by the basic fact that it's converting something that is probably very negative to something that is very positive." Similarly, several developers emphasized that parks, green

<sup>1</sup> US cities included Atlanta, Austin, Boston, Cleveland, Dallas, Oakland, Portland, Seattle and Washington DC, European cities were Amsterdam, Bristol, Dublin, Glasgow and Lyon and the Canadian city was Montreal.

spaces or blue spaces add value to homes, improving design and performance and helping communities become more vibrant—that is, attracting further waves of developers and gentrifiers. Private developers active in Washington DC, Atlanta, Cleveland and Dallas directly stated that locating residential housing near greening projects is a benefit for profit-making because it improves the aesthetics and attractiveness of their development. Reflecting how greening forms part of a broader process of neighborhood beautification, especially so in post-industrial areas, a global developer active in Atlanta told us how “we made the decision to make the BeltLine our front door.” In part this was influenced by their past experience working near the High Line in New York City and the president and CEO in particular’s “very clear vision of what the BeltLine was going to be and how we wanted to interact with it”. Benefits for profit-making were often reflected in the price tag of new developments: controlling for size, a rental apartment in this new development costed 66% more per month than the average rental apartment in Atlanta and 57% more in East Boston in May 2021.<sup>2</sup> In terms of buying housing, a new greened condo in Montreal’s Sud-Ouest borough was 67% more expensive than the average condo in the city in May 2021, where 40% of households are already excluded because affording an average condo requires a minimum annual household income of \$69,459.<sup>3</sup>

In addition, private developers in Glasgow and Montreal pointed out how greening provides a positive return for investors, legitimizes development, and in some ways lowers risk. In Montreal, a sustainable build-to-rent building with its own self-marketed “restorative green space” and location a few hundred meters away from the remediated Lachine Canal was portrayed as a “good feather in the cap” of Toronto-based pension fund investors. In this light, the words of a private national green rental property developer active in Boston—“when you sell the asset, you’re talking about substantial value here”—reiterate Knuth’s (2016) findings about how green certification is seen to make buildings more *intrinsically* valuable. Critically, this is even true in places like Boston and Austin where, due to public legislation obliging private developers to either contribute financially to green space creation or ensure publicly-accessible green amenities, developers still see a green rent gap opportunity to be exploited due to the attractiveness of urban greening. In Washington DC, urban greening through the 11th Street Bridge Park project demonstrates that the long-segregated and -abandoned neighborhood of Anacostia is “ripe for development,” according to a local private developer. It provides evidence that broader change is coming and that a first, “riskier” investment move (through the announcement, design, and financing of the bridge park) has already been made. Such urban greening interventions—especially large-scale ones like DC’s 11th Street Bridge Park, San Francisco’s Blue Greenway, the Atlanta BeltLine or Amsterdam Noord’s port

decontamination, to give a few examples (see Anguelovski et al., 2022; Connolly, 2022; Cole and Immergluck, 2022; Pérez-del-Pulgar, 2022)—are thus seen to guarantee further profit, the granting of new loans and/or the attraction of more investment to expand future real estate development.

Despite the costs of greening weighing heavily on virtually all developers we interviewed, another prominent discourse was the use of urban greening in marketing and branding. This might be through a neighborhood official greening strategy that private developers actively use to help market their projects (Dublin), a specific urban green feature (a cleaned-up waterfront and improved park with new amenities) that attracts potential high-end homeowners (Cleveland and San Francisco), or greening as part of a narrative about a neighborhood’s transformation and resilience that “seduces” real estate agents and homebuyers (Boston and Washington DC). A non-profit affordable housing developer in Cleveland and private developers in Washington DC also pointed out that urban greening helps them gain credibility in the eyes of banks and other lenders. In some American cities like Austin and Oakland, non-profit housing developers told us that they did urban greening to obtain state grants, increase their competitiveness for federal funds and access local project-based incentives. In other words, while they might “believe” in urban greening for a variety of reasons, non-profit developers were obliged by policy frameworks to undertake it.

Finally, a handful of developers pointed to the function of urban greening as a financial incentive and spur for real estate development, especially in marginal neighborhoods with a history of extreme environmental problems and/or a small quantity of existing green space. Indeed, a local Boston-based private developer and a national private developer active in the same city stressed that residential development would not have begun without previous waterfront remediation and green amenity development. Greening gives some guarantee that it is environmentally, and economically, “safe” to build residential development, symbolizing that a new green frontier of development is ready to be pushed, and thus allowing investments to multiply over time and space in the broader neighborhood. It is the first move “needed” to spur new projects – often high-end/luxury privately-led developments (and thus increased developer profit).

