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Livable Cities: A Conference on Issues Affecting Life in Cities

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INTRODUCTION

Livable Cities: A Conference on Issues Affecting Life in Cities

What makes a city livable? Transport, housing, health. Open space, mobility and the environment. Matters of culture, entrepreneurship, crime and safety. Affordability and access to education. Depending on whose 'livability index' you look at, it may include design quality, sustainability and the digital infrastructures of the smart city. Other criteria applied may encompass food access, job opportunities or walkability. Inclusivity and the politics of participation also come into play. Discrimination in all its forms impacts livability and social and political equity.

The past two decades have seen an exponential rise of livability measures. Reflecting increased urbanity globally, they risk making the notion of the city ever more contested. The two cities that host this event are cases in point. The Mercer Livability Ranking takes New York as the datum by which all other cities globally are graded – as better or worse. London, by contrast, measures itself: the London Assembly scoring everything from air quality to indices of deprivation. When we consider the livability of cities then, it is clear we are dealing with a plethora of issues – both isolated and, inevitably, interconnected.

Responding to this scenario, the papers in this publication tackle these issues above from various angles. They examine how we live in cities, and how every issue we encounter morphs with considerations of others, whether housing, architecture, urban planning, health, IT, crime and safety, city management, economics or the environment.

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A SHARING-BASED CATEGORIZATION OF HOUSING OPTIONS FOR DIVERSIFYING CITIES

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INTRODUCTION

The population in urban areas is growing rapidly.[1] Cities are becoming more densely inhabited, which puts enormous pressure on the housing market. Additionally, the housing needs of people in the housing market are evolving due to several societal shifts making the growing city population more diverse. A first societal shift is increased longevity caused by declining mortality among older adults in higher-income countries.[2] Secondly, family structures are changing as well. There is a decrease in household sizes due to, among others, fewer children being born.[3] Projections suspect an even further reduction in the future. Thus, the amount of one and two-person households is rising.[4] Lastly, urban areas are welcoming more diverse inhabitants. Increased migration from rural areas or from abroad causes the accumulation of many different cultures in cities, each with its traditions and habits.[5] Consequently, the housing stock is inadequately equipped to accommodate this heterogeneity.

In this challenging context, the HOUSE-research project was initiated, a collaboration between Hasselt University and Vrije Universiteit Brussels, both located in Belgium. The project's research objective is to study the effects of the residential environment on the subjective well-being of older adults in Flanders, specifically how innovative housing (concepts and characteristics) could contribute. From architecture and social sciences, the HOUSE-research project emphasizes the need for alternative housing options.

Among many other housing options, cohousing could be a valuable alternative. This is a form of housing with common spaces and shared facilities, as Vestbro described.[6] Many variations of cohousing exist, such as collective housing, cooperative housing, collaborative housing, and ecovillages.[7] Studies on the different types of cohousing show exciting advantages that could benefit cities' societal shifts. Young adults, for instance, could experience the financial advantages of sharing a flat.[8] Cohousing can enhance social and emotional interaction among residents to counteract social isolation.[9] For older adults, cohousing could benefit their social respect, preventing loneliness and isolation and providing opportunities for distributing care tasks and daily chores.[10] Cohousing can reduce the amount of private space per unit in exchange for communal spaces, addressing densification concerns.

OBJECTIVE

Although cohousing benefits the housing challenges caused by societal changes in cities, specific difficulties arise. In academic and professional literature, cohousing options are often described with a specific term, changing over time and from region to region, which does not benefit the discussions on this typology, especially not when introducing cohousing to the general public. Unclear information about cohousing typologies contributes to maintaining existing barriers to cohousing. Therefore, the goal of this paper is to (1) sketch barriers of cohousing that underscore the need for a sharing-based housing categorization; (2) analyze existing sharing-based housing categorizations on their strengths and weaknesses with regards to the cohousing discussions; (3) display cohousing projects, to validate the application of the existing categorizations in practice to emphasize these strengths and weaknesses.

BARRIERS TO COHOUSING

Flanders (Belgium), the scope of the HOUSE-research project, is experiencing the same societal shifts and the resulting pressure on the housing market, as described in the introduction. When analyzing the housing stock in Flanders, concerns arise about answering the diversified housing needs. Flanders has a landscape characterized by the dispersal of large single-family houses in low-density areas and ribbon development, putting increasing pressure on nature and mobility.[11] Given the growing housing need, this monofunctional sprawl does not benefit the need for densification. The current housing stock is not sufficiently adapted to accommodate the needs and wishes of the continuously diversifying population. 74% of people in Flanders live in single-family houses.[12] The mainstream of the Flemish population continues to be attached to this ideal due to ongoing governmental encouragement in the past with low-cost loans and promotion of this typology.[13] These large single-family houses are not adapted to shrinking family sizes, with an under-crowded housing stock as an effect. Overall, Flemish older adults wish to age in place in the large single-family houses they own, even if these houses ask for loads of maintenance and thus implying associated costs.[14]

