



A Strategy for Spatializing Degrowth at Home: Commoning of Housing

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Abstract

Many theorists advocate for "economic degrowth," which entails "scaling down production and consumption activities," as a radical proposal to achieve environmental sustainability and social justice. This is in response to the increasingly destructive nature of economic growth on a planet with limited resources, as well as the unequal distribution of the costs associated with changes to planetary boundaries. The examination of spatial production and consumption processes holds significant potential for realizing the social transformation required for economic activities to operate within planetary boundaries. However, the scarcity of studies on how the ideas of degrowth can be translated into the material world highlights the need to focus on how degrowth will manifest spatially. The problem of spatializing degrowth will be addressed in this study, with a focus on housing. The injustices inherent to growth-oriented housing production processes make it imperative to discuss the spatialization of degrowth through housing. For degrowth to manifest spatially at home, the spatial modes of production inherent to economic growth, the spatial consumption patterns, and the social relations produced by space need to become compatible with the fundamental goals of degrowth. To provide a compass for aligning housing production and consumption processes with the fundamental objectives of degrowth, it is imperative to identify the toolkit employed by economic growth for spatialization and to analyze criticisms directed against existing housing degrowth experiments. Through the analysis of these two principal themes, commoning of housing emerges as a viable strategy for spatialization of degrowth at home.

Keywords:

Commoning of housing, Co-management, Co-ownership, Co-production, Spatializing degrowth

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INTRODUCTION

Until recently, human economic activities had a relatively insignificant impact on the functioning of natural systems compared to the potent forces of geological processes. However, it has become increasingly evident that human economic activities now wield a power that rivals, and even surpasses nature's own ability to alter natural cycles and impact the functioning of the planetary system. Furthermore, the pace and magnitude of change resulting from human economic activities far exceed the changes occurring in the planet's own natural cycles. Therefore, it is of utmost urgency to take immediate action to prevent sudden changes resulting from the erosion of the planet's boundaries. Scientists have identified safe threshold, referred to as the 'Nine Planetary Boundaries', within which the earth system can sustain its functioning as observed during the Holocene period.¹ To avoid sudden changes, it is imperative not to surpass these boundaries. Furthermore, experts warn that such changes may disproportionately affect vulnerable populations, as the associated costs are not equally distributed. This underscores the urgency of addressing not only the erosion of the planet's boundaries but also of social relations. The distinctive feature of capitalism, the dominant economic system, is its relentless pursuit of growth. For capitalism to thrive, individuals have historically been deprived of access to free resources, compelled to engage in paid labour, coerced into prioritizing competitive productivity over personal production, and transformed into dependent consumers. These conditions persist to this day. However, in the late 20th century, this growth-centric economic system underwent a restructuring with adoption of neoliberal principles. This led to the globalization, liberalization and privatization of economies, alongside the emergence of universal competition. Sustaining growth requires the identification of more efficient production methods, cheaper labour, access to new natural resources, and expansion of markets. However, the ever-escalating extraction of resources from increasingly distant locations and their distribution to more distant markets, as well as the absorption of growing quantities of waste, exert mounting pressure on ecosystems. The reliance on Gross Domestic Product (GDP)² as a measure of economic growth perpetuates the promotion of resource extraction, production, and consumption. Historical data analysis indicates that resource use increases along with GDP growth. On the other hand, many scientific studies proved that an increase in GDP does not necessarily lead to an increase in overall well-being (Hickel, 2022, p. 189). Moreover, growth-oriented policies burden vulnerable demographic groups through processes of displacement, dispossession, and ecological ramifications. Referred to as "calculated neglect" in the literature (Angus, 2021, p. 213), these policies worsen socio-economic inequalities. According to Hickel, data from the Climate Vulnerability Monitor reveals that low-income countries bear the brunt of the costs of environmental destruction, accounting for 82% of the overall impact. In 2010 alone, these nations incurred a staggering cost of \$571 billion due to events such

¹ Nine Planetary Boundaries refer to the following areas of concern: climate change, changes in biospheric integrity (biodiversity loss), biogeochemical flows (an excess of nitrogen and phosphorus from artificial fertilizers), stratospheric ozone depletion, ocean acidification (CO₂ dissolves in seawater, making it acidic), freshwater use (rivers being drained for agriculture), land-system change (about 42 per cent of ice-free land is used for farming), atmospheric aerosol loading, introduction of novel entities (chemical pollution) (Angus, 2021, p. 95).

² Simon Kuznets created a metric called Gross National Product, which provided the basis for the Gross Domestic Product (GDP) metric we use today. During World War II, governments needed to account for all economic activities, including negative ones, in order to identify every available shred of money and productive capacity for the war effort. At the Bretton Woods Conference in 1944, global leaders convened to establish the rules that would govern the world economy in the wake of the war. At this conference, GDP was established as the key indicator of economic progress. When the OECD was established in 1960, its primary objective, as outlined in its charter, was to 'promote policies designed to achieve the highest sustainable rate of economic growth'. The focus shifted from pursuing production for specific purposes to pursuing the highest rate indefinitely for its own sake (Hickel, 2022, p. 109-111).

as droughts, floods, storms, and forest fires. This figure is expected to rise to \$954 billion by 2030, representing 92% of the total costs. It is also worth noting that over 98% of deaths caused by ecological destruction occur in poor countries (2022, p.132).

The Costs of Economic Growth, a book by Ezra J. Mishan in 1967, and the 1972 report, The Limits to Growth, argue that growth pushes ecological and social limits. This topic has been a subject of ongoing debate. As noted by Plotnikova (2020), the 1972 report highlights that expanding the economy through resource extraction becomes increasingly more destructive and ultimately unattainable on a planet with finite resources. The commonly held belief that non-growth economies would lead to collapse starkly contrasts with the environmental damage and social inequalities perpetuated by growth-oriented policies. Parrique et al. assert that mainstream approaches such as green growth and sustainable development, developed to counter the global environmental crisis, are based on the strategy of decoupling economic growth from environmental impacts. However, both theoretically and empirically, this strategy has been shown to be unfeasible (2019). Sustainable development or green growth is inadequate in addressing the issue at hand because these frameworks operate under the assumption that technological advancements can eliminate the environmental impacts of growth, while disregarding the social strains imposed by growth. However, the urgency we face extends further than the erosion of planetary boundaries, reaching into social boundaries. There is a growing argument that the existing economic system's persistence presents a significant challenge in restoring the environmental and social limits that have been eroded by growth. Instead of predicting future scenarios without making any changes to our current state, it seems imperative to enact changes in the present moment based on what kind of future we envision. Thus, there is an urgent need for a fundamental shift in the economic order. Several scholars suggest that adopting the notion of degrowth, which entails reducing economic activity to align with planetary limits, could present a viable solution for substantial transformation. (Figure 1)

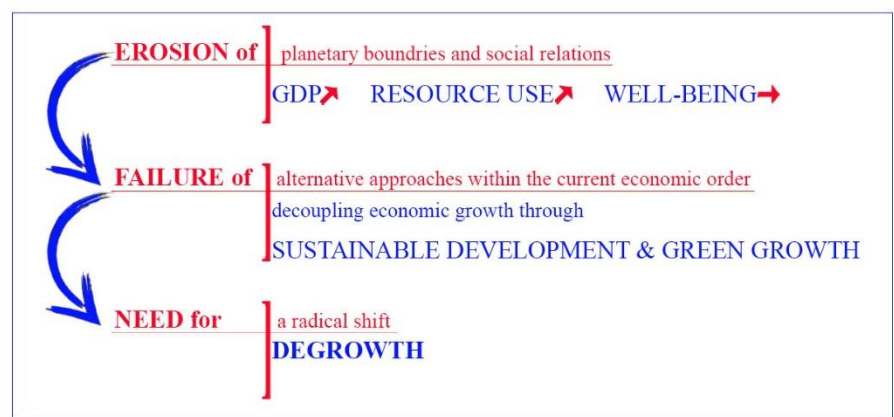


Figure 1. An urgent need for a radical shift: Degrowth.

