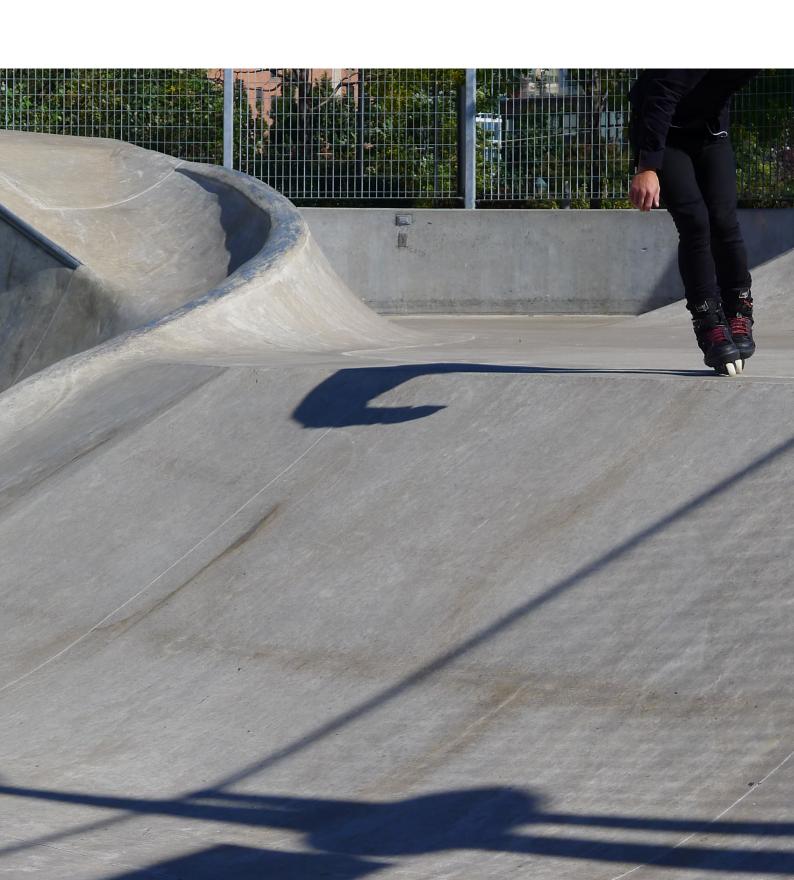
# NORDISK ARKITEKTURFORSKNING NORDIC JOURNAL OF ARCHITECTURAL RESEARCH



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## NORDISK ARKITEKTURFORSKNING NORDIC JOURNAL OF ARCHITECTURAL RESEARCH

# LIFESTYLES AND HOUSING DESIGN: CASE FINNISH TOWNHOUSE

# EIJA HASU, ANNE TERVO AND JUKKA HIRVONEN

#### **Abstract**

When explaining housing preferences and choice behaviour in terms of a new housing typology, the traditional approaches based on economic and socio-demographic factors are more or less insufficient to describe and develop understanding of housing preferences. Therefore, this paper presents a lifestyle-based approach, which is explained in a framework investigating the conceptualization of a new housing typology, a Finnish townhouse. The Finnish Dream Home (FDH) survey provides a context where housing design components are investigated based on residents' attitudes and values, enabling the identification of four lifestyle profiles. The identified profiles help to understand the end-users, i.e. the inhabitants, by explaining how to match the lifestyle approach and concrete, small-scale housing design aspects in a manner that benefits the environmental design disciplines in different contexts. Thus, the lifestyle-based approach deepens the understanding of housing preferences and their relation to preferred dwelling attributes. Consequently, this paper argues that urban planning and housing design may meet the diversifying housing needs, today and in the future.

Keywords: lifestyle-based approach, housing design, housing preferences, values, Finnish townhouse

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#### Introduction

Ways of increasing housing variation has been an important topic for urban planners and architects for many years. Similarly, housing research has investigated the diversifying housing preferences. However, when explaining housing preferences and choice behaviour, the traditional approaches based on economic and socio-demographic factors have been considered more or less insufficient (cf. Heijs, et al., 2011; Jansen, 2012; Kauko, 2006b). Thus, the researchers have turned their interest into lifestyles. However, lifestyles are typically discussed in relation to rather general housing preferences, thus reflecting, for instance, the characteristics of housing areas. This paper presents a novel lifestyle approach into housing design in order to contribute to the development and conceptualization of a new housing typology, a Finnish townhouse, while simultaneously considering the culture-specific aspects of related housing design and planning processes.

For a decade, the townhouse has been promoted by the Helsinki City Planning Department as a housing alternative particularly for the families preferring to live in detached houses (Jalkanen, et al., 2012). By introducing an urban housing typology, the objective has been to increase density and prevent the urban sprawl.

In Finland, a townhouse is defined as a private house, which consists of two to four storeys and is connected with neighbouring houses by the firewalls. Typically, it provides a small garden and often a small front-yard or buffer zone facing the street (see Figures 1 and 2).

Figure 1 (left)
Malminkartano, Helsinki. Front yards
enabling car parking and modest green
elements.

PHOTO: EIJA HASU

Figure 2 (right)

Kalasatama, Helsinki. Townhouse buildings with narrow private zones in front of the entrance.

PHOTO: ANNE TERVO





Although favoured by the planners, a townhouse has remained a rather unknown typology in Finland (Huttunen and Kuittinen, 2014). Considering the socio-demographic changes in the urban population, highlighted by an extensive share of one-person households, the Finnish Dream Home study (FDH) aimed to find out under what conditions living in a townhouse (later referred as townhouse living) could appeal to different kinds of urban dwellers (Huttunen, 2015). As such, developing a new housing typology primarily for families with children was considered worth of questioning.

The FDH was based on three interrelated data collection methods: a literature review and expert interviews, a survey, and a series of workshops (Tervo and Hasu, forthcoming). This paper focuses on the survey. Reflecting the unfamiliarity of townhouse living in Finland, the FDH survey was based on deconstructed design components of the typology explained in the methods section. The design components were studied through residents' attitudes and values, enabling the identification of four lifestyle profiles. Examining the lifestyle theories and related approaches, the paper discusses how to match the lifestyle approach and concrete, small-scale housing design aspects in a manner that benefits the environmental design disciplines in different contexts. Using the private outdoor spaces and shared domestic spaces as an example, the FDH survey results explain the interconnection of the identified lifestyle profiles and design attributes. In this paper, shared domestic spaces denote the housing-related spaces located outside the boundaries of privately controlled domestic spaces and shared with a limited number of neighbours, typically the members of a housing company, in various ways. Shared domestic spaces include facilities that can be used simultaneously with neighbours, such as clubrooms, as well as spaces reserved for private use of households, as often is the case with guest rooms and saunas. In contrast to co-housing, shared domestic spaces do not necessarily embody the sense of community or any other ideology-driven goals.