Despite the previous section exposing that Flanders requires alternative housing options, such as cohousing, barriers keep the majority from this idea of innovation. The first barrier is the perceived limited relevance of cohousing for many people in Flanders, justified or rationalized in terms of assumptions about "normal" housing careers. Strong cultural scripts exist for cohousing for young adults and students, but still much less so for families with children or rural communities.[15] In Flanders, people tend to hold on to the idea of a classical housing ladder,[16] in which cohousing does not always fit the upward movement. A second barrier, and relatedly, an essential factor in people's reservations about cohousing may be the strong norm of homeownership, combined with the dominance of a (semi-)detached housing style. Combined with Flanders being a homeowner society, with 71.6% homeowners, and those mentioned above, past governmental encouragements have contributed heavily to this situation.[17] Thirdly, many people have concerns regarding privacy within cohousing initiatives. There is much nescience on what is private and shared in cohousing. With many assumptions about sacrificing privacy.[18]

How, then, will we participate in the diffusion of cohousing in a context where still 74% live in a single-family house? For this, we will look at Rogers' diffusion of innovation theory[19] (see Figure 1). In Flanders, we know today that a small group of innovators is already living in some form of cohousing, but the majority is not.[20] Therefore, Williams suggested some strategies based on Rogers' theory, with higher chances of innovations being diffused. Diffusion is the stage at which a product or process becomes more widely available within a population. For instance, when the relative advantage of the innovation is higher than familiar tools or technologies, it is easier to adopt the innovation. Secondly, innovations get more easily diffused when there is a higher degree of compatibility with

existing cultural values, experiences, and needs and when innovations are simple in their application and are visibly present in society,[21] hence the need for a sharing-based housing categorization to make cohousing more visible and clarify ambiguities.

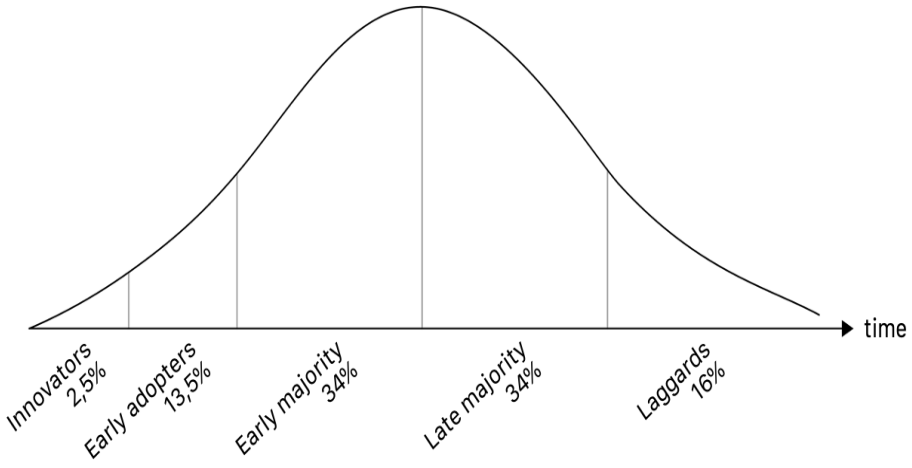

Figure 1. 'Diffusion of Innovation Theory' by Rogers (1983).

CATEGORIZATION

When categorizing housing, many approaches are available. Residential buildings can be organized based on the number of units, the size, or the construction year. Neufert, for instance, categorizes houses based on spatial organization, resulting in typologies such as semi-detached housing, linked housing, and housing with courtyard gardens.[22] Leupen and Mooij also take a spatial approach, discussing the number of zones in a dwelling.[23] Sharing is an interesting organizing method when incorporating cohousing in a housing categorization. Concerning the HOUSE-research project, a sharing-based approach contributes to the objective of future research on the influence of shared space in housing on the well-being of older adults.

Following, we have selected three housing categorizations that have the potential to support our future sharing-based housing categorization. In our search for categorization, sharing as a means of organizing was paramount. Much research on the sharing economy popped up during our search, which caused us to limit ourselves to architectural research discussing housing. This paper analyzes the existing categorization based on their application for the future research objective of the HOUSE-research project, discussing their strengths and weaknesses.

