

# Green Space Management & Residents' Benefits - A Study of Swedish Rental Multi-Family Housing Areas

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### Abstract

Management of green spaces in rental multi-family housing areas is discussed in a Swedish context and the benefits of maintenance for residents examined in this thesis. In Sweden, these green spaces are an important part of the urban green structure and the housing companies who manage these spaces are important green space providers. However, the management and maintenance of such green spaces and its benefits for residents seldom receive attention in research.

The residents' perspective is the main interest here, since they are to benefit from maintenance. The perspective of the providers (housing staff) is also included, because of their influence through provision on residents' experiences. Taking an explorative and mainly qualitative approach, two empirical studies were conducted using interviews as the main method of collecting data. In a case study of three rental and multi-family housing areas, 27 residents and 13 housing staff were interviewed regarding their experience of the maintenance of green space and their views on maintenance provision respectively. In a telephone survey of 30 municipal housing companies, housing staff were asked how they organised maintenance of green spaces and what motivated that choice.

The case study identified several benefits of green space maintenance for residents and three were further explored: (1) green space being 'well-kept' (2) the housing area being safe and (3) a just distribution of maintenance. The results showed that several elements of maintenance and the social context, such as views of maintenance staff and of other residents, contribute to residents' experience of these benefits. Views of well-kept green space were for example not simply about technical quality but *e.g.* the image of maintenance staff and their efforts was also considered. There is consequently a need to widen the technical discussion about how to manage and maintain green spaces.

*Keywords:* management, maintenance, green space, rental housing, multi-family housing, residents, experience, benefit, housing staff, well-kept, safety, order, justice, Sweden

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## Preface

The story of how I came to do this PhD-project begins with one important moment. It was a student presentation in a dimly lit lecture room when I was studying landscape architecture as an exchange student at Newcastle University. I presented a pedestrian walkway strategy for a neighbourhood in the city and was asked a critical question: How I could know if the strategy would have the positive effect intended unless I asked local people about their experience, wishes and demands. I could not answer the question. At that moment I realised the importance of this kind of information. While we landscape architects may be trained in skills of planning, designing and managing good environments for people, we can never be experts in their experiences of these environments. This is something that we need to ask for. So, in later student projects I started asking people about their experience of their local outdoor environment.

I began to study the specific topic of this thesis as a 6-month-research-trainee at SLU. I was given the opportunity to continue to explore the topic when the interdisciplinary research project 'Sustainable open space management in rental housing areas' received funding from the Swedish research council FORMAS. The overall aim of the project is to increase our understanding of how the global political vision of sustainable development can be concretised through open space management in rental housing areas. The project ended in 2010 and it has involved regular meetings. It includes several studies with varying topics, of which this is one. Taking part in such a project has given me the benefits of support, guidance and an introduction to new perspectives. It has led to further collaborations with project members on subjects and papers included here.

I would now like to thank all those I could not have achieved this work without. First, a sincere thanks to Bengt Persson, my main supervisor, for your commitment, critical thinking and confidence in me and this project,

also when I was in doubt. Eva Kristensson, my co-supervisor, your experience of qualitative research, thorough readings of and comments on my texts and positive way has also been very valuable.

I want to thank the Swedish research council FORMAS for financial support and the Hållbo-group for good support and collaboration; Björn Malbert and Pål Castell at the Department of Architecture at Chalmers University, Birgitta Ericson, Britt-Marie Johansson and Maria Nilsen at the Department of Sociology at Lund University and Ulf Ramberg and Mikael Hellström at the Council for Local Government Research and Education also at Lund University. Britt-Marie, I appreciate your fruitful comments at the mid-term seminar and that you introduced me to new perspectives from sociology. Maria, there are many things I want to thank you for; never-ending support, critical reading of my texts, good teamwork, making qualitative analysis understandable and not the least for your friendship.

Thanks to all the colleagues at the Department of Landscape Management, Design and Construction and at the former department. A special thought goes to Märit Jansson, Petra Bengtsson, Helena Mellqvist, Emma Paulsson and Anna Levinsson for important chats and support and Anna, our winter-baths have been invaluable. Qui Ling and Gao Tian thanks for adding warmth and joy at our shared office. Tim Delshamar, I am really glad for the introduction to the intriguing field of landscape management and I want to thank you and Anders Kristoffersson for support when needed. The administration and library personnel at Alnarp deserve much credit for all help. So does Mary Graham for the help with improving the language quality of the texts. Suzanne de Laval, thank you for scrutinizing the text at the final seminar and later reviewing the thesis. Nigel Sprigings at the Department of Urban studies at Glasgow University, thank you for giving me such a nice welcome and introducing me to new ideas and people. I also want to mention Annette Hastings at the same department who inspired me to go further with my idea for paper III. My informants, residents and housing staff kindly took the time to share their thoughts with me. Thank you.

Thanks to Marija-Liisa for giving me sustainable tools of thinking and to Monica de Santa Cruz for a valuable experience outside of the university. Thanks to my friends for good times and for being there. Last but *not* least my thoughts go to my relatives and families for faith in me and patience during work-intensive periods and especially to mum, dad, Rickard and Johanna for everlasting support and lovely Olivia-Lee and Stella for playful times. Finally, Jörgen, I do not know how else to put this - thank you for being you.

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## List of Publications

This thesis is based on the work presented in the following papers, referred to by Roman numerals in the text:

- I Lindgren, T. and Persson B. What is 'well-kept' residential green space? – A study of residents' and housing staffs' views in Swedish multi-family housing areas (Manuscript).
- II Lindgren, T. and Nilsen, M. Safety in multi-family housing areas (Submitted to Tijdschrift voor economische en sociale geografie).
- III Lindgren, T. Justice as a principle for the distribution of open space maintenance – the conceptions of housing staff and residents (Accepted by Journal of Housing and the Built Environment).
- IV Lindgren, T. and Castell, P. (2008) Open space management in residential areas – how it is organised and why. *International Journal of Strategic Property Management* 12, 141-16. Available from <http://www.ijspm.vgtu.lt>.

Paper III and IV are reproduced with the kind permission of the publisher.



The contribution of Therese Lindgren to the papers included in this thesis was as follows:

- I Conducted the case study on which the paper is based. Wrote the main part of the paper after discussions and scrutiny of the empirical material of both authors.
- II Conducted the case study on which the paper is based. Analysed, interpreted the results and wrote the paper in close collaboration with the co-author. Did the main part of the work with the literature review.
- IV Conducted one of the two telephone surveys on which the paper is based. The other survey was conducted by the co-author. Both authors worked with compiling and analysing the data and with writing the text.



# 1 Introduction

This thesis concerns management of green spaces in rental multi-family housing areas in a Swedish context and discusses what benefits the maintenance can contribute for residents.

In Sweden, green spaces in multi-family housing areas are an important part of the urban green structure. The total amount of green spaces in multi-family-housing is approximately the same as the amount of constructed public park land<sup>1</sup>. Of the 4.5 million dwellings in total, about 2.4 are in multi-family housing (SCB, 2002). Most of these housing areas include green spaces, shared by the residents. These residential green spaces mainly take the form of courtyards, which is the type of green space in focus here<sup>2</sup>. Thus residential green spaces refer here to *shared open spaces with greenery in multi-family housing areas*.

People who live in multi-family housing areas experience the residential green spaces on a daily basis, from their kitchen windows and on their way home. The spaces can be a source of enjoyment, a place where children can play and provide a view of nature right outside the dwelling. They can contribute many different qualities to people in their everyday lives. This has been acknowledged and studied, including in a Swedish context (Berglund & Jergeby, 1989; Olsson *et al.*, 1997; Kristensson, 1997; 2003). The role that maintenance can have in residents' relations to their courtyard and, more specifically, what benefits it can contribute for them has received little attention to date. For residents the residential green spaces become part of a well-known context over time, and not just any well-known context but a part of their homes, a central place in their lives. Over time, people may develop

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<sup>1</sup> The Bucht and Persson (1987) calculation of the total amount of green open space in multi-family housing areas (279 million m<sup>2</sup>) almost equals the area of constructed public park land (283 million m<sup>2</sup>) reported by Svenska Kommunförbundet (2002)

<sup>2</sup> In Swedish: *bostadsgårdar*, directly translated as 'residential yards'

a specific relationship to the spaces, to the other people using them and to the organisations managing them. It is often acknowledged that users' knowledge about, and relation to, green spaces and their context influences how green spaces are experienced (*e.g.* Ward Thompson *et al.*, 2005; Scott *et al.*, 2009), but *how* needs to be further explored. As 'residents' is in many ways a heterogeneous group, one can suspect that the knowledge and relations vary in many respects, as can the maintenance-related benefits they experience.

Rental housing companies, private and municipal, are important green space providers in Sweden. They maintain the residential green spaces for 1.4<sup>3</sup> of the 2.4 million dwellings in multi-family housing (SCB, 2003). This study focused on municipal housing companies, the Swedish public non-profit housing organisations in municipal control, for reasons explained later in the text (p. 39).

In both forms of rental housing, private and municipally owned, the residents have rather little influence over how maintenance is managed. The residents are not part of the management organisation, which is in contrast to the case in cooperatively owned housing, another common form of tenure in Sweden<sup>4</sup>. The maintenance of residential green spaces is generally carried out by professional staff and residents are not expected to contribute. In addition, the residents in rental housing do not have the financial motivations that people in cooperatively owned multi-family housing or in the increasingly common owner-occupied housing (in Europe at least<sup>5</sup>) have to contribute to green spaces being of good quality. The lack of that motivation does not necessarily mean they take less responsibility or care less, but such associations are common (Vidén, 1999; Brattbakk and Hansen, 2004). The facts that residents have little influence and are often regarded as caring less about the appearance of their housing areas make it more important to study their own perspective.

