

SHARING DETACHED DWELLINGS: DESIGN MEDIATING BETWEEN INFLEXIBLE HOUSING TYPES AND EVERYDAY APPROPRIATION

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INTRODUCTION

The Belgian region of Flanders³ is characterised by a housing system which has generated a very dispersed settlement pattern. It is mainly built up of single family dwellings, and thus shares the problem of sprawl with other urbanised regions both inside Europe,⁴ and outside of it, most notably North America. Flanders has a large amount of dwellings constructed between 1960 and 1980 by baby-boomers. Especially these spacious dwellings now increasingly sheltering less people, since the size of the average household is decreasing.⁵ This process of shrinking can be ascribed primarily to the ageing of the population, but also to socio-cultural developments such as the increase in divorces, LAT couples and so forth. As the large amount of single family dwellings seems out of line with future housing needs, these recent demographical developments have added new tones to an already broad gamut of critiques.

While the Belgian housing system internationally also has been praised in terms of architecture⁶, currently it has been caught up not only by demographic evolutions, but also by socio-economical and ecological developments. The space consuming local mode of building in dispersed patterns already led architect Renaat Braem in 1968 to declare Belgium to be the 'ugliest country of the world'.⁷ Beyond aesthetical comments, it is closely tied to overconsumption of energy resources. Furthermore, the emphasis on home ownership has brought increasing problems of affordability, as well as continuously rising prices of both buying or renting a home.⁸ Still, in the public opinion the detached dwelling is not questioned. De Decker has argued that ownership of a detached house is yet considered by the Flemish as the only definite and preferable answer to the housing question.⁹ The detached dwelling as such remains strongly tied to socio-cultural norms and aspirations.¹⁰ This is supported repeatedly; both current inhabitants of detached houses, as well as young people starting their housing career, indicate that a very private and spacious dwelling in a green environment is the most preferred housing type.¹¹

Reinterpretation of detached dwelling typologies?

These dominant preferences illustrate the inertia of the housing system which urges designers to take the mono-functional, inflexible connotation of the housing stock as a fact. Still, as in other regions, the question has emerged as to what could be the potential of transforming these dwellings in line with changing demands, inscribing smaller housing units or models of cohousing in existing dwelling typologies. With a slowly increasing housing stock like in Flanders, where renovation gradually is gaining interest compared to new construction¹², there seems to be a window of opportunity to implement alternative habitation in renovation projects. Design for flexibility in new construction projects, in order to anticipate possible re-use in the future, could considerably decrease renovation

costs.¹³ But looking for flexibility in existing detached dwellings poses somewhat of a challenge. Given the prototypical individuality and robustness of the single family dwelling, we have to ask the question whether transformative re-use is feasible, and if so, in what way could houses be altered? This paper positions this question on the interface of interior architecture and architecture. As such, the paper responds to encountered resistance to ‘hard’ dwelling transformations, implementing a permanent subdivision. This resistance shows the level of obduracy¹⁴ present in the built environment, and specifically in the detached dwelling, which remains to be the only final solution to the housing problem in the eyes of the Flemish dweller. Therefore, design strategies are compared to everyday user practice of sharing a home, illustrated by a number of case studies which emerge from field work research. The paper tentatively concludes by arguing for alternative, hybrid design strategies, which have the potential to lead to a different paradigm for dwelling transformation.

BETWEEN AMERICAN DREAMS AND FLEMISH PRACTICE

In regions around the globe, where the sprawl of single family houses is an issue, we encounter architectural practice to address this development. These approaches are strongly linked to local context, and before discussing some relevant concepts, we need to elaborate on the character of the housing stock in Flanders. Here, the general preference for the detached single-family dwelling was strongly determined after the Second world War based on the Belgian individuality and “common sense”.¹⁵ This preference was culturally and politically constructed, for example by legislative instruments like the ‘De Taeye’ act of 1948, which stimulated households to purchase or to build a single-family dwelling by themselves.¹⁶ The building industry thus developed on the basis of private initiative, rather than large-scale projects. The private plot became the canvas on which the individual builder could realise his dream house, and has done so in many variations. Characteristically, dwellings together group up to form cacophonous allotments and ribbon developments across the territory, with a minimal link to existing urbanised centres.¹⁷

These dream houses were generally not built with efficiency or flexibility in mind. Rather, they are connected to the provision of privacy and social status. These dwellings (figure 1) clearly resonate Till and Schneider’s critique of types based on inflexible plans (small, single-purpose rooms) and inflexible technology (installations in floors and walls, cavity walls, trussed rafters).¹⁸ Transformation would usually require radical demolition and construction works. But can the transformations be executed in such a way, that a solid frame is devised, which allows for less radical construction works in the future?