Categorization by Benko et al. (2020)

The first categorization by Benko et al. (see Table 1) is complete when it comes to implementing all types of cohousing. Sharing space is inherent to all types included. Thus, the difference between the projects is made in their shared creation, activities, and tenure. The shared creation discusses the residents' involvement in the cohousing creation process. The shared activities are the activities organized by the inhabitants. The shared tenure includes the type of shared ownership in the project. The paper states that shared creation, activities, and tenure must all be at least at present in a certain amount.[24] Our research deems this unnecessary since we are specifically looking at the influence of shared space in housing on well-being, notwithstanding these three principles' influence on this matter. From an architect's perspective, our future categorization focuses on what is designable: shared spaces. The designer's role in this matter is critical in the definition of cohousing as a form of

housing with common spaces and shared facilities. When addressing the barriers to cohousing, this framework can provide valuable ownership information but less on the shared and private spaces.

Co-housing sub-terms	"shared space"	shared creation	shared activities	shared tenure
Commune	x	x	x	x
Cohousing	x	x	x	x
Collaborative housing	x	x	x	
Cooperative housing	x	x	x	
Community-led housing	x	x		x
Communal housing	x		x	
Collective living/Co-living	x		x	
Collective housing	x		x	
Collective self-help housing	x	x		
Collective self-build housing	x	x		
Condominium	x			x

Table 1. 'Characteristic categories of social sharing in co-housing sub-terms – in the order of the sharing level' the categorization by Benkő et al. (2020).

Categorization by Van de Houte et al. (2015)

The second categorization of Van den Houte et al. (see Table 2) organizes different housing types, starting from the minimum private and shared spaces. An essential factor in this categorization is the absence of a private living space and the presence of a shared living space. Van den Houte et al. defines living spaces as spaces 'where people spend time', including a kitchen, a dining room, a living room, and a bedroom. A bathroom, circulation, parking, and storage spaces are not considered living spaces.[25] The categorization of Van den Houte et al. addresses the privacy concerns regarding cohousing, one of the barriers to cohousing. For future research purposes, this scheme provides a good fit for researching the impact of shared space in housing on subjective well-being; therefore, we will use this in the next part, in which we further emphasize the importance of a sharing-based housing categorization. However, a few gaps are present in the categorization of Van den Houte et al.

Minimum private spaces	Minimum shared spaces
I. Apartment, two-family house, duo-living, kangaroo living	
all living spaces (living room, kitchen and dining room, bedroom(s)), bathroom	entrance, staircase, eventual garage or parking space, bicycle and pram storage, salvage
II. Coliving	
all living spaces (living room, kitchen and dining room, bedroom(s)), bathroom	See I. + garden, laundry room
III. Co-housing	
all living spaces (living room, kitchen and dining room, bedroom(s)), bathroom	See II. + kitchen and dining room
IV. Residential group, community house, landlady system	
bedrooms	See III. + living room, bathroom
V. Barracks, boarding school, commune, community	
none	See IV. + bedrooms

Table 2. 'Categories of communal housing according to shared space (Flanders)' the translated categorization by Van den Houte et al. (2015).

Design-game by Pirinen and Trevo (2020)

Pirinen and Trevo developed a design game that serves as our third means of categorization (see Figure 2). The game was based on two dimensions. The first dimension was the levels of the built environment on which shared spaces can be located. The second dimension of the game board was the division between private or communal use of shared space. Spaces can be shared to allow several people or households to simultaneously use them or privately by individual households, for example, by reserving a shift. Their study also includes bundles of space that could be shared (see Figure 3).[26] Pirinen and Trevo also add the multitude of functions shared spaces can have, ranging further than the ones described by Van den Houte et al.

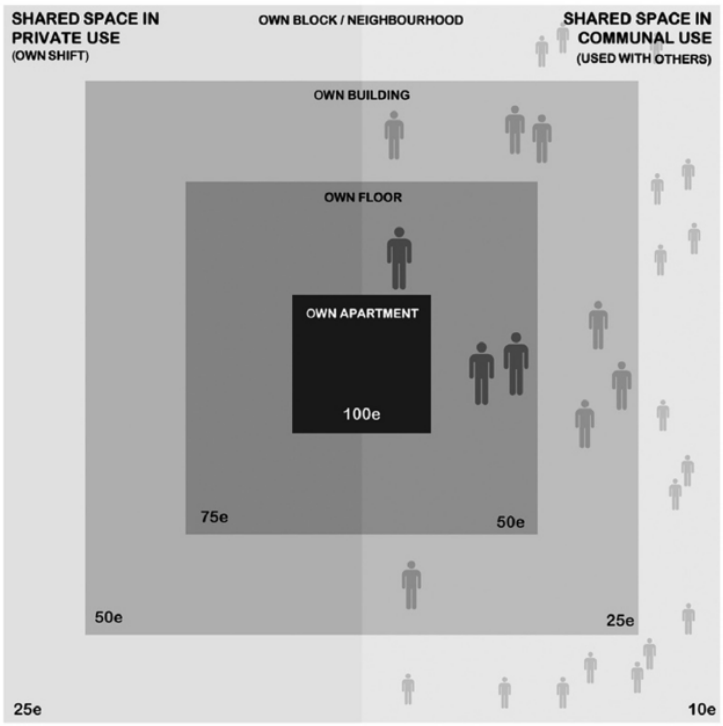

Figure 2. 'The game board based on two key dimensions and prices for spaces on different levels' the game-design by Pirinen and Trevo (2020).