In the Swedish rental housing sector there are some signs of a recent rising interest in this area of housing services. In 2005, for example, a new formal professional network for green space management was formed by a

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<sup>3</sup> This calculation from SCB of number of rental dwellings in multi-family housing refers to 2003.

<sup>4</sup> According to an estimation by SCB for 2003, about 740 000 dwellings are cooperatively owned in Sweden.

<sup>5</sup> In Europe, or more exactly the EU, cooperative housing exists only in a couple of the countries and owner-occupied dwellings are the most common, all based on statistics in National Board of Housing, Building and Planning, Sweden (2004). Statistics on the combination of tenure *and* multi-family housing in Europe were not found.

number of municipal housing companies<sup>6</sup>. In general, however, green space management and maintenance seldom receive attention in research or in the housing sector. This is probably related to the fact that it is only one of many different activities in Swedish housing companies, in contrast to public park management organisations. It is for example a rather insignificant expense in housing company budgets. The maintenance of green spaces can be estimated to occupy about 1.5% of the total annual costs that municipal housing companies have in multi-family housing areas<sup>7</sup>. The maintenance of green spaces has in fact been shown to be a disadvantaged part of housing companies' activities, both in economic and competency respects (Hansson and Nilsson-Hellström, 1993). In a survey of about 270 Swedish housing companies, both municipal and private, almost a third reported having neglected outdoor maintenance (Boverket, 2003). The maintenance of green spaces seemingly has a rather low priority in the Swedish rental housing sector.

To sum up, the low priority of maintenance of green spaces in the rental housing sector in Sweden is not in line with the importance of these spaces for residents' quality of life. When management does not regard residents' maintenance-related benefits, it is at risk of not being optimised. When it does not regard residents' points of view, it becomes based on professional beliefs and taken-for-granted meanings. More knowledge is needed on how residents experience the maintenance of residential green spaces and the potential of management to contribute positively to their quality of life.

## Aims and research questions

The main aim of this thesis is to examine user benefits of maintenance of green spaces. The studies are carried out in the context of Swedish rental multi-family housing areas. The residents are the main users of the green spaces in this context hence the focus of these studies was on their experiences and views of the maintenance of their green spaces. What kind of experiences do they relate to maintenance? What aspects of maintenance do they think are important? What influences how they experience mainte-

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<sup>6</sup> SABO, the Swedish Association of Municipal Housing Companies, is involved in a network that includes 10 out of about 300 housing companies (Finessi, 2010-05-26). There was a similar network, but smaller, in the 1990s (Kallin, 2010-05-26).

<sup>7</sup> This figure was arrived at by dividing the yearly maintenance costs for open spaces per dwelling area (Boverket, 2003, referring in turn to a SABO study 'Nyckeltal för kostnadsjakt' from 2002 which concerned housing up to 40 years of age) with SCB's estimation (concerning 2002) of total costs and dwelling area of the municipal companies.

nance of green spaces? These questions are all explored in this thesis and fall under the main research question examined:

What benefits can the maintenance of green space contribute for residents in rental multi-family housing areas?

Maintenance refers here to the concrete tasks that are carried out on a more or less daily basis in the green spaces, *e.g.* the upkeep of vegetation and cleaning. Maintenance is regarded as part of the management of green spaces. Management is a complex activity that comprises many different activities, including decision-making and coordination. The focus of this thesis is on maintenance, since it is a concrete activity that residents experience on a daily basis close to their homes. It examines both residents' views on how maintenance is provided and on the technical quality it produces.

The residents' perspective is the main focus, since they are intended to benefit from the maintenance, but the perspective of the providers, the housing staff, is also included. This is because of their substantial influence on what the residents may experience through their service provision. Housing staff include employees responsible for maintenance of green space, either by taking decisions about it and/or performing it. The focus is on their views on the management and maintenance of green space and what they think is important, especially in relation to residents. Differences in views between housing staff and residents can serve as keys to knowledge of how green space maintenance can be optimised. Therefore such differences are of particular interest.

One aspect of maintenance of green space that *may* influence on residents' experience is the organisational structure, how green space maintenance is organised in housing organisations. The organisational structure sets some conditions for *e.g.* how often maintenance staff appear in the area (if they are local or not) and what role the residents have in relation to upkeep, if they are actively involved or not. The interest is in whether and how the organisational structure and residents' role in relation to upkeep (as a result of the organisational structure) influence their experience of the maintenance of green spaces. The interest is also in how the housing staff and companies choose to organise the green space maintenance and motivate that choice. The interest in the organisational structure was stronger initially and has influenced the research design. This aspect of maintenance is now regarded as one of several that are important to explore and discuss in relation to residents' benefits.

## 2 Previous research & Conceptual framework

This work is positioned within the urban landscape management research field. Research relating to this field has had different focuses. Quite a lot of attention has been devoted to the technical aspects of maintaining urban vegetation, focusing on tree care and development etc. (*e.g.* Miller, 1997, Rydberg and Falck, 2000). A similar conclusion is made by Konijnendijk *et al.* (2007) and Bentsen *et al.* (2010). Different techniques and intensities of maintenance and their results on the vegetation of green spaces are often studied and discussed by landscape professionals.

In research relating to urban landscape management there is also a growing focus on the users. For example, it is becoming more common to investigate how the technical quality of different types of maintenance techniques is experienced by users (Tyrväinen *et al.*, 2003; Gundersen and Frivold, 2008 (for overview of studies)). Other user-orientated studies concern communication with users and user participation processes (*e.g.* Konijnendijk, 2000; Westphal, 2003).

This study is in line with recent research within urban landscape management at SLU Alnarp that aims to provide knowledge that can be used for optimising management from a user perspective. The urban landscape management field at SLU Alnarp has developed mainly within the discipline of landscape architecture, as one of three strands: planning, design and management. When it comes to landscape research planning and design issues often get the attention. Studies that focus on the management phase of urban green spaces are more uncommon, although some examples exist. Recent user-orientated studies within urban landscape management at SLU, Alnarp have concerned *e.g.* public participation in the management and maintenance of public green spaces (Delshammar, 2005) and management and use of public outdoor playgrounds (Jansson, 2009).

The interest of this thesis can be described through a general model for management of urban green space (Figure 1). The model has been used and referred to in slightly different versions<sup>8</sup>, but they include the same key elements and relations. The model in Figure 1 is a slightly re-worked version of the park-organisation-user model in Randrup and Persson (2009).

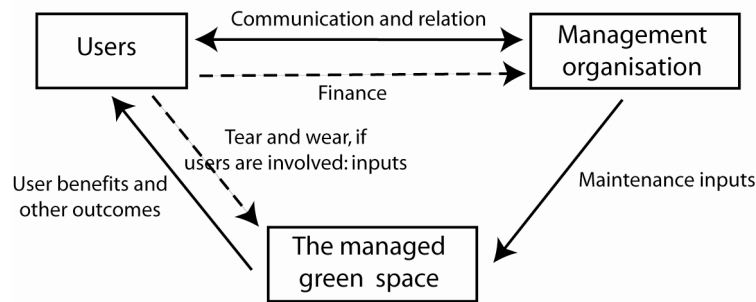


Figure 1. A model for management of urban green spaces based on the park-organisation-user model in Randrup and Persson (2009).

Basically, the approach to understanding urban green space management here centres on three key elements; the management organisation, the managed green space and the users, as illustrated in Figure 1. In the context of this study the elements correspond to the rental housing company, the residential green space and the residents. The relations between them are also indicated in the model. The housing company manages the green spaces and performs maintenance inputs as part of the services that resident pay for through their rent. The relationship between residents and housing company is established through *e.g.* communication. The residents are intended to benefit from the services through the managed green spaces. They, in turn, affect the state of the green spaces too; mainly through their use, wear and tear but sometimes also through contributing maintenance inputs. Thus they influence the green spaces in a physical way, whether they are asked to or not. This is a substantial difference in the management phase in relation to the phases in which green spaces are planned and designed. It is important to note that the residents have such influence on the spaces. It means that their views of the state of spaces may not only be connected to their views on the

<sup>8</sup> It has been used by Persson (“explanatory model for management of the urban outdoor environment”, 2005), Randrup and Persson (“the park-organisation-user model”, 2009) and Jansson (“the playground management model”, 2009).



inputs performed, but also to what they think about other users' effects on the spaces.

In this thesis, the main interest is in the left part of the model for management of urban green spaces; the residents, their *experience of the green spaces* and the benefits maintenance of green space can contribute for them. That knowledge is intended to be used to reflect upon how green space providers can provide better maintenance to residents.

This thesis is positioned within the urban landscape management field, but the subject is also closely connected to green space research and housing research. In the next section the work in this thesis is related to research within these two fields. Thereafter follows a more detailed review of research findings important to the subject of this thesis, together with a further presentation of the framework used here for understanding the perspectives of residents and providers regarding the maintenance of residential green spaces.

## Two related fields - green space and housing research

Both green space research and housing research are wide fields of study. In green space research there is an increasing amount of studies that concern people's experience and use, but it has been pointed out that more research is needed (Tyrväinen *et al.*, 2005; Bell *et al.*, 2007; Konijnendijk *et al.*, 2007). Konijnendijk *et al.* (2007) conclude for example from an assessment of research needs in the Baltic and Nordic countries that 'social and cultural values' is an important topic for future research.