The paper is structured as follows. The second section discusses lifestyle theories related to housing preferences and housing research. The main idea behind the lifestyle-based profiles is that they do not follow the typical household classification based on the household size and life-stage. The third section describes the FDH survey as a data collection method and presents four lifestyle profiles that reflect urban ways of living. The fourth section focuses on the transferability of research findings by explaining how the identified lifestyle profiles and design attributes are matched to provide knowledge for the processes of urban planning and housing design interested in developing townhouse living in Finland. The concluding section discusses how the urban structure and inherent social aspects, embodied in the presented lifestyle-approach, can benefit the environmental design disciplines and related design processes.

# Lifestyles, ultimate needs and housing research

Lifestyle approach is becoming an increasingly popular approach in urban planning and housing research. However, in terms of processes of housing design, the contribution of lifestyle profiling has remained relatively low due to a number of reasons.

One challenge for research is that a lifestyle can have several meanings. Chaney (1996, p.15) describes lifestyles as "sets of practices and attitudes that make sense in particular contexts". In terms of urban planning, Ge and Hokao (2006, p.167) define residential lifestyle as "the way of life related to residence associated with the consumption of time, space and money". Regarding housing, the definition thus indicates that consumption of spaces is an essential aspect of a lifestyle (cf. Holt, 1997; Bell and Hollows, 2005). Essential is also the way lifestyles can and should be used. Heijs, et al. (2009; 2011) suggest that lifestyles are plausible for housing research only if the assumptions motivating the lifestyle approach and choice of methods are valid; the expected results provide realistic outcomes; and the life-styles used provide higher additional value than traditional variables. The reasons for using the lifestyleapproach are undeniably important to consider, since lifestyles are interpreted in different ways both between and within different disciplines (Jansen, 2012). In this paper, the concepts of lifestyle profiling and lifestyle-based residential profiling are used interchangeably.

In housing research, lifestyles are often examined as a mixed image of behavioural and psychological aspects, sometimes including even so-cio-demographic characters, to identify and to predict different consumer segments (Jansen, 2012). Thus, the concept as such is flexible to use. However, the problem within the lifestyle approach seems to rest in the aims of research: The lifestyle approach seeks to explain the ever changing, dynamic society. Again, the approach tends to produce a classification with simplified interpretations of factual housing behaviour (cf. Heijs, et al., 2009).

#### Using lifestyles to predict and reveal housing preferences

Despite the obvious challenges placed by the lifestyle approach, lifestyles are used in the field of housing to fulfil different research interests. Examples of attempts to understand the dynamics of inhabitants and housing markets include tribes (Brown and Kyttä, 2014), lifestyles (van Diepen and Mustered, 2009; Fleisher, 2007; Æro, 2006) and residential profiles (Ge and Hokao, 2006). Although lifestyle research often explains the choice of a specific residential area (Heijs, et al., 2011; Ge and Hokao, 2006; Ærø, 2006), the lifestyle profiling particularly applies to the efforts of understanding the housing choices (Jansen, 2012; 2014; Kauko, 2006a), while excluding the limitations off housing supply, experiences, or solvency (Clapham, 2005; also Ærø, 2006).

Ærø (2006) has used the concept of lifestyle to investigate residential area preferences, exploiting four different study areas (high-rise with high-density, high-rise with low-density, low-rise with high-density, and low-rise with low-density). One of the questions posed by his research was: "In what type of residential district would you prefer to live if you were free to choose?" (p.118). A majority of respondents preferred low-rise with low-density, interpreted as detached single-family houses with gardens, whereas urban centres appealed to younger residents. The results indicate that certain areas reflect aspects that appeal to certain values and attitudes throughout different class structures.

Kriese and Scholz (2012) provide another approach probing lifestyle as a part of housing development processes. According to their historical review, housing production is only partially a result of decisions by the builder, investor or architect. Instead, the building process may be more of an outcome of the predominating values and lifestyles of the time, including the socio-cultural matrix. Consequently, the researchers recognise the importance of understanding both the social structure and the individual; thus, it is important to include the subjective meanings of housing choices interpreted through lifestyles, whilst examining housing development through changing times.

Changes occur also in urban settlements. One approach to housing areas and lifestyles is acknowledged in statistical analyses evaluating the relation of urban structure and lifestyles. Studies investigating housing consumption, including housing energy, transportation and other forms of use, have argued that the urban structure reflects citizens' lifestyles (Bin and Dowlatabadi, 2005; Heinonen, et al., 2013). In this context, lifestyles are related to a wider understanding about tribes, implying that urban settings entail consumption-driven groups favouring, for example, travelling and shopping. Succinctly, the approaches use lifestyle as a synonym for consumption choices in the urban context, and suggest that urban environments affect lifestyles. Majamaa, et al. (2008) emphasise that in an urban setting, planning processes require innovative approaches that integrate the consumer based understanding with urban planning methods; however, the housing design aspect is left in the shadows, as the research interest focuses on the residential area. The choice of a neighbourhood is interpreted as a statement of a person's willingness to belong to a group, suggesting that residents place more value on the neighbourhood than the house. However, the research findings do differ in this manner; for instance, Kauko (2006b) discovered location and social factors as more important than the house itself in metropolitan Helsinki, in comparison to Randstad, Netherlands. Moreover, Ancell and Thompson-Fawcett (2008) discovered affordable housing as the most important factor in the residents' housing selection process.

Some researchers suggest that a neighbourhood sharing similar values may prevent problems, underlining the understanding of different tribes and their compatibility in urban planning (Heijs, et al., 2009). Analogously, urbanity as a social sphere is a matter of importance. Van Diepen and Mustered (2009), for instance, investigate the meanings of urbanity and the ways urbanity is reflected in the everyday life. The researchers are thus interested in the lifestyle as a behaviour that explains households' types, their use of urban facilities and their orientation on the city. The examination results in various urban household profiles, explained as lifestyle groups reflecting economic and social attitudes.

In comparison to the approach described above, a need to study lifestyle in relation to both housing design and urban planning, nevertheless, demands additional approaches. The Finnish townhouse case challenges both the housing typology and urban environment based preferences. Highlighting the fact that the research setting was dictated by the lack of existing townhouse examples, we were, instead of revealed preferences, interested in the *values* and *attitudes* expressed by urban dwellers towards the design components of townhouse typology.

#### Values explaining housing preferences and behaviour

In order to avoid the limitations of the existing, and relatively limited, interpretation of a Finnish townhouse, the research interest was hence aimed towards the aspect of housing values and attitudes. According to Schwartz and Bilsky (1990, p.878), values:

(a) are concepts or beliefs, (b) pertain to desirable end states or behaviours, (c) transcend specific situations, (d) guide selection or evaluation of behaviour and events, and (e) are ordered by relative importance.

