

Age-friendly Urban Living Environment and Quality of Public Space

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1 ABSTRACT

Due to the corona crisis and its consequences for the target group 65+, the term autonomy and self-determination in old age was assigned a further great meaning and is becoming extremely important. 43 percent of corona deaths in Austria are residents of retirement and nursing homes.¹ Mental illnesses as a result, caused by isolation, such as restrictions on going out and visiting by others and the fear of dying alone. All of these are factors that drastically reduce the demand for the traditional nursing home as a residence for the 65+ target group. And still, we are right in the middle of the age shift due to demographic change, which increase the need for adaptation of the living environment. The over 65-year-old population in Europe is forecast to increase by an average of up to 55% by 2050.²

Housing in connection with the urban environment is an essential factor to remain autonomous. Housing must not be considered in isolation, but in context. Here, not only one's own home plays an important role, but also public space and open space. This paper will use the research survey of 307 people of the 65+ target group living in Graz to investigate what conditions need to be met in order to create an age-friendly district where people 65+ can live autonomously. Questions were asked in the areas of digitalisation, social life, infrastructure and mobility, in relation to habit and relevance. 86% would not think of changing their residence, the idea of leaving one's own home to become dependent is not widely accepted. Here, the public space in the immediate vicinity of the housing situation is a decisive factor because it is a place of social interaction. A place where collective life is created. Loneliness in old age is often accompanied by the lack of accessibility to public spaces. How should public space be designed for the daily walk? What distances are manageable for daily errands? Living in connection with the external context, such as a barrier-free accessible green space, is important for over 95 percent of the target group. The daily route must be barrier-free and easily manageable. Infrastructure, mobility and public space play a major role here. Homes and their associated open spaces must have alternative concepts to strengthen connections and promote community. Using the survey results as a foundation for a senior-friendly city, this paper looks at factors for a better quality of life. In view of demographic change, urban development must go hand in hand with the requirements of public space. Based on the survey a principle recommendation for the transformation of public space are suggested. It means high-quality designed public spaces in combination with easily accessible, barrier-free mobility and infrastructure.

Keywords: urban living environment, public space, age-friendly, mobility, autonomy

2 DEMOGRAPHIC CHANGE

Demographic change describes the adjustment of the age structure in relation to the changed living conditions of a population. It is a result of social upheavals caused by a change in the composition of the age structure in society.³ In our affluent society, people not only live longer, but also age more slowly. This higher life expectancy is the result of growing prosperity, hygiene and health care, advances in medicine and accident prevention.⁴ According to the study "Europas demografische Zukunft", prepared by the Berlin Institute for Population and Development in 2017, European demographic trends are projected to increase the number of people over 65 in Europe by an average of 55% in 2050.⁵ Not only a change in the age structure of society, but for example the composition of the population structure in a spatial context is referred to as demographic change. Demographic change also brings with it an increasing number of people in need of care, among other things due to a high number of single households. In Austria, the number of household members per household fell on average from 3.11 persons to 2.22 persons between 1951 and 2018. This reduction in household sizes brought with it an increase in one-person households. According to

¹ APA (18.05.2021)

² Berlin-Institut für Bevölkerung und Entwicklung 2017, 29.

³ Dinges u.a. 2015, 12.

⁴ Hergott 2012, 8-11.

⁵ Berlin-Institut für Bevölkerung und Entwicklung 2017, 29.