Green space research with a management focus is particularly relevant to this study. However existing studies often concern public organisations' management of parks and other public green open spaces. This is the case with research that concerns the provider perspective only (Lindholst, 2008; Randrup and Persson, 2009; Bengtsson, 2010) and such that includes the users' perspective too (Delshammar, 2005; Jansson, 2009). Results concerning public spaces may not be directly transferred to residential green spaces. This is further discussed later in this chapter.

Housing research has a long tradition in Sweden<sup>9</sup> and there are many studies that concern people's views of their housing areas. Still, in relation to the Swedish housing context, the need for more information regarding residents' perspectives on the residential environment and the housing services has been pointed out (Hyresgästföreningen, 2004; Blomé, 2006). Research

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<sup>9</sup> For Swedish review of housing research see Thiberg *et al.*, 1985 and ARKUS, 2007

about housing management in a Swedish context provides important knowledge about how maintenance staff describe their work and how they relate to the residents (Johansson, 1998; Blomé, 2006). However, these studies do not include the perspective of residents, nor do they focus on the maintenance of the physical space including green spaces. It has in fact been pointed out that few Swedish studies have concerned the physical environment in recent decades (Eriksson, 2007), even if there are exceptions (*e.g.* Kristensson, 2003; Klasander, 2005; Castell, 2010).

Studies that integrate green space and housing research and concern residents' experience of residential green spaces are particularly close to this study (Kaplan, 2001; Schmidt & Thorén, 2001; Jorgensen *et al.*, 2007). Especially relevant is knowledge derived from studies in the Swedish context (Berglund and Jergeby, 1989; Olsson *et al.*, 1997; Kristensson, 2003). Some of these studies bring up issues relevant to management and maintenance practice, *e.g.* preferred character of vegetation (Kristensson, 2003; Jorgensen *et al.*, 2007), but these activities are not the main focus.

### Benefits and experience of green spaces

In green space research, users' benefits from green spaces is a common interest (Kaplan, 2001; Westphal, 2003; Johnston and Schimada, 2004; Tyrväinen *et al.*, 2005), but users' benefits from *maintenance of* green spaces is not. There are exceptions, such as Jansson (2009), who examines the benefits of children and other users from public playgrounds *and* playground management. There are also studies of user benefits from active participation in green space maintenance (Westphal, 2003; Delshammar, 2005; Castell, 2010). However, these studies usually concern other types of green spaces.

Sometimes the user benefits from green spaces are more or less taken for granted and the question posed is how to maximise those benefits to as many users as possible (*e.g.* Johnston and Schimada, 2004; Barbosa *et al.*, 2007). However, some researchers have defined and discussed the benefits in more detail. Westphal (2003) distinguishes for example between individual, organisation and community benefits in her study about voluntary active involvement in urban and community forestry. She claims that involvement in urban forestry may be related to community benefits, such as reduced crime levels, and to individual benefits, such as sense of involvement. It is the latter type of benefits, individual benefits that are based in people's experience, which are of interest in this thesis.

Benefit is here used in a similar meaning as Jansson (2009, p. 42) who regards it as '...any positive outcome but mainly as something that can be

measured from the users' own point of view'. The interest is similar, but not quite the same. In relation to the playgrounds that Jansson studied, the benefits are tightly knit to users visiting and actively using the playgrounds. Residents experience their residential green spaces on a daily basis, irrespective of their type of use. If residents do not use them actively they still use the spaces passively, through looking out through the window. This means that also residents who do not actively use the spaces may still value the spaces. Schmidt and Thorén (2001) conclude for example from their study of residential green spaces in Norwegian cities that residents who did not use the spaces actively still valued the spaces for *e.g.* adding greenery to the dwelling. There is research focusing on residents' benefits from passive use in particular (*e.g.* Kaplan, 2001), but such a limitation is not made here. The benefits of interest in this thesis are positive outcomes that residents experience and relate to the maintenance of green spaces, irrespective of type of use.

The interest in people's 'experience' needs some clarification, even when limiting it to the experience of landscapes. The approach is open for what residents include in their experience of the residential green space, and relate to maintenance. Residential green spaces are part of the landscape that people experience often and the spaces are part of a well-known context. Therefore it is acknowledged that this experience is a part of their wider experience of the local, physical and social context of the housing area.

How people experience something, such as the maintenance of green spaces, is influenced by their expectations. The expectations can concern both the behaviour of other residents in these spaces and the actions of housing staff. Sometimes the expectations vary between individuals, but they can also be culturally, locally and socially shared. Shared expectations of behaviours may be referred to as norms (Scott and Marshall, 2009). People's expectations can be influenced by their different positions and knowledge. In this study one obvious difference is that some experience the maintenance as residents, others as housing staff. Below their different perspectives on maintenance provision are further explored and conceptualised, but first management and maintenance need to be defined.

## Green space management and maintenance

Green space management has been described as including maintenance, planning and development of green space (Delshammar, 2005<sup>10</sup>; Jansson, 2009; Gustavsson *et al.*, 2005). Management can thus be regarded as a complex activity of which maintenance is one part. Green space management refers here to the multifaceted area of running the activities aiming to develop and maintain existent green spaces. It includes many different decision-making procedures and actions that affect users and green spaces. Maintenance refers here to tasks such as cleaning, mowing, pruning, *etc.*, that are carried out on more or less a daily basis in the green spaces.

To further distinguish management and maintenance from each other, they can be regarded as activities performed partly on different levels in an organisation. In relation to park departments and other organisations focusing on green space management, management has repeatedly been described as addressing three different organisational levels. Gustavsson *et al.* (2005) refer to them as the strategic, tactical and operational while Randrup and Persson (2009) call them the *policy*, tactical and operational. Their descriptions are rather similar<sup>11</sup>. The strategic or policy level refers to where the visions and long-term strategies are shaped and the operational level where the performance of tasks take place (Gustavsson *et al.*, 2005; Randrup and Persson, 2009). Both authors regard the tactical level as an intermediate level between the strategic or policy level and the operational. In this thesis they are called the strategic, tactical and operational levels and are illustrated in Figure 2.

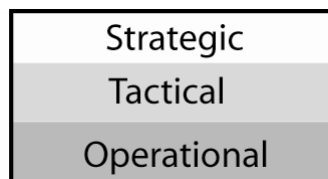


Figure 2. Management concerns all levels down to operational level, while maintenance only takes place on the operational level.

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<sup>10</sup> about 'förvaltning' in Swedish

<sup>11</sup> A difference is that Gustavsson *et al.* describe the three levels more as different phases or time-spans of management (e.g. strategic is long term) while Randrup and Persson regard them more as identifiable activity levels within an organisation.

Management is regarded here as an activity taking place on all levels; the strategic, tactical and operational, in an organisation, which is in line with Gustavsson *et al.* (2005). On the strategic level various strategic decisions taken about *e.g.* how to organise the overall maintenance (by middle and executive managers) affect how maintenance work in green spaces is implemented. On the tactical level visions and goals from the strategic level can be turned into concrete plans and priorities for maintenance work, when such a level exists. The many daily decisions that staff take on the operational level also influence services. Examples of decisions that they take is how they will spend their time, what tasks they will prioritise and if they will prune shrubs and in what kind of style and so on. The decisions taken by performing staff may seem small and concern quite trivial matters, but can be crucial for the strategy implemented as they have such concrete effects on provision.

Sometimes 'management' is used for describing the concrete activities on the operational level such as shrub-pruning (*e.g.* Tyrväinen *et al.*, 2003). This is not how the term is used here. Such concrete activities that are only performed on the operational level are here referred to as maintenance, in line with *e.g.* Gustavsson *et al.* (2005) and CABE Space (2004).

### Maintenance as three main inputs

Since maintenance is the focus of this thesis it needs to be further concretised. In the housing and green space management sectors, maintenance and its related activities are quite often defined with regard to practical and economic considerations. The definitions may for example regard the intervals of activities, if they adjust an object or restore a function or what part of the budget they are paid from (see *e.g.* Svensk byggtjänst, 2007; Persson *et al.*, 2009). As these details are usually not known or relevant from a user's point of view, such a distinction is not made here. Instead, maintenance needs to be defined from the users' perspective.

When turning to research on people's use and experience of public green spaces maintenance and people's experience of its quality is often regarded in terms of intensity. It seems to be taken for granted that there is a direct relationship between maintenance intensity and experienced quality. It is for example repeatedly pointed out that 'maintenance' is important to users of parks and urban forests (Tyrväinen *et al.*, 2003; Ward Thompson *et al.*, 2005; Özgüner & Kendle, 2006). Poor 'maintenance' can even put people off from using them (Dunnett *et al.*, 2002; Ward Thompson *et al.*, 2005). When maintenance intensity increases, the experienced quality is expected to do so too. This is a view that is common in the green space sector. Peo-

ple's experience of the maintenance may not be that simple, however. Studies from the UK show that too intensive maintenance of parks and urban woodlands sometimes is regarded as negative, both by adult users (Burgess *et al.*, 1988) and young people (Bell *et al.*, 2003). Thus, the spaces can be regarded both as too intensively kept and the opposite.