However, in the literature on degrowth, there is limited discussion about how degrowth ideas can be implemented in the material world. Degrowth researchers have conducted numerous studies to reveal the property relations inherent in capitalist production processes, including enclosure, displacement, and privatization. However, in order for degrowth to replace capitalist production processes, there is a need for micro and macro level planning that will reverse such relationships and reorganize production processes by using alternative tools. The identification of new tools to replace those inherent in capitalist production processes, along with regulation of their purposes and domains of use, is an urgent matter. Based on the literature review conducted, this article primarily explains the concept of degrowth and highlights the problem of spatializing degrowth ideas. Subsequently, the article will address the significance of the home in the context of degrowth and emphasize the urgency of the spatialization of degrowth at home. It will delve into what housing degrowth entails and discuss various housing degrowth experiments. The need for developing a strategy for the spatialization of degrowth at home will be explained, and in the process of formulating this strategy, the toolkit used to spatialize economic growth and critiques developed for existing housing degrowth experiments will be examined as a compass. In the last section, “commoning of housing” as a strategy for the spatialization of degrowth at home will be discussed. (Figure 2)

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Figure 2. The key headings of the study.

THE CONCEPT OF DEGROWTH AND THE PROBLEM OF SPATIALIZING DEGROWTH IDEAS

The acknowledgement that economic activities grounded on a binary worldview, which prioritizes humans over other living species, are responsible for environmental destruction has led to a revival of degrowth concepts in the realm of ecological economics. These concepts, which are based on interdependence, have been advocated not only by economists but also by philosophers, social scientists, and indigenous activists. The term *décroissance* was first introduced by André Gorz, an Austrian-born French philosopher and pioneer of political ecology, who

emphasized that the capitalist system poses a danger to the sustainability of ecosystems and that sustainability can be achieved by reducing production rather than promoting growth (1972). The degrowth debate was deepened by works such as ecologist Howard Thomas Odum's *Environment, Power, and Society* (1971), economist Nicholas Georgescu-Roegen's *The Entropy Law and the Economic Process* (1971), which highlights the limits of growth based on the second law of thermodynamics, and *Framtiden i våre hender* (*The Future in Our Hands*, 1972) by environmentalist Erik Dammann (Paulson, 2017, p. 427). Herman Daly, one of the founders of ecological economics and a student of Georgescu-Roegen, introduced the concept of the 'steady-state economy', positing it as a sustainable model. Daly claimed that this structure, which was maintained by minimal flows of matter and energy, would provide inspiration for future degrowth thinkers (Işıkara, 2021, p. 2). According to Kallis (2018), French thinker Serge Latouche, a prominent figure in the degrowth movement, claims that the market economy, which continuously expands the commodity frontiers, is a 'modern –politically and socially constructed– invention' (p. 4-6). These ideas were echoed in the radical green movements of the 1970s and 1980s, which adopted an anti-productive position and advocated values such as social justice and democracy. However, according to the Research and Degrowth team (2023), these movements were overshadowed by the official environmental movements of the 1990s when neoliberalism was on the rise. The initial phase of the degrowth debate in the 1970s focused on the limits of growth, whereas the second phase, in the early 2000s, criticized the prevailing concept of sustainable development. Degrowth, as a proposal to depart from the current system, positions itself against the growth-oriented capitalist economic order, suggesting a post-growth, post-capitalist, or post-development movement. In other words, degrowth is first and foremost a critique of the growth-oriented economic order. It offers a fundamentally different approach to meeting our needs compared to growth, as it envisions a society where human needs are fulfilled while respecting planetary boundaries. The degrowth movement advocates for scaling down production and consumption activities to promote environmental sustainability and social justice. However, degrowth is not simply focused on downscaling. It can be characterized as a political, social, cultural, and environmental movement, offering a vision of a more equitable and sustainable society. According to Demaria et al. (2013), degrowth primarily prioritizes ecological concerns, valuing the environment for its inherent worth rather than merely as a means to support human production and consumption. This approach advocates for both environmental sustainability and environmental justice, as it involves reducing the demand for natural resources while also addressing human rights violations arising from restrictions on access to common areas where local communities sustain their lives, particularly in regions with intensive resource extraction. Furthermore, degrowth critiques

economism, which is driven by the pursuit of maximizing utility, results in market-based social relations and the development of consumer-oriented societies, thus undermining the traditional social ties founded on principles of sharing and reciprocity. It is possible to assert that the cultural context of degrowth debate invites contemplation on the lifestyles transformed by economism. Furthermore, according to Demaria et al. (2013), the proposition to achieve justice by reducing economic, environmental, or social inequalities through redistribution, alongside the effort to redefine the concept of a "good life" shed light on the societal context in which degrowth discussions are grounded. To pave the way for a better life, it is crucial to prioritize redistribution, promote a fair sharing mindset, and ensure that everyone's basic needs are met. Thus, the third pillar of degrowth lies in the necessity to redefine the concept of well-being or quality of life. As explained by Hickel (2022), it seeks to balance the economy with the natural environment by decreasing energy and resource consumption. This approach has the potential to improve human lives, a fundamental principle of degrowth (p.50).

Essentially, degrowth involves discovering methods for living that respects planetary boundaries while achieving a more equitable society by reducing the social metabolism. Degrowth envisions a society with a smaller metabolism and a different metabolic structure (D'Alisa et al., 2020, p. 21). Therefore, it encompasses not only the social production but also the reproduction of social relations. Merely changing modes of production is insufficient; there is a need to fundamentally reorganize societies. The concept of degrowth advocates for a new economic understanding centered around self-sufficiency through shared work, resources, space, and knowledge. It envisions a social ethos that prioritizes "having enough" over "having more" (Olsen et al., 2019, p. 33). However, this is not to suggest a society contented for less, but rather one that is convivial through sharing. Degrowth strategies focus on co-production for use rather than exchange, where goods are distributed on a reciprocity basis rather than for profit (D'Alisa et al., 2020, p. 34-35). By gifting goods to those in need or receiving gifts in times of need, individuals can show solidarity without participating in the market economy, thereby creating opportunities for a better life. This is an exploration of the potential for leading happier and healthier lives which requires a significant shift away from the pressure to be productive and consumption-driven habits that surround us. On the other hand, achieving a better life involves ensuring equitable access to basic needs such as food, healthcare, education and housing for everyone. Certainly, exploring how this can be achieved falls within the scope of degrowth debates. Martinez-Alier et al. (2010) argue that degrowth challenges not only the dominant ideology of growth, but also the social mentality, political institutions, and ethical premises that underpin it. Therefore, degrowth extends beyond the simple proposal for downsizing; it calls for a profound transformation in economic, social, political, and various

other systems. Degrowth encompasses numerous transformative processes as it proposes a systemic change. Identifying the values, norms, and institutions in need of transformation is of critical importance in transitioning to a new order centered around degrowth. However, conducting studies on how the identified values, norms, and institutions can transform at both micro and macro levels appears to be equally critical. Degrowth proposes a set of values encompassing social justice, ecological improvement, interdependence, and human flourishing. Spatial production processes is vital for disseminating this set of values.