Statistics Austria, the share of single households was already 37.2% of the total number of private households in Austria in 2018.⁶ Thus, the number of people living in cities will also increase. Demographic change is accompanied by an increase in the ageing population and thus attributes great importance to the housing situation and the associated local area in terms of independence in old age in the form of age-appropriate cities and neighbourhoods.⁷

3 INTEGRAL LIVING

Housing in conjunction with the urban environment is an essential factor in being able to live independently in old age. It must not be considered in isolation, but in context. Not only one's own home plays an important role, but also public space and open space. The socio-spatial context can act as a barrier or as a conducive support and compensate for possible missing competences as well as health restrictions.⁸ A good example is the consideration of a "mini master plan" for each building, each flat, where housing is considered as a building block in the context of the city. In Brussels, this approach is already used as an operational tool to support the construction of social housing, in order to think about the necessary infrastructure with surroundings in the planning.⁹ The flat must remain interesting as a living space even in old age, be it through the exciting view offered in combination with the visual relationships, the public space, meeting zones or community facilities. Fields of action for independent living in old age can be divided into three spatial scale levels: *Dwelling - centre of daily life *Open space - meeting place *Social infrastructure - support in the neighbourhood.

In the form of the onion model, where different layers of private to public space are formed around one's own dwelling, the urban connection between one's own dwelling and the context can be illustrated. As the radius of action of older people decreases more and more, the layers that can be experienced towards the public space become smaller and smaller.¹⁰ The path from the door of the flat to the public space is a place for spontaneous encounters. The entrance as a meeting space has a special quality of place and is of great importance especially for people with limited mobility. Intermediate spaces as semi-private spaces with a high frequency of encounters are transitions, such as threshold areas, ground floor zones, arcades and staircases. Public space as an extension of living space and as a recreational and communication space is becoming increasingly important.¹¹ An interconnected, small-scale development network serves as a foundation for short distances in the local area and the neighbourhood and forms the basis for encounters in public space. It is about connecting with the surroundings in order to pursue integrative, cross-district planning approaches to support in the ageing process.¹²

4 HOUSING AND AUTONOMY

Due to the Coronaviruscrisis and its consequences for the 65+ target group, the concept of autonomy and self-determination in old age has taken on even greater significance. One's own home as a person's private living space is associated with personal memories. The older a person is, the more time he or she spends on average in his or her own home, which therefore stands for safety, self-determination and security.¹³ If independence in everyday life is no longer possible, this is often accompanied by a loss of self-determination to act in accordance with one's own wishes and interests.¹⁴ Dependence, but also loss of independence and adaptation are negative associations that are associated with nursing homes.¹⁵ The wish to spend the last phase of life at home, in familiar surroundings, rather than in a nursing home, was further strengthened by the developments of the pandemic. Since the beginning of the coronavirus pandemic until 18.01.2021, 43 percent (2.855 people) of all COVID-19 deaths in Austria (6.568 people) have been residents of nursing homes.¹⁶ Here, mobility is also seen as a prerequisite for quality of life and an important factor for a self-determined

⁶ Statistik Austria 2018.

⁷ Kreuzer 2006, 67.

⁸ Kreuzer/Scholz. 2011, 14.

⁹ perspectivebrussels (28.05.2021)

¹⁰ Kreuzer/Reicher/Scholz 2008, 123.

¹¹ Feuerstein u.a. 2015, 45.

¹² Kreuzer/Reicher/Scholz 2008, 127.

¹³ Böhm/Wilkes 2018, 32.

¹⁴ Kreuzer/Scholz 2011, 3.

¹⁵ Seifert 2016, 6.

¹⁶ APA (18.05.2021)

life.¹⁷As a result of the pandemic, isolation by others as well as isolation and lockdown in nursing homes were perceived as negative restrictions for the residents and strengthened the trend towards alternative forms of living.



Fig. 1 COVID-19 deaths in Austria (18.01.2021)

5 DYNAMIC PLANNING

Dynamic development for dynamic family growth. What is needed are individual flats that can be combined and connected to grow, and be connected with other residents. Multiple use thus ensures a diverse, lively mix, for flats that have become too large, vacancies or even communal areas. A small flat that can grow into a family flat and then shrink again when there is less demand because the costs are high or loneliness threatens are in demand.¹⁸Dynamic planning also means planning for accessibility. Accessibility is essential for 10% and important for 30%, but it is an advantage for every user.¹⁹ Dynamic planning can also have a supporting and helping effect for the ageing population through the dynamic use and occupation of the areas in the neighbourhood. Thus, various additional services such as delivery services, common rooms, household support services, caretaker and shopping services as well as senior citizens' offices can be available.