#### 4.2. A response to buyers and investors: greening as demand-driven and to address density

The second main theme, communicated especially by private developers, was that green development responds to consumer, investor and/or broader market demand. We heard how the buyer drives private developers’ decisions in Amsterdam, Austin, Boston, Cleveland, Glasgow, Montreal and Oakland, with projects said to respond to “people’s wants for a lower carbon future” (Glasgow) or to residents’ desire for sustainable mobility options like bicycle lanes or walking paths (Cleveland). Through residential developments nested in newly remediated and/or greened neighborhoods, homebuyers were said to be able to “own a piece of the waterfront” according to a private global developer active in East Boston, with such a discourse reflecting a sustainability class argument (Gould and Lewis, 2017; Dauvergne, 2016). Even then, a national private developer also working in Boston underlined how their development goes beyond parks or green spaces per se and is “embodied within the living experience of what it is to either work, live, play or whatever it is around our buildings. [Boston] is a market that just kind of organically gets that” (italics added). This discourse illustrates how the residential housing market is understood as a naturally occurring phenomenon, free of socio-economic, racial or other positional realities, rather than urban green real estate production, investment, and consumption being part and parcel of a specific – and often elitist and exclusive – socio-political development process (Gould and Lewis, 2017). It also illustrates the power that urban green living, mixed use green (re)development and sustainable practices and discourses wields among high-end users.

<sup>2</sup> A two-bedroom rental apartment (1,000 square feet) at Ponce City Market starts at around \$2,600 per month, while the average rental price in Atlanta is \$1,527 per month (975 square feet). Data sources: <https://www.apartments.com/flats-at-ponce-city-market-atlanta-ga/qxxg5ky/> and <https://www.rentcafe.com/average-rent-market-trends/us/ga/atlanta/>. In East Boston, a two-bedroom apartment (1,080 square feet) on the harbor rents for \$3,500 per month, while the average rental prices for a two-bedroom apartment in East Boston as of February 2021 is \$2,225 per month. Data sources: [https://www.zillow.com/homedetails/45-Lewis-St-Boston-MA-02128/2102260953\\_zpid/](https://www.zillow.com/homedetails/45-Lewis-St-Boston-MA-02128/2102260953_zpid/) and <https://www.universalhub.com/2021/rent-prices-are-falling-east-boston-sort>.

<sup>3</sup> The Federal housing agency Canada Mortgage and Housing Corporation reports that Montreal’s average condo prices in May 2021 were \$332,230 (average condo size is 944 square feet), and that the household annual income needed to afford a condo is \$69,459 per year. A new greened condo developed near the Lachine Canal was selling for \$599,000 (1,119 square feet) in June 2021. For more information see <https://www.nbc.ca/content/dam/bnc/en/rates-and-analysis/economic-analysis/housing-affordability.pdf> and <https://www.centris.ca/en/condos-for-sale-montreal-le-sud-ouest/22257762>.

Urban greening was also underlined by many developers as an important urban design element that increases the attractiveness and consumer acceptance of new, and especially denser, residential development. Private developers in Austin, Boston, Cleveland and Washington DC spoke explicitly about how greenways create connections between and continuity within neighborhoods, improving their accessibility especially for new residents to whom they want to sell housing. Greening creates new recreational, leisure and sports opportunities, especially when coupled with waterfront or canal redevelopment and the creation of new walking and cycling paths. It also allows for the organization of social and cultural celebrations and festivals which contribute to greater neighborhood attractiveness, vibrancy and desirability—albeit often for a more elite (white) and wealthy socioeconomic profile. While developers in several cities underscored increased density as being green in itself, a local private affordable housing developer in Dallas and a private regional developer active in Atlanta highlighted the importance of accessible urban greening to either directly address or counterbalance increased density and improve its acceptance to potential homebuyers. This sentiment was echoed by a non-speculative collective housing developer based in Lyon, who said that green spaces are attractive because of the size restrictions cooperative housing developments face.