Here, the question arises: how can the transformation of values related to production and consumption processes be realized in the material world? In academic studies, there is a limited discussion on how degrowth ideas can be implemented in the processes of space production/consumption. However, expanding upon Lefebvre's (1976) assertion, which emphasized that the changes in the production/consumption of space played a pivotal role in explaining capitalist development throughout the 20th century, Harvey points out that capitalist development is an ongoing process that demands the production of spaces for communication, transportation, infrastructural development, and territorial organizations to facilitate the capital accumulation (Harvey, 2000, p. 54). Building on this, it can be argued that physical interventions are key to the social transformation required for the realization of degrowth ideas. Thus, the socio-ecological transformation aimed for by degrowth may be imagined through the processes of space production/consumption. Within these processes, there exists the possibility to reduce inequalities and improve human life through equitable redistribution of limited resources on our planet. Consequently, it becomes crucial to identify what kind of changes required within these processes. However, Xue asserts that degrowth debates have, so far, insufficiently acknowledged the crucial significance of spatial aspect in affecting social transformation (p. 405). Many other scholars also point out the gap between degrowth and its spatial aspect. In essence, academic literature emphasizes the urgent need for concretization of degrowth ideas (Van den Bergh 2011; Joutsenvirta 2016; Cosme, Santos, and O'Neill 2017). According to Wächter (2013), spatial planning holds significant potential to facilitate the shift towards degrowth, particularly through the promotion of sustainable settlement structures and the establishment of social capital via community-based facilities (p. 1067). Therefore, it is of great importance to have a profound comprehension of the spatial implications of degrowth and to explore the way in which space production/consumption processes can play a role in moving towards a degrowth-oriented future.

Here, spatializing degrowth refers to aligning the spatial production modes inherent to economic growth, the spatial consumption patterns, and the social relations produced by space with the fundamental goals of degrowth. Hence, spatializing degrowth entails harmonizing the physical and social production processes of space with the fundamental pillars of

degrowth. The spatial production approach, which focuses on establishing environmental sustainability, aims to reduce material-energy flows generated during the production and utilization of space, effectively downsizing the social metabolism. Since space is where social relations are produced, spatial production processes should be shaped in a way that establishes social justice by prioritizing the needs of vulnerable social groups. To achieve primary goals of degrowth in the production and utilization of space, it is essential to consider not only changing the modes of production but also the reproduction of social relations. (Figure 3) As previously mentioned, there are few studies within the degrowth literature that addresses the issues around spatilization of degrowth in the sense described above, and among the limited research available, there exists a multitude of contrasting views. Krähmer (2022), who has conducted studies on the spatial aspect of degrowth, highlights that while proposals for degrowth can follow some common principles, degrowth researchers should avoid developing universally applicable hypotheses regarding the size and form of settlements (sf. 337-338). This article will address the problem of how degrowth can be translated into the material world, in other words, how it can be spatialized, with a particular focus on housing.

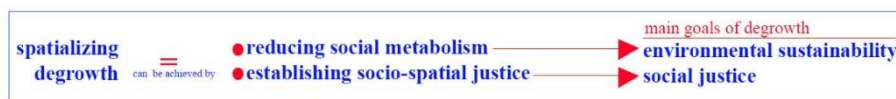


Figure 3. Description of spatializing degrowth.

THE IMPORTANCE OF SPATIALIZING DEGROWTH AT HOME AND THE CONCEPT OF HOUSING DEGROWTH

It is of great importance to explore how housing production/consumption processes can play a role in moving towards a degrowth future. The significance of home lies in its function as the place where everyday life is organized, providing the foundation for our aspirations regarding the kind of life we want to lead and the society we want to create. Our physical, social, and cognitive constructions of the home reflect our relationship with society and the planet, which profoundly affect the environment and society. By providing a foundation for autonomy and self-management, serving as a space for gaining experience and skills, and offering the basis for sharing space and knowledge, the home can be perceived as a convivial place rather than a fragmented one. Hagbert argues that the potential of the home lies precisely in the intersection of the physical, social, and cognitive aspects of 'the good life'. When the home is experienced as a place where individuals come together, it has the potential to become a focal point for fostering community bonds and social transformation (2019, p. 60-66). As discussed previously, improving human life has become a top priority within the field of degrowth. Although human needs may vary, housing is a basic need for everyone. Xue (2019) states that facilitating the fulfillment of basic human needs for all is a moral imperative, as defined in the 1948 United Nations Human Rights Declaration, which identifies

access to a minimum standard of housing as a fundamental human right for all individuals and emphasizes the importance of distributive justice (p. 186). Given that housing is considered a fundamental human right and holds the potential for achieving the environmental and social transformation targeted by degrowth, examining how degrowth can be spatialized at home is of critical importance. The 2007-2008 global financial crisis vividly demonstrated the critical role of housing in both class struggle and political upheavals (Di Feliciano, 2017). While technological advancements are being employed to decouple the environmental impacts of housing production and utilization, challenges such as homelessness and accessibility continue despite the high rates of vacant housing stock. The injustices inherent to growth-oriented housing production processes make it imperative to discuss the problem of spatializing degrowth through housing, and housing needs to be prioritized as a key area for action. Despite the crucial role of the housing within the context of degrowth, considering its negative social and environmental impacts under growth dynamics, Weiss and Cattaneo (2017) found that only 4 out of every 91 articles in the degrowth literature address housing. However, limiting socio-spatial inequalities is a decisive objective of the degrowth agenda, and the widespread use of housing degrowth practices is of great importance in this regard.

Housing degrowth is a scenario that starts with housing as a fundamental right and continues with limiting the maximum cap per capita consumption and the equitable redistribution of the existing housing stock (p. 517, 533). In discussing the concept of housing degrowth, it is crucial to consider production processes, lifestyle habits, housing policies, and planning strategies. The objective of housing degrowth practices is not merely to provide an alternative to current production processes that operate with growth-oriented dynamics, but rather to explore the future of home for a more sustainable and equitable world. Housing degrowth is defined as 'a reduction of the total resources going into housing production and use, without an increase in inequality or a loss of well-being' (Tunstall, 2022, p. 1). It is important to note that housing degrowth aims not only to ensure environmental sustainability but also to enhance human life. Housing degrowth practices challenge the consumption-driven nature of housing inherent in capitalism and view home as a collaborative, convivial, sufficient, and non-commercial space. According to Mete (2022), reducing housing consumption is considered in the context of respecting environmental boundaries, while equitable redistribution strategies refer to transferring from those who possess large shares to those who possess less to achieve social justice. It is worth noting that buildings emit carbon dioxide during their construction, utilization, maintenance, and even demolition. According to Tunstall (2022), it is important to emphasize that the amount of embodied carbon dioxide generated during construction, maintenance, and demolition varies according to the size of the house, while the amount of operational carbon dioxide emitted during use varies depending on various