Thus, values may well explain the motives for different design solutions and, more importantly, the reasons to weight one design solution over another, a point of interest related to housing preference studies. Regarding the weight, the values may explain motives for choices. Values are indicated as of varying importance: end-state values refer to terminal goals, such as equality, and instrumental values to the modes of behaviour. Schwartz and Bilsky underline the importance of beliefs shaping these values – a notion in line with Clapham's recognition of housing behaviour, underlining the importance to recognize experiences, values and attitudes influencing individuals' and households' housing choices (2005). However, values do not only shape individual behaviour: Schwartz (1994, p.21) describes values as "desirable trans-situational goals, varying in importance, that serve as guiding principles in the life of a person or another social entity". From that understanding, values are more abiding than trends and tastes, and have thus been used in housing preference studies. Especially, Coolen (2008) has explained a detailed approach to examine housing related values, based on the laddering method, which is, however, resource consuming. Thus, additional approaches are needed

Other challenges occur in addition to the methodological ones; values and goals play an important role regarding the research setting and aims. From this point of view, lifestyle-based approach has typically been considered problematic, since:

there is a big gap between the academic world of theoretical debate and methodological doubt, on the one hand, and the quick and uncritical development of lifestyle typologies by commercial bureaus, on the other (van der Wouden and Kullberg, 2002 cited in Jansen, 2012, p.275).

The commercial use of lifestyle typologies in the field of housing too often misleads one to look into oversimplified classifications, as most often lifestyle typologies try to set boundaries between different lifestyle groups. Thus, while seeking explicit indicators and classifications, one may lose important information (Heijs, et al., 2011) and end up with an overly simplified picture of the respondents (Jansen, 2012). A more loose approach to lifestyle classes is needed, notably since "(p)eople seldom belong to just one lifestyle group but show characteristics of multiple groups" (ibid., p.278). Therefore, instead of strict lifestyle classification, values can be used as a means to understand and predict resident behaviour; in this context, Heijs, et al. (2011) discuss lifestyle indicators.

From an environmental design perspective, the majority of ultimate and terminal values, as described by Schwartz (1994), can be reinterpreted through planning and design solutions. A garden is an example of a design object that may provide a place for activities but simultaneously reflects values, such as a sense of privacy or self-expression (Coolen and Hoekstra, 2001). Thus, the architects and planners do not necessarily have to examine the ultimate goals from scratch, but rather interpret the value-based importance of design objectives in order to establish design guidelines that reflect the lifestyles. As such, a fundamental question is whether it is possible to deconstruct a house or residential area into design components in order to scrutinize residential preferences and lifestyles. The endeavour is worth of taking, as the outcome may foster a wider design understanding.

## Empirical findings from a housing preference survey

The FDH research setting was dictated by the need to identify different potential customer groups showing interest for a new housing typology, a Finnish townhouse. In the FDH study, our interest was therefore two folded: First, we wanted to investigate what kind of housing characteristics appeal to urban residents without a connection to a specific housing typology. As such, the starting point was based on the understanding that without strictly defined attributes we might find new design aspects for future townhouse concepts. Second, we wanted to understand what kind of residential profiling could facilitate the design

processes of housing design and urban planning. Hence, highlighting the culture-specificity of environment design disciplines and housing itself, a Finnish interpretation of a townhouse typology was yet to come. In order to avoid the traditional preference examination based on the residents' knowledge and prejudice grounded on existing housing typologies, the survey was constructed in such a manner that the preference towards this new typology was asked only at the end of the questionnaire, including a short description of the townhouse concept (Huttunen and Kuittinen, 2014). The fact that the specific typology was introduced at the end of the questionnaire ensured that the results could be analysed also from a more general perspective of urban housing development, as presented in the next section. Additionally, the respondents were challenged to evaluate their housing attitudes and perceptions in relation to given housing situations. For instance, they were asked to imagine themselves living in a multi-storey home and consider, from this perspective, whether the spatial arrangement would be experienced as dangerous or enabling privacy of family members. In this manner, the questionnaire examined attitudes towards the characteristics of both the typology and residential area. Although it has been argued that a connection between behaviour and architectural solutions is difficult to compose (cf. Jansen, 2014), a decision to apply the lifestyle approach into housing design processes was emphasized by the understanding that the socio-demographic characteristics of households do not explain all the housing preferences.

#### Data

The web-based survey was conducted in 2014 using web panellists<sup>1</sup>. A sample of 1012 respondents between the ages of 25 and 59, and 202 respondents between the ages of 60 and 80, was collected based on a stratified quota sampling in the Helsinki metropolitan area. Although the collected data was not based on a random sampling, a comparison with the population of the Helsinki region by birth year and gender indicated that the data was quite well representative in this respect. Only the oldest age group (70-80 years) was somewhat underrepresented. In addition, the web panel provided a representative set of different tenures and housing typologies; particularly, tenants have been difficult to reach in housing preference surveys (cf. Ancell and Thompson-Fawcett, 2008). It is also noteworthy that the sample represents residents in different urban settings, in city centres (24%), together with sub-centres and suburbs (74%), thus highlighting that attitudes and values reflect preferences in the Helsinki metropolitan area, which is considered as an urban settlement. The survey revealed that a total 56% of the respondents were interested in townhouse living. The amount of interest was almost equal amongst different household types.

In the results section, we also refer to the workshops, which were based on the survey results and arranged the following year, in 2015. The

1 Web panels, managed by commercial operators, are used especially for market and opinion on-line surveys. Web panellists provide their background information when enrolled as panel members. The information enables surveys to draw selected samples from the panel. In the FDH case, the current location, household status and age were used as criteria; the panelists did not represent any particular panel, but the panellists were reached using several panel groups. The quality of responses was compared with two other on-line survey groups, 112 respondents looking for a plot in Helsinki, and 86 respondents reached through a housing portal (Etuovi.com).

seven workshops occupied 61 residents interested in townhouse living and provided an additional explanation for the lifestyle-based approach and value recognitions. (For a more detailed review about the workshops, see Tervo and Hasu, forthcoming.)

# Lifestyle-based profiling: house and residential environment connected

To investigate lifestyle-based values, the survey offered several statements that described preferences for urban living. The statements were mostly derived from the Resident's Barometer<sup>2</sup>. The Barometer examines housing satisfaction in Finnish municipalities with more than 10,000 inhabitants, accommodating 64% of the Finnish inhabitants (Strandell, 2011, p.8). The results have indicated that city dwellers have a differing appreciation for different housing typologies and environments although a more detailed profile examination is still missing. For instance, one-person households are examined as a homogenous group of residents although their housing needs may differ greatly. On the other hand, it has been acknowledged that solo dwellers in a different life situation with different kinds of housing needs may have similar housing preferences. For instance, many would like to have a spare bedroom, while the reasons for this vary (Wulff, Healy and Reynolds, 2004). However, it is important to note that the willingness to have a spare bedroom is based on the existing housing supply whereas the future-oriented practice-based research also seeks to find ways to study the possibilities of unestablished forms of housing. As such, the need for a spare room can be studied, for instance, in relation to shared domestic spaces, which further resonates with shared domestic spaces and potentially more sustainable housing alternatives. While not providing a solution for everyone, shared domestic spaces are particularly interesting in relation to an increasing number of people living alone as one of the greatest challenges in the contemporary urban housing design. As presented in this paper, the lifestyle-approach can assist the design processes, which also aims at increasing housing variation and design in respect to solo living.