Last, urban greening was said to help balance out or compensate for the enduring or former presence of “undesirable” elements and specificities of particular areas, from the enduring presence of vacant land and environmental bads and toxics—despite the fact that toxic exposure can persist despite greening (Cole et al., 2021). It can add a veneer of livability and attractiveness over grey landscapes. This was highlighted by a private Dublin-based developer who stated that greening a formerly grey neighborhood helps push away what they termed as “the undesirable element” while attracting affluent young professionals (architects, doctors, estate agents, Google employees). However, the attractiveness of urban greening is not linked to its public character, and in cities such as Cleveland and Dublin, private greening was developers’ initial approach. Green conveys a sense that new (privileged) residents will settle redeveloped neighborhoods. While this was not a prevalent discourse, it fully endorses green gentrification as an inherently positive process for urban neighborhood transformation.

#### 4.3. Social dimensions of greening: behavior change, wellness, health and wellbeing

The final theme that arose from our interviews relates to the broader social benefits and impacts of greening. On the one hand, this was communicated through aspirational visions of the social impacts of urban greening. A private Washington DC-based developer underlined how greening can help create different uses, jobs and opportunities in neighborhoods. In the most utopian statement—echoing idyllic garden city and City Beautiful visions from nineteenth and early twentieth century planners and architects (Jacobs, 1961)—a private UK-based developer active in Glasgow expressed the hope that larger scale interventions like canal regeneration and a green bridge plus their green interventions on-site “will actually help change behavior” towards more sustainable lifestyles. Private developers in Seattle and Atlanta backed the idea that greenspaces promote “wellness” because they could be spun-off as a luxury good in order to market and sell their projects. These examples embody specific classed, raced and gendered ideas of greening and its romanticized possibilities, as well as a political economic lacuna regarding urban life and everyday realities of racialized, working-class urban residents. It also acts as a fundamental prop for consumer and investor-demand related issues discussed in the previous section, specifically around the belief (or, better said, illusion) that green spaces create incentives for more sustainable consumer behavior. Environmental privilege shows otherwise: despite exhibiting supposed pro-green behavior by living in a green building or biking to work, wealthier residents tend to have much higher environmental footprints

(Dauvergne, 2016; Park and Pellow, 2011; Rice et al., 2020).

Over a quarter of the developers we interviewed, both private and non-profit alike, stated that green was also a reflection of what they called their “DNA” and core business practice. Part of their firm’s beliefs and visions involved sustainable practices, green buildings and even a broader commitment to greening public areas beyond their private properties themselves. While some recognized that local regulations obliged them to include public greening as part of their redevelopment project in order to guarantee public access to the waterfront (i.e. Chapter 91 in Massachusetts and Blue Greenway provisions in San Francisco) or to respond to climate adaptation plans, others affirm their deeper belief in providing ample societal and public benefits to long-term residents. Yet behind this commitment, our interviews reveal that deeper questions of access, comfort, sense of feeling welcomed or part of the neighborhood redevelopment were not accounted for by developers, nor what will happen to the diversity and social sustainability of the neighborhood in the mid-term future. Providing physical access was seen as “sufficient” and necessarily providing wider social and health benefits. A growing literature, however, reveals the exclusion and exclusivity that public green amenities can create for long-term residents in gentrifying neighborhoods (Oscilowicz et al., 2020; Kabisch and Haase, 2014; Triguero-Mas et al., 2021).

It is noteworthy that the idea of greening as a social good in and of itself emerged almost exclusively from non-profit developers particularly in Amsterdam, Lyon, Oakland, San Francisco, Austin and Cleveland. While recognizing that greening is not a solution for every social issue, an Amsterdam based non-profit developer (formerly municipally owned) talked about how greening increases the wellbeing of people living in social housing specifically through better health, more activity, social contact and even eating habits in the case of community gardens. A national non-profit providing affordable housing in Cleveland underlined how the kind of greenery and natural features they attempt to incorporate into their developments promote primarily mental and emotional wellbeing, underlined as particularly important for low-income residents. This contrasts sharply with ideas, from some especially more high-end focused developers, who are attracted to green-space because they promote wellness, perceived as a luxury good.

#### 5. Discussion: residential developers’ urban green grabbing

The three broad discourses we uncovered operate in interconnected and layered, albeit differentiated, ways, forming an urban green grabbing triangle embedded in processes of neighborhood gentrification, as we depict in Fig. 1. The light blue triangle depicts the core actors involved in the process, while the dark blue triangle details the main discourses. In this section we first differentiate the dimensions of this triangle as per private developers and non-profit developers, then unpack the mechanisms through which urban green grabbing takes place, focusing on value and rent specifically. We finally turn to analyze the contextual framing of urban green grabbing and underline the limits and challenges to its triumph.