characteristics of the house (p.7). The amount of embodied carbon dioxide decreases with longer lifespan of the house as the initial carbon expenditure is distributed over an extended period of time. On the other hand, the amount of operational carbon dioxide increases as the lifespan of the house extends due to ongoing energy consumption. This dynamic highlights the importance of considering both embodied and operational carbon dioxide over the entire lifespan of a building when assessing the environmental impact. In certain instances, replacing existing homes with ecologically efficient ones can reduce the total amount of embodied and operational carbon dioxide. Strengthening the existing building stock is more effective in reducing the total amount of embodied and operational carbon dioxide (Tunstall, 2022, p.7). Preserving and repairing existing building stock instead of constructing new buildings not only reduces total carbon dioxide emissions but also contributes to the conservation of natural resources. Moreover, repurposing the vacant building stock through various means has the potential to increase access to housing and enhance well-being. Such an approach could contribute positively to both environmental sustainability and social justice.

COMPASS FOR SPATIALIZING DEGROWTH IDEAS AT HOME

There are many practices that can be seen as attempts at housing degrowth at various scales. While some efforts consciously pursue degrowth aims, others unknowingly engage in practices that align with degrowth goals. Therefore, the aim of this article is to determine a strategy for spatializing degrowth at home. As a compass for the determination of this strategy, the toolkit used to spatialize economic growth, and the critiques developed for existing housing degrowth experiments will be examined. (Figure 4) Through the examination of these two fundamental themes, the compass may potentially reveal the right strategy for the spatialization degrowth at home.

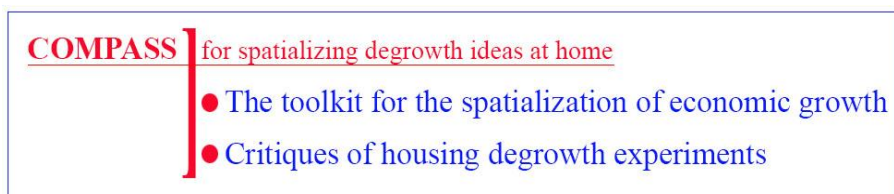


Figure 4. Compass for spatializing degrowth ideas at home.

The Toolkit for the Spatialization of Economic Growth

Identifying the toolkit used to spatialize economic growth can serve as a compass for spatializing degrowth ideas at home. According to Mete (2022), a housing degrowth future is hard to achieve without a comprehensive understanding of the obstacles posed by production processes intrinsic to growth (p. 533). Both the housing sector and housing policies aim to increase per capita and overall housing figures, improve housing quality, and enhance the financial value of housing. However, growth-based housing sectors violate the planet's boundaries of self-renewal, while also failing to adequately meet the housing needs

of everyone. According to Parrique et al. (2019), an area worth considering, when contemplating the spatial implications of degrowth, is its criticism of the unjust and unsustainable nature of growth-driven capitalism. This critique predominantly revolves around the intrinsic metabolism of capitalist system, which inherently carries a spatial aspect, as seen in concepts such as externalization and the unequal ecological exchange. In this regard, tracing the social metabolism of architectural activities and examining their relationship with consumption patterns can provide valuable guidance. It can be argued that architecture plays facilitating role in supporting and disseminating worldviews nourished by growth. In addition, architectural practices are closely linked to economic activities as design and construction processes are shaped by market conditions. On the other hand, the exploitation of labor and resources that underlie economic growth has also become widespread in the field of architecture. The tabula rasa approach, which is mainstream in architectural activities, allows for construction on cultivable lands or empty plots (Krasny, E. et al., 2019), while urban transformation practices enable the demolition and reconstruction of existing structures. It is possible to assert that this approach has negative impacts on the environment both in terms of resource and energy utilization as well as the amount of waste produced. According to Hickel (2022), 27% of global resources are used in the construction industry, with construction materials accounting for half of the waste produced (p. 171). Furthermore, Berk & Akbulut (2022) argue that projects created under this paradigm primarily serve economic power actors rather than the public good, resulting in the exclusion of disadvantaged and marginalized segments of society from the purview of the architectural profession (p. 51). The implications of mainstream activities in the realm of housing indicate that we are facing a more pressing issue. Therefore, it becomes crucial to understand how economic growth erodes planetary and societal boundaries through housing production and consumption processes.

The construction industry, particularly the housing sector, is crucial in sustaining economic growth. The construction industry accounts for 7% of GDP, almost doubling when all its ancillary sectors are considered (Harvey, 2015, p. 96). Furthermore, 60% of all constructions pertain to housing units. In Turkey, the construction industry and 250 sub-sectors accounted for up to 35% of GDP in 2022 (Habertürk, 2022). As previously built houses need to be sold to finance new housing production, there is pressure to manipulate the demand for housing. This leads to a capital cycle of housing production 'free from both supply and demand, proliferating from its own motion' (Harvey, 2015, p. 13). As a result, there is a large number of unused housing units which strain natural systems. Once a non-economic domain where we fulfil our basic needs, home has become the main component of a large economic sector. The notion of home was originally meant to be a shelter. However, due to commodification, the notion of home acquires additional layers of

meaning, evolving into a place where consumption-oriented lifestyles are not only encouraged but also normalized and reinforced (Lawrence, 1987). Thus, home becomes a place where possessions accumulate and technological advancements are showcased. As Swan & Ugursal (2009) point out, houses account for 30% of carbon emissions. The increase in the size of houses in square meters results in greater material and energy consumption during production processes. It also means that more equipment, furniture, and energy for heating or cooling will be spent during use. However, there is a growing trend of outsourcing traditionally home-based tasks, such as care, cooking, or maintenance, to the service sector.

Homeownership has become integral to growth narratives, often endorsed by government policies. In some cases, governments encourage homeownership to keep the population under control by turning them into debtors. According to Mete (2022), in developed countries, access to housing is viewed as an individual responsibility, with homeownership frequently linked to social status (p. 257). Moreover, insufficient regulations safeguarding tenants' rights and the perception that renting is a futile expense further perpetuate the misconception that owning a house is the only viable option. However, it's important to note that escalating rental payments has made houses accessible only to a more privileged segment. Neoliberal reforms have reduced social housing and other affordable housing policies, promoting homeownership and resulting in increased mortgage debt, as stated by Nelson (2019, p. 6). Typically, becoming a homeowner involves taking out a mortgage and sometimes additional loans to qualify for the mortgage. Household indebtedness increases as housing costs, including expenses for domestic services such as energy and water, increase, regardless of homeownership or tenancy. Consequently, this makes the house a burden for many people. The current trend of global urbanization, driven by economic growth, is leading to a crisis not only because of unaffordable housing but also due to social injustices, displacement or homelessness. Marcuse (2021) argues that the housing sector is facing a three-fold crisis under prevailing neoliberal capitalist conditions: the commercialization of the home, the lack of social housing, and the myth of homeownership. He suggests that at the heart of the current housing system lies the financialization and speculation, enabling the commercialization of the home (p. 215-230). Heeg (2013) explains that real estate gains a financial investment status due to increased housing privatization, leading to the financialization of the housing market (p. 76-77). Although the housing sector is growing, rising prices due to market rules and speculation trends make it difficult for many people to access a house.