Another important aspect is that various types of maintenance inputs, *e.g.* mowing, cleaning *etc.* are performed in green spaces. Thereby, people may be referring to the result of different inputs when saying they experience them as being too intensively maintained or the opposite. In green space research that concern users' experience of the quality, the woody vegetation and its character has received most attention. However, green spaces comprise many other elements such as lawns, flower beds, playgrounds, paths and different types of hard surfaces. The outcome of all types of maintenance inputs needs to be considered and they may not be equally important to users. It might for example be easier to accept less intensive upkeep of vegetation, or a 'wild' character of greenery, than apparent litter. It is here distinguished between three main types of maintenance inputs in green spaces. They were explored in relation to residents' and housing staff's views of well-kept green space (Paper I):

- Cleaning
- Maintenance or replacement of broken and worn equipment
- Upkeep of vegetation

These types of inputs are commonly referred to, but this particular distinction is my own and is not found in the literature. The distinction describes types of inputs that were explored (and found to be central) in this study. It was arrived at from an overall analysis of relevant inputs in this type of spaces, inputs appearing in earlier empirical reports and spoken of in the studied cases. It does not comprise all possible inputs. Maintenance of hard surfaces and snow shovelling are two examples of inputs not included. The three main inputs counteract the effects of different kinds of processes. The first two types (cleaning and maintenance or replacement of broken and worn equipment) counteract the negative effects of the users on the environment, *i.e.* littering, tear and wear (when heavy often termed vandalism), together with weather and ageing. The third type of input deals with the growth of vegetation through *e.g.* weeding, mowing and pruning. All these inputs may be performed in different ways. The upkeep of vegetation may for example be more about developing the vegetation or controlling it.

The purpose of the three main maintenance inputs is not only to counteract these processes but to do so in order to *achieve* something. This dis-

tion and knowledge about different expectations on this achievement are keys for understanding maintenance in general and what it is about. It is not certain that providers and users look upon these inputs similarly. For example, from a provider perspective the maintenance of equipment and cleaning are quite different. While cleaning is performed on a daily basis, maintenance of equipment is about more periodical or planned work. However, from a user perspective they have similar characteristics as they mainly counteract the effects of users. It is clear that these two inputs cause a lot of frustration for users in parks when not performed to the expected quality. Gobster (2002) found for example that park users regarded litter and vandalism as two of the most disliked park attributes, regardless of cultural background (it was a cross-cultural study). It is also important to note that the maintenance of some physical elements and places in the green spaces may be more important than others. It has for example been repeatedly pointed out that playgrounds experienced as being in a poor state are negative for people's experience of public green spaces (Burgess *et al.*, 1988; Jansson, 2009). Jansson (2009) found that the state of public playgrounds was the main cause of frustration among users, particularly among children. Maintenance is clearly important to users of green spaces but it is uncertain what benefits the green spaces do not provide when not maintained well.

All studies mentioned in this section are about how users experience maintenance of public green spaces. The experience of residential green spaces has several qualitative differences, as explored below. These qualitative differences may also affect what parts of maintenance people find important, *why* poor technical quality is experienced as negative and what benefits the green spaces might not provide as a result of 'wrong' maintenance. In relation to residential green spaces, this needs to be regarded from the perspectives of the residents and the providers.

### The residents' perspective

The residents are intended to benefit from the green spaces and maintenance provision. For them the residential green spaces are not just any green space but are close to their dwelling and a part of their homes. The green spaces and how they are maintained becomes a part of their overall experience and image of their neighbourhood. It may vary what people expect from their home environment and from the maintenance of green spaces. For some it may be more important what impression the yards leave for visitors, while for others the functionality of equipment is more central. The

state of playgrounds has for example been shown to be a concern for various user-groups, *e.g.* young people, in relation to residential green spaces (Lieberg, 1992; Berglund, 2004), just as in public green spaces. For still others it may be important that they feel cared for by the management organisation, through *e.g.* daily contacts and visible efforts.

Even if expectations can vary, research suggests that people expect more from the technical quality of residential green spaces compared with other green spaces. It is frequently pointed out how important it is that green spaces are in a good, tidy and neat state close to home (Berglund & Jergeby, 1989; Jorgensen *et al.*, 2007). Berglund & Jergeby (1989) pointed out in their study in Swedish multi-family housing areas that the elderly were more concerned with how the green spaces were maintained near their homes.

The upkeep of vegetation seems to be included in the specific expectations of residential green space. Kaplan (2001) and Jorgensen *et al.* (2007) found that residents enjoy the greenery in their home environments but they expect vegetation to be neat and well-groomed. In the Jorgensen *et al.* (2007) study, residents were more concerned that the vegetation was well-groomed in green spaces and plantings which were closer to their homes than those further away. In plantings close to the home the residents even pruned the shrubs themselves to experience such a state. That study was performed in quite distinctive housing areas with extensive nature-like plantings (in 'the ecological woodland style' in the authors' term) in a new town in the UK. In such a setting, the gap between expectations on neatness and state of vegetation is probably wider than in housing areas without such extensive plantings. In the context of Swedish rental multi-family housing areas, Kristensson (2003) found that opinions varied among residents on how intensively vegetation should be kept. In line with Jorgensen *et al.* (2007) and Kaplan (2001), she found that the nature-like designs of some yards did not go in line with some residents' preference for a garden-like and tidy character.

The studies thus suggest that people have certain high expectations on the technical quality of residential green space. The following section deals with why this is the case and what it is that makes residential green spaces special from the residents' point of view.

### Residential green space

There are many ways to characterise the residential green spaces in question, the shared open spaces with greenery in multi-family housing areas, from a user perspective. They have similarities to both private gardens and public green spaces but have, at the same time, characteristics that separate them



from both of them, as discussed below. Four main characteristics that distinguish residential green spaces are introduced.

(1) The spaces are *experienced on a daily basis* by residents. They can not be fully avoided. This is similar to private gardens but in contrast to many parks and other public spaces. This means that if they are not positively experienced, residents still need to pass by them and experience them on a daily basis, if they do not decide to move.

(2) Residential green spaces are *part of people's homes*, a place to which most of us develop a strong relationship with time. Sometimes it is argued that the home has lost some of its central meaning, due to many living mobile lives today (Werne, 1987; Gustafson, 2002). However, several researchers have noted and even been surprised by how strongly linked people are to the dwelling and its closest surroundings (Wikström, 1994; Marcus, 1995; Olsson, 1997). Olsson *et al.* (1997) reported that the majority (80%) of the interviewees in a study of Swedish multi-family housing areas stated that the local environment of the dwelling meant a lot to them.

The strength and nature of relationship that people create to their homes can differ between individuals, life phases and cultures, and can be filled with positive and negative meanings (Manzo, 2003). However, researchers have been able to identify some common aspects in the experience of the home. One such aspect is to feel a sense of control. The ability to control one's own home area is one of the most valued features of the home, according to Wikström (1994). He found as a consequence in his study of Swedish rental multi-family housing areas that many residents reacted very strongly and negatively to renewal projects. The home is often also regarded as having a role in how people shape their identities (Dovey, 1985). In the marking of one's identity, the private garden is often regarded as having a central part (Nassauer, 1995; Chevalier, 1998; Saito, 2007). It is uncertain whether residential green spaces are surrounded by the same expectations on control or are connected to people's identities in the same way as private gardens. The fact that people seem to be more concerned with the technical quality of green spaces close to home, as is suggested in previous research, implies such a connection. The relationship to the home is important to bear in mind when understanding residents' benefits of maintenance of residential green spaces.

(3) Residential spaces are *shared by the residents and often maintained by a third party*. This is similar to parks and other public spaces. It can be both positive and negative. As Kristensson (2003) notes, the fact that the spaces are shared gives opportunities for contacts with other people. However, it provides little possibility for control (Kristensson, 2003). The expectations

may vary on how they should look like and be used. The expectations may also vary on how they should be maintained. The fact that someone else tends the spaces gives even less possibility for control. This is in contrast to when people have private gardens, then they have full control over how they are used and maintained. They are alone responsible for the state and maintenance. Just as residential green spaces, private gardens are surrounded by different expectations (from neighbours, visitors, *etc.*) on accepted use and intensity of maintenance. Neglected gardens can be a source of conflicts between neighbours as they contribute to the overall image of a neighbourhood, as Chevalier (1998) concludes from her study of home owners in the UK. Still, the private garden is within one's own control. That control may not be fulfilled in the same way when living by residential green spaces. In contrast, parks and other public spaces may not be surrounded by the same expectations on control, since they are not necessarily associated with people's homes.

(4) The fact that *the organisation that keeps these spaces is the residents' landlord*, owning and maintaining their dwelling, is also important to note. The relationship to the landlord can be expected to be more central to most people than to *e.g.* public park departments. The centrality of this relationship together with residents' daily experience of the spaces suggests that it is not only the technical quality of maintenance they experience or care about. The residents may also experience and care about the work of the staff maintaining the spaces. If there is some continuity in how the work in residential green spaces is performed and by whom, this might become well-known with time. All this means that other aspects of maintenance than the technical quality such as the organisational structure, how the staff works and the relation to them can be important to residents. Therefore such aspects need to be considered too. Several studies show that users of public green spaces find it important that staff are visible and apparent in that case in relation to their experience of safety (Burgess *et al.*, 1988; Dunnett *et al.*, 2002), but this need to be studied in relation to residential green spaces too.

To sum up, residential green spaces in rental multi-family housing are experienced on a daily basis, close to the home, shared by people and maintained by a third party that is also their landlord. These characteristics contribute to an understanding of why the maintenance and its technical quality are important. These characteristics together distinguish the spaces from both public parks and private gardens, as is illustrated in Figure 3.