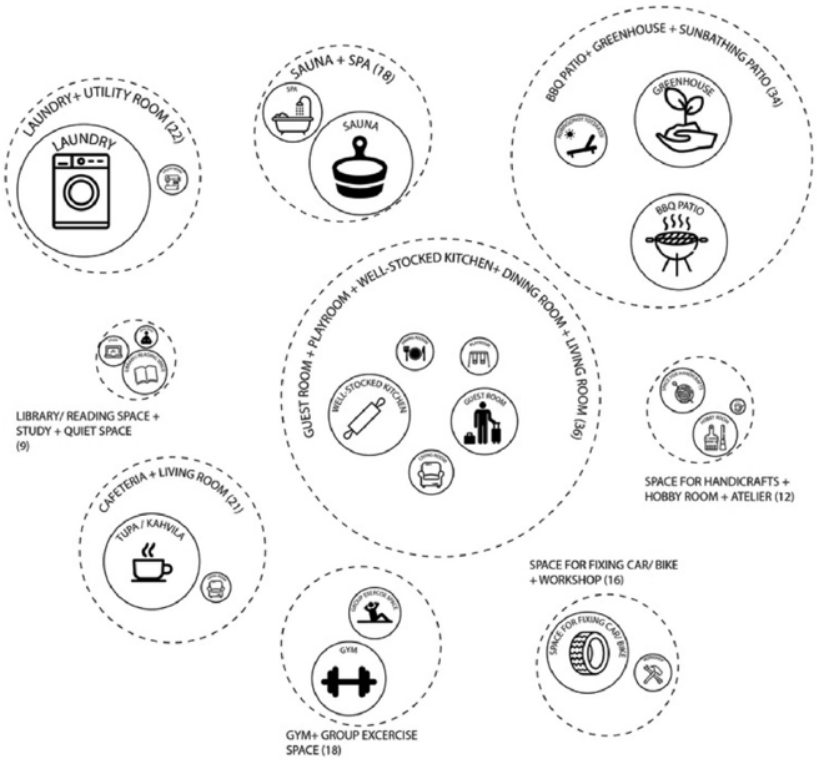

Figure 3. 'Space bundles resulting from the game material' the game-design by Pirinen and Trevo (2020).

APPLICATION

To clarify the need for a sharing-based housing categorization and the gaps in current categorizations, we collected over 125 housing projects with second-year architecture and interior architecture students, mapping their sharing practices. The students were divided into three groups, each with a specific region from which to collect projects: Belgium and The Netherlands, Western Europe, and outside Western Europe. In relation to the HOUSE-research project, the students were commissioned to collect housing projects for older adults in which they lived independently. Next, the students were asked to document the projects in a template with photographs and floorplans, discussing each project's private spaces and shared spaces. In the meantime, the list was extended by the researchers of HOUSE with significant projects over the past 25 years collected from professional Belgian literature and websites on architecture. This paper will present four of these projects. We will use the above-presented categorization by Van den Houte et al. to highlight their resemblances and differences.

The first project is Scarwafa cohousing by Krft, built in 2016 in the Netherlands. The architect describes it as a small-scale cohousing project of 3 befriended young families who acquired three neighboring plots in Amsterdam at the height of the last financial crisis. From the start, collectivity, and simplicity were the guiding motives. The thin budgets demanded conservativeness in form and materialization. By developing a coherent, collective architectural language, there was effectiveness in basic detailing and cost savings in implementation. With these basic details, three individualized homes with different spatiality have been designed to fit individual needs.[27] The project's layout shows three individual four-story homes with private living spaces and a private bathroom. The shared spaces are a garage and bike storage on the ground floor; and a guest room with a kitchenette

and a bathroom on the third floor. According to the categorization of Van den Houte et al. (see Table 2), Scarwafa cohousing belongs to group I.