To summarize the aforementioned points, in growth-oriented housing production and consumption processes, it is evident that a significant social metabolism is created. Households are burdened with debt, property ownership relies on speculation, access to housing requires a privileged position, and housing has become an investment instrument.

(Figure 5) Building on this, the compass that will guide the spatialization of degrowth ideas at home highlights the need for a different social metabolism, the recognition of public capital, co-ownership, inclusivity, and acknowledgment of housing as a fundamental human right as key tools.



Figure 5. Compass 1: The toolkit for the spatialization of economic growth.

Critiques of Housing Degrowth Experiments

The action lines for housing degrowth can be considered as the practices needed to be implemented for degrowth to spatialize at home. These action lines can be categorized into two axes falling within the scope of housing degrowth field. The first axis involves regulations targeted at facilitating the adoption of degrowth values. These arrangements may vary from neighborhood-scale regulations set by local governments to legislative changes enacted by central governments. Such regulations may pertain to the use of energy and materials, waste management, and access to the commons. In addition to environmental regulations, measures aimed at reducing the demand for houses to achieve housing justice, promoting collective ownership, and employing design and planning changes can also be considered within this context. When local and central governments are unwilling to take action, individual and collective efforts can exert pressure on them to make changes. Therefore, the second axis involves the practices of certain communities that, although not explicitly implementing their actions with the intention of degrowth, could be considered as degrowth attempts. Squatting, home swapping, self-build practices, co-housing, and eco-village projects are examples of degrowth practices. Conservation is related to the legal aspect of the issue, but repairing and reusing vacant buildings or re-evaluating materials from old constructions can also be considered as degrowth practices.

Failure to achieve environmental sustainability and social justice objectives risks causing housing degrowth attempts to fail. Understanding the reasons behind the failure of these attempts is essential for spatializing degrowth at home. One significant obstacle to housing degrowth is the prevalent concept of homeownership. Homeowners may not welcome proposals for more equitable redistribution of existing housing stock, and for-profit markets may impede the fair redistribution of such stock. This reluctance stems from the need for reducing speculation and financialization in housing for

degrowth. Such a change would cause existing homeowners and speculators to lose capital, as the house would no longer be a lucrative investment if it was redistributed as a fundamental right. Fair redistribution may also decrease house prices. However, with concerted efforts, the prevailing market dynamics that contribute to housing injustice for a large number of individuals can be changed.

In the context of housing degrowth, residents are seen as active participants in both the production and maintenance of their houses. In some parts of the world, regulations may be lacking or inadequately enforced, allowing people to build their own houses. As pointed out by Christie & Salong (2019), self-builders in such places do not require high budgets as they do not incur the costs related to pay architects and engineers for design and calculation, sourcing materials from afar, and adhering to regulatory expenses (p. 91). In this regard, building one's own house can be considered as a form of degrowth attempt. However, the conventional approach, where design and construction are exclusively left to experts, leaves many without the necessary knowledge and skills to participate in these processes. Even if individuals possess the necessary knowledge, finding the time to be involved can be problematic, and regulations often entrust the planning and construction processes to experts, making it difficult for individuals to be actively engaged in. The removal of bureaucratic barriers appears to be crucial for the success of such endeavors.

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Another practice that could be considered as an attempt towards housing degrowth is the establishment of legal regulations for minimum and maximum home sizes. As previously mentioned, downsizing homes can help mitigate the negative environmental impacts of the housing sector. According to Stefansdottir & Xue (2019), downsizing homes could involve restricting specific functions of the house or ensuring that certain functions are shared with other households (p.173). On the other hand, in terms of livability and well-being at home, the determination of functions becomes significant when setting size constraints for homes. In other words, balancing the need for social interaction and the need for private space is crucial. Otherwise, there is a risk of neglecting both physical and psychological needs such as sleep, rest, hygiene, and security. On the other hand, while smaller homes may be more accessible to low-income individuals, the reduction in home size could potentially threaten the quality of life due to the risk of increased household population. The term 'tiny house' refers to small-sized homes, typically mounted on wheels. Although they are mobile in design, tiny houses require anchoring on private property for their proliferation. To achieve this, legal barriers pertaining to land use and infrastructural challenges must be addressed. However, despite the assumption that tiny houses consume fewer resources due to their compact size, their construction is labor-intensive and expensive, rendering them mere adventure accessible primarily to a certain socioeconomic segment of society. Consequently, criticisms suggest that tiny houses, often associated with

eco-elitism, may lead to isolation due to the sense of seclusion they create after construction.

House sharing is an important aspect of housing degrowth as it encourages resource sharing and contributes to reduced resource consumption. House sharing encompasses various arrangements, ranging from multiple individuals sharing the same residence (extended family, friends, etc.) to more complex models such as co-housing, which consists of private homes and shared spaces. Lietaert (2010) asserts that co-housing communities provide social benefits by not only fostering environmentally conscious daily habits but also strengthening community bonds through an organization based on collaboration. Co-housing practices, in turn, may miss the diversity aspect by being places where communities from similar socio-economic backgrounds live, potentially transforming into homogenous spaces (Temel et al., 2015). Additionally, there are views advocating for the inclusion of outsiders in shared spaces within co-housing practices, aiming to promote diversity (Ruiu, 2014). Another important aspect of housing degrowth is the assessment of the existing housing stock. Squatting practices categorized under this heading appear to be highly significant for achieving equitable redistribution. However, according to Cattaneo (2019), the risk of eviction complicates the decision-making process regarding the extent of repairs that can be undertaken in squatted spaces, leading occupants to prioritize minor repairs instead of significant alterations (p.48). However, Mete observes that many experts regard the conversion of existing vacant building stock as costly and complex in terms of planning processes and bureaucratic hurdles (2022, p. 528). For example, historical buildings may encounter constraints in being repurposed to fulfill housing needs due to the requirement for faithful restoration. On the other hand, Bouzarovski, Frankowski, and Herrero (2018), describe a phenomenon wherein communities face displacement as existing building stock is transformed through “energy-efficient” upgrades, labeling this process “low-carbon gentrification.” This term describes how marginalized communities, unable to afford higher housing costs caused by energy-efficient upgrades, are forced to move.

The central point of these criticisms is that when degrowth experiments adopt technology-centric approach to reduce the ecological footprint, the resulting practices become affordable only by a particular segment of society. Moreover, the eco-efficiency standards necessary for downsizing social metabolism might involve substantial costs, rendering them seemingly unaffordable for the broader part of the population. Indeed, concerns regarding inclusivity arise, as affluent communities may be the sole beneficiaries capable of affording materials and technologies meeting these standards. On the other hand, according to Nelson & Schneider (2019), housing degrowth experiments are often criticized for being reductionist and isolated, often being portrayed as independent and singular examples (p. 263). In essence, the criticisms can be summarized as suggesting that housing degrowth experiments tend to

create elite eco-communities rather than fostering an equal society. (Figure 6)



Figure 6. Compass 2: Critiques of housing degrowth experiments.

