

RESEARCH ARTICLE

Environment, Aesthetics, Technology, and Gentrification from Global North to Global South: An Integrated Review of Literature

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Abstract: Gentrification is defined as "a reflection of broader political, economic processes that result in the unequal and uneven production of urbanising space (Shin and Lopez-Morales, 2018)". It is one of the most ignored yet significant and socially inequitable urban processes of the 21st century. Following the present literature review, policymakers, planners, corporations, designers, and citizens will fully comprehend the social and economic outcomes of gentrification. In the present paper, the similarities, differences, and processes of gentrification from the Global North to the Global South are explored, with an emphasis on aesthetics gentrification caused in recent decades, such as design-led and technology-led displacement. Furthermore, the need for immediate attention from developing countries, in which displacement and social injustice have developed but have been hidden behind rapid urbanisation and rural revival is discussed.

Keywords: Urbanisation, Gentrification, Social justice, Environmental justice, Urban Aesthetics

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1. Introduction

Journalist Tom Baker once described New York's iconic and innovative infrastructures, Central Park and the High Line, as "pastoral constructions of an idealised past — for Central Park, a rural vision, and for the High Line, an industrial one — serving as romanticised respites in the ever-quickenning city." ^[1] Baker implies the paradox behind great designs. Mainstream media, celebrities, and even the public praise the high-profile infrastructures - Central Park and the High Line - as the proudest and most iconic design masterpieces of New York City. In reality, both parks were constructed to encourage real estate development and promote the surrounding metropolis. Green space installation and aesthetic urban architecture

can lead to gentrification by way of raising property value and nearby living costs ^[2].

From the perspective of urban residents and in accordance with Maslow's hierarchy of needs, during 21st century global urban development, new trends and demands have spread out through a variety of cities ^[3]. By adapting Maslow's pyramid to urban designs, several phases of development and revitalisation of cities are demonstrated. When cities fulfil people's physical needs and safety ^[4], individuals begin to seek love and belonging, which develops through common interests and neighbourhood culture across communities ^[5]. Moreover, along with internal bonds of belonging, urban residents also seek external bonds of recognition, morality and

creativity, which are often satisfied through a complete system of qualities of place, space, and social life^[6]. Salon writer Christopher Dreher described these urban residents as the new "creative class", who are attracted to hip neighbourhoods, green space, healthy lifestyles, art scenes or high-profile architecture and a gay-friendly atmosphere^[7]. The "creative class" have become the primary drivers of economic development, causing gentrification from the Global North to the Global South during the past few decades^[8].

A healthy and equal social development is denoted by cohesion, sense of identity, and happiness, which are the basic elements of social stability. As long as said elements are guaranteed, the society will remain stable and the country will progress. However, the undesirable outcome of aesthetics gentrification causes a paradox in which the urban design and green spaces that were planned to increase the happiness of many people only end up serving a small fraction of the total population^[9]. It is crucial that all potential risk points in society are focused on, especially predictable ones. Consequently, the present paper opens with a review of the literature articulating the causes and drivers of planetary gentrification under various politico-economic contexts and cultural attitudes. The methods employed in the analysis of gentrified areas and the gentrifying process are detailed in the second section. In the third section, the strategies and solutions from various gentrification research and details of the research gap under this topic are outlined. The present paper ends with a discussion of the challenges and opportunities of urban development in the post-epidemic era and the potential drivers of future gentrification.