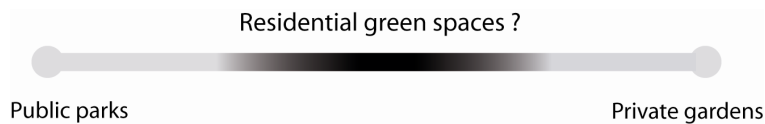


Figure 3. Residential green space relates both to the public parks by being shared spaces maintained by a third part and to the private garden, by being close to the home. Still, this kind of space is qualitatively different to both parks and gardens from a user point of view.

The fact that residential green spaces are qualitatively different from public parks and private gardens means for example that results from research on other types of green spaces may not be directly transferable to these spaces.

#### Residents' roles in relation to upkeep

'Residents' is a diverse group and the role they have in relation to upkeep sets some conditions on their relationships to the space, the housing staff and other residents. As already mentioned, the maintenance is generally carried out by professional staff in rental housing in Sweden and residents are not expected to contribute. They can therefore be regarded as *passive* in relation to upkeep. There are also examples, however, when residents are expected to contribute to the maintenance of the green spaces, when there are self-management systems. Self-management refers here to an organised resident involvement in performance of maintenance tasks based on written agreements between housing company and tenants. This is in line with how others have referred to the term (see Delshammar, 2005 and Castell, 2010). In accordance with Castell (2010), self-management here refers to when residents take over a significant part of the tasks. Castell refer to the tasks as 'management' tasks, however, since self-management may include *e.g.* planning, redesigning, *etc.* It is true that residents may take over some management of maintenance in this kind of system, but it is mainly maintenance tasks that they get responsible for. The rental housing company still has a central management role and professional staff can still be expected to take more strategic decisions and perform some tasks, such as tree-felling. In small cooperatively owned multi-family housing areas, however, the residents may have a clearer management role. In the latter case residents may take all management decisions and perform all maintenance of the green spaces.

In a self-management system the residents can choose to take on an *active* role in relation to the maintenance and perform tasks or choose to be *non-active* and not perform any tasks. The active residents thus get a dual role that is both about living in the housing area and maintaining it, as is illustrated in

Figure 4. They obtain increased power to influence maintenance to better reflect their expectations.

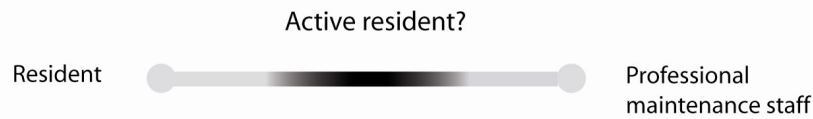


Figure 4. The dual role that active residents have in self-management systems mean they have things in common with both other residents and professional maintenance staff.

The active residents have a similar influence over, and insight into, how maintenance is performed as professional staff usually have. However, they have a different perspective on the spaces, the context and the maintenance as they are also residents.

The non-active residents in a self-management system contribute with an important perspective, but are more difficult to place on the scale above. It is uncertain how they relate to the fact that neighbours, instead of professional staff, maintain the spaces. In early Swedish reports from housing areas with self-management, this system has been found to lead to better technical quality and decreasing littering and vandalism (Alfredsson and Cars, 1996; Berglund *et al.*, 1995). In these reports the effects from self-managements are mainly regarded in positive terms and from the researchers' and the voluntary residents' perspectives, not the non-active residents'. The latter group may have another perspective. For example, the changed norms for acceptable behaviours that *e.g.* Alfredsson and Cars (1996) meant contributed to decreasing littering and vandalism may not mirror all users' interests. Such norms can also lead to exclusion of some user groups. This is pointed out by *e.g.* Castell (2010), who also reported a similar effect of changing norms from self-management. It is often a small group of residents that chooses to be active. Berglund *et al.* (1995) noted for example that many were non-active in relation to upkeep in the housing areas they studied. Several researchers have pointed out that all users of green spaces may not benefit when some being actively involved (Westphal, 2003; Delshammar, 2005; Castell, 2010). However, how the views of residents with different roles relate to each other needs more investigation.

In this thesis residents with all three different roles in relation to upkeep are included: those not expected to provide upkeep, the *passive*, and those who are *active* and *non-active* in providing upkeep in a self-management system. The interest here is in benefits that are available to all residents and if

and how their experience may vary along with their role in relation to upkeep. The interest is thus not in such benefits that only residents who are active in relation to upkeep access. Examples of such benefits are the positive outcomes from the maintenance action in itself (e.g. Delshammar, 2005), that they can adapt the yards to their own demands (Castell, 2010) and enhance their social contacts and networks (Berglund *et al.*, 1995; Castell, 2010).

### A provider perspective

The management and maintenance directions are influenced by the different intentions and expectations among the providers. They can have many different expectations on what to achieve. They can focus on resident use and experience, economic efficiency, technical quality or a better working environment for maintenance staff, *etc.* The providers can also be interested in conducting the maintenance of green spaces as cheaply as possible, in order to prioritise other activities that are part of their responsibilities.

There is hardly any research available about green space maintenance provision and the intentions in mind among providers in housing companies. This means that this subject is to a large extent unknown. In the following chapter, some central factors that can influence the intentions and provision of green space management in the Swedish rental housing sector are explored. Because of the lack of knowledge about housing companies' green space maintenance provision and intentions, research on this topic in relation to public park management organisations is used.

### Housing companies as green space management providers

To begin with, general tendencies in the housing sector can influence the direction of provision, in particular decisions taken on the strategic level. One tendency in the housing sector is the business-like orientation. In relation to this tendency it is important to distinguish between the private and municipal housing companies, the Swedish public non-profit housing organisations in municipal control. A business-like orientation should be expected from private companies. However, lately an increased business-like orientation has been described in relation to municipal housing companies too (Boverket, 2008; Turner and Whitehead, 2002). This is in similarity to public and social housing organisations generally in Northern Europe (Priemus *et al.*, 1999). The business-like orientation suggests that housing com-

panies and staff may consider residents' benefits as long as it is economically beneficial for the company.

Another tendency is the move from a property and technical orientation to a customer-orientation. It is described in relation to the municipal housing sector in Sweden (Blomé, 2006; Boverket, 2008) and social housing internationally (Clapham *et al.*, 2000). SABO (the Swedish association of municipal housing companies) had an important role in initiating this change of orientation in the Swedish housing sector in the 1980s, according to Johansson (1998). This tendency implies that the residents are the primary management focus and not the buildings and green spaces. It suggests that services are to be customised to their expectations and demands. This tendency suggests a different direction of management than found by Bengtsson (2010) in relation to public park management organisations. She found four different 'management styles': the aesthetic, economic, ecological and social. In her study of three such organisations, staff (operational and officials) talked rather little about the social 'management style', in which the users' use and experience was in the centre. Still another tendency in the rental housing sector, at least in the municipal sector (Blomé, 2006), is the decentralisation of decision-making. It suggests that staff on the operational level have a large influence over maintenance provision.

Clearly, general tendencies affect the main direction of housing services, but it is unknown how they influence the green space management. Another possible alternative is that local traditions and routines influence the housing companies to do as they usually do. To better understand green space management this activity needs also to be understood as a part of the activities in these specific organisations. Green space management (and maintenance) is only one of many different activities in housing organisations, in contrast to public park management organisations. Therefore, it becomes affected by strategic decisions about how to prioritise, organise and practise these other activities.

Franklin (1998) describes housing management (in relation to public housing) as including technical and administrative property management and many other functions. Other functions she takes up are intervention in the event of nuisances or neighbourhood disputes, community development, care and support. Priemus *et al.* (1999) instead divide (social) housing management into technical, social, financial and tenure management. In both these housing management models, maintenance (in general) is one part of the technical category of housing management activities. Maintenance has been described as belonging to the same category in studies of Swedish housing companies (Blomé, 2006). The technical placement of maintenance

can have a substantial effect on how maintenance is performed and what it is to achieve in relation to the residents. For example, grass could be mown to precise technical descriptions and be 'well-kept' according to these standards. Still, it is not certain that these standards would meet the residents' expectations on 'well-kept', which would be a social goal of the activity. The technical placement of maintenance activities suggests a technical focus in the provision.

The implementation of the management intentions, whether they be social or technical, needs to be supported in the organisations. The tactical level has been regarded as crucial for green space management in relation to public park management organisations (Jansson, 2009; Randrup and Persson, 2009). Randrup and Persson (2009) regard the tactical level as crucial for several reasons. It is where information received on an operational level can be analysed and used to inform a strategic direction of management. It is the level where strategies are turned into plans, such as green space inventories, for public green spaces (Randrup and Persson, 2009). These plans often comprise both social and technical goals. It is also on this level that cross-sectoral exchanges are, or should be, performed with other public departments, dealing with health, recreation and culture, according to Randrup and Persson (2009). A lack of a tactical level means a lack of a formal place for concretising strategies, analysing information and collaborating on the expectations on technical and social achievements. In Nordic municipal park departments, Randrup and Persson (2009) found a strong focus on technical operations and limited focus on long-term planning and overview at the tactical and policy level. They pleaded for more strategic thinking within these organisations. Jansson (2009) draws the same conclusion in relation to provision of public outdoor playgrounds by Swedish public park organisations. It is uncertain whether we are confronted with the same problems when it comes to maintenance of green spaces performed by housing organisations, but one could suspect that this is the case. There is usually a tactical level in larger housing companies (in terms of middle managers, in Swedish called '*fastighetschefer*' and '*förvaltare*'). However, the tactical level seldom specifically deals with green space management, but with many different activities. In the housing companies studied here it was not possible to identify a tactical level for green space management. It was very much up to those who perform the tasks to decide the direction of provision. This is in line with a study of the management of green spaces in a number of municipal housing companies. That study was carried out as part of a guide to maintenance of residential green spaces produced by Persson *et al.* (2009). It

pointed in fact to a non-existent or a very underdeveloped tactical level for green space management.