A STRATEGY FOR SPATIALIZING DEGROWTH AT HOME: COMMONING OF HOUSING

In this study, in order to develop a strategy for the spatialization of degrowth at home, the toolkit used for spatializing economic growth and critiques developed for existing housing degrowth experiments are examined as a compass. Based on the first compass, the toolkit used for spatializing economic growth, the tools that can be applicable for the spatialization of degrowth ideas at home are identified: the creation of a smaller social metabolism, leveraging public capital, improving commons, promoting inclusivity, and recognizing housing as a fundamental human right. Building on the second compass, it can be asserted that practices that focus on reducing resource and energy utilization in production and consumption processes for downsizing the social metabolism risk to overlook the social dimension of the issue since they may not be accessible to everyone and may lack inclusivity. Furthermore, it can be argued that housing degrowth experiments undertaken by more vulnerable segments are more frequently hindered by bureaucratic obstacles. When the two examined compasses are juxtaposed, it becomes possible to establish the necessary objectives for the spatialization of degrowth ideas at home: reducing social metabolism, recognizing the home as a fundamental human right rather than an investment tool, and prioritizing vulnerable segments, thus promoting inclusivity. It can be argued that a strategy developed for the spatialization of degrowth ideas at home should prioritize these objectives. The commoning of housing presents significant potential as a strategy to envision a degrowth-oriented future. (Figure 7)

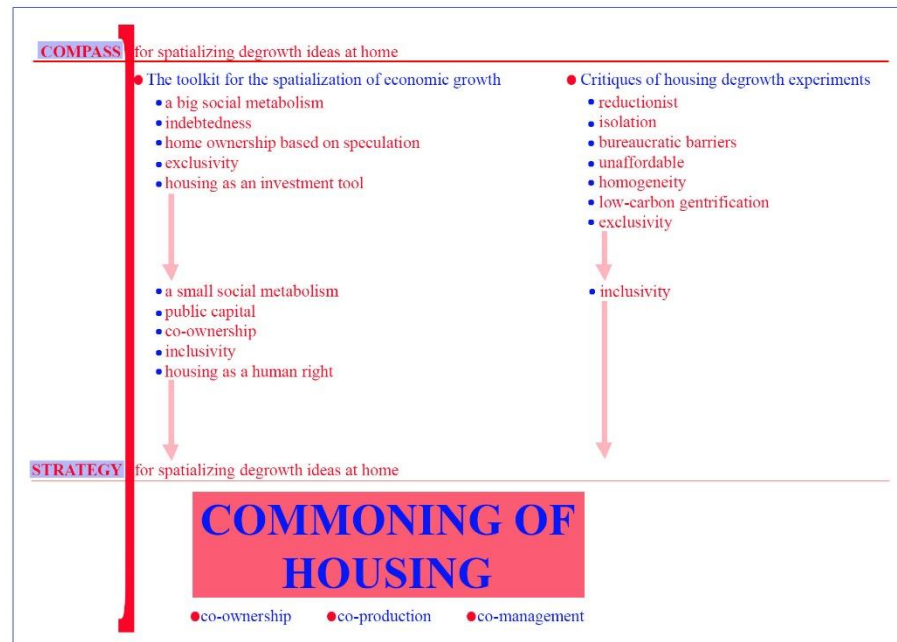


Figure 7. A strategy for spatializing degrowth at home: commoning of housing.

The practice of commoning housing, characterized by co-ownership, co-production, and co-management, aligns with this strategy. Often rooted in the struggles of vulnerable social groups, commoning housing practices emerge as a promising strategy for achieving social justice. Additionally, the reliance of commoning housing practices on the principles of "co-production" and "co-management" has the potential to lead to a smaller social metabolism. The commoning of housing, based on a different ownership paradigm, positions housing as a fundamental human right by disentangling it from the market forces. As previously mentioned, the myth of homeownership was discussed as one of the potential risks in the spatialization of degrowth at home. To counter this myth, it is imperative to prevent the financialization of the housing and remove it from the market. The concept of co-ownership inherent to commoning housing not only liberates housing from the market but also offers a viable solution to the affordable housing crisis. Savini and Bossuyt (2022) point out that by transcending the traditional boundaries of public and private property arrangements, the commoning of housing challenges these premises and emerges as a new perspective aligned with the principles of degrowth (p.35). It is worth highlighting that a redefined concept of ownership would grant residents greater autonomy. Savini (2022) states that autonomy, manifested through institutional arrangements, serves as a foundation for sustaining inclusivity during commoning practices (p.3). Therefore, it can be said that commoning practices have the potential to be inclusive when they establish autonomy. According to Griffith et al. (2022), the defining characteristics of housing commons lie in the coordinated actions with a shared objective among residents. This can encompass both physical elements, such as co-habiting, sharing facilities, and collective property, as well as political values and social practices (p. 5). Various scholars have proposed comparable constitutional guidelines for housing commons.

Griffith et al. (2022) explains three main aspects of commoning practices in housing as follows: (1) an intricate ownership structure extending beyond individual or state ownership, incorporating elements of collective or cooperative tenure; (2) resident-driven collective management within the housing estate; (3) architectural design intentionally fostering daily sharing of spaces (p.2). The development of a different understanding of property signifies a shift from viewing the home as an investment tool to recognizing it as a fundamental human right. Such an understanding, by influencing pricing policies, facilitates housing accessibility for more vulnerable segments of society. The collective management of housing estate holds the potential for reducing social metabolism. Additionally, residents' involvement in design decisions mitigates the risk of overlooking physical and psychological needs such as sleep, rest, hygiene, and security, while transitioning towards a home with a smaller footprint. Moreover, Savini and Bossuyt (2022) states that four key rights, which are commissioning, management, inclusion and income, establish the essential framework for the operation of housing commons. Commissioning rights address the question who has the authority to decide on the aspects such as building's characteristics, housing units and shared facilities. Management rights dictate how a building is utilized and how self-governance is organized within the housing commons. These rights extend beyond just operational problem-solving and encompass the day-to-day use and maintenance of spaces, as well as the constitutional principles that govern the community. Inclusion rights relate to the capacity to become a member of the housing commons. Given that housing typically involves some level of exclusivity, these rights address who is eligible to participate in the housing community. Income rights involve the transfer of one's rights related to use, commissioning, and management to others in exchange for monetary compensation. This allows for the economic aspect of housing commons, where individuals may rent or sublet their housing rights (p.39). It would be beneficial to examine how the features that theoretically appear positive for the spatialization of degrowth at home operate in practice.

