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Edited by
Prof. Charles O. Egbu
Michael K.L. Tong




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URBAN AND SUBURBAN PREFERENCES DECOMPOSED FOR A SUSTAINABLE SYNTHESIS

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From a sustainable point of view, city living has a number of advantages over suburban living. In contrast to the normative ways of thinking that support the view that urban areas are sustainable and suburban are not, residential preference of people who are able to exercise their choice may demonstrate greater affiliation with suburban rather than with urban areas. This paper analyses the components of residential preferences (attachment, social and environmental context, physical planning issues, and residential mobility) in the two neighbourhoods of urban and suburban type, which are both attractive for the inhabitants. For the purposes of this analysis, the questionnaire survey was conducted on a sample of 246 residents in the West End of Glasgow and Bearsden. Eight hypotheses were developed and used to assess what aspects of residential preference may be linked to an acceptance of sustainable urban concept. Through a comparison between the same components of residential preference in each neighbourhood, it is possible to substantiate which components are the weakest ones in the suburban neighbourhood and thus the ones that may encourage return to a city. Conversely, the findings on urban neighbourhood's strongest components of residential preference indicate this neighbourhood's ability to retain its present population, and therefore support sustainable way of practising residential choice.

Keywords: Preferences; Suburban; Sustainability; Urban

INTRODUCTION

Current planning policy in the UK, following the EU recommendations and sustainable development path, suggests a return to a more compact and less land consumptive urban pattern that places greater emphasis on higher densities, mixed uses, quality shared space and facilities, and public transport.

Despite all the promotion of urban living, the British experience suggests that in reality people most commonly remain conservative in their residential choices and tend to prefer the type of living which offers them certain amenities and values they either cannot find or cannot afford within compact cities.

The pursuit of more compact settlement structures may well be justified and supported by the current urban policy, yet if such policy is out of tune with public opinion, it will never be effective. Therefore, a much clearer understanding of factors which influence people's preferences to both urban and suburban areas is needed, so that we are better placed to use these factors to achieve urban sustainability, i.e. to encourage suburban residents to consider urban living and moreover, to retain present urban population in cities.

This paper presents the results of the research which aimed to tackle the issue of sustainability of urban areas when, as in the case of Glasgow, there has been a long

standing problem of population loss in a city and its decant to suburbia and other urban centres in the Forth and Clyde region. In confronting this problem, the special focus of investigation is on residential preferences of people who are able to exercise their residential choice. Therefore, by choosing the two case study areas: an urban area (the West End of Glasgow) and a suburban area (Bearsden), which are both attractive for the residents, the research problem was to analyse components of residential preference in each of the two areas and to discover their flexibility and adaptability in support of urban life.

CONCEPTUAL FOUNDATIONS OF THE RESEARCH

The theoretical basis of this research involved two main concepts: sustainable development and residential preferences. The concept of sustainability is reviewed from its broadest context to the very specific topic of urban sustainability, while the residential preferences are analysed in their underlying components as identified from the various literature sources.

The Sustainability Paradigm

Sustainability is a paradigm that has been around for about 30 years but has only recently been popularised and entered virtually all spheres of life. It derives originally from the biological concept of 'sustainable yield' - that is to say, the rate at which certain species may be harvested without depleting their population (see: *Sustainable development network*, 2002).

In its essence, sustainable development is not a fixed state of harmony. It is rather a *process of change* in which changes in exploitation of resources as well as institutional, fiscal and technological changes will support both needs of present and future generations. Although sustainable development allows the possibility to be misinterpreted and abused, it is a respectable goal that ‘touches on our sense of guilt about what we have done to our planet, and it touches on a very deeply-rooted human desire to make sure our children’s futures are provided for’ (Reid, 1995: *xvi*).

In achieving sustainability, the interest and responsibility of all parties involved cannot be denied. Yet the power of individuals, which is effectuated through their simply daily choices, can make a difference regardless of scale.