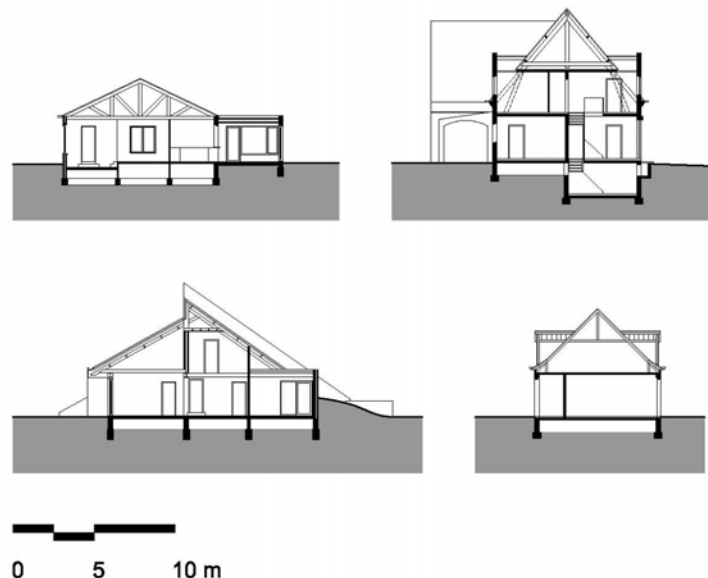


Figure 1: sections of typical Flemish dwellings

Flemish residential areas share their mono-functionality and type with the North American suburb, which makes them less attractive to elderly and other small households. Drawing this parallel with the situation in the United States¹⁹ allows for a reference to a discourse which emerged in North America in the 1980s, in which the mono-functionality of the prototypical suburb was debated. This led to the

formulation of scenarios which could diversify these neighbourhoods. Typical strategies addressed how the excessive amount of space in the detached dwellings as well as in plot layout could be put to more efficient use. This has taken form as a search for a more collective cohabitation model substituting the typical suburb²⁰, or alternatively a search for private benefits for home owners like extra income, more security and a shared maintenance of the building and plot.²¹ Typically, a dwelling would become a structure for two housing units, whereby both units are made accessible, are organised in useable rooms, and are provided with the necessary amenities to live in. Uninhabited space is put to better use for a secondary unit or annexe, while the original dwelling remains intact. More recently, Chapman and Howe have stated that when these ‘accessory apartments’ become a part of a neighbourhood, both young and old households are able to find better adapted housing.²² Also they argue that the low amount of transformations has a limited impact on the perception of inhabitants of the neighbourhood. If too many houses would be converted, this would entice protest. Hayden for example has registered reactions stating that the implementation of alternative housing typologies diminishes the ‘American Dream’ of owning a detached house in a residential neighbourhood.²³

These protests against subdivision of dwellings are reflected in the Flemish housing discourse with a striking resemblance. Although transformation of dwellings emerges in public debates as an answer to changing housing needs, it is often considered by house owners as incongruent with the housing model, inducing lack of privacy and a decrease of property value. Additionally, we can mention resistance from professionals like architects and real estate agents, who indicate that dwelling transformations providing accessory apartments often cater to temporary needs, for example to house a family member. These secondary units can be difficult to sell or rent to a non-family member after the related inhabitant leaves, nor can the dwelling easily be converted back to its original state. Difficult municipal regulations also top this strong resistance.