2. Gentrification: The Paradox of Urbanisation

Gentrification was first coined by British sociologist Ruth Glass in 1964 to describe the displacement of lower-class people in urban neighbourhoods caused by the influx of middle-class people in London^[10]. Using production and consumption-side theories, geographers Neil Smith and David Ley, who are the most cited researchers on gentrification, made some of the earliest attempts to explain why gentrification occurs. In Smith's production-

side theory, production, such as the land, is emphasised as the driver of gentrification. Smith's rent-gap theory states that land price is inequitable between its current use and its future uses. Therefore, developers would redevelop an area if there was a significant enough rent-gap. Bringing said areas back to life results in higher rents, leases, and mortgages due to the profit gained from redevelopment. In accordance with Smith's theory, gentrification occurs due to an increase in profits^[11]. In Ley's consumption-side theory, the characteristics of gentrifiers and what they consume, what kind of service they need, the art and leisure they enjoy, and their demand of aesthetic amenities are the primary focuses^[12]. Smith and Ley's theories are employed as a primary framework in contemporary studies that analyse the drivers of gentrification, in addition to the variables and specific characteristics of the studied area.

2.1 Planetary Gentrification

In regard to the drivers of gentrification, there is a multitude of theories. "Planetary gentrification" has been the emphasis in the majority of literature since the mid-1990s. Since gentrification has gone global, it has become one of the core drivers of global economy. Planetary gentrification researchers seek to determine the various causes and processes of gentrification in particular areas, as well as community and government perceptions of gentrification outcomes in different countries. To illustrate, in the United States, gentrification is often linked to race/ethnicity, resulting in the displacement of disadvantaged ethnic minorities and an increase to housing values^[13]. Whereas in the majority of the Global South that are racially homogenous, gentrification is a multi-subject and multi-scale phenomenon characterised by power-oriented, capital-driven, and class-separated processes as its core mechanisms^[14].

Gentrification is a kind of accumulation by dispossession in various parts of the Global South. Gentrification serves as a helpful relational lens through which the inequities of capital-driven reconstruction can be observed in their true polarised form. However, gentrification is an issue that is under-estimated or even

ignored in various developing countries. For instance, in China, gentrification is a vague term with no proper translation and definition and is normally confused with urban redevelopment and rural revitalisation. The confusion around gentrification exists because gentrification in China is often state-led, and the outcomes are emphasised on urban renewal, poverty dispersion, property values, green environment, lower crime rate, and local service. To illustrate, according to Beijing's most recent General City Plan, without considering green gentrification, the city continues to enhance the amount of green space so that, by 2035, the percentage of residential units within 500 meters of a park will climb to 95 percent^[15]. Nevertheless, research has identified a positive relationship between green space and gentrification in Beijing^[16].

When investigating planetary gentrification, some researchers employ a comparative urbanism methodology a field of inquiry focused on the 'systematic study of similarity and difference among cities or urban processes'^[17]. A comparative urbanism methodology aids the researchers in concluding which drivers of gentrification are true of all cities, and the drivers of one city at a given point in time^[17].

2.2 Aesthetic Gentrification

Recently, more attention has been placed on the provision of green gentrification and aesthetic gentrification. Green gentrification and aesthetic gentrification often emerge together and influence each other. Studies on green gentrification in the United States have indicated that certain factors are stronger predictors of gentrification, such as active transportation, distance from downtown, an already gentrified community in the vicinity, and other public amenities (for example,^{[9],[18],[19]}). Aesthetic or cultural gentrification is the process of substituting attractive infrastructures in industrial and manufacturing areas for real estate and commercial development^[20]. The drivers of gentrification include neighbourhood amenities, such as stunning views, access to water, public recreation, greening projects (for example,^{[16],[20],[21]}), and attractive atmosphere, for instance, healthy lifestyles, historical ambience, and dynamic vibe (for

example,^[22-24]).

The High Line in New York City is an iconic and typical driver of aesthetic gentrification. The High Line is an elevated linear park which adapts an abandoned railway for public use. Joshua David and Robert Hammond founded Friends of the High Line in October 1999 as a non-profit organisation. David and Hammond pushed for the area to be preserved and repurposed as a public open space. 10 years later, New York's High Line ushered substantial change and gentrification to the neighbourhood^[25]. However, David and Hammond still prioritised their original intention to preserve and protect the neighbourhood. In order to remedy the cause of gentrification, David and Hammond launched an online forum that offers advice for those embarking on similar infrastructure reuse projects, since many design projects in the world are trying to reproduce the 'success' of the High Line^[26].