Urban Sustainability

Some conventional notions on urban sustainability view the city as a self-contained, bounded territorial unit and the sustainable city as the one that is self-sufficient and self-reliant. However, if the interdependencies between cities and their hinterland are ignored, we are overlooking the question about whether one locality is becoming “more sustainable” by making other places less sustainable, e.g. by exporting waste or by maintaining levels of material consumption necessitating degenerative production in other locations (Lake, 2000). As the Urban Expert Group states it in its report, the challenge of urban sustainability is ‘to solve both the problems experienced within cities and the problems caused by cities, recognising that cities themselves provide many potential solutions’. Social and economic needs of urban residents should be met while respecting local, regional and global natural systems, through solving problems locally where possible, rather than shifting them to other spatial locations or passing them on to the future.

With a reopening of the debate on urban form and looking for a sustainable solution, urban compaction has become 'the order of the day' that is driven by the sustainability imperative (Breheny, 1996). The 'compact city' is a term, which is internationally used as the opposite of urban sprawl. Sprawl is perceived to be, and has been proven to be, a less sustainable form of living. On the other hand, a compact city is seen as more energy efficient and less polluting form of living because its dwellers live closer to shops and work, and can walk or use public transport rather than a private car to access services and facilities. Additionally, as a result of high population densities, compact cities induce a high degree of containment of urban development, viability of mix-uses and are argued to encourage social mix and people's interaction.

The UK government largely adopts the view of the European Commission in support of compact cities and this causes tensions with 'the English ideal of suburban living' (Frey, 1999:24). However, the compact city paradox lies in the inverse relation of the sustainability of cities and their liveability (Wiersinga, 1997), or the advocacy of centralisation in the face of deep-seated counterurbanisation trends (Breheny, 1992).

In order to achieve qualities that compact city ideal represents, it is necessary to understand the ways people might want to live, or how they might be induced for a change in support of more sustainable practices, which presume: high densities living (35 to 60 dwellings/ha), mixed uses, mixed tenures and different types of buildings, environments that encourage walking because of their size (500m to 600m from the edge to centre), greater use of an efficient public transport instead of private car dependency, and local facilities and amenities (see: Urban Task Force, 1999:60; Urban Villages Forum, 1998).

Residential Preferences

An analysis of residential preferences of urban and suburban population requires understanding their underlying components, which are identified as: attachment; social and environmental context; physical planning issues; and residential mobility (Talen, 2001).

Attachment. Among all residential preference components, attachment is regarded as the most personal one. Neighbourhood attachment is the component of residential preferences that can be manifested in two aspects: *community sentiment* (related to overall emotional attachment to the neighbourhood) and *community evaluation* (related to rational assessment of the relative advantages and disadvantages of living in a particular neighbourhood) (Adams,1992; Talen, 2001). Including both aspects of attachment, present empirical research on residential preferences aims to determine how community sentiment and community evaluation vary by socio-economic characteristics of residents as well as by different types of physical environments.

Social and Environmental Context. This component of residential preferences has to do with the overall social and environmental context of the suburban and urban type of neighbourhood and it derives from a normative ways of thinking and the emphasis on a more compact urban pattern. It includes the larger significance and meaning of a particular type of development in terms of social and environmental factors (contacts with neighbours, safety issue, type of home, neighbourhood facilities, etc.).

Physical Planning Issues. The physical planning component of residential preference includes all the aspects of residential living that involve issues of urban design, accessibility, the separation or integration of land uses, commuting distances, and public space. By and large, physical planning issues 'have to do with what could be

termed the planned elements of the residential neighbourhood, specifically those that have been implicated in criticism of suburban sprawl' (Talen, 2001:203).

Residential Mobility. From the point of view of individuals, residential mobility has long been seen as an adjustment to stresses produced by a disparity between individual needs and the ability of the current home to fulfil these (Wolpert, 1966; Clark and Cadwallader, 1973). This component of residential preferences is regarded as residents' intentions to move either to the neighbourhood of the same or different type to the present one, or complete lack of residential mobility intentions.