In relation to housing organisations, it is repeatedly suggested that field staff have an important role in deciding the maintenance direction (Franklin, 1998; Johansson, 1998; Blomé, 2006). The increasing customer orientation in the housing sector described above is often connected to having locally-based field staff and/or high decision-making power on the operational level (Johansson, 1998; Blomé, 2006). The shift to more decentralised decision-making systems suggests that the operational staff have an increasingly important role in the maintenance direction in Sweden. All this shows the relevance of studying their views of what is important to prioritise and how to relate to residents. Franklin (1998) claims that the views of *e.g.* how to interpret new management directions often vary between individuals in field staff, as well as between them and at more strategic levels. Franklin (1998) describes these issues mainly in relation to a British context, but similar issues have been noted in relation to Swedish housing companies. Blomé's (2006) study showed that the different ambitions and expertise among individual maintenance staff contributed to widely varying service levels between housing areas. Blomé's study concerned housing services in general, but Johansson (1998) notes the same tendency in relation to green space maintenance in particular. She found that field staff had varying views of what good technical quality was, even within the same organisation. Both Blomé and Johansson studied housing organisations where maintenance staff had extended decision-making power. However, one could suspect similar variations appearing in housing organisations, even when maintenance staff do not have extended decision-making power. Field staff in housing organisations often have quite a free hand in how to perform their work. The findings by Blomé and Johansson show a variation in intentions among housing staff but do not explain what these varying views comprise in more detail.

To sum up, Swedish housing companies' management intentions and maintenance provision regarding green spaces have not been specifically studied. Several influential factors that can add to the understanding of these issues can be noted, however. Such factors are general tendencies in the housing sector, the fact that green space maintenance is only one of many activities (often seemingly regarded as technical), the possible lack of tactical level and the influential role of maintenance staff. In the discussion these factors will be related to the empirical findings. This is to better understand housing companies' intentions and provision of green space maintenance and the question of how to provide better maintenance to residents.



### 3 Research design, process and methods

The choice of methodological approach was guided by the fact that the management phase has seldom been the focus in research within landscape architecture (see p. 15). Thus, the subject of interest can be regarded as quite new, and for mapping out a new subject an explorative approach can be useful (*e.g.* Kvale, 1997). With such an approach the research interest and design is allowed to develop to some extent during the process. It can be contrasted to an approach that is more structured and rigidly planned from the beginning. Sometimes explorative approaches are associated with claims of coming to the field without any conceptual orientation. Such claims are usually contradicted (see for example Silverman, 2005) and are not regarded as part of the explorative approach of this study. The conceptual orientation has been continuously developed, but it has always existed.

As qualitative approaches are useful for exploration (Patton, 1990; Scheff and Starrin, 1996), a *mainly* qualitative approach was chosen. The question about whether an approach is qualitative or quantitative is a matter of emphasis, not either/or, as for example Stake (1995) points out. The main interest here was to describe and get an understanding of residents' and housing staff's perspectives; their experiences, thoughts and expectations related to maintenance of green spaces. Such knowledge may be claimed to be provided with a quantitative approach too (see *e.g.* Silverman, 2005). However, such an approach is more structured and less open to informants' initiatives. The interest here was in how residents and housing staff themselves described their experiences.

Interviews can provide information about how individuals experience a phenomenon (Kvale, 1997). Therefore, different types of interviews with residents and housing staff were the main method to collect data. None of the interviews was completely structured, so they provided openness for

exploration and an opportunity to get to know what individuals have to say about something ‘in their own words’ (Patton, (1990, p. 287).

The intention was to access contextual knowledge on how people experience the maintenance in everyday life and how different individuals experience the same spaces and maintenance. Therefore, the majority of the empirical material was taken from interviews performed within a case study. By conducting a case study comprising three housing areas it was possible to access and compare individuals’ experience in relation to different residential green spaces and types of maintenance.

A telephone survey of housing companies was also conducted to obtain an overview about the green space maintenance provision and the views of housing staff in the Swedish housing sector. It complemented the in-depth information provided by the few housing staff in the case study. The survey concerned how they chose to organise green space maintenance and their arguments for that choice.

### Overview of empirical studies and papers

In sum, two empirical studies were carried out, a case study of three rental multi-family housing areas and a telephone survey of a number of municipal housing companies. In the case study three different types of interviews were conducted to collect data (for partly different purposes, see p. 40-45). Interviews indoors (II) and individual walking interviews (IWI) were made with residents and housing staff. Maintenance staff were also followed on a day of work (FDW). Table 1 provides an overview of the empirical studies, methods to collect data and the papers in which the empirical material is presented.

*Table 1.* The methods by which the empirical material in the papers were collected

	Paper I	Paper II	Paper III	Paper IV
Case study	X	X	X	
<i>Individual walking interviews</i>	X	X	X	
<i>Interviews indoors*</i>		X	X	
<i>Follow a Day of Work</i>	X	X	X	
<i>Telephone survey</i>				X

As Table 1 illustrates, the different interviews performed within the case study produced the majority of the empirical material presented (Papers I-

III). The telephone survey was the basis for Paper IV, together with a similar survey made by the co-writer Pål Castell.

The numbering of papers needs some explanation. The papers based on the case study (I-III) are listed ahead of the paper based on the telephone survey (IV). This is because they include the main perspective of interest, the residents. Paper IV was finished first and the papers based on the case study are numbered according to the chronological order in which they were written.

## Research process

As part of the explorative approach, the questions in focus and the research design were allowed to develop to some extent throughout the research process.

To begin with, the main research question was differently formulated. Instead of having ‘benefits’ as a central term for the main interest, the Swedish word ‘*trivsel*’ was used. ‘*Trivsel*’ is not easily translated to English but it has a positive connotation and it is similar to ‘liking’. It was chosen as it is a very common word in Swedish, particularly when it comes to people’s relations to dwellings. The question posed was what significance the maintenance of green spaces could have for the residents’ ‘*trivsel*’. The term was used in interviews with residents to reflect on what was significant for them (as a sensitising concept, see p. 41). However, it was difficult to understand what people meant when talking about their ‘*trivsel*’ from these interviews. This may have been partly due to the focus of the interviews. A great deal of effort was put into following up what informants regarded as important for their ‘*trivsel*’, probably at the cost of what they meant by the term. The difficulty in understanding the concept in interviews may partly be due to the many meanings which ‘*trivsel*’ can have. For example, Wikström (1994) identified several ways in which residents can use the term in relation to their dwelling. He found that residents sometimes referred to it as a personal positive, emotional experience, used synonymously to sense of home. It can also be noted that ‘*trivsel*’ is frequently used for expressing more general enjoyment and is not always related to the home. According to Wikström another use of the term ‘*trivsel*’ is for expressing a positive personal evaluation of one’s situation, in which case it is used similarly to ‘satisfaction’.

The difficulty with conceptualising and translating ‘*trivsel*’ led to a reformulation of the main research question and ‘benefit’ was chosen instead to capture the main interest. Use of ‘benefit’ has its problematic sides too. It can for example refer to many different types of positive outcomes in re-

search. Still, the term was chosen, firstly as it has important positive connotations and secondly as it is commonly referred to in research to describe the interest in how green space may contribute positively to users' quality of life. The term is particularly central within the urban landscape management field, where it is applied to interest in the users' perspective.

When it comes to research design, the case study was not at first intended to be the main study. An early thought in the research group (see preface) was that results from this case study and another one<sup>12</sup> would be used to develop indicators of possible positive effects of 'good' management to measure in a broad study. That study would have included surveys of housing companies and residents in Sweden. One central idea was to find economic arguments, such as decreased turnover or less vandalism, for performing 'good' management of green spaces. However, that idea was abandoned and the group decided to stay with the case study approach. As the first few interviews in this case study revealed interesting themes to continue with, the cases were explored further with different types of interviews.

The initially stronger interest in the organisational structure is mirrored in the research design and the two empirical studies. The interest contributed to housing areas which were different in that respect and similar in many other ways being chosen for the case study. On becoming more acquainted with the many different ways in which a case study can contribute knowledge, I found it more fruitful to keep a more open eye to aspects that were important for the people in the context studied.

As part of the search for cases, quite a few of the municipal housing companies in the region of Skåne were telephoned. They were asked how they organised the maintenance of green spaces and about their motives for that choice. This initial telephone 'survey' was later developed further (for details see p. 47) (Paper IV).

An initial reading of the interviews indoors showed that interviewees talked about 'well-kept' green space and the opposite and it seemed to be in different respects. They seemed for example to appreciate different kinds of upkeep of vegetation. However, the interviews indoors did not provide enough detailed information what people meant by 'well-kept'. To get a more detailed understanding of this issue, individual walking interviews were conducted on the yards (Paper I). The interviews indoors did neither provide satisfying and detailed material about how the maintenance staff described and thought about their work. Since they had a large influence on the maintenance in these housing areas and consequently knew a lot about

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<sup>12</sup> Performed by Pål Castell

it, their perspective was important. They were therefore followed on a day of work.

During the process, two other benefits apart from 'well-kept' were also identified. Justice first emerged to be related to the distribution of maintenance of green space while following a day of work with maintenance staff. It showed that they had justice as a principle for how they distribute their time, efforts and other resources, but their conception of that principle varied. Justice was found as a theme in interviews with other housing staff and residents too (Paper III). Safety stood out as a central theme in an early analysis of a large part of the empirical material. It emerged in interviews with residents, partly on my initiative, and among housing staff, all on their initiative. As safety was closely connected to elements that maintenance may affect, safety was further explored (Paper II).