ALTERNATIVE WAYS TO INTERPRET TRADITIONAL DWELLING DESIGN

Subdivision of dwellings is usually explained as a technocratic issue with measures of sound insulation and fire resistance²⁴ appearing in checklists to determine a go or a no-go for the proposed design. On a neighbourhood scale, these implementations seem to confirm the sprawling housing model and rather than looking for rigorous solutions, appear to be last straws to argue in favour of a popular but unsustainable housing model.²⁵ Most importantly, in the case of Flanders these propositions find little attachment to the reality of everyday life.²⁶

Therefore, this paper proposes a number of case studies where inhabitants of detached dwellings did find a way to share a home, but which almost go unnoticed as the adaptations necessary to do so are so modest. They do however point out natural and everyday ‘*interior architecture without architect*’ which could inform a realistic design approach to adaptively reuse dwellings. The fieldwork from which the following cases studies were selected, comprised 40 interviews with inhabitants of detached dwellings²⁷ complemented with an architectural analysis of the house. The specific cases discussed in this paper focus on the means to temporarily share a dwelling. These transformations changed obsolete space into added quarters allowing temporarily to *live apart together*.

Household decrease and resilience of the dwelling

A common denominator of this type of transformations is the fact that the core typology of the dwelling is not altered. Rather, the approach of owners seems to be to rethink the functioning of their



house, and to put spaces which are considered to be obsolete, and detached enough of the basic dwelling typology, to better use. These 'in between' spaces are thus found by deducting the living quarters from the dwelling envelope, leaving attics and storage rooms.

Only one encountered case (figure 2) separates strictly between two households under one roof; An inhabitant of a rural-style villa has vacated an unused attic in order to build an apartment into it, which is rented to students. In order to do this, another entrance has been made in the back of the house, leading to a private staircase. As this attic was never a part of the living quarters of the house, the original layout of rooms remains untouched. The enclosure does not show traces of the transformation, the extra door being hidden in the backside, and windows already part of the original design.

In other cases, the transformation is specifically designed to provide room for adult children which have moved out, but tend to come back for longer periods to live in the parental home, for example because they have moved abroad and come over for a couple of months per year. Such cases show how underused parts of a dwelling, like attics but also previous bedrooms, are granted some added privacy by extending the rooms and adding a bathroom, while still being accessed via the original shared hallway. One specific case (figure 3) shows a situation where a part of the attic, previously a playing area, is transformed into a guestroom with bathroom and two adjacent quarters, equipped as office and gym, which are occasionally used by the household when no guest is attendant. These quarters are detached from the other private quarters on the ground floor, which are served by a separate hallway. Both this hallway and the staircase to the attic connect to a central, highly representative and carefully decorated entrance area.

Figure 2: subdivided dwelling, two households under one roof

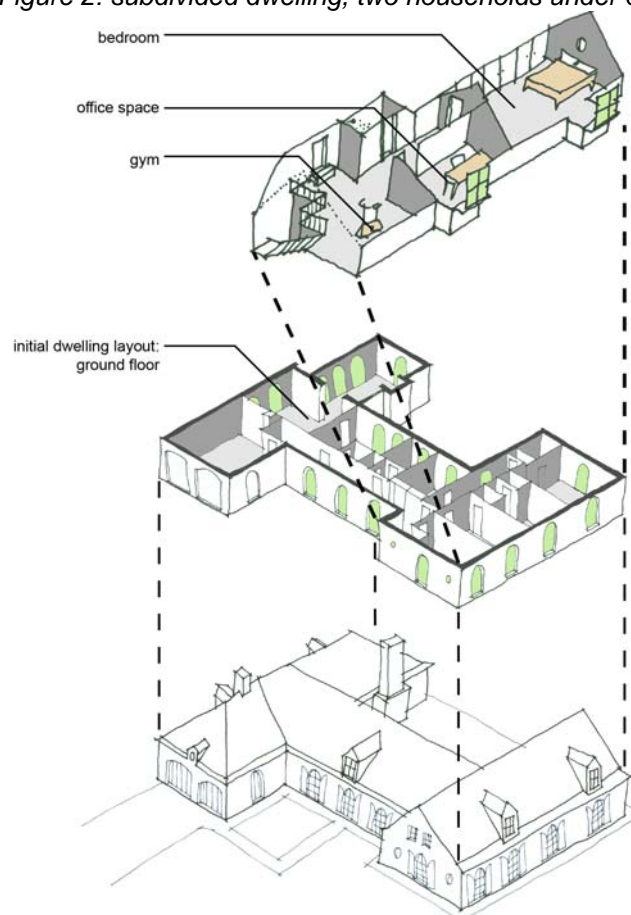


Figure 3: inserting guest quarters without touching the original quarters

The separation between guest room and private areas is more pronounced in the transformations executed for the last case (figure 4), where again the former playing room is transformed into a guest quarter with separate bathing facilities and a quarter which could be used as a living room, while at the same time, in the ground floor, the kitchen has been expanded with a lounge and dining area. Although the attic was already accessed via an exterior staircase, the owners decided to place another staircase in the house to connect the front door to the upper floor. In their opinion, this way the floor can be used by the inhabiting household and alternatively, if one of the children needs it, he or she could live there temporarily with a good level of privacy. The interior thus was inscribed into an unchanged structure and enclosure, and circulation leads through the quarters, both rooms being accessible from two sides, the access from outside directly leading into the newly built bedroom.