6 LIVING IN OLD AGE

If the retirement from working life is taken as the entry into the old age phase, as well as the increased life expectancy and biological age, the result is the old age phase with a period of up to more than 30 years. If the varying circumstances and lifestyles are added to this, it becomes apparent that old age is made up of the most diverse processes with great variety and the differences are clear.²⁰ In old age, everyday life largely means everyday living in one's own home and local area. A survey in Zurich even showed that the target group 65+ had been living in the same home for an average of 30 years at the time of the survey. Of the participants surveyed, 68% stated a very high degree of attachment to their own home. However, if a change of flat was imminent, 77% of the respondents would prefer a flat in the same neighbourhood.²¹ Due to an increasing "singularisation" of the older population and the loneliness associated with it, there is additional interest in alternative forms of living, such as the concept of "living for help", where living space is shared between students and people who need help in the house. Other alternative forms of housing would be assisted living, living in a multi-generational house or an assisted living group, and co-housing. Recognisable motives are the avoidance of loneliness and the possibility of mutual support.²²

7 TARGET GROUP SURVEY 65+

The survey of 307 people of the target group 65+ living in Graz was conducted over a period of four months, from August to November 2020, and shows which conditions must be fulfilled in order to create an age-friendly district in which people 65+ can live self-determined lives. Questions were asked in the areas of digitalisation, social life, infrastructure and mobility, in terms of habit and relevance. A total of 62% were women and 38% men. 25.7% were between 65 - 69 years old, 18.2% between 70 - 74 years old. 26.4% of the respondents were 75 - 79 years old, 16% between 80 - 84 years old. 8.8% were in the 85 - 89 age group. 4.6% were in the 90 - 94 age group and 0.3% were over 95 years old at the time of the survey. The evaluations showed that 95% were satisfied to very satisfied with their form of housing. For 46% of the respondents, the living situation is not accessible, but almost 86% are not willing to change their living situation. This shows great potential for urban development.

¹⁷ Dinges u.a. 2015, 7.

¹⁸ Haumann 2020, 522.

¹⁹ Querraum 2015, 8.

²⁰ Kreuzer/Scholz 2011, 14.

²¹ Seifert 2016 Umzugspräferenzen, 4.

²² LaFond u.a. 2012, 160.