### **Case study of three housing areas**

The case study of three multi-family rental housing areas was conducted to access individuals' experience in relation to the local environment and the context they live in or manage. The housing areas studied are situated on the outskirts of towns in three different municipalities in southern Sweden. The housing areas are referred to as case A, B and C and aerial photographs of them are shown in Figure 5.



*Figure 5.* Aerial photographs of the housing areas in the case study (case A is top left, case B is top right and case C below).

The study was mainly concentrated to two yards within each of the three housing areas. The individual walking interviews mainly concerned these two yards and most respondents lived by them. The concentration to two yards enabled a comparison of how different people experienced the same physical and social contexts. The yards are named A1 and A2 in case A, B1 and B2 in case B and C1 and C2 in case C (for aerial photographs of the yards see Figures 7-9).

### Selection of housing areas

The housing areas were selected for being similar in several respects, in order to allow comparisons, but different in how the green space maintenance was organised. In both case A and B, the maintenance of green spaces was professionally carried out by in-house staff. In case A local caretakers performed green space maintenance as one of many duties. In case B a circulating team of maintenance staff carried out the task in all housing areas owned by the housing company. The team specialised in green space maintenance. In case C voluntary residents performed the maintenance in a self-management system.

The housing areas chosen were built between 1969-1974. They are thus from one of the most intensive construction periods for multi-family housing areas in Sweden, 'the million programme'<sup>13</sup>-era, which started in the early 1960s and ended in the mid-1970s. When housing areas from that period were visited it was quite easy to find similar physical characteristics. Such a similarity was thought to provide quite similar conditions for the experience and maintenance of green spaces. The housing areas chosen are situated in small and medium-sized municipalities (20,000 to 40,000 inhabitants). This context has received far less attention in housing and green space research than multi-family housing areas in large cities. The housing areas are owned by municipal housing companies. The intention was not to complicate the study further by including both municipal and private housing companies. Municipal housing companies were chosen as they own many of the rental housing areas from that period<sup>14</sup>.

Initial interviews with residents and housing staff in the three housing areas showed interesting themes to study further. Therefore it was regarded as

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<sup>13</sup> In Swedish: 'millionprogrammet'. It was a political project aimed at building one million apartments in ten years.

<sup>14</sup> According to an estimate by SCB concerning 2002, the municipal housing companies own about 230 000 dwellings in housing areas built between 1961-70 while private companies own about 150 000 dwellings from that period.

being more efficient to continue to study these areas instead of widening the study to new ones. According to prior experiences it was a time-consuming task to find housing areas to study and to establish contacts and relations with new respondents. The studied housing areas are further described on p. 52.

#### Methods for data collection within the case study

Interviews were the main method for data collection within the case study since they can be used to access information about people's experience. The three different types of interviews, interviews indoors, individual walking interviews and follow a day of work with maintenance staff, were all semi-structured. Thus, the interviews were planned to comprise certain themes and questions compiled into an interview-guide. Still, there was openness for following up the interviewees' responses and initiatives in the interview-situation, all according to Kvale's (1997) description of a semi-structured interview. The openness was intended to enable the informants to express their experience in their own words. In the beginning of the interviews I always pointed out that I was doing a research project, that I did not represent the company. I also stressed that the information given to me was treated with confidentiality. This was to allow critical opinions in the interview situations from residents and housing staff.

The interviews were conducted between 2004 and 2006. The interviews indoors and the individual walking interviews were recorded and transcribed. They were transcribed primarily word by word, except for a few parts in some interviews when the talk clearly did not concern the subject of the interviews. In these few parts key words were noted down in the transcripts. When maintenance staff were followed on a day of work, the individual walking interviews and other parts of the continuous interviews during these days were recorded and transcribed. Notes were also taken during and after these days. How the different interviews were planned and carried out and what kind of information they aimed to provide are further described below.



### *Interviews indoors*

The interviews indoors were made to begin the exploration of residents' and housing staff's general experience, knowledge and views of the housing area, its green spaces and the maintenance. The interview-guide provided themes to cover in the interviews and possible questions to begin with in each theme. The interviews lasted for 45 min up to 1.5 hour.

The interview-guides and interviews with residents and housing staff were different. The interviews with residents were planned to comprise their views on living in the housing area, their experience and use of the yards and their opinions on the maintenance of green space. Their opinions on the technical quality of maintenance, the work of maintenance staff and their own influence over it were all explored (see Appendix). The interviews often began with general questions about the experience of the housing area and then narrowed down to the green space maintenance and their experience of it. This was to get as much data as possible in their own words. In interviews both with residents and housing staff, the common Swedish term '*trivsel*' (see p.35) or 'liking' was used as a sensitising concept. It was employed to organise information and to separate what was of importance, just as Patton (1990) describes the function of sensitising concepts in qualitative research.

People's experience of safety is often found to influence their use and experience of green spaces (Burgess *et al.*, 1988; Dunnett *et al.*, 2002). Therefore the residents were asked about their experiences of safety in the housing area, if they did not bring it up themselves. In case C the residents were asked about the self-management system and what they knew and thought about it. The interviews with housing staff were partly structured to get information about the green space maintenance provided and their roles in relation to it and partly to concern their views on what they thought green space maintenance was and should be providing in relation to residents.

### *Individual walking interviews*

Residents and housing staff were also interviewed while being taken on walks through the green spaces in the housing areas. These individual walking interviews were made to provide more detailed information than interviews indoors about what was meant by 'well-kept' green space. The intention was that the experience of the spaces during the interviews would contribute new reflections, detailed opinions and a more thorough understanding of 'well-kept' green space than interviews indoors. Kusenbach (2003, p.

462) gives words to the advantage with field interviews in the everyday environment by saying that they access 'context-sensitive reactions'. Such reactions cannot be accessed by *e.g.* more traditional interviews indoors with photographs as triggers (Kusenbach, 2003).

Since the purpose of these interviews was quite narrow compared with the interview indoors, the questions in the interview-guide were carefully followed in each interview. The walks lasted between 30 min and one hour. The individual walking interviews can be described as more structured than Kusenbach's (2003) 'go-along-method' but less structured than the 'walk through evaluation' method (in Swedish: *gåtur*) described by de Laval (1997). Kusenbach's 'go-along-method' is an individual type of interview in which people are interviewed while followed in their usual pattern in the everyday environment. De Laval's (1997) 'walk through evaluation' is instead a structured, previously planned, walk with predetermined stops in a housing area. It is performed with a group of residents, housing staff and planners. A group discussion indoors follows the walk. The walking interviews were held individually to get the variation in opinions, since residents might have been reluctant to express critical views if neighbours who were actively involved in maintenance or housing staff had been present. Nordström (2002, p. 28), who carried out walk through evaluations with both individual residents and in groups, points out that when made in groups, the social relations between the respondents have an obvious affect on the information they provide.

The individual walking interviews were semi-structured both in how the interviews and walks were brought out. All walks comprised the two yards in focus but on some walks other yards were visited too, on the initiative on the informant. There was no planned order in which all walks were taken but with residents the walk often began with the yard by which they lived. Since the playgrounds and different plantings raised a lot of opinions in the interviews indoors, the interviewees were asked what they thought about these kinds of elements and if they thought they were well-kept. This was to allow openness for interviewees' initiatives of how to take the route. The interviewees were encouraged to talk about whatever crossed their minds when experiencing the spaces.

The interviewees were asked both about how they experienced *the physical state* of the yards and if they experienced the yards as *well-kept* or not (both on the occasion of interview and on other occasions) and about their reasons for their opinions. In the interviews indoors several residents had pointed out that yards were kept well, even if they regarded the physical

state leaving much to be desired. The purpose was to explore the difference between these terms further.

In the beginning of the walks the interviewees were also asked about their ideals of well-kept green space. However, that question did not provide as fruitful answers as when interviewees reasoned about the actual maintenance of the studied spaces.

#### *Photographs as a support to interviews*

The verbal descriptions of 'well-kept' given by residents and housing staff in the individual walking interviews referred to physical details and yards that were experienced during the walks. To support the verbal descriptions of 'well-kept', photographs were taken during the interviews (see examples in Figure 6). They were used in the analysis and later presentation of the results (Papers I and II). The intention was not to take nice and well-arranged photographs, but simply to describe elements that were commented.



Figure 6. Examples of photographs taken during individual walking interviews.

Some examples of photographs that were a fruitful support to the analysis of the interviews are shown in Figure 6. The photograph of a litter-bin (top-left) was taken when interviewing the team leader in case B. He believed these kinds of open litter-bins should be replaced as they did not function well, litter easily blew away or was spread by birds. This was one example of how housing staff often regarded shortcomings of management (no replacement of bins) as a main reason why yards did not look their best. The photograph showing paper on the ground was also taken in case B (top-right), but during an interview with a resident. The resident's comment was that this kind of litter, man-made litter, was worse than nature litter, such as branches, leaves, *etc.* This comment showed that there are important distinctions between different kinds of litter. The photograph of a rose bed (bottom-left) was taken in case C during an interview with one active resident in

the self-management. This resident felt that it looked good to have open soil between plants. This was one example of how residents' views sometimes differed from those of housing staff (and from general views in the green space sector). The weeds in the gravel below a lamp post (below-right) in case A was only commented on by the middle manager. Such details were more commonly commented on by housing staff than residents.