Along these lines, we chose to combine traditional, planning related variables (such as interest for public transport or own yard) derived from the Barometer survey with the urban lifestyle-based approach (such as the preference for a lively cityscape). Additionally, the respondents were asked to identify their favourite housing type as well as to indicate attitudes towards alternative, commonly known housing typologies, such as detached houses, terraced houses and apartments, by placing the types into an order of preference. Aspects of residential environment were asked in relation to the previous housing experience (open-ended question) as well as in relation to the most preferred housing typology.

2 The Residents' Barometer 2010 is "carried out in cooperation with Statistics Finland. Implemented for the third time, the Residents' Barometer is used by the environmental administration to monitor the quality of the living environment. The first Residents' Barometer survey was conducted in 1998, and the second in 2004" (Strandell, 2011, p.111). The material is collected through telephone interviews, consisting of approximately 50 questions.

Moreover, the often-used polarizations between high-density and low-density areal structures (as explained in this paper by Ærø, 2006) were not followed because they do not serve the purposes of urban housing design that identify the ever increasing multidimensionality of housing areas. Instead, different statements describing different housing area characteristics were provided, as explained next.

Resident's Barometer 2010 indicated that the Finnish housing preferences are being polarised: suburban areas with flats seldom are preferred: instead, the urban centre and the countryside living are appreciated as a rising trend (Strandell, 2011). In this respect, we were particularly interested in understanding why residents appreciate urban settings, and whether the preference for city centres is becoming dominant. Therefore, we modified several value-based statements. The statements were based mainly on the Barometer survey: Closeness to services was interpreted as a statement: "I enjoy being a part of liveable, urban housing environment"; easiness and maintenance-free dwelling was formulated into a statement: "I am not interested in being responsible for the maintenance of a house or a garden"; and willingness to enjoy recreational amenities without car-dependency was translated into the statements: "I would like to be able to follow bustling street life from my window", and "Nearby park is enough nature for me". In addition, statements such as "Socializing with the neighbours is very important for me", "I want actively to participate in a development of my neighbourhood" and "the importance of social contacts" were formed (see also Kyttä, Pahkasalo and Vaattovaara, 2010).

Respondents assessed the statements in a five-point Likert-scale that ranged from strongly disagree (value o) to strongly agree (value 4). "Cannot say" was offered as an additional alternative sixth option. Based on the given statements, attitudes were studied through reciprocal correlations. As a result, two different scales were constructed using the sum of scores of correlating statements. The scales indicated attitudes towards (1) local community (named as "socialness") and (2) type of built environment (named as "urbanity of housing preference", later referred also as "urban scale" and "urbanity").

The scales were further examined. For the urban scale, Cronbach's Alpha was 0.76, indicating good reliability. The variable was further dichotomized so that values 0–8 were scored as the *low* and 9–16 as *high* urbanity of housing preferences. The social variable was constructed using a similar method. For the socialness scale, Cronbach's Alpha was 0.69, indicating acceptable reliability. The variable was further dichotomized so that values 0–6 were scored as the *low* and 7–12 *high* socialness.

# Four residential profiles: urban lifestyles detected

For decades, urban living has been associated with anonymity (Simmel, 1903). On the other hand, urbanity has been associated with participation and social activities; research suggests that densification creates opportunities to meet other citizens, thus enhancing urban socialness (cf. Brain, 2005). To our surprise, two scales, socialness and urbanity, did not correlate, suggesting that densification of the built environment does not automatically boost a sense of community.

The relationships of social and urban aspects were further analysed in the context of four residential profile groups detected. The groups were named combining the dimensions of two scales described above. The density of urban structure was named as *urb*an to describe the dense, city centre type of structure with a reduced amount of green window views compensated with vivid cityscape and bustling street life; *suburban* was used to describe the less dense structure, encompassing less vivid environment but more greenery. The other dimension, socialness, is described by *socials*, the social-minded residents in the one, and *anonymous*, the private-minded in the other end of the axis, as shown in Figure 3.

As the Figure 3 indicates, only in *subsocials*, families are presented as majority (51%; Table 1). In other words, the income level, position in the labour market, type of household or age do not predict the appreciation towards a specific way of dwelling, neither regarding the house nor the environment (see also Table 1). The finding is in line with previous research (Heijs, et al., 2011; Jansen, 2014) and current examples. For instance, the aging Finnish population has not shown interest in high-rise housing as expected (Strandell, 2011). The notion is an important example of a bias that steers both urban planning and housing supply – a specific life stage is often interpreted as a statement of preferred housing setting. Although this is often the case, the diversification of preferences is obvious (also Jansen, 2012). The results of FDH survey demonstrate the diversification of the housing preferences, as there was only a small difference between solo dwellers, couples or families who would prefer the townhouse as a housing option.

In this research, *urbsocials* is recognised as a heterogeneous group in terms of the household type. Currently, most of them are living in multi-storey buildings. Despite the aspirations for apartment living, altogether 62% of urbsocials regard the townhouse as an option. In this group, 22% of the households do not own a car, which also partly explains the interest in an amenity-rich housing environment. In a similar vein, the *urbnymous* favour living in a city centre, but they prefer to keep a distance from their neighbours. Relatively, this group entails the smallest number of families with children, thus reflecting the traditional lifestyle-related interpretation of careerism that keeps residents in city

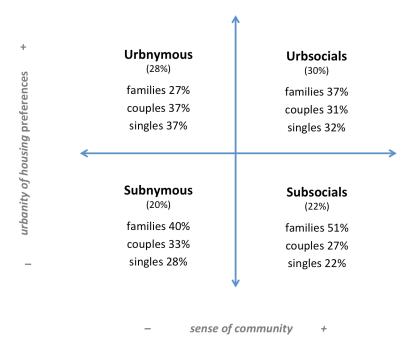


Figure 3
Four lifestyle groups. The relative sizes of the groups, as indicated in the web panellist dataset, are given in parentheses. In each lifestyle group, the relative share (%) of each household type is also included.

centres (Karsten, Lupi and de Stigter-Speksnijder, 2013). Despite the smallest share of families, 58% feel that the townhouse is a convenient housing option, which is against the original planning discussion paring townhouses and families. Altogether, 31% of the urbnymous do not have a car, and in this group, relatively the smallest number of respondents considered a leisure-time home as an essential way to counterbalance city life. A vital question in the Finnish context, and also included in Ærø's study, is whether one feels that a leisure-time home is an essential element to compensate city life or not. In the light of the FDH survey, the urbnymous are persons that spend most of their time in the cities. However, their lifestyles suggest an appreciation for privacy rather than actively seeking connection with the urban life.