THE RESEARCH METHOD

For the research on factors that are related to the components of urban and suburban residential preferences, the methodology which was applied was the one of social science research, with postal questionnaire as a method of collecting data. The questionnaires on residential preferences of people in the West End of Glasgow (urban neighbourhood) and Bearsden (suburban neighbourhood) were distributed to a random sample in each area. From the 750 questionnaires that were posted to the households as sampling units, 246 were returned to the researcher, which makes a total response rate of 32.8%. The sample sizes in the two neighbourhoods were almost equal, with 128 completed questionnaires from the West End and 118 from Bearsden.

After the data was collected and checked for errors, the descriptive and inferential statistics procedures were applied to the data set in order to obtain the distribution of variables for the samples and furthermore, to test the relationships between the variables and make inferences for the whole population of each case study area.

The following two figures are general representation of the relationships that were tested in this research.

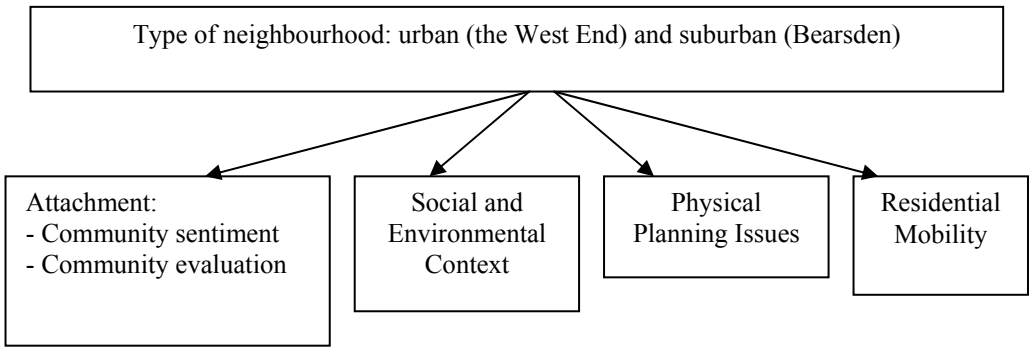

Figure 3: Graphical representation of relations between the independent variable of neighbourhood type and residential preference components