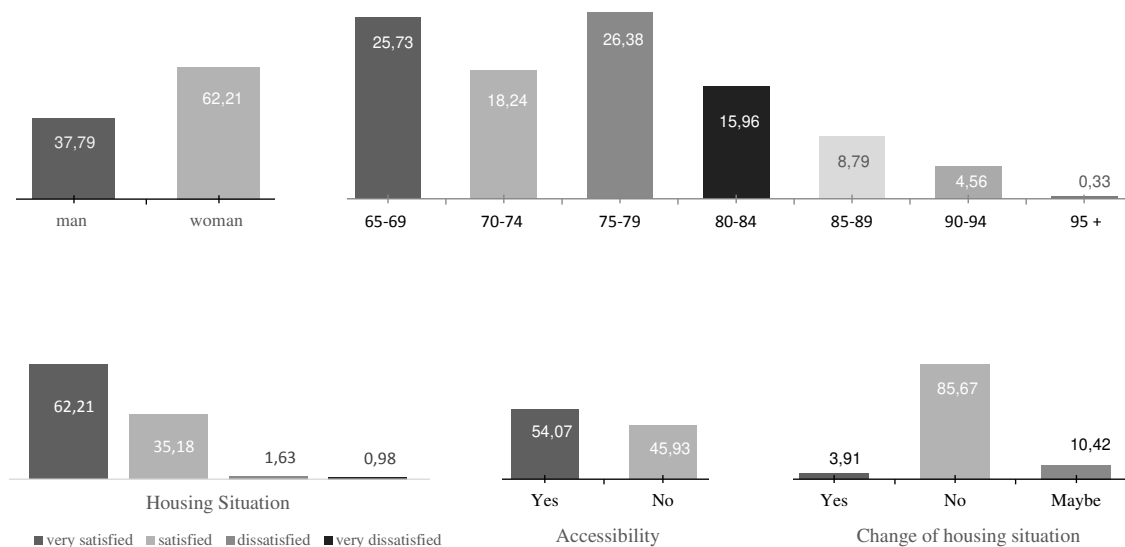


Fig. 2 Core data of the respondents

8 LIVING IN THE DISTRICT

Being able to lead a self-determined life even in old age is one of the essential attributes of successful preventive health care for older people. According to the survey of the 65+ target group in Graz, the ageing population also wants to be able to stay at home as long as possible. What is important here is the supply structure in combination with the concerns of the ageing population. Urban planning can help here. With declining mobility and health, the radius of action is concentrated on the local area and the district as a level of action.²³ What does the city need as a living space? The public space in the immediate vicinity of the living situation is a decisive factor, because it is a place of social interaction. A place where collective life is created. Loneliness in old age is often supported by the lack of accessibility to public space. Accessibility is considered an important factor, as 87% find accessibility to public space important. Open space plays a central role in the design of age-friendly and liveable urban districts and serves as a place for movement and encounters as well as a connection between different places. Accessibility, well-connected open spaces are especially important for older people due to their ever decreasing radius of action.²⁴ Short distances are essential, the survey makes this clear. A district is defined as an individually considered area that can be reached on foot in everyday life. In the survey, a distance of 1500m was considered a realistic walking distance by only 40%. However, a distance of 500m is manageable on foot for 84% of the respondents. This results in a clear recommendation for a 500m radius in the neighbourhood. The routes for daily needs should therefore be designed with a maximum distance of 500 metres, as this distance can be reached in up to 15 minutes, even at a walking speed of 0.7 m/s.²⁵ Short distances to medical care, short distances to shopping and short distances to green spaces are very important to important for 94%. The daily commute must be accessible and easy to manage. Infrastructure, mobility and public space play a major role here.

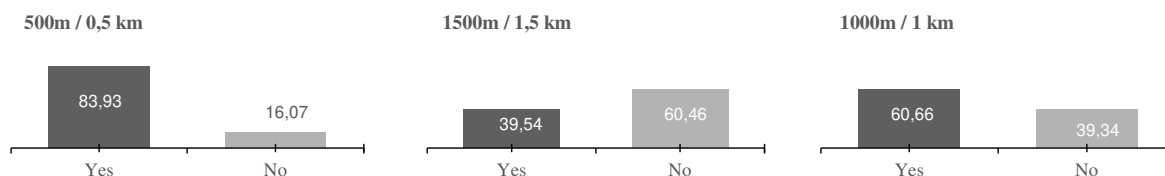


Fig. 3: manageable walk distance of the respondents

²³ Wolter 2010, 208 – 210.

²⁴ Kreuzer/Reicher/Scholz 2008, 124.

²⁵ Kreuzer/Scholz 2011, 36.