A unique trait of aesthetic gentrification that needs to be managed is that, in some situations, only one amenity (for example, a high-profile building, a new stadium, an organic market, etc.) can cause the gentrifying of the neighbourhood.

2.3 Information Technology-driven Gentrification

The emergence of a 'new kind of capitalism based on human creativity' seemingly calls for numerous creative forms of supply-side intervention, since cities nowadays find themselves in the midst of a fierce 'war for talent,' which can be won only by developing the kinds of 'people climates' that the 'creative class' value^[27]. The sharing economy represented by Airbnb is one of the 'climates' that provides an innovative concept predicated on the peer-to-peer exchange of goods and services that are benefitted by the rapid development of information technology^[22]. The original intent of Airbnb's conception was to create a freer and more egalitarian market economy, serve as an original economic model in the real estate market that most people could participate in, and create a new travel lifestyle that the 'creative class' will enjoy. Despite Airbnb's original purposes, Airbnb's business model has suffered controversy as it fails to adhere to existing housing and

land-use regulations in most, or even all, of the cities where it operates and does so in a manner that appears to undermine policies meant to protect affordable housing supplies^[22]. Short-term rentals facilitate gentrification, cause a new form of rent gap in culturally desirable and international recognisable communities, and highlight issues of racialised gentrification and displacement (for example,^{[22],[28],[29]}).

Airbnb-induced gentrification is a crucial topic as new technology-driven rent gaps are created by providing potential renters with increased income without having to develop new infrastructure^[22]. In addition to the lifestyle it promotes, Airbnb highlights a way of traveling by concentrating on neighbourhoods with extralocal tourist appeal, which overlap incompletely with other drivers (i.e., market factor and traditional state) of gentrification, resulting in "super-gentrification". Consequently, the rent increases much faster than average in popular Airbnb locations where Airbnb doesn't redevelop the neighbourhood and only need to advertise through professional photos and travel guides^[22].

Information technology-driven gentrification ushers a new era for gentrification or any social issues in the urbanisation process. In future studies, besides racial segregation, income segregation, and displacement, urban researchers should be more attentive to education segregation and technology gaps as emerging themes in the context of future urbanisation.

3. Solutions and Future Studies

There is a scarcity of studies in which the issues in gentrified or gentrifying areas are solved, with the focus being more on identifying indicators of gentrification. Although prevention is always one of the best solutions to social problems, helping marginalized residents who have been displaced or are at risk is also urgent.

Joseph Nye mentioned that there were two directions in the transfer of power, a local shift and a diffusion of power. The core of globalization is flattening, and once the hierarchy gradually loses its authority, there will be a transition to a smart power of each one doing its own job and working together^[30]. "The information revolution is

putting a number of transnational issues, such as financial stability, climate change, terrorism, pandemics, and cybersecurity, on the global agenda at the same time as it is weakening the ability of all governments to respond." As such, gentrification should be resolved from the perspective of the government, enterprises, public welfare organizations, communities, individuals, and other actors from their own expertise.

There is a large volume of published studies in which the role of state or local government on dealing with gentrification is described. Besides policy making, when planning urban renewal programs, such as urban greening projects, instead of building new green spaces, cities can integrate existing fishponds, streamlets, farmland, river banks, and groves into new parks with little alteration. The studies indicated that such features are less favourable among home buyers^[16]. In Curran and Hamilton's study 'just green enough', an alternative idea of state intervention was proposed. By working with the local community, the intervention could facilitate the collaboration between working-class and middle-class residents in environmental clean-up strategies^[31]. The result was that the strategy allowed for successful clean up the toxic creek, but also explicitly avoided the riverside park café model and preserved workers' jobs and industrial sites. The strategy was able to solve environmental problems while ensuring social equity and avoiding future speculative development^[31].