Subsocials are a group who embrace the largest number of families with children, thus representing the original target group for townhouse living. However, the subsocials underpin the preference for residential environments with spacious feeling, thus questioning the planning objectives of combing townhouses and dense urban settings. The subsocials value closeness to nature and a child-friendly environment - combined with a socially active milieu. At the moment, a half of this group resides in one-family terraced or semi-detached housing. This group favours spacious homes, preferring large and most often one-family houses (Table 1). However, their willingness to pay on a monthly basis for housing (incl. mortgage or rent) does not differ from other groups, indicating that in order to gain a larger home, one needs to move further away from the most expensive inner-city areas. Surprisingly, preference for a more spacious residential environment does not diminish the interest towards shared domestic spaces, thus underlining the social attitude in relation to design and planning.

In addition, over a half of the households identified as subsocials felt that a leisure-time home is essential, which may indicate that their current housing situation is not perceived as optimal, or that the need for a child-friendly environment is satisfied through second homes. Indeed, in the previous research, second homes are identified as places to meet relatives and friends, especially if there is no room for such gatherings in the urban setting (Hasu, 2012). Second homes are also an example of housing culture and context-dependency of the housing studies: according to Kauko (2006a), a considerable amount of second homes in Finland affects as a compensative factor for the urban housing preferences, particularly addressing the privacy needs of a household.

Subnymous are similar to urbsocials in the sense that the different household types are distributed remarkably heterogeneously in the group. Approximately a half of the subnymous lives in a detached, semi-detached or terraced house, which shows in the housing preferences: the most favoured housing type is the individually designed single-family dwelling. The ownership of a home and plot is also highly valued. Nearby services are not considered important matters, in contrast to other groups. This is partially explained by the high rate of car ownership.

Table 1
Four lifestyle groups. The background information (e.g. income) does not predict the likely residential profile of an individual. The table describes stated housing preferences as well as the current housing situation, based on the FDH survey and examined by each lifestyle-group. The information is used to describe each life-style group in relation to the housing preferences and current housing situation.

	Total	urb- socials	urb- nymous	sub- socials	sub- nymous	Test result	
Interested in Townhouse, %	56%	62%	58%	55%	45%	1)	***
Stated preferences for housing							
preferred dwelling size, sq.m.	108	102	99	120	115	2)	***
preferred number of rooms	3,9	3,8	3,6	4,3	4	1)	***
prefers apartment in a city centre, %	33%	53%	53%	5%	8%	1)	***
prefers detached house, individ.design, %	36%	26%	23%	60%	47%	1)	***
willing to choose smaller apartment due to environ- mental reasons (strongly agree, agree), %	31%	45%	21%	35%	22%	1)	***
Income and housing costs							
household net income, € per month	3.499	3.428	3.414	3.766	3.429	2)	-
monthly housing costs, maximum WTP of net income, %	31%	32%	30%	30%	31%	2)	-
Current housing situation							
households without a car, %	21%	22%	31%	14%	13%	1)	***
city centre dwellers, %	24%	38%	34%	11%	7%	1)	***
second home experienced to compensate urban living	35%	36%	31%	37%	37%	1)	-

<sup>1)</sup> Chi Square Test; <sup>2)</sup> Kruskal-Wallis Test; \*\*\* p < 0,001; \* p < 0,05; – not stat. significant p  $\geq$  0

Regarding the current housing situation, 24% of all respondents were currently dwelling in city centres, but altogether 33% would prefer to dwell in city centre, close to the services (Table 1). This gap is one example of the discrepancy between traditional research settings, examining either stated or revealed preferences (Schwanen and Moktharian, 2004; Vasanen, 2012). This notion implies that the traditional comparison between most favourable housing types do not necessarily explain the preference for chosen housing environment. For example, 53% of the respondents would prefer an apartment in a multi-storey building, intertwining with the preference for city centre living. A townhouse enabling personal design solution in an urban environment could be a choice for many of these urban minded: 26% of urbsocials and 23% of urbnymous would prefer individually designed detached house. Consequently, paralleled with a detached house, an individually designed townhouse located in an urban setting could change the way the specific housing typologies are traditionally associated with specific residential environments

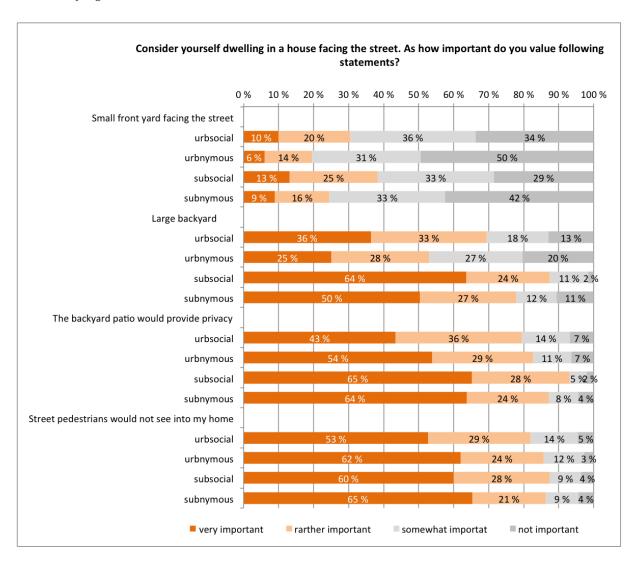
In many cases in Finland, however, specific housing typologies are associated with specific residential environments, such as detached houses as suburban, not as a part of urban centre or sub-centre settings. The lifestyle profiling presented in this paper does not follow this kind of reasoning, thus providing material for novel approaches in housing design.

## Lifestyles to guide planning and housing design

An urban one-family house with facing firewalls may sound complex. Simultaneously, a townhouse typology, paralleled in Finland with detached houses as the most private form of dwelling, offers an intriguing starting point to study home-related dimensions of privacy. Understanding how different types of environments assist in regulating daily encounters with neighbours, and also other urbanities, plays a significant role when trying to understand how housing options can meet the needs of different lifestyle profiles in an urban environment.

By looking at the statements covering outdoor areas and shared domestic spaces, we discuss how the lifestyle profiles explain the preferred design solutions examined in the FDH survey. To increase the reliability of the answers, the statements preceded a sentence describing a specific housing situation to consider. In the first example, the respondents were asked to imagine a house facing the street and reflect the feeling of privacy from this point of view. The results indicate that privacy is an important factor for the most; only a small number of residents in all four lifestyle groups do not mind if the passers-by can see inside their homes (see Figure 4). As the rows of townhouse are expected to create dense urban structure, at times even without a front yards as a buffer zone between private and public spheres, the results provide a clear signal for

planners and architects. Raising the ground-level plan above the street level could otherwise be an easy way to restrict the visual connection between the street and the ground-level domestic spaces, but the Finnish accessibility regulations hinder the use of this solution.



