Abstract: Invisible Living Space – Housing Sufficiency and the Case of Homeshare Programs

This dissertation analyzes »invisible living space« and its potential for the housing market, primarily focused on economic and ecological aspects. It provides a definition of the term »invisible living space«: unused rooms in homes, which were (often) formerly used as children's rooms but are no longer needed in now elderly, single-family households.

Using the »invisible living space« could help avoid economic and ecological costs of new housing developments: a 35 m^2 apartment costs roughly 130.000 Euros (building and land), adding 220.000 Euros during its lifecycle for financing and management; plus another 120.000 Euros for necessary infrastructure in new developments. Ecologically, newly built apartments create greenhouse gases emissions through construction, the operational phase and the creation of infrastructure (e.g. streets) totaling up to 74 million tons of emissions in 2020 in Germany (CO_2-equivalent), almost equaling the total annual emissions of all existing households in the residential sector (mainly incurred by heating). The goal of the current ruling coalition to increase building for housing would result in up to 26 million additional tons per year.

Concerning alternative strategies for using the »invisible living space«, a literature review concentrates on three different fields: real estate and housing, municipal and spatial planning, as well as sufficiency and transformation research. The findings: »invisible living space« is typically unaddressed or confounded with vacancies. Rarely the possibility of downsizing is assessed for specific groups of people from a »top-down perspective«, which in this case refers to the space-saving potential of whole demographic groups. In contrast, this thesis investigates realistic methods for the activation of invisible living space and by these means assesses its potential from a bottom-up perspective, from which the space-saving strategies themselves are the subject of study.

Social Practice Theory acts as the theoretical framework for this analysis, which regards space-saving (sufficient) housing as a social practice. Decisions for a space-saving lifestyle are made depending on its perceived affordability in four dimensions: subjective, social, institutional, and economic (Lorek/Spangenberg 2018).

This dissertation research applies a mixed methods approach integrating explorative research and analyzes relevant actors in the housing/residential sector. The research identifies and defines instruments that help utilize invisible living space, described here by the five-part formula RRR & SoHo (*in German UUU & VW*): Reunion (homeshare), Relocation (move to smaller places), Reconstruction (divide houses), Social (ethical) renting and CoHousing. This research explores the feasibility of combining these instruments, e.g. with the creation of »agencies for living space«, as is discussed in the literature.

A central focus of this analysis is a case study of homeshare in Germany (»Wohnen für Hilfe«). In the case of homeshare, young people share a household with elderly residents in exchange for services (e.g. shopping, yardwork, household work) instead of paying regular rent. This research analyzes more than thirty homeshare programs throughout Germany. The results show the potential, measured by international benchmarks, for up to 30.000 matches a year in Germany. However, in reality there are fewer than 500 matches each year. Moreover, twenty-six homeshare programs have ceded to exist, often due to unstable or limited financing. Alternatively, homeshare schemes programs could charge fees to become economically sustainable.

In addition to homeshare, this dissertation analyses other instruments of the RRR & SoHo formula and shows the potential of existing, invisible living space for up to 100.000 apartments. Utilitzing these spaces would lead to a »circular economy of housing«, as it is presented here, and a newly defined »housing consistency«. In conclusion, this dissertation recommends a combination of »housing consulting« with energy consulting and a funding program for »sufficiency housing« for more ecologically and economically sustainable housing.