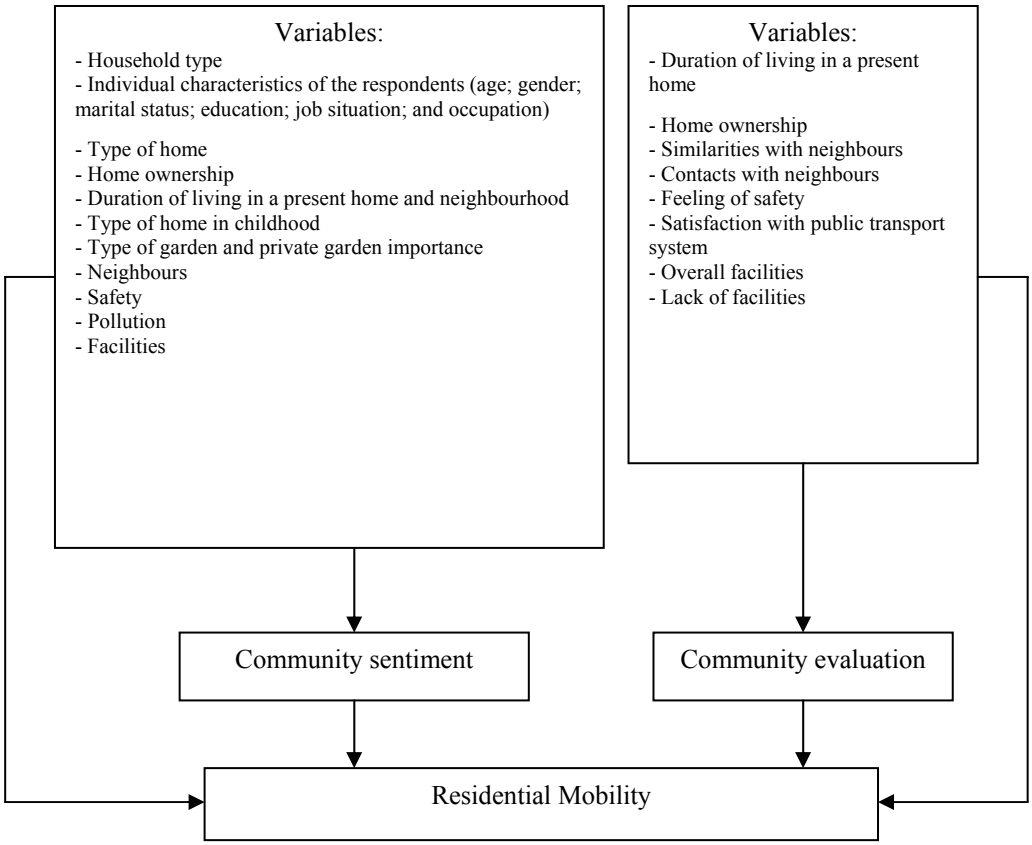

Figure 4: Graphical representation of relations between the independent variables of residents' and neighbourhoods' characteristics and residential preference components and the relations between residential preference components themselves

HYPOTHESES

In the research on residential preferences, there were 8 research hypotheses that were tested. The research hypotheses derive from the research problem, which is why people of similar income groups prefer the one or the other urban model, i.e. the West End as urban neighbourhood that is close to key recommendations on sustainable urban development, or Bearsden as suburban neighbourhood that is not close to these recommendations. These research hypotheses are also the tentative answers to the questions whether those people preferring suburban areas are prepared to accept denser residential forms, and conversely, whether urban residents show weaker residential preference in certain components of their dominant urban preference.

H1: People who are older and who have been living longer in the present neighbourhood are more emotionally attached to their residential neighbourhood.

H1 is based on a previous researches findings and the common sense assumption that people develop emotional attachment to their residential neighbourhood with older age and longer duration of residing in the neighbourhood.

H2: Suburban residents are more emotionally attached to their residential neighbourhood than urban residents are to the urban neighbourhood.

With generally higher stability and longer duration of residence of population in the suburban area, it was assumed that suburban residents might develop higher emotional attachment to their residential neighbourhood in comparison to urban residents.

H3: The feeling of safety and happiness with contacts with neighbours influence community evaluation.

H3 is based on a vast research on factors influencing neighbourhood satisfaction where community bonds and feeling of safety in the residential neighbourhood appear to be highly influential on community evaluation.

H4: Urban residents express higher community evaluation than suburban residents.

Since community evaluation is related to rational assessment of the relative advantages and disadvantages of living in a particular neighbourhood, it is hypothesised that urban residents rationally evaluate more the advantages of their residential neighbourhood than suburban residents do within their neighbourhood type.

H5: Urban residents are more satisfied with the overall facilities provided by their residential neighbourhood than suburban residents.

This hypothesis is based on logic that with higher residential densities, which exist in urban neighbourhood, it is possible to provide more viable and attractive facilities than in low-density suburban type of neighbourhood, thus the satisfaction with overall facilities is hypothesised to be higher in urban than in suburban neighbourhood.

H6: Distances from home to place of work/ daily activity are shorter for urban than for suburban residents.

The rationalizing behind this hypothesis is that an urban neighbourhood provides more local workplaces for its residents than suburban neighbourhood. Other population groups' daily activities (e.g. main daily activities of children and elderly population) may also be on shorter distances from home in the urban than in suburban type of neighbourhood.

H7: Suburban residents access facilities by a private car more often than by any other means of transportation.

Because suburbs generally are mono-use dormitories with only a minimum of local services and facilities, and also due to high mobility, it is hypothesised that suburban residents use a private car more frequently than any other means of transportation.

H8: Suburban residents are less likely to change their present type of neighbourhood than the urban residents.