According to the survey, respondents portraying a more private attitude to local community do not place importance on a small front yard (in Figure 4, "not important" urbnymous 50% and subnymous 42%). Instead, the residents with more social-minded values seem to show a more favourable attitude to adopt this design solution. Unexpectedly, the level of urbanity does not seem to affect the attitude towards the front yard as much as the level of socialness does. The result is unanticipated, since the majority of all respondents indicate a preference for privacy. For the social-minded, the value-based interpretation (cf. Coolen and Hoekstra, 2001; Schwartz and Bilsky, 1990) suggests that the front yard may offer different instrumental and end-state values than for the more private-minded. Gehl (2006), for instance, describes front yards as places for social encounters, which may resonate with the attitudes

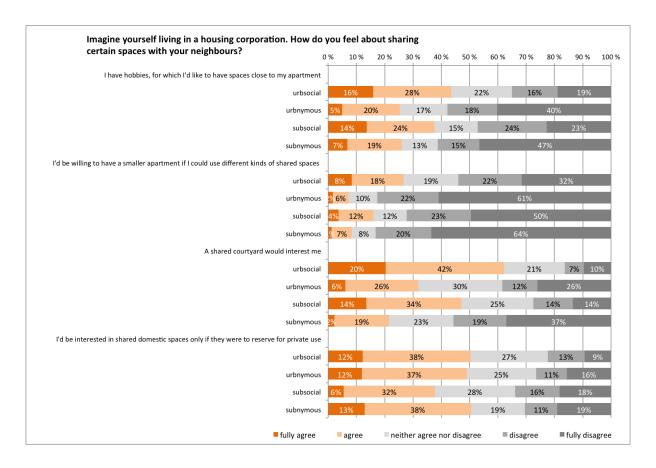
Figure 4
Attitudes towards different levels of privacy, as examined by the statements. Differences between lifestyle groups were statistically significant in all items, median test, p < 0.05. "Cannot say" was offered as a fifth alternative, but is not included in this figure.

expressed in this survey. The social sphere interests the social-minded, but the more private-minded would supposedly value privacy, and therefore, one would expect them to express interest in the front yard as a buffer zone between the private home and public streetscape (cf. Figures 1 and 2). Accordingly, the question of a front yard is specific in the context of Finnish townhouses, since the front yard is relatively unknown element among our urban housing typologies, and thus, the respondents may have difficulties to recognise the reasons to favour a small front yard.

As Clapham (2005) points out, one research setting seldom reveals all aspects of interest. Therefore, the meaning of a small front yard as well as the visual connection between the street and ground floor domestic spaces was further studied in the townhouse workshops following the survey. As the ground floors were converted, for instance, into home offices and places for leisure time activities, the meaning of the small front yard was also clarified. Interestingly, the proximity of the street, previously connected with privacy issues, turned out to be an advantage. The workshops also demonstrated that the residents noticed only by experimenting the multiple functions and later, the end-state values of front yards. The functional aspects, such as snow piling and bicycle parking, were matters of interest to all workshop participants. The social-minded seemed to consider the front yard as a transformational space between private and public, while the private-minded recognized the aspects for privacy. Moreover, most participants valued the architectural aspects, including a possibility to have an individually designed outdoor area between the house and street. These notions are important for not only design and planning but also marketing and city branding.

Overall, privacy is an important aspect also in the context of dense urban housing, as only 7% of both urbnymous and urbsocials do not consider privacy of the backyard as significant; this stresses the fact that no lifestyle classification is unambiguous – even the less private-minded with preference for an active urban life style value privacy. The notion also underlines the significance of the context-sensitivity when it comes to specific typologies and design solutions. For instance, fences lose a part of their meaning in terms of privacy if the backyard patios can be seen from the balconies of neighbouring houses, as is the case with multi-story townhouses (cf. Figure 2).

A decision to study the attitudes towards shared domestic spaces was based on the objective to identify design attributes that could lay foundations for new housing trends in relation to a small-scale typology represented by townhouses. As shown in Figure 5, the respondents were asked to imagine a housing company (e.g. an apartment building or terraced house) and take a stand on statements concerning domestic spaces shared with their neighbours. The results indicate that the



socially oriented lifestyle profiles, both subsocials and urbsocials, are more receptive for housing variations containing shared domestic spaces. Whereas the level of urbanity of the favoured housing area does not explain this attitude, the social orientation does; both socially oriented lifestyle profiles have leisure time activities, which would benefit from the extra spaces nearby their apartment.

However, the results indicate that the sense of community and shared domestic spaces do not necessarily go hand in hand, as 50% of the respondents were interested in shared domestic spaces only if they could reserve the spaces for private use, as suggested by the statement used in the survey (Figure 5). While this can result from several reasons, it was considered that the answers were influenced by the respondent's previous experiences, as validated by the open-ended questions. After all, the familiar examples of shared domestic spaces, such as the laundry room and sauna, are typically ones that are booked for private use. The idea of shared domestic spaces can also collide with the privacy valued in the home environments. Thus, a willingness to use the spaces with a chosen group of people may reflect the means of regulating the privacy. The results also underline that the potentials of the shared domestic spaces are not clearly defined nor well known by the laymen, as confirmed by the workshops.

Figure 5
Attitudes towards shared domestic spaces. Differences between lifestyle groups were statistically significant in all items, Chi Square test, p < 0.05.

#### Lifestyles contributing design and planning understanding

In an ideal situation, the future residents are involved with the design processes of shared domestic spaces, not just to understand what kind of spaces are needed, but also in order to understand what kind of prejudices, and even threats, are associated with these spaces. Since this is only rarely an option in case of large-scale urban housing projects, the residents should at least, following the principles of participatory design approach, have a possibility to work out together the terms and conditions related with the use of these spaces in such a manner that both the socially and privately oriented profiles could benefit from them. Indeed, the representatives of the lifestyle profiles who are less keen to interact in the local community, i.e. subnymous and urbnymous, provide important information about the challenges faced when trying to introduce housing concepts that contain housing-related spaces shared with the neighbours. This also applies to shared urban outdoor spaces, potentially boosting the sense of community.

If a person is able to maintain the aspired level of privacy, s/he may be willing to share some part of the housing-related domestic spaces with people who have similar attitudes and values. However, the design solutions, also in terms of related outdoor spaces, should be carefully considered. For instance, the workshop participants favoured semi-private entrances and private terraces regardless of their lifestyle profile. Although privacy is not always included in the design (cf. Figure 6), creating a sharp separation between private and shared areas may also be a difficult design task (cf. Figure 7).

Ideally, the shared domestic spaces are used in such a manner that they can be used for various purposes. A space for different types of private gathering, such as a clubroom, is probably the easiest one to design. A design task is a bit more complicated if the objective is, for instance, to have a shared kitchen or living room; however, a possibility to withdraw to a private corner may increase the use of the space.

It should also be noted that the preferred urban structure did not explain the interest towards shared outdoor areas. Particularly, in the context of townhouse areas, the shared courtyard framed by the rows of houses, can serve as a meeting place for residents and thus increase the formation of a more collective housing culture. The residents who are less keen to socialize with their neighbours can find the courtyard interesting if it provides possibilities for activities and relaxation, as well as connectedness to nature. In the workshops, the participants expressing different lifestyle profiles explained these different attitudes and values: For the social ones, a courtyard provided a meeting place. For the more private ones, it was a place for gardening and a relaxation, seasoned with the connectedness with nature. Again, the notions emphasize the significance of context-sensitive design solutions. Completed with a block-

house, the courtyards could be developed in such a manner that they serve both the residents in the block and the neighbourhood.





spaces.