Our findings showed how private developers formulated urban greening as financial and aesthetic value creation, a response to (gentrifying) consumer and investor demand, a way to build credibility when searching for financing, and a path to change behaviors and mobilize “wellness” as a lifestyle. We heard no critical reflection about for whom they were building a green city, or with what affordability or access outcomes; most assumed demand to be a naturally occurring phenomenon. In reality, the language used in discussing their clientele and seen in their marketing strategies, as well as the prices charged, reveal target markets as wealthy, “creative” and/or privileged populations, or at very least middle-income residential homebuyers or renters, those known as the sustainability class (Gould and Lewis 2017). Their new greened developments, in other words, are even further out of reach for working-class and racialized urban residents for whom housing is already often precarious and insecure—nor are these populations even

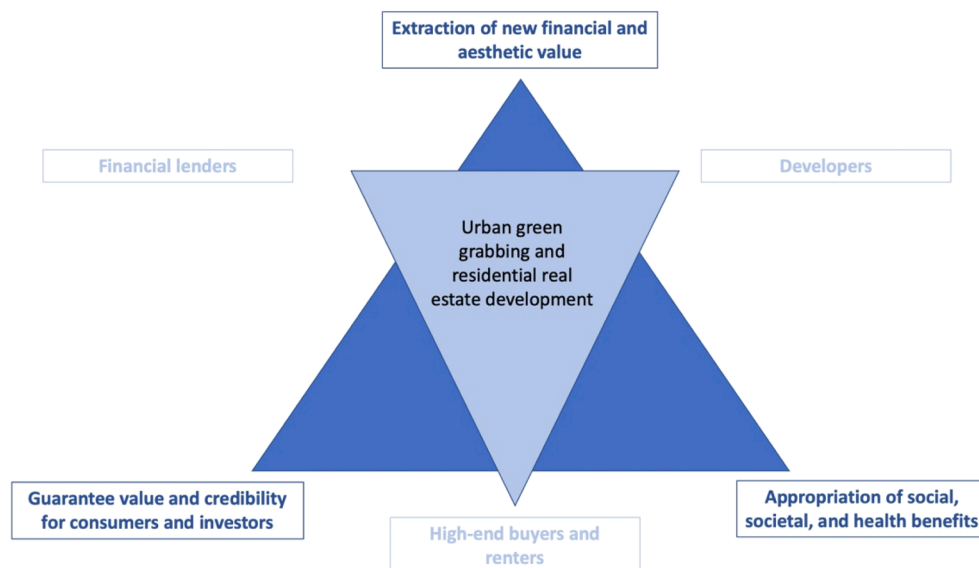


Fig. 1. The urban green grabbing triangle: Residential developer dynamics in Global North green gentrifying neighborhoods.  
Source: Authors.

considered to be recipients. When developers green adjacent public areas, deeper questions around sense of connection and comfort or lack of with those public amenities as well as their actual use remain untouched (Triguero-Mas et al., 2021).

On the other hand, the majority of non-profit developers discussed urban greening as either a required or helpful way to access funding, counterbalance higher density, and improve residents' health and wellbeing. While some "believed" in broader urban greening and sustainability, in many cases their obligation to act outweighed goodwill, and their focus was more often than not geared toward affordability rather than greening per se. At the same time, regarding affordability, most non-profit developers operate amidst the broader neoliberalization of social housing policies, where marketization and privatization are the norm as states shift away from housing provision across the Global North and social or public housing is a negligible part of total housing construction (Grander, 2017; Hochstenbach, 2017; Murphy, 2020). Many non-profit developers we interviewed stated that they are just following mandated social housing requirements, albeit some do recognize their problematic nature. Nonetheless, the broader transformation in social/public housing provision is leading non-profit developers to increasingly act through market logic and thus (wealthier) residents' ability to pay.

While nuanced between private and non-profit developers, we argue that urban green grabbing occurs through different yet connected "green" discursive and material value appropriation and rent extraction strategies embedded in gentrification processes. Urban green grabbing underlines how developers partially or completely appropriate the financial and social benefits generated by new or planned urban green amenities through creating a commodity (housing) to be bought and sold next door. Developers, in other words, are able to extract extra rent, surplus value, social capital and/or prestige from locating projects adjacent to new or up-and-coming green amenities like parks, community gardens, greenbelts, greenways, green streets, and waterfront or canal regeneration. Some of the benefits of this grabbing strategy are transferred onto their, generally high-end, clients, who also become green pioneers in redeveloped neighborhoods. Green spaces are not necessarily always *physically* grabbed by developers, but their symbolic and discursive dimensions are seized to appropriate the added financial and social benefits they generate. These benefits may reach some lower- and middle-income households in the case of non-profit housing developers, but ultimately they largely help private developers articulate

green corporate, development and marketing strategies and "close the loop" of corporate positioning, value appropriation and rent extraction. Echoing Missaka Hettiarachchi et al.'s (2019) findings, greened private residential housing developments are done in the name of green city-making but largely benefit elites – whose behavior might actually be everything but green in practice (Dauvergne, 2016).