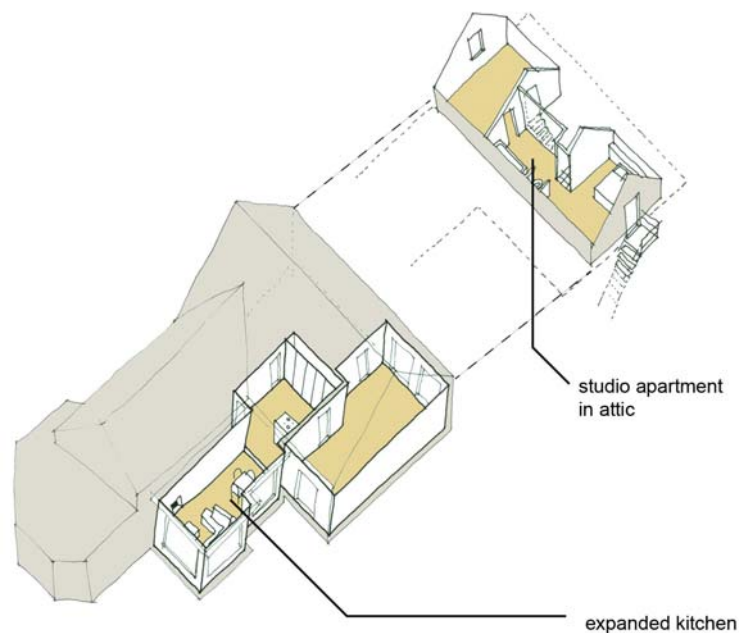


Figure 4: an attic space becomes a studio

Everydayness and interior design

As stated above, the cases explained here can be described as very modest interventions. As products of interior architecture, they cannot even be seen as very good or inspiring examples. What they do illustrate is a rising need for flexibility of the vernacular house, allowing to share a dwelling temporarily, which is commonly sought for within the limits of the dwelling. Here, interior design has a window of opportunity to mediate between the dweller and the built environment, as well as an opportunity to add to the cross-disciplinary discourse on the sustainability of the housing model. This assumption can be related to ongoing discussions on what the definition of interior architecture as a discipline is, and how it relates to architecture. In looking for the true *raison d'être* of interior architecture, Lucinda Kaukas Havenhand argues that interior design should cease to follow in the footsteps of architecture, and instead embrace its characteristic 'otherness'.²⁸ This detachment, in the discussed projects, comes forth as a way to find alternative modes to use an archetypical dwelling, mediating between different demands for privacy. Temporality and polyvalence define these demands, and as such introduce 'the temporal as a composing force in the design of interiors',²⁹ as sharing a dwelling often only is considered as a passing situation, an ad hoc solution which is however beneficial to both parties and easily realised. This defines a role for interior architecture to reinterpret the built environment and to provide the user with a qualitative 'second skin' as Havenhand has termed it.³⁰

This metaphor converges on the intermediate role interior architecture can perform between architect and user. As the discussed case studies show how new interiors are inscribed in existing structures and are used for temporary stays, architectural problems of attaching new spaces to the existing circulation space, or the limited free height under a gable roof, are not addressed. While typical dwellings show a seemingly generous amount of free space, which inhabitants aim to put to good use, typical designs

generally lack the flexibility to do this in a simple manner. This becomes more clear if we hold these inflexible dwellings next to a design which was developed for flexibility.