PHOTO: EIJA HASU

Finally, in relation to developing typologies reflecting the lifestyle profiles, the socially minded respondents were interested in reducing the size of their apartment if they had different types of shared spaces (e.g. guest room and recreation room) at their disposal. This is in line with the future housing challenges of decreasing household sizes. Additionally, along with new family formations, a number of people sharing the domestic space may vary on a daily basis, thus stressing the need for flexible and potentially shared, spatial solutions. In fact, in the workshop, the flexibility was identified as the single most significant design aspect when developing townhouse living.

Figure 6 (left)
Alppikylä, Helsinki. Townhouse backyards lacking privacy and therefore use.
PHOTO: EIJA HASU
Figure 7 (right)
Ormuspelto, Helsinki. Barriers are separating the private and shared outdoor

## Conclusion

In times of differentiating housing preferences and dispersing consumption opportunities, housing choices can be interpreted as acts of self-expression and individualisation, in addition to meeting the basic needs of shelter and safety (Kersloot and Kauko, 2004; Kauko, 2006b). The understanding of housing behaviour is crucial, since the current development in Western society indeed alludes that the traditional approaches have been considered as more or less insufficient, which are based on economic and socio-demographic factors explaining housing preferences and choice behaviour (cf. Heijs, et al., 2011; Jansen, 2012; Kauko 2006b). Furthermore, Clapham (2005) has stressed that housing research should pay attention to many gaps in the current empirical knowledge of housing: attitudes, values and experiences are aspects that shape the understanding of each person's own housing possibilities, underlining the importance of current supply, which shape the housing preferences.

Since the traditional economic and socio-demographic factors have been recognized as inadequate to explain the diversifying housing preferences, the lifestyle-based approach may enable taking into account the specific context-dependency of housing. While using life-styles, one nonetheless must bear in mind the reasons and justifications for the chosen approach. Jansen (2012) suggests that lifestyles should explain behavioural patterns. Heijs, et al. (2009; 2011) underline the validity of add-on value and methods, relevancy of outcomes, as well as an appropriate definition for housing policy and planning, implying the wide range of lifestyle definitions and approaches.

In this paper, lifestyles were, based on the understanding discussed above, regarded as *values* and *attitudes* towards urban housing and design solutions. As a result, we were able to identify four resident groups in the urban context that provide guidelines for housing design and urban planning. The groups were not formed according to strict classifications; rather, the classification based on scales of urbanity and socialness was to expand the interpretations based on the traditional background factor analysis. The scales of socialness and level of urbanity shed light on questions raised by van Diepen and Musterd (2009) by examining the appreciations that different lifestyle-based groups manifest towards local social community and participation, and the way aspects of built environment are valued. In this way, we were able to follow the guidelines suggested by Heijs, et al. (2009, p.354), who explain:

Combined variables such as life-styles should only be used as a final resort because real information can be lost in the grouping process, false information may be produced and classifying residents in a limited set of segregated clusters may produce artificial results when forcing less typical cases into groups they do not really belong to. (...) The definition and the methodology should reflect the complexity and dynamics of the real world.

The case of a Finnish townhouse is an example of such complexity. However, decomposing a housing typology and residential area into design components, and investigating the aspects as reflections of values and attitudes, enabled the identification of both new design options and lifestyle profiles. The profiles explain the ways the potential residents may favour different design solutions and the way the residents might behave in a specific housing situation. As a result, architects and planners can predict the consequences of different design choices, as explained in this article, with shared domestic spaces and front yards as examples. While there is no urban space without other people and social encounters, the privacy valued in home environments may be challenged by the proximity of others, as validated by our results. In a similar vein, less dense areas invite people that would appreciate shared spaces. Thus, in reference to the social dimension of home environments, the lifestyle-based approach presented in this paper increases the understanding of the psychological side of housing choices, which can be applied with different types of residential settings. The workshops that were arranged 2015, highlighted the understanding that, in one form or another, the meaning of home is present in discussions concerning one's attitude towards neighbours and communities. In other words, to gain a wider understanding about housing behaviour, the research benefits from using various methods revealing various levels of housing preferences, aspirations and beliefs. To cite David Clapham (2005, p.240):

it would be difficult to design and implement (housing) research that did include all elements simultaneously (...) concentration on some aspects of the whole is usually necessary, although (...) all of the elements need to be in place for a full understanding.

Following Clapham's reasoning, we admit that one housing research setting is unable to include all relevant aspects. The same applies to lifestyle examination, including the recognition of the terminal values and design attitudes. However, the more research is conducted in each sector, the more information and broader understanding can be provided, concurrently narrowing the gap between research and planning.

All things considered, the examples presented in this paper combining design solutions and lifestyle-approach are one answer to the challenge posed by Heijs, et al. (2009; 2011) – showing that lifestyles are plausible for housing research only if the assumptions motivating the lifestyle-approach and choice of methods are valid, the expected results provide realistic outcomes, and the lifestyles are used to provide higher additional value than traditional variables.

In terms of housing studies, lifestyle is indeed a concept to use in addition to traditional variables when discussing how to match housing preferences and design solutions. Nonetheless, the context matters: Although we are fully aware that the lifestyle approach as described in this paper is limited, and does not give full credit to the potentialities in the concept of lifestyles, the identified lifestyle profiles are a serious attempt to identify differences and similarities between urban residents, previously discussed in terms of life stage and socio-demographic factors. Thus, this paper indicates that lifestyle is a prominent factor for consideration in both housing design and urban planning.

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#### References

Ærø, T., 2006. Residential choice from a lifestyle perspective. *Housing, Theory and Society*, 23(2), pp.109–130.

Ancell, S. and Thompson-Fawcett, M., 2008. The social sustainability of medium density housing: a conceptual model and Christchurch case study. *Housing Studies*, 23(3), pp.423–441.

Bell, D. and Hollows, J., 2005. Ordinary lifestyles: popular media, consumption and taste. Maidenhead: Open University Press.

Bin, S. and Dowlatabadi, H., 2005. Consumer lifestyle approach to US energy use and the related CO<sup>2</sup> emissions. *Energy Policy*, 33, pp.197–208.

Brain, D., 2005. From good neighborhoods to sustainable cities: social science and the social agenda of the new urbanism. *International Regional Science Review*, 28(2), pp.217–238.

Brown, G. and Kyttä, M., 2014. Key issues and research priorities for public participation GIS (PPGIS): a synthesis based on empirical research. *Applied Geography*, 46, pp.122–136.

Chaney, D., 1996. Lifestyles. New York: Routledge. [e-book] Available at: <a href="http://site.ebrary.com.libproxy">http://site.ebrary.com.libproxy</a>. aalto.fi/lib/aalto/detail.action?do-cID=10017825> [Accessed 9 March 2014].

Clapham, D., 2005. The meaning of housing: a pathways approach. Bristol: The Policy Press.

Coolen, H. and Hoekstra, J., 2001. Values as determinants of preferences for housing attributes. *Journal of housing and the built environment*, 16, pp.285–306.