Bijgaardehof cohousing is the second project, designed by Bogdan & Van Broeck. The cohousing is located in Belgium and was completed in 2022. It is described as the following: an abandoned factory site into a flourishing community including three cohousing groups with 59 dwellings, a neighborhood health center, a circuit of collective indoor and outdoor spaces, and a workshop with a view of Bijgaardepark. Bijgaardehof has an ambitious, mixed program organized around encounters and interactions.[28] Many shared spaces are available in cohousing Bijgaardehof, including a shared kitchen and shared living spaces, collective storage spaces, bike storage, and collective outdoor spaces. There are shared bathrooms, other than collective restrooms adjacent to the shared spaces. The individual units are self-sufficient, with private living spaces and bathrooms. In the categorization of Van den Houte et al. (see Table 2), this project thus belongs to group III. What is not discussed in the categorization in Table 2 are the spaces used by the neighborhood, this is discussed in Pirinen and Trevo's design-game (see Figure 2.)

The senior cohousing project from Arqbag, located in Spain, shows us an even different layout and division of private and shared spaces. The spaces are organized according to each use, specific to the degree of collectivization required at each moment. Individual, couple, collective, and even neighborhood spaces were incorporated. In order to solve the scale transition from warehouse to cohousing, the multiplicity of use spaces, and the gradients of privacy, the project proposes the insertion of a central equipped block. This new element permits reconfiguring the pre-existing open space into multiple subspaces, which are distributed in plan and section.[29] Also named a cohousing project, this project has a very high level of shared spaces compared to the two previous projects and few private rooms. The private spaces in this project consist of a private bedroom accompanied by a private bathroom, while other spaces are shared. Due to this, this project belongs to group IV of the categorization of Van den Houte et al. (see Table 2).

The last project is the project Future House by Wim Goes Architectuur. Completed in 2019, this project in Gent is part of a larger group of houses on a shared piece of land.[30] The project consists of two apartments with private living spaces and a bathroom. Below the two apartments, a shared yoga space and wellness area are located. According to the categorization of Van den Houte et al. (see Table 2), this project belongs to group II. However, no distinguishing is made by the presence of the yoga space and wellness area, which are areas described in the bundles by Pirinen and Trevo (see Figure 3).

CONCLUSION

Much exciting research concerning cohousing is ongoing; moreover, unclarity in research and the field of practice still needs to be addressed. Attempts to categorize cohousing have been made and are already a step in the right direction. The application of the above categorization shows their relevance by distinguishing projects described with the same terminologies in different groups. However, the application also addresses the gaps in the existing categorizations and, thus, the need for a more comprehensive sharing-based housing categorization. A categorization can generate knowledge and familiarity with cohousing, thus, making the innovation visible. Subsequently, barriers to cohousing can be tackled to incorporate the housing form as a valuable player in the housing market of diversifying cities. A categorization can also be beneficial for future research purposes. The spatial dimension, which a designer can influence, contributes to the social dimension in cohousing projects, which is a valuable interconnection. In the following steps of the HOUSE-research project, a more comprehensive version of a sharing-based housing categorization will be developed to analyze the influence of shared space on the subjective well-being of dwellers, specifically older adults.

Lastly, this paper would like to address a few limitations. This research's first limitation is that the literature review on existing housing categorizations is not exhaustive or systematically triangulated. A second limitation is that the project collection by students and the researchers only maps projects for which information was fully available online. Since the students were asked to collect plans and photographs, the projects for which this was not available were excluded from further research. This approach implies that more organically grown cohousing initiatives or smaller-scale projects could not be selected. Future research could focus on this specific category of cohousing projects.