To take a seminal example, Dutch architect Herman Hertzberger explains his design for the Diagoon Dwellings (1967-1970) in Delft, the Netherlands, as a basic 'skeleton' which evokes images, thus enticing the dweller to find a properly adapted infill.³¹ Each space in this split-level design is indefinite, and can be used for multiple functions. Hertzberger highlights concrete situations in which inhabitants have interpreted the peripheral elements of the skeleton to add an additional room, greenhouse or outdoor space. Because the design allows for simple additions or transformations to complement the skeletal structure as well as various usages for each quarter, this project facilitates user participation to occur in both design and occupation stage as the optimal form of flexibility.³² This accords with a viewpoint referring to flexibility in terms of a structure which is distinctively determined, yet able to give space to various modes of usage.³³ The designer has developed a robust product which can be adapted by the user without further interference of the designer. Both in terms of plan (since the dwellings consist of a number of equal, generic quarters, open to user interpretation) and in terms of technology (the enclosure allows for adaptations or additions) the dweller can develop his or her home according to emerging needs, without changing the typology or the architectural value of the original concept.

The reviewed Flemish cases expose that there is a similar need for flexibility, but lack this designed, in-built shared authorship between architect and user to facilitate it in a good way. Still, the discussed typologies are an everyday reality, with which inhabitants and designers have to deal. The user has limited possibilities to fall back on. Thus it is up to the interior designer to mediate between the building and the user, in search of a proper interpretation for this flexibility. It seems that there is new territory to discover, as temporary forms of inhabitation could also challenge the stuck idea of the unchangeable single family dwelling typology, if significant transformations in answer of demographic developments are to take shape. As such, flexibility in everyday practice manifests itself in the sense that other kinds of typologies can become partially inscribed in the existing volumes (a studio apartment as a part of the detached dwelling), based on in-built redundancy.

The explained interventions point out a vacuum for interior design to fill, mediating between the architect and the user, taking up a cross-disciplinary viewpoint. Interior design can thus function as a double-edged blade, as it could make inhabitants aware of fitting transformations to alter the dwelling, and additionally inform architecture and the building industry of best practices, which clarify the limitations of traditional dwelling design – seemingly generous but factually limited due to internal organisation and construction methods. Although flexibility has long been studied as an answer to contemporary demands, it still has not found its way to regular architectural practice, and therefore interior design can provide modest, but implementable approaches.

This can be illustrated by another encountered case, in which the inhabitants of a dwelling chose to neglect the opportunity to subdivide a dwelling which seems designed exactly for that goal – having two identical floors with the possibility to install a kitchen and a bathroom on both floors (figure 5). Rather, they project a smaller dwelling in their garden (figure 6). Even if changeability has found a way into detached dwelling design, it lacks appeal compared to construction from scratch. Instead of addressing this mismatch between the dwelling and the user with a new architectural project, the issue could alternatively be mediated by interior architecture, in order to clarify and communicate alternative possibilities to the user.

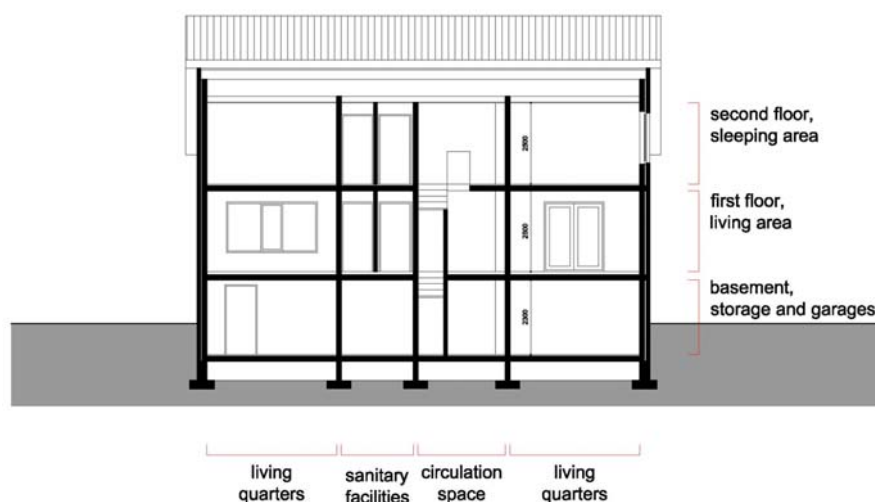


Figure 5: a spacious dwelling type with in-built options to separate the two living floors