Coolen, H., 2008. The meaning of dwelling features: conceptual and

methodological issues. Delft University of Technology, Amsterdam: IOS Press.

van Diepen, A.M.L. and Musterd, S., 2009. Lifestyles and the city: connecting daily life to urbanity. *Journal of Housing and the Built Environment*, 24, pp.331–345.

Fleisher, F., 2007. "To choose a house means to choose a lifestyle." The consumption of housing and class-structuration in urban china. City and Society, 19(2), pp.287–311.

Ge, J. and Hokao, K., 2006. Research on residential lifestyles in Japanese cities from the viewpoints of residential preference, residential choice and residential satisfaction. Landscape and Urban Planning, 78, pp.165–178.

Gehl, J., 2006. *Life between buildings*. *Using public space*. Skive: The Danish Architectural Press.

Hasu, E., 2012. Kodista monikotisuuteen. Uusi näkökulma asumisen tutkimukseen. (Redifining home through multiple homes. Another approach to housing research.) Yhdyskuntasuunnittelu, 50(3), pp.46–64.

Heijs, W., van Deursen, A.M., Leussink, M. and Smeets, J., 2011. Re-searching the labyrinth of life-styles. *Journal of Housing and the Built Environment*, 26, pp.411–425.

Heijs, W., Carton, M., Smeets, J. and van Gemert, A., 2009. The labyrinth of life-styles. *Journal of Housing and the Built Environment*, 24, pp.347–356.

Heinonen, J., Jalas, M., Juntunen J.K., Ala-Mantila, S. and Junnila, S., 2013. Situated lifestyles: I. How lifestyles change along with the level of urbanization and what the greenhouse gas implications are – a study of Finland. *Environmental Research Letters*, 8, 025003(13), pp.1–13. Available at: <a href="http://iopscience.iop.org/article/10.1088/1748-9326/8/2/025003/pdf">http://iopscience.iop.org/article/10.1088/1748-9326/8/2/025003/pdf</a> [Accessed 12 February 2014].

Holt, D., 1997. Poststructuralist lifestyle analysis: conceptualizing the social patterning of consumption in postmodernity. *Journal of Consumer Research*, 23(4), pp.326–350.

Huttunen, H., 2015. In search of the human scale city. *Finnish Architectural Review*, 112, pp.10–19.

Huttunen, H. and Kuittinen, M., 2014. Taustaa. In: M. Kuittinen, ed. 2014. Aalto-yliopiston Energiatehokas townhouse – tutkimushankkeen vuosiraportti 2014. (Energy-efficient townhouse. The annual report 2014, Aalto University). Aalto-yliopisto, Taiteiden ja suunnittelun korkeakoulu, Arkkitehtuurin laitos. Helsinki: Picascript. pp.8–9.

Jalkanen, R., Haapanen, S., Helander, H., Hellman, P., Koponen, R., Levanto, R., Manninen, R., Pulkkinen, S., Siivola, M. and Saarikko, T., eds., 2012. Townhouse-rakentaminen Helsingissä. (Townhouse development in Helsinki). Helsingin kaupunkisuunnitteluviraston julkaisuja 2012.

Jansen, S.J.T., 2014. Different values, different housing? Can underlying value orientations predict residential preference and choice? *Housing, Theory and Society*, 31(3), pp.254–276.

Jansen, S. J. T., 2012. What is the worth of values in guiding residential preferences and choices? *Journal of Housing and the Built Environment*, 27, pp.273–300.

Karsten, L., Lupi, T. and de Stigter-Speksnijder, M., 2013. The middle classes and the remaking of the sub-urban family community: evidence from the Netherlands. *Journal of Housing and the Built Environment*, 28(2), pp.257–271.

Kauko, T., 2006a. What makes a location attractive for the housing consumer? *Journal of Housing and the Built Environment*, 21, pp.159–176.

Kauko, T., 2006b. Expressions of Housing Consumer Preferences: Proposition for a Research Agenda. *Housing, Theory and Society*, 23(2), pp.92–108.

Kersloot, J. and Kauko, T., 2004. Measurement of housing preferences – a comparison of research activity in the Netherlands and Finland. Nordic Journal of Surveying and Real Estate Research, 1(2), pp.144–163.

Kriese, U. and Scholz, R.W., 2012. Lifestyle ideas of house builders and housing investors. *Housing, Theory and Society*, 29(3), pp.288–320.

Kyttä, M., Pahkasalo, K. and Vaattovaara, M. 2010. Asumisunelmat tosielämässä. (Housing dreams in real life). In: A. Juntto, ed. 2010. Asumisen unelmat ja arki. (Housing dreams and everyday life). Helsinki: Gaudeamus. pp.121–148.

Majamaa, W., Kuronen, M., Kostiainen, J. and Heywood, C., 2008. A consumer-oriented method for communicative planning. *International Journal of Housing Markets and Analysis*, 1(1), pp.68–80.

Schwanen, T. and Mokhtarian, P.L., 2004. The extent and determinants of dissonance between actual and preferred residential neighborhood type. *Environment and Planning B*:

Planning and Design, 31, pp. 759-784.

Schwartz, S. H., 1994. Are there universal aspects in the structure and contents of human values? *Journal of Social Issues*, 50(4), pp.19–45.

Schwartz, S.H. and Bilsky, W., 1990. Toward a theory of the universal content and structure of values: extensions and cross-cultural replications. *Journal of Personality and Social Psychology*, 58(5), pp.878–891.

Shields, R., 1992. Spaces for the subject of consumption. In: R. Shields, ed. 1992. *Lifestyle shopping. The subject of consumption*. London and New York: Routledge. Chapter 1.

Simmel, G., 1903. The metropolis and mental life. In: G. Bridge and S. Watson, eds. 2002. *The Blackwell city reader*. Oxford and Malden, MA: Wiley-Blackwell. Available at: <a href="http://www.esperdy.net/wp-content/up-loads/2009/09/Simmel\_21.pdf">http://www.esperdy.net/wp-content/up-loads/2009/09/Simmel\_21.pdf</a> [Accessed 9 March 2014].

Strandell, A., 2011. Asukasbarometri 2010 — asukaskysely suomalaisista asuinympäristöistä. (Residents' barometer 2010 — Residents' Survey on Residential Environments in Finland). Suomen ympäristö 31/2011. Helsinki: Edita Prima Oy.

Tervo, A. and Hasu, E., forthcoming. Playing with townhouses — a design-based research method for housing studies. Architectural Research in Finland / Arkkitehtuuritutkimus / Arkitekturforskning i Finland, 1(1).

Vasanen, A., 2012. Beyond stated and revealed preferences: the relationship between residential preferences and housing choices in the urban region of Turku, Finland. *Journal of Housing and the Built Environment*,

27(3), pp.301-315.

Wulff, M., Healy, E. and Reynolds, M., 2004. Why don't small households live in small dwellings? – Disentangling a planning dilemma. *People and Place*, 12(1), pp.57–70.



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