The Mietshäuser Syndikat, an example from Germany, is worth examining due to its embodiment of the key characteristics of housing commons. Griffith et al. (2022) states that the Mietshäuser Syndikat in Germany stands as the largest collaborative housing community in Europe, originating from squatting movements and persistently advocating for the right to the city (p.13-14). The formation of the Mietshäuser Syndikat is adapted to the legal system of Germany. As Hurlin (2019) shares, the Mietshäuser Syndikat encompasses a collection of housing projects across Germany: as of April 2017, there were 124 projects accommodating over 3000 residents –with ongoing expansion (p.235). In this structure, decision-making processes are autonomous, and residents collectively determine how they will live without external forces influencing their choices. Hurlin (2019) asserts that, in this

context, the Mietshäuser Syndikat generates and sustains values, rationale, and discourse aligned with housing necessities and genuine social requisites. It has effectively established social and economic structures that contest the speculative practices commonly adopted by housing developers and investors. Moreover, their governance methodologies promote equity and consensus (p.242). In this model, there is a union structure where each resident contributes financially, and decisions are made by the members, not by the union itself. The association of the house's tenants holds a majority share (51%), while the remaining share (49%) is solely owned by the Mietshäuser Syndikat GmbH (Hurlin, 2019, p.236). The association owns the houses, where members pay reasonable rents, but the Mietshäuser Syndikat is organized in a structure that prevents the re-sale of houses in the market. Rents may vary based on factors such as the size of the houses or the monthly income of members. However, the determined rents are significantly below market values to enhance accessibility. The primary objective of such syndicates is to facilitate access to housing for everyone without pursuing profit, ultimately aiming for the collective management of all houses under syndicate-like structures. However, collective ownership, despite its non-profit nature, is criticized for not eliminating the concept of homeownership and for being applied primarily to a specific segment of the population. The exclusivity arises from the fact that syndicate-owned houses belong solely to the members residing within, thus depriving non-members. Additionally, living in syndicate-owned houses still requires paying rent, and although it may be more affordable than the market rate, it cannot be entirely divorced from financial motives. On the other hand, while idealizing universal housing access, there are criticisms suggesting that, by addressing the housing needs of low-income individuals through private structures instead of state intervention, such practices reinforce existing neoliberal policies. Despite these criticisms, it can be argued that these degrowth practices represent a positive starting point as they facilitate housing access for low-income individuals.

CONCLUDING REMARKS

It is of great importance to have a profound comprehension of the spatial implications of degrowth, as well as exploring how the processes of spatial production/consumption can play a role in moving towards a degrowth-oriented future. Prioritizing the problem of how degrowth can be spatialized at home, this article examines the toolkit employed by economic growth for spatialization, and the criticisms directed towards existing housing degrowth experiments as a compass, in order to provide a strategy for the spatialization degrowth at home. Based on the toolkit used in the growth-oriented housing production and consumption processes, the tools for enabling the spatialization of degrowth at home have been identified as creating a smaller societal metabolism, utilizing public capital, promoting co-ownership, inclusivity, and recognizing

housing as a fundamental human right. Upon examining the criticisms against the existing housing degrowth experiments, it is observed that adopting a technology-centric approach to reduce the ecological footprint tends to create elite eco-communities. Considering the intersection of these two main headings, commoning of housing is identified as a strategy for the spatialization of degrowth at home.

The commoning of housing practices are based on three principles: co-production, co-ownership, and co-management. These practices are generally rooted in the struggle of vulnerable groups, rendering them inclusive. Furthermore, these practices promote a different paradigm of ownership, thus mediating to position housing as a fundamental human right by liberating it from the constraints of the market. Additionally, sharing and collaborative management of living spaces also hold significant potential for reducing ecological impacts. Despite potential challenges that may arise in practice, the concept of housing commons holds the significant potential to facilitate more equitable housing developments. According to Delz et al. (2020), commoning of housing practices should commence with micro-political mobilization efforts and the establishment of common networks. Achieving equitable development hinges on the universal recognition of housing as a common good. This perspective also advocates for the conversion of private property into co-ownership and emphasizes the importance of considering common ground as a valuable asset with social, ecological, and cultural significance (p. 7). Commoning housing practices hold significant potential for catalyzing substantial systemic transformation. This potential can be realized through the gradual integration of micro-political actions into macro-political frameworks, ultimately contributing to the facilitation of a degrowth-oriented future.

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REFERENCES

- Alexander, S. & Ussher, S. (2012). The Voluntary Simplicity Movement: A multinational survey analysis in theoretical context. *Journal of Consumer Culture*, 12(1), 66-68. <https://doi.org/10.1177/1469540512444019>
- Angus, I. (2021). Antroposenle Yüzleşmek: Fosil Kapitalizm ve Dünya Sisteminin Krizi. marx-21 Yayınları.
- Berk, M.G. & Akbulut, M.T. (2022, Nov&Dec). Dayanışma Mimarlığı: Mimarlık Mesleğinin Dönüşümü ve Mimarlık Kolektiflerine Bakış. *Arredamento Mimarlık*, 2022(11-12), 51-53.
- Bouzarovski, S., Frankowski, J., & Herrero, S.T. (2018). Low-Carbon Gentrification: When Climate Change Encounters Residential Displacement. *International Journal of Urban and Regional Research*, 42(5), 845-863.
- Cattaneo, C. (2019). How can squatting contribute to degrowth?. In Nelson, A. & Schneider, F. (Eds.), *Housing for Degrowth: Principles, Models, Challenges and Opportunities* (pp. 44-55). Routledge.

- Christie, W. & Salong, J. (2019). Housing and Climate Change Resilience: Vanuatu. In Nelson, A. & Schneider, F. (Eds.), *Housing for Degrowth: Principles, Models, Challenges and Opportunities* (pp. 80-95). Routledge.
- Cosme, I., R. Santos, & D. W. O'Neill. (2017). Assessing the Degrowth Discourse: A Review and Analysis of Academic Degrowth Policy Proposals. *Journal of Cleaner Production*, 149, 321-334.
- D'Alisa, G., Demeria, F. & Kallis, G. (2020). Küçülme: Yeni Bir Çağ İçin Kavram Dağarcığı (2nd ed.). Metis Yayınları.
- D'Alisa, G., Deriu, M., & Demaria, F. (2020). Bakım. In D'Alisa, G., Demeria, F. & Kallis, G. (Eds.), *Küçülme: Yeni Bir Çağ İçin Kavram Dağarcığı (2nd ed.)* (p. 104-108). Metis Yayınları.
- Delz, S., Hehl, R. & Ventura, P. (2020). Housing the Co-op. A Micro-political Manifesto. Berlin: Ruby Press.
- Di Feliciano, C. (2017). Social Movements and Alternative Housing Models: Practicing the 'Politics of Possibilities' in Spain. *Housing, Theory and Society*, 34(1), 38-56.
- Demaria, F., Schneider, F., Sekulova, F., Martinez-Alier, J., (2013). What is degrowth? From an activist slogan to a social movement. *Environmental Values*, 22(2), 191-215.
- Griffith, E.J., Jepma, M. & Savini, F. (2022). Beyond collective property: a typology of collaborative housing in Europe. *International Journal of Housing Policy*. DOI: 10.1080/19491247.2022.2123272
- Habertürk. (2022, May 16). İnşaat ve yan sektörlerin GSYH payı yüzde 35. *Habertürk*. Retrieved April 25, 2023, from <https://www.haberturk.com/insaat-ve-yan-sektorlerin-milli-gelirdeki-payi-yuzde-35-3440165-ekonomi>
- Hagbert, P. (2019). Rethinking home as a node for transition. In Nelson, A. & Schneider, F. (Eds.), *Housing for Degrowth: Principles, Models, Challenges and Opportunities* (pp. 57-67). Routledge.
- Harvey, D. (2000). Spaces of Hope. Edinburgh University Press.
- Harvey, D. (2015). Asi Şehirler: Şehir Hakkından Kentsel Devrime Doğru (4th ed.). Metis Yayınları.
- Heeg, S. (2013). Wohnungen als Finanzanlage. Auswirkungen von Responsibilisierung und Finanzialisierung im Bereich des Wohnens. *suburban: zeitschrift für kritische stadtforschung*, 1, 75-99.
- Helfrich, S. & Bollier, D., (2020). Müşterekler. In D'Alisa, G., Demeria, F. & Kallis, G. (Eds.), *Küçülme: Yeni Bir Çağ İçin Kavram Dağarcığı (2nd ed.)* (p. 119-123). Metis Yayınları.
- Hickel, J. (2022). Çoğu Zarar Azı Karar: Dünyayı Küçülme Kurtaracak (2nd ed.). Metis Yayınları.
- Hurlin, L. (2019). Mietshäuser Syndikat: collective ownership, the 'housing question' and degrowth. In Nelson, A. & Schneider, F. (Eds.), *Housing for Degrowth: Principles, Models, Challenges and Opportunities* (pp. 233-244). Routledge.
- Illich, I. (1973). Tools for Conviviality. Glasgow: Fontana/Collins.
- Işıkara, G. (2021, December 9). Küçülme Üzerine Düşünceler. *Polen Ekoloji*. <https://www.polenekoloji.org/kuculme-uzerine-dusunceler/>
- Joutsenvirta, M. (2016). A Practice Approach to the Institutionalization of Economic Degrowth. *Ecological Economics*, 128, 23-32.
- Kallis, G. (2018). Degrowth. Agenda Publishing.