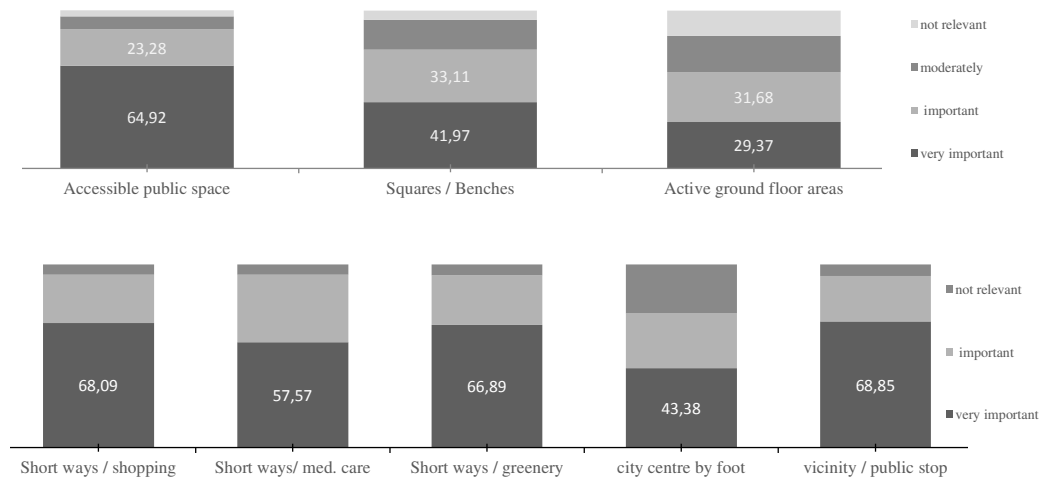


Fig. 4: distance preferences of the respondents

The survey also revealed wishes in the area of public space and mobility. Wishes in the area of pavements (9%) concern a sufficiently wide pavement separated from bicycle traffic and a barrier-free design, as well as sufficient lighting. Pedestrian crossings (16%) was also reported as a stressful situation because the green phase does not last long enough. There is also a desire for sufficient seating in public spaces (13%), as well as accessible waste collection points and letterboxes. In the area of public transport (48%), accessible access to bus stops, avoidance of jerky braking behaviour, lower travel speeds, assistance with ticket purchase, as well as longer waiting times when getting on and off the bus were noted. The wish was also expressed for a separate bus for senior citizens, which would explicitly take into account the needs of the older population.

<p>Pedestrian crossings 16%</p> <ul style="list-style-type: none"> more time to cross 	<p>public space 13,04%</p> <ul style="list-style-type: none"> more public green spaces More benches Accessible waste collection points More post boxes and public toilets
<p>Public transport 48 %</p> <ul style="list-style-type: none"> Improve public transport / shorter intervals Less jerky braking and driving away too quickly illuminate bus stops accessible stops/bus stations secure seating for senior citizens more time to get in and out 	<p>Pavement 9 %</p> <ul style="list-style-type: none"> Accessible pavements Separate cycle paths and pavements No additional boards on the pavement

Table 1: wishes regarding urban development

9 COMMUNITY

In the future, greater importance will be attributed to personal non-family associations such as neighbourhoods. The survey showed that 46% are very satisfied and 26% are satisfied with their neighbourhood relations. More networking would be desired by 44% of the respondents.

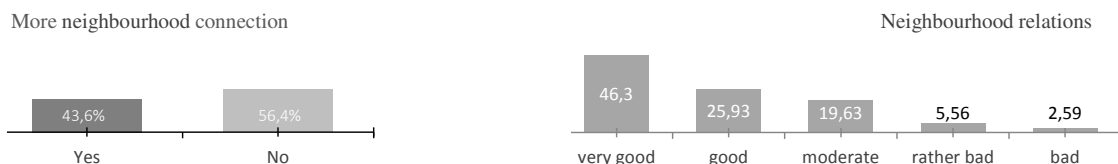


Fig. 5: Neighbourhood

Assistance and mutual support as well as the desire for community are wishes of the 65+ target group that can be supported by the choice of housing form and the resulting social network, because assistance and participation in the community has a great impact on a self-determined life in old age and already begins with minimal everyday help or manual work. Interpersonal contacts and conversations as well as emotional

support of social networks make an important contribution to the subjective quality of life.²⁶ A better cohesion is also created through joint activities such as cooking together or working in the community garden. Good togetherness requires a harmonious coexistence, not only a taking but also a giving. Reciprocal relationships and interactions, such as sharing, which takes on new relevance, are seen as an important element of house communities. Networking, swapping and sharing knowledge, food, services and everyday objects can also save costs in daily life. Neighbourhood help is seen as an essential element for independent living in old age.²⁷