H8 is based on the assumption that for some households with small children, the suburban neighbourhood may be more preferable so they move out of urban type of neighbourhood. After a longer staying in a suburban neighbourhood, their attachment to it grows and they are more likely to remain in it.

Regarding these eight research hypotheses, H1 and H2 relate to community sentiment (emotional attachment) of residents in the two neighbourhoods; H3 and H4 relate to community evaluation in the two neighbourhoods; H5 refers to the social and environmental context of urban and suburban residents; H6 and H7 relate to physical planning issues in the two neighbourhoods; and H8 relates to residential mobility in the urban and in the suburban neighbourhood.

THE RESEARCH FINDINGS

Hypothesis testing is one of the most commonly used inferential procedures. In this research, the results of inferential statistics show which variables influence residential preference components in either one or in both case study neighbourhoods. The following summary of research findings provides contextual answers to the research questions on residential preference components in urban and suburban neighbourhoods.

Attachment

The results of statistical analyses on this component of residential preference referred to community sentiment and community evaluation as the two aspects of attachment to the residential neighbourhood.

Community sentiment

Table 10: Variables that are in correlation with community sentiment in the West End

Correlations

		Emotional attachment to the West End	Respondent's age group	Duration of living in a present neighbou rhood	Household type	Highest level of education (2 groups)	Job situation, 2 groups)	Happy with contacts with neighbours
Emotional attachment to the West End	Pearson Correlation	1.000	.498**	.386**	.362**	-.235**	.258**	.274**
	Sig. (2-tailed)	.	.000	.000	.000	.008	.003	.002
	N	128	128	128	128	128	128	128

Table 11: Variables that are in correlation with community sentiment in Bearsden

Correlations

		Emotional attachment to Bearsden	Respondent's age group	Duration of living in a present neighbourh ood (2 categories)	Household type	Job situation, 2 groups)	Lack of facilities in the neighbourhoo d
Emotional attachment to Bearsden	Pearson Correlation	1.000	.277**	.419**	.300**	.318**	-.238**
	Sig. (2-tailed)	.	.002	.000	.001	.000	.009
	N	118	118	118	118	118	118

As it can be observed from the Tables 1 and 2, in both neighbourhoods there is a large positive correlation between the respondent's age and duration of living in a present neighbourhood on one side and community sentiment (emotional attachment to the residential neighbourhood) on the other. These findings support the research hypothesis H1 for both neighbourhood types. Other variables that influence community sentiments in both neighbourhoods are household type and job situation. In the West End, education and happiness with contacts with neighbours show medium correlation with community sentiment. In Bearsden, perceived lack of facilities is negatively correlated with the community sentiment.

In a statistical testing of the relationship between the neighbourhood type and community sentiment, the research hypothesis H2 was supported because there was a statistically significant difference between the two neighbourhoods in terms of their community sentiments, with higher mean scores of community sentiment for Bearsden (4.18) than for the West End (3.78).

Community evaluation.

Correlations

		Community evaluation, the West End	Feeling very safe in my neighbourhood	Happy with contacts with neighbours	Very happy with overall facilities provided by neighbourhood	Very well organised public transport in the neighbourhood	Lack of facilities in the neighbourhood	Ownership of home (2 categories)
Community evaluation, the West End	Pearson Correlation	1.000	.600**	.467**	.457**	.393**	-.296**	.273**
	Sig. (2-tailed)	.	.000	.000	.000	.000	.001	.002
	N	128	128	128	128	128	128	128

Table 12: Variables that are in correlation with community evaluation in the West End

Correlations

		Community evaluation, Bearsden	Feeling very safe in my neighbourhood	Happy with contacts with neighbours	Very well organised public transport in the neighbourhood	Very happy with overall facilities provided by neighbourhood	Lack of facilities in the neighbourhood	Similarities with next-door neighbours
Community evaluation, Bearsden	Pearson Correlation	1.000	.349**	.377**	.631**	.544**	-.480**	.283**
	Sig. (2-tailed)	.	.000	.000	.000	.000	.000	.002
	N	118	118	118	118	118	118	118