Digging more deeply into the dynamics of (green) value and rent in urban green grabbing, we argue that there are two interconnected processes happening when urban greening is articulated as "value creation". First, value is not being created, but rather surplus value is appropriated from the productive labor-nature relation through which urban green amenities are built. This is especially true in cases where adjacent to housing large-scale green (or green-blue) amenities have been or are being created with public funds, like Atlanta's BeltLine, Amsterdam Noord's waterfront redevelopment, Dublin's Liberties' parks, Cleveland's Edgewater Park and Glasgow's Forth and Clyde Canal area regeneration. Here, part of the (surplus) value generated by municipalities in producing urban green space is appropriated by developers and investors, accelerating initial gentrification trends. In this light developers are part and parcel of green growth strategies pushed by municipal planners and policy-makers, what many authors frame as a sustainability fix (Long, 2016; Rosol, 2013; While et al., 2004) and the green growth machine (DuPuis and Greenberg, 2019; Gould and Lewis, 2018; Argüelles et al., 2021). The second process is one of rent extraction. Urban greening produces differential rent—additional rent created by the increase in utility of a particular plot of land—which developers extract via higher property prices. A green rent gap, in other words, is seized through higher prices charged to consumers and investors solely due to owning a building located next to a green amenity. Consumers and investors will in return be able to extract further rent as gentrification consolidates. State-driven greening strategies oftentimes generate the very possibility and conditions for developers to extract rent, as neighborhoods that have suffered neglect and underinvestment for decades are targeting for greening.

Fairhead et al. (2012) point to broader economic, discursive and material orders that enable and enact green grabs. We propose that *urban* green grabbing takes place in the emergent economic order of the green sustainable city where, especially in the context of green capitalism, political and business elites deploy the green label as a solution to economic, environmental and societal problems. The dominant discursive order that green is inherently good for all (Angelo, 2021) is

mobilized as a politically neutral, win–win vision and reality, bolstered by an affective dimension of “doing good” (García-Lamarca and Ullström, 2020). While arguably there is a budding discursive order challenging such a simplistic reading, this narrative remains dominant. Finally, the emerging urban material order ignores the “real” environmental impact of residential real estate and greening projects and realities of environmental privilege, ultimately reinforcing inequalities. Low income and/or racialized urban residents’ right to *any* city, green or not, is further dismantled through the creation of islands of environmental privilege (Anguelovski et al., 2018; Cole et al., 2020; Rice et al., 2020).

We want to close this discussion by highlighting limits and challenges to the triumph of urban green grabbing, especially from what Fairhead et al. (2012: 242) term the “inherent political and social contradictions that generate social and political resistance.” Along Montreal’s decontaminated and regenerated Lachine Canal, some private developments have gated access and their own private docks to access the water, a reality that has driven many community organizations in the area to organize around universal access to the canal as a common good. An emblematic pirate action even took place in 2018 to take over the private docks, denouncing private real estate and wealthy residents’ appropriation of the area.<sup>4</sup> Similar complaints about the privatization of greening that was meant to benefit all urban residents emerged in late 2018 in Dublin’s The Liberties neighborhood when the global group Uninest, which manages the high-end student residence New Mill, closed off public access to what was meant to be accessible green space.<sup>5</sup> Finally, a private developer building new housing and creating Cleveland’s Battery Park wanted the park to be private, but the elected district officer managed to change its status to a public greenspace. Such disputes challenging urban green grabbing can serve to politicize it, bringing discourse and debate about who benefits from urban greening and housing development into the public sphere.

