

BETTER LIVING QUALITY WITH CARFREE URBAN AREAS?

Strategic Area: Urban Policies for Access to Public Health and Leisure

Linha Estratégica: Políticas Urbanas para o Acesso à Saúde Coletiva e Lazer

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Summary

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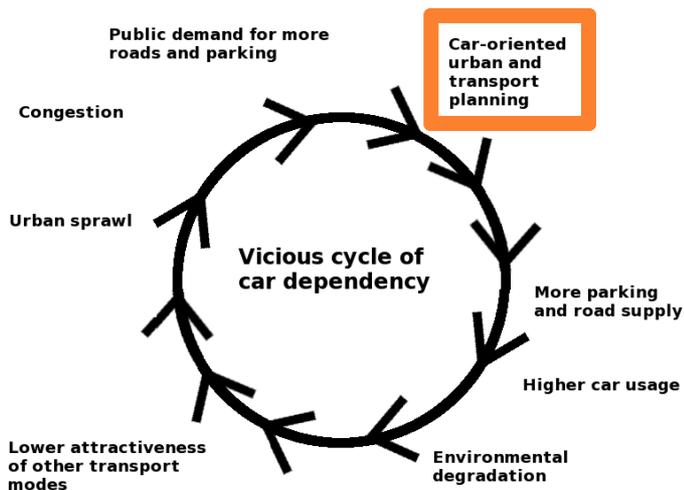
Traditionally, the focus of urban planning has been on accommodating increased car traffic; simply put car-oriented planning. In the recent decades however, a shift has occurred within the urban planning field towards a focus on the quality of the streetscape as experienced by pedestrians. This move has various motives, the principal ones being a policy shift that places greater value on sustainability, quality of life and public health measures through a more active use of public outdoor spaces. One sustainable urban mobility proposal that combines both urban planning and transport policy is to implement car-reduced or carfree districts. These districts combine strict restrictions on car use within the area with improvements in mobility and accessibility by other means than by private car. The referenced sources from the literature review that has been made describe that carfree areas can result in 20% lower rents, that public participation in the planning process is of utmost importance and that the unbundling of parking costs from the apartment rent or cost is a critical factor. Several interviews have been made with residents of existing carfree areas in Europe. Common denominators between the majority of the respondents were the positive factor of having access to child-friendly outdoor areas, closeness to nature and greenery, the importance of proximity to services and stores and finally that community involvement (i.e. public participation) was a key success factor. Finally, interviews were also conducted with urban municipal planners and representatives of housing construction and development companies in Sweden. A key result from these interviews was that minimum parking requirement norms for new buildings are a serious obstacle towards the feasibility of car-reduced housing projects. Instead new forms of agreements were proposed where developers did not need to build as many parking lots and in return give a binding commitment to fund more sustainable transport options, such as bicycle and public transport.

1 Introduction

During the last decades urban planning policy has moved towards placing a greater care on the quality of the urban streetscape as experienced by the pedestrian, where (JACOBS, 1961) and (GEHL, 2010) have been key advocates. In contrast to the earlier focus of transport policy on solely improving road capacity the concept of sustainable urban mobility has been developed. It is defined as to satisfy basic needs of mobility compatible with human health and the ecosystem – and at the same time be efficient and have acceptable costs (MIRANDA; RODRIGUES DA SILVA, 2012). The concept can be defined as shifting the focus towards movement also by non-motorised means (GUDMUNDSSON, 2004).

On an individual level car transport has advantages, but on a societal level it leads to problems. One problem is global in its scale: greenhouse gas emissions from road vehicles. For example, in the European Union transport accounts for 20 % of greenhouse gas emissions, and its share is continuing to rise (EU, 2013). On a more local level effects include air pollution, health

Illustration 1: Vicious cycle of car dependency.



problems, noise, congestion and road accidents (RABL; NAZELLE, 2012).

But it is not only the direct effects of the actual movements of the vehicles that count – until the 1970's the urban structure of cities have been almost exclusively adapted to cars. This has lead to dead, unattractive spaces where few people want to move around on foot.

One sustainable urban mobility proposal that combines both urban planning and transport policy is to implement car-reduced districts. These districts combine strict restrictions on car use within the area with improvements in mobility and accessibility by other means than by private car. Improvements can include better bicycle and walking facilities, car pools and better public transport. The car-reduced planning concept leads to several advantages within the district, such as a greater freedom to movement by foot, noise reduction, more space for parks and greenery and lower costs for housing.

2 Context

Car-reduced areas have various advantages. They could provide a greater freedom to move by

foot, especially for children. Children's movement is essential for their health and they need continuous child-friendly environments (FASKUNGER, 2008). Noise reduction also has positive effects, provided that the pedestrian area is large enough (LEWIS, S., 2005). There is also a possibility for more space for parks and greenery when the amount of parking is reduced. Residents without cars do not have to pay for expensive underground car parks which results in lower monthly costs. (LEWIS, S., 2005) estimates 20 % lower rents. Carbon dioxide emissions from transport can reduce substantially: a study from Austria showed that a carfree area had 50 % of the emissions in comparison to a similar traditional residential area with cars (ORNETZEDER; HERTWICH; HUBACEK, 2008).