- Krasny, E. et al. (2019) Architecture and care. In: Fitz, A. (Ed.), *Critical care: Architecture and urbanism for a broken planet* (pp. 33–44). Cambridge, MA & London, UK: MIT Press.
- Lawrence, R. J. (1987). *Housing, Dwellings and Homes: Design Theory, Research and Practice*. John Wiley & Sons Inc.
- Lefebvre, H. (1976). *The Survival of Capitalism: Reproduction of the Relations of Production*. Allison & Busby.
- Lietaert, M. (2010). Cohousing's Relevance to Degrowth Theories, *Journal of Cleaner Production*. 18 (6), 576–580.
- Lorek, S., (2020). Maddesizleşme. In D'Alisa, G., Demeria, F. & Kallis, G. (Eds.), *Küçülme: Yeni Bir Çağ İçin Kavram Dağarcığı (2nd ed.)* (p. 129-133). Metis Yayınları.
- Marcuse, P. (2012). A Critical Approach to Solving the Housing Problem. In Brenner, N., Marcuse, P. & Mayer, M. (Eds.), *Cities for People, Not for Profit: Critical Urban Theory the Right to the City* (pp. 215–230). Routledge.
- Martinez-Alier, J., Pascual, U., Vivien, F., Zaccai, E. (2010). Sustainable de-growth: mapping the context, criticisms and future prospects of an emergent paradigm. *Ecol. Econ.* 69 (9), 1741–1747.
- Mete, S. (2022). Towards degrowth housing development? Lessons from a scenario-based gaming session in the Oslo region. *Local Environment, The International Journal of Justice and Sustainability*, 27:4, 517-536. <https://doi.org/10.1080/13549839.2021.1964456>
- Nelson, A. (2019). Housing for Growth Narratives. In Nelson, A. & Schneider, F. (Eds.), *Housing for Degrowth: Principles, Models, Challenges and Opportunities* (pp. 3-13). Routledge.
- Nelson, A. & Schneider, F. (2019). Summary and research futures for housing for degrowth. In Nelson, A. & Schneider, F. (Eds.), *Housing for Degrowth: Principles, Models, Challenges and Opportunities* (pp. 256-264). Routledge.
- Olsen, E. S., Orefice, M. & Pietrangeli, G. (2019). From the 'right to the city' to the 'right to metabolism. In Nelson, A. & Schneider, F. (Eds.), *Housing for Degrowth: Principles, Models, Challenges and Opportunities* (pp. 33-43). Routledge.
- Parrique T., Barth J., Briens F., C. Kerschner, Kraus-Polk A., Kuokkanen A., Spangenberg J.H. (2019). *Decoupling Debunked. Evidence and Arguments Against Green Growth as a Sole Strategy for Sustainability*. Brussels: European Environmental Bureau.
- Paulson, S. (2017). Degrowth: Culture, power and change. In Gezon, L. L. & Paulson S. (Eds.), *Degrowth, culture and power* (pp. 425-448). *Special Section of the Journal of Political Ecology*, 24, 425-666.
- Plotnikova, S. (2020). Designing for Degrowth: Architecture Against Climate Apartheid. AIA/ACSA Intersections Symposium | Design For Climate Action.
- Research and Degrowth. (2023). *History*. <https://degrowth.org/history/>
- Ruiu, M. L. (2014). Differences Between Cohousing and Gated Communities. A Literature Review. *Sociological Inquiry*, 84: 316–335.
- Romano, O. (2020). Faydacılık Karşıtlığı. In D'Alisa, G., Demeria, F. & Kallis, G. (Eds.), *Küçülme: Yeni Bir Çağ İçin Kavram Dağarcığı (2nd ed.)* (p. 43-47). Metis Yayınları.
- Savini, F. (2022). Maintaining autonomy: Urban degrowth and the commoning of housing. *Urban Studies*, 00(0), 1-18.
- Savini, F. & Bossuyt, D. (2022). Housing commons as a degrowth planning practice: learning from Amsterdam's de Nieuwe Meent. In Savini F., Ferreira, A. & von Schönfenld, K.C. (Eds.), *Post-Growth Planning. Cities Beyond the Market Economy* (p. 35-48). Routledge.

- Stefansdottir, H. & Xue, J. (2019). The quality of small dwellings in a neighbourhood context. In Nelson, A. & Schneider, F. (Eds.), *Housing for Degrowth: Principles, Models, Challenges and Opportunities* (pp. 171-183). Routledge.
- Swan, L.G. & Ugursal, V.I. (2009). Modeling of end-use energy consumption in the residential sector: A review of modeling techniques. *Renewable and Sustainable Energy Reviews*, 13(8), 1819–35.
- Temel, Robert, and Constance Weiser. (2015). Baugruppen in Aspern Seestadt. Chronologie Einer Planerischen Innovation. In Gruber, E. (Ed), *Gemeinsam Bauen Wohnen in der Praxis. Workshopreihe 2014 über, für und mit Baugruppen in Wien* (p. 20–29). Wien: Verein Initiative für gemeinschaftliches Bauen und Wohnen.
- Tunstall, R. (2022). An empirical test of measures of housing degrowth: Learning from the limited experience of England and Wales, 1981–2011. *Urban Studies Journal*, 1-19. <https://doi.org/10.1177/00420980221121198>
- Xue, J. (2022). Urban planning and degrowth: a missing dialogue, *Local Environment*. 27(4), 404-422. DOI: 10.1080/13549839.2020.1867840
- Van den Bergh, J. (2011). Environment Versus Growth — A Criticism of “Degrowth” and a Plea for “a-Growth. *Ecological Economics*, 70, 881–890.
- Wächter, P. (2013). The Impacts of Spatial Planning on Degrowth. *Sustainability*, 5, 1067-1079. doi:10.3390/su5031067
- Weiss M. & Cattaneo C. (2017). Degrowth – taking stock and reviewing an emerging academic paradigm. *Ecological Economics*, 137, 220–230.

Resume

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