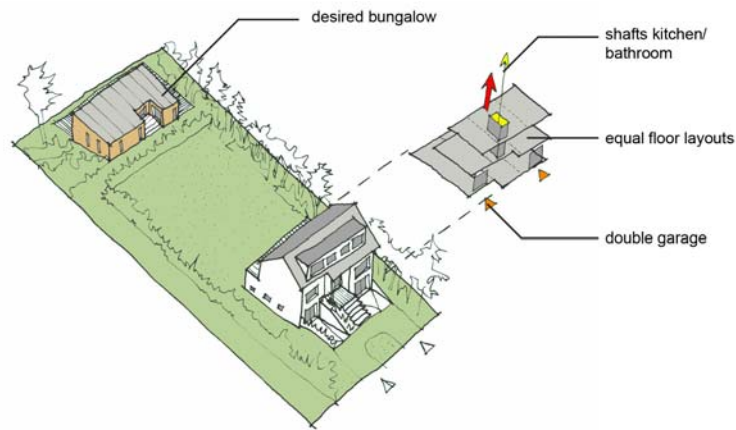


Figure 6: constructing a bungalow versus re-using the dwelling

CONCLUSION

This paper has started with the statement of an urgent problem for long term housing sustainability, which appears to be here to stay, as the housing stock remains inert in the eyes of inhabitants and housing professionals. The obduracy of the housing model generates resistance towards architectural transformations to be implemented. Transformations on the level of architecture or urbanism require lengthy processes, and encounter ample resistance from different angles. In this complex, interdisciplinary discourse, interior architecture can take on a role to facilitate simple measures in dealing with dwelling adaptation. In doing so, it can benefit from its quality to propose interpretative, temporary and mediating design interventions. As such, the field has a proper role to play in a broad discourse, and can transgress its disciplinary boundaries to address issues which extend beyond spatial design, relating this to societal questions at stake across other academic and professional fields. While these simple measures may not offer final answers to long-lasting housing issues, they do inform us how an accepted practice can provide useful instruments to implement change. This notion has led to the formulation of a 'research by design' project³⁴ with master students in interior architecture at the PHL University College, which aims at a critical reflection of housing types, based on arguments emerging from a design process of implementing multiple temporary dwellings in one detached dwelling. Here, future designers are confronted with their responsibility to contribute with critical designs mediating between the built environment and the rapidly changing needs of users.

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[2] This paper presents a part of the research project 'Large dwellings in Flanders. Development of architectural and users strategies in view of demographic trends and ecological constraints', funded by FWO (Research Foundation Flanders). The project is organised at the University of Leuven in cooperation with UHasselt and PHL University College, and is led by prof. Hilde Heynen, dr. Michael Ryckewaert, prof. Koenraad Van Cleempoel and prof. Dominique Vanneste. Research assistants: Wouter Bervoets, Lieve Vanderstraeten and Marijn van de Weijer. All illustrations in this paper by the author.

[3] Flanders is the northern, Dutch speaking region of Belgium, excluding the Brussels capital region.

[4] The Italian urbanist Bernardo Secchi has stated that these dispersed conditions make up the daily living space of about 45% of the inhabitants of Europe, and architectural projects need to be inscribed in this situation. Secchi, B., Viganò, P. (2011) *Urban Design in Low Density Settlements*. Public lecture, KU leuven, 11 March 2011.

[5] Between 1990 and 2008 the number of households grew 15,4%, while the Belgian population only grew 7,2%. Consequently, the average household dropped from 2,49 persons to 2,31 persons. Source: Belgian Federal Government (2010) 'Statistics and Figures, Population (Bevolking)', *Statistics Belgium*, <http://statbel.fgov.be/nl/statistieken/cijfers/bevolking>, Accessed 10 November 2010.

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- [11] A statement which emerges from 40 interviews with owners and inhabitants of detached dwellings in a suburban or rural environment, in response to the question how and why they elected the site of their home. These interviews are used to gather qualitative data within the ongoing research project.
- [12] Between 1981 and 1990, 6.4% of the housing stock in Flanders was transformed in terms of surface or number of rooms, this percentage increased between 1991-2000, when 9.8% of the housing stock was renovated in such a way that the surface and number of living quarters augmented. Although in between 1991 and 2000, new construction still has had a higher share in the building industry (15.3%), renovation increasingly gains importance. Source: Vanneste, D., Thomas, I., and Vanderstraeten, L. (2008) 'The spatial structure(s) of the Belgian housing stock', *Journal of Housing and the Built Environment*, 23/3: pp. 173–98.
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