The word carfree implies an area totally void of cars and car users, but this is not how the word is used in many references. Specific car-reduced areas can reside on different points on a scale from totally carfree areas where no one owns a car, to areas where the number of car parking places are only somewhat reduced.

The state of the art on carfree city planning can be separated in distinct focus areas. The first area is outside of the scientific realm and consists of future visions for car-reduced cities. Here Crawford is the principal author, who has described a plan focusing on a whole carfree city. Valuable lessons from his work is to have a focus on high quality pedestrian environments and the possibility to use slow-speed electrical carts for transport of heavy goods. (CRAWFORD, 2002, 2009)

Within the scientific realm of the state of the art there are several studies regarding urban design and housing policy that are linked to the potential of carfree areas in specific geographical locations. (MELIA, 2010) focuses on the potential for car-reduced areas in the United Kingdom in his PhD thesis. (SCHEURER, 2001) develops his PhD thesis around case studies of existing car-reduced areas in Europe, in order to develop factors for successful implementation of new areas. (BLUM, 2011) focuses on the area of GWL-terrein in Amsterdam. (FOLETTA; FIELD, 2011) describes several case studies on low-carbon urban areas around Europe. (EUROPEAN ACADEMY OF THE URBAN ENVIRONMENT, 2004) is focusing on a car-free urban district that was unsuccessfully planned in Bremen in the 1990's. This case study provides another approach, as it focuses on the process and involvement rather than the direct planning. This includes the importance of clear communication with future residents.

Another focus area in the literature is unbundling of parking costs. (SUSTAINABILITY VICTORIA, 2011) and (BLUM, 2011) are some examples within this area. Both are using the car-light area of Vauban in Freiburg, Germany as an example. Here the cost for parking is unbundled from cost for apartment, making parking a visible cost that has to be paid upfront based on use.

In one research project by (LEWIS, BRYAN PATRICK, 2010) qualitative interviews were made with inhabitants not owning a car in Hamilton, New Zealand. The respondents mentioned advantages including better economy and better health through more frequent walking in everyday life. Disadvantages and problems were the inconvenience of buying larger items, cumbersome transport for leisure activities, missing changing facilities at work, lack of bike parking and aggressive car drivers

Four scenarios on traffic configurations of a residential area were included in a Swedish survey made by (SVENSSON, 2000). One third of the respondents wanted to either have all parking on the outskirts of the area or to have the residential area entirely free of cars. In an English study by (MELIA, 2010) the demand for carfree living was surveyed through a local survey in Bloomsbury and Kings Cross in London, both with very low car ownership ratios. 16 percent of the respondents would like to move to a carfree area. 20% of the students in the survey made by (LEWIS, S., 2005) at the Hayward Campus of California State University would like to reside in a proposed carfree area. In the questionnaire it was presumed that the rent would be 20 percent lower than comparable areas with car parking.

3 Methodology

For this study the methodological approach was to start to analyse existing research through a literature review as summarised above. After this step a qualitative approach, using interviews, was chosen in order to narrow down research questions for a future, more quantitative, scope. Interviews were conducted with residents in existing car-reduced areas around Europe. Furtherly, interviews were made with urban planners and building developers in Sweden.

4 Discussion

A study tour, combined with interviews with residents, was made in December, 2013 to three towns and cities in Europe with car-reduced areas – Zermatt (Switzerland), the district of Vauban in Freiburg (Germany) and the dwelling area GWL-Terrein in Amsterdam (Netherlands). The study tour showed that there are several different possibilities for building carfree areas with different degree of carfreeness.

In the first interview, made in Zermatt, Switzerland the respondent stated that only electric vehicles with a speed limit are used for motorised transport (GEBERT, 2013). A conclusion of this interview is that it is not merely the absence or presence of vehicles that determines the degree of impact on the street as a social space, but also the speed. In the city only electric vehicles that are owned by companies or act as taxis are allowed. These have a built-in speed limit, resulting in a lower degree of disruption for pedestrians than normal cars. According to the interview with a

resident of Zermatt the biggest advantages of living in the town was the short distances between home, work and stores, increased opportunities for spontaneous meetings because everyone moves on foot, and clean air. The downside is that it is awkward to transport heavy goods. According to the respondent, it would be much easier to build a new carfree area than to modify an existing one (due to lack of acceptance from existing residents).

The second interview took place in Vauban, a district of the city of Freiburg in Germany (LINCK, 2013). In Vauban about half of the area was parking-free – it was permitted to transport goods by car to your home but not to park the car there. The uniqueness of the parking-free area in Vauban is that anyone who wants a car has to pay the true cost of a parking space in a garage, instead of the cost that is embedded in the dwelling price. In the interview it was mentioned that hesitancy and lack of interest from the municipality towards the non-governmental community organisation who managed the construction of the areas has been an obstacle. The municipality demanded guarantees that an area was set aside to build a garage in case car-free inhabitants later acquire a car. Also, the size of the car-free part of Vauban was limited by the municipality. The advantage of living in the district according to the respondent was that it is close to Freiburg's city center, green areas are in the immediate vicinity and that it is family friendly, since children can play in the streets. Another advantage was that there are many types of stores in the area, which reduces the need to travel to other parts of Freiburg to do shopping. The biggest obstacle to building more areas like Vauban was that people in general are sceptical about the idea of carfree developments.