10 PRODUCTIVITY AS A BOND BETWEEN LIVING SPACE AND ENVIRONMENT

It is not only about living, but about fulfilling a task. In this sense, the idea of extended family in the form of neighbourhood help and personal productivity is also important. Studies show that voluntary engagement in old age is associated with higher life satisfaction and mental and physical health. This positive effect of activity on one's own well-being is explained with the help of activity theory. This states that the satisfaction of older people is significantly promoted by active participation in life and the maintenance of their social network. More community can also mean more infrastructure. In addition to the possibility of spatially undefined voluntary activities, active neighbourhood assistance also offers the possibility of exercising these activities in the spatial context of one's own environment. Neighbourhood help includes: minor assistance, personal conversations, looking after the flat and house, social get-togethers and childcare. In social associations, however, the older population does not only act as recipients of help, but also makes valuable contributions themselves. For example, cooking or childcare can be taken over by the older population, while the younger generation pursues their working lives. Almost 40% of the respondents look after children from time to time and attend an association meeting at least once a week. The 65+ target group is involved in voluntary work in various areas. This involvement increases with retirement and decreases again with advancing age.²⁸ The older population wants to be needed. For example, at the Viennese "Café Vollpension", seniors can supplement their income by baking cakes. This offer is so well received that there are not enough places for all applicants. Participation, even in old age, is important. The participation rate of respondents in Graz in association life is 49% and there is also a high level of professional and voluntary activity in retirement at 30%. Around 30% of the respondents attend courses on average every month. Community and public spaces are also perceived as very positive. In the evaluation of the personal favourite place, one's own home gained the highest value with 37.4%. Social areas such as common rooms with 4.8% and family and friends with 3.4% also make up a significant part of the personal favourite place.

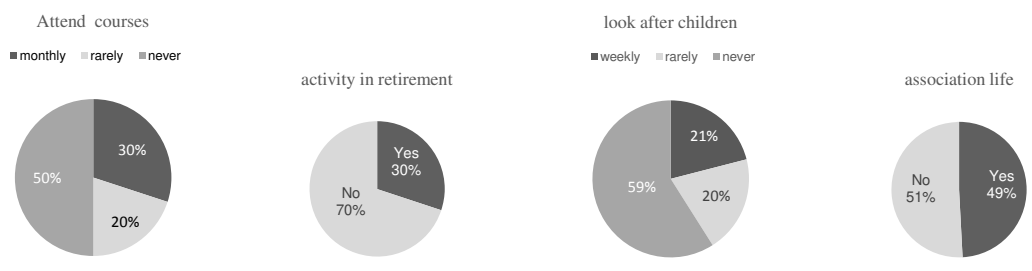


Fig.6 Activity of the respondents

personal favourite place	%
at home/ in the flat	37,43
garden / inner courtyard	15,92
Balcony & Terrace	13,41
nature / park	13,13
with family or friends	3,35
activity room / common room	4,75

Most mentioned activities in retirement	%
association life / social activity	19,00
Self-employment	16,53
Consulting and Coaching	12,40
construction site work	9,92
office work	9,09
organisation	8,26

Table 2: favourite place and activity in retirement

²⁶ Kreuzer 2006, 47 – 67.
²⁷ Korab 2020, 242.
²⁸ Seifert 2016 Freiwilliges, 151 -156.

11 CONCLUSION

The municipality plays a central role in the integrative planning process of an age-friendly city and cannot be considered separately. Social infrastructure in the neighbourhood is important, because networking in the community has a significant influence on housing satisfaction and is an important quality feature. Community spaces are important, because housing cannot be considered autonomously. In the future, the social aspect should be considered even more strongly in the planning and design of neighbourhoods. Housing must be thought of in the context of social and community services to promote quality of life, satisfaction and independence of older people. Demographic change will anchor the promotion of productivity and the associated participation in social life of older people as an essential task in our society.²⁹ In this way, living as independently as possible in old age is to be promoted and made possible by a lively neighbourhood in the trusted residential environment through mutual support.

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²⁹ Kreuzer 2006, 47.