NOTES

[1] United Nations, Department of Economic and Social Affairs, Population Division, *World Urbanization Prospects: The 2018 Revision (ST/ESA/SER.A/420),* (New York: United Nations, 2019), 1.
[2] World Health Organization, *World Report on Ageing and Health*, (Switzerland: WHO Press, 2015), 3; United Nations, Department of Economic and Social Affairs, Population Division, *World Population Ageing 2019, (ST/ESA/SER.A/444),* 2020, 1.
[3] Dick Urban Vestbro, ed., *Living Together - Cohousing Ideas and Realities around the World: Proceedings from the International Collaborative Housing Conference in Stockholm 5 - 9 May 2010*, (Stockholm: Division of Urban and Regional Studies. Royal Inst. of Technology, 2010), 15.
[4] Edith Lodewijckx, *Huishoudensprojecties: basishypotheses en werkwijzen* (Brussel: Vlaamse overheid, Diensten voor het Algemeen Regeringsbeleid Studiedienst van de Vlaamse Regering, 2015), 4; Vestbro, *Living Together - Cohousing Ideas and Realities around the World,* 15.
[5] United Nations, Department of Economic and Social Affairs, Population Division*, World Urbanization Prospects: The 2018 Revision (ST/ESA/SER.A/420), 1.*
[6] Vestbro, *Living Together - Cohousing Ideas and Realities around the World*, 29.
[7] Melinda Benkő et al., "Sharing-Based Co-Housing Categorization: A Structural Overview of the Terms and Characteristics Used in Urban Co-Housing," *Építés - Építészettudomány* 48 (2020), 337-338. https://doi.org/10.1556/096.2020.009; Dick Urban Vestbro, "From Collective Housing to Cohousing—a Summary of Research," *Journal of Architectural & Planning Research* 17, no. 2 (2000): 165–166; Dorrit Fromm, *Collaborative Communities: Cohousing, Central Living, and Other Forms of Housing with Shared Facilities* (New York: Van Nostrand Reinhold, 1991).
[8] Vicky Clark et al., "A Fine Balance: A Review of Shared Housing among Young Adults," *Social and Personality Psychology Compass* 12, no. 10 (2018): 2, https://doi.org/10.1111/spc3.12415; Ayoung Woo, Gi-Hyoug Cho, and Jeongseob Kim, "Would You Share Your Home? The Multifaceted Determinants of Preference for Shared Housing among Young Adults," *Applied Geography* 103 (2019): 12, https://doi.org/10.1016/j.apgeog.2018.12.012.
[9] Lidewij Tummers, "The Re-Emergence of Self-Managed Co-Housing in Europe: A Critical Review of Co-Housing Research," *Urban Studies* 53, no. 10 (August 1, 2016): 2023–40, https://doi.org/10.1177/0042098015586696; Vestbro, *Living Together - Cohousing Ideas and Realities around the World*.
[10] Katja Rusinovic, Marianne van Bochove, and Jolien van de Sande, "Senior Co-Housing in the Netherlands: Benefits and Drawbacks for Its Residents," *International Journal of Environmental Research and Public Health* 16, no. 19 (October 8, 2019): 3776, https://doi.org/10.3390/ijerph16193776.
[11] Kobe Boussauw et al., "Monetarisering Urban Sprawl in Vlaanderen" (Departement Omgeving, 2021).
[12] Kristof Heylen and Lieve Vanderstraeten, "Wonen in Vlaanderen anno 2018" (Leuven: Steunpunt Wonen, 2019).
[13] Pascal De Decker, "Understanding Housing Sprawl: The Case of Flanders, Belgium," *Environment and Planning A* 43 (2011): 1634–54, https://doi.org/10.1068/a43242.
[14] An-Sofie Smetcoren et al., "Woonsituatie van Ouderen in Vlaanderen: Detecteren van Kwetsbare Groepen," in *Woonnood in Vlaanderen: Feiten/Mythen/Voorstellen*, ed. Pascal De Decker et al. (Antwerpen: Garant, 2015), 183–94.
[15] Bart Put and Inge Pasteels, "Motivational Barriers to Shared Housing: The Importance of Meanings of 'Home' in the Diffusion of Housing Innovations," *Housing, Theory and Society* 39, no. 3 (2022): 257–74, https://doi.org/10.1080/14036096.2021.1932580.
[16] Bruno Meeus and Pascal De Decker, "Staying Put! A Housing Pathway Analysis of Residential Stability in Belgium," *Housing Studies* 30, no. 7 (2015): 1116–34, https://doi.org/10.1080/02673037.2015.1008424.
[17] Put and Pasteels, "Motivational Barriers to Shared Housing"; De Decker, "Understanding Housing Sprawl."
[18] Put and Pasteels, "Motivational Barriers to Shared Housing"; Clark et al., *A Fine Balance: 3.*
[19] Everett M. Rogers, *Diffusion of Innovations*, 3rd ed (New York: The Free Press, 1983).
[20] Heylen and Vanderstraeten, "Wonen in Vlaanderen anno 2018."
[21] Jo Williams, "Predicting an American Future for Cohousing," *Futures* 40, no. 3 (2008): 268–86, https://doi.org/10.1016/j.futures.2007.08.022.
[22] Ernst Neufert and Peter Neufert, *Architects's Data*, ed. Bousmaha Baicha and Nicholas Walliman, 3rd ed. (Oxford: Blackwell Science, 2000).