Table 13: Variables that are in correlation with community evaluation in Bearsden

As it can be observed from the Tables 3 and 4, in both neighbourhoods there is a large positive correlation between perceived neighbourhood safety and happiness with contacts with neighbours on one side and community evaluation on the other, and these results support the research hypothesis H3 for both neighbourhood types. Other variables that influence community evaluation in both neighbourhoods are: satisfaction with overall facilities provided by the neighbourhood including the public transport system; and perceived lack of neighbourhood facilities. In the West End, it was also the home ownership that was positively correlated with community evaluation while in Bearsden, similarities with the neighbours showed a positive correlation with the community evaluation.

In a statistical testing of the relationship between the neighbourhood type and community evaluation, the research hypothesis H4 was supported because there was a statistically significant difference in community evaluation between the two neighbourhoods, with higher mean scores of community evaluation in the West End (33.85) than in Bearsden (32.13).

Social and Environmental Context

The results of analyses on this residential preference component refer to the differences between the West End (urban neighbourhood) and Bearsden (suburban neighbourhood) regarding: neighbourhood bonds, neighbourhood safety, facilities in the neighbourhood, private garden as an environmental comfort and, perceived pollution as an environmental discomfort.

Statistically significant differences between the two neighbourhoods have been demonstrated for the following 8 variables: similarities with the next-door neighbours (more similarities perceived between suburban than between urban residents); happiness with the contacts with neighbours (higher mean scores for suburban (4.04) than for urban (3.84) residents); satisfaction with the overall facilities in the neighbourhood (higher mean scores for urban (3.88) than for suburban (3.45) residents); frequencies of visiting: the city centre, daily shopping, cinema/ theatre, restaurants, pubs and cafés (with all mean scores higher for urban than for suburban residents); and the importance of having a private garden (higher mean scores for suburban (4.51) than for urban (3.3) residents).

The result on statistically significant difference between the West End and Bearsden regarding their residents' satisfaction with the overall facilities in the residential neighbourhood supports the research hypothesis H5.

Physical Planning Issues

Table 14: Inferential statistics on physical planning issues

Independent variable: Neighbourhood type (1=the West End; 2=Bearsden)			
Dependent variables	Variable categories	West End (% or mean)	Bearsden (% or mean)
Distance to place of work or daily activity	1. up to 1 mile	46.9%	23.7%
	2. more than 1 mile	53.1%	76.3%
Everyday most common means of transportation	1. private car	37.5%	80.5%
	2. underground/ train	17.2%	8.5%
	3. bus	5.5%	5.1%
	4. walk	36.7%	4.2%
	5. other	3.1%	1.7%
Walk frequencies		4.56	4.03
Public transport use freq.		3.57	2.69
Private car use frequencies		3.70	4.51

The results of analyses regarding this component of residential preference showed that there were statistically significant differences between the two neighbourhoods in terms of: resident's distance from home to place of work or daily activity (which supports the research hypothesis H6); everyday most common means of transportation; and frequencies of: walk, using a public transport transportation, or a private car.

Concerning the physical access to certain facilities (the city centre, daily shopping, weekly shopping, health centre, sport centre, green/ open spaces, post office and bank, library, cinema and theatre, and restaurants, pubs, cafés), the statistical tests showed significant difference between the West End (urban) and Bearsden (suburban) residents. For reaching all those facilities, the West End residents predominantly walk or use public transport and other transportation means that are not a private car, while Bearsden population predominantly uses a private car. These findings support the research hypothesis H7.

Residential Mobility

This component of residential preference is analysed in the aspect of mobility intentions of urban and suburban residents. Residential mobility intentions were regarded as a categorical variable of three categories: 1) I would like to move to the opposite type of neighbourhood to the present one in or out of Glasgow; 2) I would like to move within the same type of neighbourhood; and 3) I don't want to leave my neighbourhood at all.