## 6. Conclusions

In this paper, we found that the urban greening discourses and practices of 42 residential real estate developers in 15 American, Western European and Canadian gentrifying neighborhoods pivoted around financial benefits, consumer- or investor-driven demand and social dimensions. We built on Fairhead et al.’s (2012) concept of green grabbing to analyze this discourse and practice, dissecting how real estate developers appropriate additional surplus value, extract rent, social capital and/or prestige through locating developments adjacent to new or up-and-coming urban greening projects—all in the name of profit-making and green city building. Although green amenities are not necessarily always physically grabbed by developers and some might even be built for a wider public’s use, their symbolic and discursive dimensions are seized to appropriate the additional financial and social benefits they generate in gentrifying neighborhoods. These benefits may reach some lower- and middle-income households in the case of non-profit housing developers, but—due to broader processes of the withdrawal of the state, marketization and in some cases privatization of public/social housing provision systems across the Global North in particular—urban green grabbing largely benefits private developers, investors and wealthy consumers and residents. In some cases, public green infrastructure even becomes privatized over time, furthering exclusionary green city development patterns.

Urban green grabbing serves as a conceptual tool to understand specific mechanisms in residential real estate developers’ discourse and practice, illuminating the inner workings of broader processes of green

gentrification. It illustrates how urban greening facilitates surplus value appropriation and rent extraction for a triple privileged class able to capitalize on initial risk and investment—developers, financial institutions and wealthy private renters or buyers—while long-term renters and other vulnerable residents are unable to afford this new high-end green lifestyle. Ultimately, we believe that unpacking urban green grabbing as a concept is useful at an analytical and political level, to identify how the value appropriated and rent extracted from urban greening adjacent to housing is distributed, and who decides who gets what (Andreucci et al., 2017; Kay and Kenney-Lazar, 2017).

How can such exclusionary green city-building dynamics be counteracted now? Both research and practice have shown that paths do exist to improve housing outcomes (Oscilowicz et al., 2021). Ambitious social and affordable housing targets can be set, like the city of Nantes in France who recently adopted a legal requirement for new real estate projects to include 33% social housing and 24% affordable housing (Gallez, 2020). Density bonuses can be provided to developers in exchange for supplying more affordable housing (Ryan and Enderle, 2012). Rent controls can ensure that excessive rents are not seized by new green rental housing developers. Toward building more equitable and green housing and urban life, the Los Angeles Regional Open Space and Housing (LA ROSAH) collaborative elaborated a series of typological approaches at different scales combining affordable housing and green open space options, and offering public sector recommendations to make these possible (La Thrives and La Rosah, 2019). While these are all important initiatives and actions to fight for, dominant development dynamics and (green) growth strategies often overturn or outmaneuver them.

In this light, we call for further research into the mechanisms of urban green grabbing. Following Missaka Hettiarachchi et al.’s (2019) and Mona Chettri’s (2020) work on urban land grabbing, more in-depth, place-based research is needed to build an intersectional and historical understanding of urban green grabbing, also in relation to settler colonial dynamics and processes of accumulation by green dispossession. For example, in her exploration of land struggles in Detroit, Sara Safransky (2017) notes that while land or green grabs might be novel, racialized dispossession is not, and points to this process as a foundational dynamic of Detroit’s land and green grabs. Sian Butcher (2020) similarly uncovers how racialized geographies produce differential rent in affordable greenfield housing development in Johannesburg. We also call for more deeply unpacking the role of planning authorities, legislation and regulation in the real estate developer-urban greening relationship, to unpack other dimensions of the creation of real estate value(s). Research could also seek to better understand how residents’ senses of belonging and comfort are shaped through developers’ green grabbing strategies, and the outcome for socio-ecological relations and environmental/climate justice when green grabbing effectively alienates vulnerable residents from green and blue spaces, while giving full access to wealthier ones. Finally, digging deeper into resistance to urban green grabbing is urgently needed to better understand how green value and rent can be seized (back) by working-class and racialized communities, towards building more equitable and just green cities.

## CRedit authorship contribution statement

**Melissa García-Lamarca:** Conceptualization, Methodology, Formal analysis, Investigation, Writing – original draft. **Isabelle Anguelovski:** Methodology, Formal analysis, Investigation, Project administration, Resources, Supervision, Writing – original draft. **Helen Cole:** Investigation, Writing – review & editing. **James J.T. Connolly:** Investigation, Writing – review & editing. **Carmen Pérez-del-Pulgar:** Investigation, Writing – review & editing. **Galina Shokry:** Investigation, Writing – review & editing. **Margarita Triguero-Mas:** Investigation, Writing – review & editing.

<sup>4</sup> For more information see <https://www.cbc.ca/news/canada/montreal/private-docks-lachine-canal-1.4699935>.

<sup>5</sup> For more information see <https://www.dublininquirer.com/2018/10/17/a-student-complex-in-the-liberties-gates-off-its-green-space>.



## Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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