There is little research in which corporate intervention for solving social concerns such as gentrification is proposed, since the top priority of any business is to make a profit. However, previous researchers have shown a tendency to link Corporate Social Responsibility (CSR) actions with a firm's financial performance and consumer behaviour^[32]. CSR is a self-regulatory business model that allows a company to be socially accountable to its customers, workers, stakeholders, and the general public. By engaging in CSR, companies may become more conscious of their impact on all aspects of society, including the economic, social, and environmental. CSR also refers to the efforts and policies that businesses adopt to have a beneficial impact on the communities in

which they operate. Instances of CSR include sponsoring local sports teams, donating to charity, investing in local business, supporting humanitarian causes, and building sustainable communities. Hence, further research should be conducted with more focus on how corporations use their resources and innovative approaches on gentrification concerns.

The power of the individual is also significantly critical in solving social problems. As an example, instead of being the cause of gentrification by bringing extraordinarily attractive designs and spaces to the city, designers can be the solution by using innovative design approaches to meet the need of a broader social group. Participatory design is an approach that aims to actively engage all stakeholders (for example, employees, partners, customers, citizens, and end users) in the design process to ensure that the result satisfies their needs and is useable^[33]. Such design is a change from the traditional method in the focus of 'design for users' is shifted to 'design with users'. Architect Alejandro Aravena, who has led city rebuilding projects after natural disasters such as earthquakes and tsunamis, adopted participatory design and found an effective solution for social housing. Having been given a small budget and only 100 days to construct homes for low-income families who had suffered from natural disaster, Aravena gathered local residents, listened to their needs, and came up with the idea of the "half-a-house" approach. Through the approach half of a larger, nicer home was built, while the other half for was left for the residents to finish themselves. The residents could finish the build with their own hands or with help from local "micro-contractors, so the families can avoid displacement, and rebuild their communities later on^[34]. Another example is Urban Acupuncture, a socio-environmental theory that combines contemporary urban design with traditional Chinese acupuncture, which creates a more sustainable urban environment through small-scale interventions^[35]. Design and development of sites are conducted through a dialog between designers and community members, based on an analysis of aggregate social, economic, and ecological factors, that can prevent or slow the process of gentrification.

Notably, the main limitation of the previous studies is the lack of concrete solutions to slow or prevent gentrification. As such, further studies should be conducted with more focus on how all actors involved in this social problem find theories, methods, and strategies from the perspective of their own expertise.

Moreover, the lifestyle in the post-pandemic age is another potential driver of gentrification that should be explored in future research, with a focus on determining how this new era will reshape our life and work patterns, and revolutionize the existing social landscape and economic markets. A significant factor is the alertness on rural gentrification, since a large amount of population chooses to work-from-home permanently and will likely relocate to suburb or countryside. Further, educational and technological gentrification should be investigated further, since the speeding up of learning ability will be a core competitiveness in the post-Covid age, which might be a potential driver for further social segregation.

4. Conclusions

In urban core areas, there is a strong link between social vulnerability to gentrification and environmental injustice^[36]. Determining how to strike a balance between economic advantage and spatial justice in order to achieve resource distribution and productivity harmony is of considerable significance. Gentrification is a trans-discipline subject that has been discussed in the social sciences, humanities, and art and design fields. The topic is mostly approached from economic, geographic, urban planning, sociological, and related social-scientific aspects in existing studies. According to the present literature review, an alternative approach is proposed, in which gentrification is examined from the field of management. The present review provides policymaker, planners, corporates, designers, and residents with a better understanding of social and economic fallout of gentrification. The similarities, differences, and processes of gentrification in developed countries and developing countries are compared, with particular focus on new causes of gentrification in recent decades, such as design-led and technology-led displacement. The urgent

attention from developing countries is emphasized, where displacement and social injustice emerged but were buried in the midst of rapid development of urbanization and rural revitalization. In the present review, the limitation of research methodology on gentrification is highlighted, and there is urgent need for future studies on solid strategies.

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