[23] Bernard Leupen and Harald Mooij, *Houising Design - A Manual* (Rotterdam: Marcel Witvoet, nai010 publishers, 2022).
[24] Benkő et al., "Sharing-Based Co-Housing Categorization." 344
[25] Kristien Van den Houte et al., "Gemeenschappelijk Wonen" (Leuven: Steunpunt Wonen, 2015).
[26] Antti Pirinen and Anne Tervo, "What Can We Share? A Design Game for Developing the Shared Spaces in Housing," *Design Studies* 69 (2020): 13-20, https://doi.org/10.1016/j.destud.2020.04.001.
[27] ArchDaily, "Scarwafa Co-Housing / Krft | ArchDaily," 2020, https://www.archdaily.com/914900/scarwafa-co-housing-krft?ad_source=search&ad_medium=projects_tab; krft, "Scarwafa Cohousing," krft, December 2, 2019, https://www.krft.nl/project-items/monnikskapstraat.
[28] &bogdan, "Bijgaardehof," &bogdan, accessed July 12, 2023, https://www.bogdan.design/projects/bijgaardehof/; ArchDaily, "Bijgaardehof Co-Housing and Healthcare Center / BOGDAN & VAN BROECK | ArchDaily," ArchDaily, 2022, https://www.archdaily.com/988277/bijgaardehof-co-housing-and-healthcare-center-bogdan-and-van-broeck?ad_source=search&ad_medium=projects_tab.
[29] arqbag, "Cohabitatge Sènior," arqbag, accessed July 12, 2023, https://www.arqbag.coop/guimera; ArchDaily, "Senior Cohousing / Arqbag | ArchDaily," ArchDaily, June 29, 2021, https://www.archdaily.com/964095/senior-cohousing-arqbag.
[30] Wim Goes, "Wim Goes Architectuur," Future House, 2019, https://wimgoesarchitectuur.be/the-gallery-house/; Department Omgeving, "Villa Wondelgem Tegengif Voor de Naoorlogse Verkavelingswoede in Gentse Stadsrand | Departement Omgeving - Vlaamse Overheid," accessed August 10, 2023, https://omgeving.vlaanderen.be/nl/villa-wondelgem-tegengif-voor-de-naoorlogse-verkavelingswoede-in-gentse-stadsrand; "Future House," VAi, accessed August 10, 2023, https://www.vai.be/gebouwen/groepswoningen/future-house.

BIBLIOGRAPHY

ArchDaily. "Bijgaardehof Co-Housing and Healthcare Center / BOGDAN & VAN BROECK | ArchDaily." ArchDaily, 2022. https://www.archdaily.com/988277/bijgaardehof-co-housing-and-healthcare-center-bogdan-and-van-broeck?ad_source=search&ad_medium=projects_tab.

ArchDaily. "Scarwafa Co-Housing / Krft | ArchDaily," 2020. https://www.archdaily.com/914900/scarwafa-co-housing-krft?ad_source=search&ad_medium=projects_tab.

ArchDaily. "Senior Cohousing / Arqbag | ArchDaily." ArchDaily, June 29, 2021. https://www.archdaily.com/964095/senior-cohousing-arqbag.

arqbag. "Cohabitatge Sènior." arqbag. Accessed July 12, 2023. https://www.arqbag.coop/guimera.

Benkő, Melinda, Babos Annamária, Julianna Szabó, and Orban Annamaria. "Sharing-Based Co-Housing Categorization: A Structural Overview of the Terms and Characteristics Used in Urban Co-Housing." *Építés - Építészettudomány* 48 (2020). https://doi.org/10.1556/096.2020.009.

&bogdan. "Bijgaardehof." &bogdan. Accessed July 12, 2023. https://www.bogdan.design/projects/bijgaardehof/.

Boussauw, Kobe, Lien Poelmans, Thérèse Steenbergen, Marijke Vermander, Liliane Janssen, Carolien Beckx, Steven Broekx, and Hans Tindemans. "Monetarisering Urban Sprawl in Vlaanderen." Departement Omgeving, 2021.

Clark, Vicky, Keith Tuffin, Natilene Bowker, and Karen Frewin. "A Fine Balance: A Review of Shared Housing among Young Adults." *Social and Personality Psychology Compass* 12, no. 10 (2018): e12415. https://doi.org/10.1111/spc3.12415.

De Decker, Pascal. "Understanding Housing Sprawl: The Case of Flanders, Belgium." *Environment and Planning A* 43 (2011): 1634–54. https://doi.org/10.1068/a43242.

Department Omgeving. "Villa Wondelgem Tegengif Voor de Naoorlogse Verkavelingswoede in Gentse Stadsrand | Departement Omgeving - Vlaamse Overheid." Accessed August 10, 2023. https://omgeving.vlaanderen.be/nl/villa-wondelgem-tegengif-voor-de-naoorlogse-verkavelingswoede-in-gentse-stadsrand.

Fromm, Dorrit. *Collaborative Communities: Cohousing, Central Living, and Other Forms of Housing with Shared Facilities*. New York: Van Nostrand Reinhold, 1991.

Goes, Wim. "Wim Goes Architectuur." Future House, 2019. https://wimgoesarchitectuur.be/the-gallery-house/.