The last area to be visited was GWL-Terrein in Amsterdam, the Netherlands, which is a small, completely carfree area (except for a few transports to the restaurant of the area). GWL-Terrein is, with the exception of the restaurant, exclusively residential. Child-friendliness and the ability to have your own garden was stated by the interview respondent as the biggest advantage of living in the area (MARSEILLE, 2013). The biggest drawback was that the distance to the center of Amsterdam was too far, and that there was no grocery store in the immediate vicinity of the area. Both the support from the Dutch Green Party and community NGO engagement were important factors in making it possible to build the area. One obstacle stated to building new-car areas was that the public sees the car as something sacred.

Interviews with officials working in local government (MAGNUSSON, 2014; ÅSLUND, 2014) and in development agencies (housing construction companies) (BERG, 2014; ERIKSSON, 2014; HALLIN, 2014) were conducted in Sweden during January 2014. A key issue for all respondents is clearly the decision on the level of minimum parking requirements in local plans and building permits. A minimum parking requirement means that the municipality requires a certain number of car parking lots per apartment; for example a parking norm or minimum parking

requirement of 1,0 means that one parking space per apartment needs to be built. The developer has an interest in keeping down the minimum parking requirements as much as possible to reduce the project cost. Local authorities have an interest to ensure that the compensatory actions performed if the municipality agrees to reduced parking standards (such as carpools or green travel plans) really become effective, so there will not be a problem of shortage of parking lots in adjacent areas. The question that remains is how the implementation of these measures (that the municipality requires the developer to implement) can be ensured both on short- and long-term?

5 Conclusions

Several factors can be found when summarising key sources within the research area that are of outmost importance in order to successfully implement carfree areas (CRAWFORD, 2002) (CRAWFORD, 2009) (SUSTAINABILITY VICTORIA, 2011) (BLUM, 2011) (SCHEURER, 2001) (GWL-TERREIN, 2009) (FOLETTA; FIELD, 2011) (WIEDENHOFER, 2013) (SCHEURER, 2008) (MOSER; STOCKER, 2008) (ELTIS, 2005) (EUROPEAN ACADEMY OF THE URBAN ENVIRONMENT, 2004).

One of them is public participation in every development phase – from the first planning stages until when the area is built and is in continuous use of the inhabitants. This participation is best achieved through a community organisation in order to channel the citizens' input in an effective way and to get a balanced view. Another critical factor, especially for the housing developer, is if sufficient demand exist for renting or owning a property without the possibility to park a car within the area. Here, the developer needs to make market research through polls and interviews. As carfree residents lack direct access to a car they are highly dependent on high-quality public transport and other alternatives such as a bike path network and car-pools. It is of outmost importance that the planning of a car-reduced area takes these needs into account. Here the municipality is the key actor that can place demands on the developer through proposing integrated packages integrating planning and funding of soft modes of transport with the planning permissions. As carfree areas are very rare their implementation require a profound and sustained engagement of all actors involved. The most important actors are public municipalities, developers and future inhabitants (sometimes involved in NGO:s). In practice, it can often be seen that individuals with a driving spirit in the different organisations play a key role in order to move the project forward. The research literature also mentions the importance of high-quality outdoor social spaces, which is often connected to another factor mentioned: the adaption of plans to achieve child-friendly, integrated outdoor environments in the area. Lastly, owner-occupier structure is seen as a positive factor. This structure (in contrast to rental property where the inhabitants move more frequently) facilitates community participation and engagement in the district.

Through analysis of the responses that occurred in at least two of the three interviews (GEBERT, 2013; LINCK, 2013; MARSEILLE, 2013) with residents of car-reduced areas in Europe conclusions could be made about common denominators between the interviews. The first one was that child-friendly outdoor areas was a critical aspect (it is one of the selling points for choosing to live in a carfree area). Proximity to nature and greenery was also seen as a positive aspect. Secondly, proximity to services and stores was important as the residents wanted to make their errands easily without carrying the goods a long way by foot. In fact, the respondents mentioned that the awkwardness of transporting goods was one of the main negative aspects of living in the area. Another negative aspect was the skepticism felt from the public and the municipality towards building carfree areas. Community NGO engagement was stressed as an important aspect in the interviews, connected to all stages of the process: planning, development and maintenance.

The main conclusion from the interviews with urban municipal planners and housing construction companies in Sweden (BERG, 2014; ERIKSSON, 2014; HALLIN, 2014; MAGNUSSON, 2014; ÅSLUND, 2014) were that minimum parking requirement norms for new buildings are a serious obstacle towards the feasibility of car-reduced housing projects. Exchanging minimum parking norms for other requirements, for example towards contribution to public transport measures, can be a way forward. In order to smoothen the path towards accomplishing new car-reduced areas new types of norms and binding agreements between housing developers and municipalities need to be developed.

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