Regarding residential mobility intentions of people in the West End and Bearsden, there has been a statistically significant difference between the two neighbourhoods.

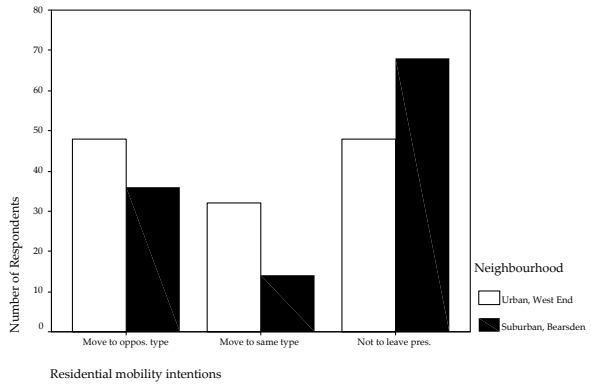

Figure 5: Bar graph on residential mobility intentions in the West End and in Bearsden

As it can be observed from the bar graph above, the majority of Bearsden (suburban) respondents (57.6%) does not have any residential mobility intentions at all, and 30% of respondents in Bearsden would like to move to the opposite type of neighbourhood to the present one. In the West End, however, 37.5% of the respondents do not have any residential mobility intentions, but at the same time, 37.5% of the West End respondents would like to move to the opposite type of neighbourhood to the present one. These findings support the research hypothesis H8.

Statistical analyses results showed that, in both neighbourhoods, the duration of living in a present neighbourhood; job situation; and emotional attachment to the residential neighbourhood were influencing a lack of residential mobility intentions. In the West End, other variables that influenced residential mobility attentions were: respondent's gender; age group; marital status; highest level of education; type of home; and happiness with contacts with neighbours. In Bearsden, variables that influenced residential mobility intentions were: current occupation; perceived pollution problems; and lack of facilities.

CONCLUSION

The outcomes of the research on residential preference components in preferred neighbourhoods of urban and suburban types show the following correspondence to the key indicators and target values of sustainable living environments.

In the West End (urban neighbourhood), which is a high-density neighbourhood (95 people/ha), and is in many ways close to the recommendations on sustainable urban development, the residential preference components that are the strongest and least flexible are physical planning issues and community evaluation aspect of neighbourhood attachment. This neighbourhood shows that one of its main attractive features concerns a better access of services and facilities, which is especially important for the less mobile groups of population. However, the results of this research indicate that certain residential preference components in the West End are weaker and not in line with urban sustainability. Indeed, components such as residential mobility and community sentiment, which are correlated with the duration of living in a present neighbourhood, resident's age, highest level of education and happiness with contacts with neighbours, are weaker in retaining present urban population.

As a high preferred but low-density suburban neighbourhood (21 people/ha), Bearsden is in divergence with the key recommendations on sustainable developments

and indeed, these low densities do not support the variety of housing types and tenures, viable public transport system and local services and facilities (apart from primary schools). This research shows that from all the components of residential preferences in Bearsden, the greatest flexibility is shown in physical planning issues. While Bearsden residents are highly emotionally attached to their neighbourhood and moreover, the majority does not consider leaving it at all, they acknowledge the problems such as: longer distances from home to their place of work or daily activity, private car dependency, lack of local facilities and dominant private car use for accessing provision centres. However, the high suburban preference is clearly not shaped out by the negative connotations of low-density living, and whilst Bearsden residents are mobile and are able to access all the facilities they require outside their neighbourhood by a private car they do not show propensity to accept denser living forms.

The findings in both neighbourhood types show that residential preferences are not inflexible in all their components. If the sustainable urban goal is to guide public preferences toward higher densities and reduction of the private car use, future studies should aim to substantiate the effects of people's higher awareness and exposure to these issues. For retaining urban population in cities, additionally to the analysis of residential preference components, it would be important to investigate more on the association between tenure and choice of sustainable urban developments.

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