Heylen, Kristof, and Lieve Vanderstraeten. "Wonen in Vlaanderen anno 2018." Leuven: Steunpunt Wonen, 2019.

krft. "Scarwafa Cohousing." krft, December 2, 2019. https://www.krft.nl/project-items/monnikskapstraat.

Leupen, Bernard, and Harald Mooij. *Houising Design - A Manual*. Rotterdam: Marcel Witvoet, nai010 publishers, 2022.

Lodewijckx, Edith. “Huishoudensprojecties: basishypotheses en werkwijzen.” Brussel: Vlaamse overheid, Diensten voor het Algemeen Regeringsbeleid Studiedienst van de Vlaamse Regering, 2015.

Meeus, Bruno, and Pascal De Decker. “Staying Put! A Housing Pathway Analysis of Residential Stability in Belgium.” *Housing Studies* 30, no. 7 (2015): 1116–34. https://doi.org/10.1080/02673037.2015.1008424.

Neufert, Ernst, and Peter Neufert. *Architects’s Data*. Edited by Bousmaha Baicha and Nicholas Walliman. 3rd ed. Oxford: Blackwell Science, 2000.

Pirinen, Antti, and Anne Tervo. “What Can We Share? A Design Game for Developing the Shared Spaces in Housing.” *Design Studies* 69 (2020). https://doi.org/10.1016/j.destud.2020.04.001.

Put, Bart, and Inge Pasteels. “Motivational Barriers to Shared Housing: The Importance of Meanings of ‘Home’ in the Diffusion of Housing Innovations.” *Housing, Theory and Society* 39, no. 3 (2022): 257–74. https://doi.org/10.1080/14036096.2021.1932580.

Rogers, Everett M. *Diffusion of Innovations*. 3rd ed. New York: The Free Press, 1983.

Rusinovic, Katja, Marianne van Bochove, and Jolien van de Sande. “Senior Co-Housing in the Netherlands: Benefits and Drawbacks for Its Residents.” *International Journal of Environmental Research and Public Health* 16, no. 19 (October 8, 2019): 3776. https://doi.org/10.3390/ijerph16193776.

Smetcoren, An-Sofie, Liesbeth De Donder, Sofie Van Regenmortel, Sarah Dury, Nico De Witte, Tinie Kardol, and Dominique Verté. “Woonsituatie van Ouderen in Vlaanderen: Detecteren van Kwetsbare Groepen.” In *Woonnood in Vlaanderen: Feiten/Mythen/Voorstellen*, edited by Pascal De Decker, Bruno Meeus, Isabelle Pannecoucke, Elise Schillebeeckx, Jana Verstraete, and Emma Volckaert, 183–94. Antwerpen: Garant, 2015.

Tummers, Lidewij. “The Re-Emergence of Self-Managed Co-Housing in Europe: A Critical Review of Co-Housing Research.” *Urban Studies* 53, no. 10 (2016): 2023–40. https://doi.org/10.1177/0042098015586696.

United Nations, Department of Economic and Social Affairs, Population Division. “World Population Ageing 2019 (ST/ESA/SER.A/444),” 2020.

United Nations, Department of Economic and Social Affairs, Population Division. “World Urbanization Prospects: The 2018 Revision (ST/ESA/SER.A/420).” New York: United Nations, 2019.

VAi. “Future House.” Accessed August 10, 2023. https://www.vai.be/gebouwen/groepswoningen/future-house.

Van den Houte, Kristien, Michael Ryckewaert, Bart Delbeke, Stijn Oosterlynck, and Sarah m.m.v. Deboeck. “Gemeenschappelijk Wonen.” Leuven: Steunpunt Wonen, 2015.

Vestbro, Dick Urban. “From Collective Housing to Cohousing—a Summary of Research.” *Journal of Architectural & Planning Research* 17, no. 2 (2000): 164–78.

Vestbro, Dick Urban, ed. *Living Together - Cohousing Ideas and Realities around the World: Proceedings from the International Collaborative Housing Conference in Stockholm 5 - 9 May 2010*. 2010,9. Stockholm: Division of Urban and Regional Studies. Royal Inst. of Technology [u.a.], 2010.

Williams, Jo. “Predicting an American Future for Cohousing.” *Futures* 40, no. 3 (2008): 268–86. https://doi.org/10.1016/j.futures.2007.08.022.

Woo, Ayoung, Gi-Hyoug Cho, and Jeongseob Kim. “Would You Share Your Home? The Multifaceted Determinants of Preference for Shared Housing among Young Adults.” *Applied Geography* 103 (2019): 12–21. https://doi.org/10.1016/j.apgeog.2018.12.012.

World Health Organization. *World Report on Ageing and Health*. Switzerland: WHO Press, 2015

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