#### *Follow a day of work*

Professional maintenance staff in case A and B had wide knowledge and influence over the maintenance provided. Still, the interviews indoors did not result in detailed and critical opinions from them on their work, their relationship to the housing organisation and to the residents. Therefore they were also followed on a day of work, one day per housing area. The intention was to provide a relaxed interview atmosphere with many opportunities to talk about these aspects. During work they were informally interviewed and observed. The interviews were made to access information on their experiences and thoughts about their work, and possible improvements of it. They were also made to get more information on what they thought was important in their work in relation to the residents. The informal observations during these days were made to provide some insights, albeit limited, into how staff distributed their time and efforts (see Paper III). The use of this method was inspired by the 'observing shadow' method as described by Johansson (1998). She found it useful for a very similar interest, for studying the views and practices of maintenance staff in housing companies. Her study was much more in-depth, however, as she followed each group of staff for several days up to a month.

The interviews during the FDW were quite open in structure and the interview-guide was loosely followed. This was in order to explore new topics and to keep the talk natural and relaxed during the work. On these days, individual walking interviews were conducted in the same manner as with residents and other housing staff.

#### **Interviewees**

If beginning with the choice of interviewed residents, it included individuals who had different life situations, relations to the dwelling and roles in relation to upkeep. Twenty-seven residents were interviewed and in total 37 resident interviews were conducted. The number of residents interviewed with each type of interview is shown in Table 2. The sample included men

and women, old and young people (but all adults aged 23–76) and parents with children. About one-third of the respondents were male and two-thirds were female. Residents who had lived in the housing areas for many years and newcomers were interviewed. Quite a large proportion of the respondents (about two-thirds) had a large interest in, and knowledge of, the local context of the housing areas and its people. Ten of the 27 interviewees were retired or unemployed. Of the interviewees who had employment, many worked within different types of health care and service occupations and few had white-collar jobs. Most interviewees were non-immigrants, even though this was not the intention and the areas were culturally mixed. In case C, both residents who were active and non-active in relation to upkeep were interviewed.

Table 2. *Number of residents interviewed with the different interview types*

Type of interview	Number of residents
Interviews indoors	21
Individual walking interviews	16
Total	27 (10*)

\* Number of people interviewed with both types of interviews

10 residents were interviewed twice, with both types of interviews. Interviewing the same individuals twice gave an opportunity to follow up statements from previous interviews. The already established contacts with and relation to the interviewees often meant they were open for another interview. However, some previous interviewees could not be interviewed again. For example, some had moved. Some new residents were also recruited for the individual walking interviews, to widen the sample some (by for example including more parents with children).

Several strategies were used to recruit residents for interviews. Some were contacted by telephone. Telephone lists were obtained from the housing companies. Others were approached when being outside in the green area, or through knocking at doors. Still others were recruited through the snowball method where interviewees were asked about other people they knew who might be positive to being interviewed.

The choice of interviewed housing staff comprised in principle all members of housing staff who were responsible for the management and maintenance of green spaces, either strategically or operationally, in the three housing areas. They were 13 in total and the choice included executives, middle managers and maintenance staff (local caretakers in case A and team leader

and team members in case B). Most were male; only three members of the maintenance staff were female. The executive and middle managers were aged 45–64 and maintenance staff were aged 20–50.

Of the housing staff interviewed, 10 were interviewed indoors and nine on individual walking interviews (including the individual walking interviews with maintenance staff in case A and B when followed on a day of work), see Table 3.

Table 3. *Number of housing staff interviewed with the different interview types*

Type of interview	Number of housing staff
Interviews indoors	10
Individual walking interviews	9
Total	13 (6*)

\* Number of people interviewed with both types of interview

In case B the whole circulating team was followed on a day of work, but the interview was mainly concentrated to the team leader and two of the members in the team. In case A the three local caretakers were followed on a day of work but two of them were more active in the conversation. The executive managers were not taken on individual walking interviews in case B and C. This was because they often referred to middle managers (and the team leader in case B) in interviews indoors for details about the green space maintenance provision. In case A the company had employed a new executive manager after the first interviews indoors. Since he was open for an interview in the housing area studied, he was taken on an individual walking interview.

### Telephone survey of housing companies

The telephone survey of Swedish housing companies concerned, as mentioned, how they chose to organise green space maintenance and their motives for the choice. It comprised all municipal housing companies in Skåne who are members of SABO<sup>15</sup>, which was 30 in total. This region provided a manageable number of housing companies and included companies of varying sizes and in various contexts. The companies included owned and managed between 130 and 20 000 apartments. They were situated in for example the municipality Perstorp, with about 7000 inhabitants, and Malmö, the

<sup>15</sup> the Swedish association of municipal housing companies, an association in which 90 % of the municipal housing companies are members

third largest city in Sweden, with about 300 000 inhabitants. The results from this telephone survey and Pål Castell's similar survey in Gothenburg are presented in Paper IV. Castell's survey comprised the five municipal housing companies in Gothenburg and all private housing companies owning or managing at least 200 apartments. In total, the surveys comprised 62 Swedish housing companies.

The interviewees were housing company representatives who knew about how green space maintenance was organised in the organisations. In the smaller companies it was often the executive managers who were interviewed, while in larger companies it was often a middle manager. They were asked (1) if green space maintenance was performed in-house or by a contractor, (2) whether local caretakers or circulating teams did these tasks and (3) if residents were involved in maintenance in any of their housing areas. Then they were asked why they had organised in a certain way. This question was open and the answers were followed up. In this way the survey was similar to the other interviews. The notes that were taken during interviews were more thoroughly written up afterwards.

### Analysis of data

The analysis of the empirical material was mainly qualitative. Qualitative analysis has been described as being about making sense of large volumes of data, reducing the volume, identifying patterns and constructing a framework that communicates the findings (Patton, 1990, p. 371–372). This description goes well in line with what the analysis was about in this thesis.

The data were analysed continuously, but more intensively at times. From interim analysis new ideas and questions arose, which led to new empirical material being collected. Merriam (1994) describes such a continuity and use of analysis as an important part of a qualitative approach. The analysis was partly conducted in collaboration with co-authors, something which is often referred to as one type of triangulation (*e.g.* Patton, 1990). It is one way in which quality of analysis can be improved, according to Patton (1990). Here it involved a constant control and negotiation of the evolving results.

The analysis began by reading through the material while notes were taken with questions and reflections. The analysis continued with reducing the volume of data and organising it. The empirical material was categorised. This means that the statements in the interviews were coded into different categories depending on the main information of the statements. This is similar to how Kvale (1997) describe categorisation. The procedure was



mainly that the material first was sorted into more general categories, such as 'well-kept', 'safety', 'justice' and 'pride'. Then these categories were more thoroughly analysed in the empirical material, in terms of what detailed sub-categories they contained. Examples of sub-categories in relation to 'well-kept' were: "the staff keep it well but it can be littered" and "due to residents the yards quickly become littered". Other sub-categories were the different conceptions of a just distribution of green space maintenance (see Paper III). The analysis underwent steps of refinement, by comparison of categories and statements. The information from the different individuals, groups and cases was first treated separately. Thereafter cross-case analysis was made, in which content and categories from different cases were compared. The transcripts were returned to on several occasions to perform new or more precise analysis and interpretations and to see whether any statements contradicted emerging patterns. The interpretations made were close to the empirical material but were continuously informed and inspired by the reading of literature.

Different media were tried and used for the analysis. First, a computer programme for interview analysis was tried. However, it did not give a satisfactory overview, which may of course have been due to my restricted knowledge of how to use the programme. Therefore print-outs of the transcripts were cut down and sorted and provided an overview and a feeling for the content which earlier work had not. Later analysis was made in a word-processing programme (Microsoft Word).

Sometimes the statements seemed similar in text even if informants had referred to physical elements that looked quite different. This was particularly obvious in relation to 'well-kept', such as when residents talked about that the shrubs should be slightly more in 'order'. While one resident could refer to a free-growing shrub, another could instead refer to shrubs that already looked heavily pruned to me, but the statements were similar in the transcripts. To mediate their experience I compared the respondents' views of physical elements they regarded as 'well-kept', or the opposite, to my view of it, *e.g.* whether it was littered or not. The photographs supported that part of analysis and were fruitful in that respect. They made it possible to visually compare details that respondents noticed and talked about as well-kept or the opposite. However, it is important to note that the photographs only illustrated some physical details and places at one instant in time. For the interviewees the visual experience at that time was only one part of the experience since they knew the place well (see Paper I).

## Method reflections

During the process the questions posed and the focus of the study developed to some extent. It can be argued that the choice of housing areas and the subject of the telephone survey were too closely linked to the strong initial focus on the organisational structure. Some results of this study indicate that the organisational structure and residents' roles in relation to upkeep are important in some respects. However, since other themes became more central in the interviews they were instead further explored and presented in papers. If new housing areas had been chosen for a case study, other criteria for selection may have been more central. The selection of housing areas that were similar in many ways for the case study was a conscious choice. It facilitated analysis and simplified description of the housing areas for the different papers. Still, since the social context emerged as an important part of residents' experience (see Discussion), it might have been fruitful to study housing areas which were socially different in some respect.

Regarding the methods chosen, the semi-structured interviews gave opportunities for new insights. Interviewees often made it clear when the conversation was too focused on one thing, such as the technical quality of maintenance. They then pointed out other aspects of maintenance and the housing environment they found important, such as the relationship to the staff. The semi-structured interviews made such initiatives from informants possible.

In interviews indoors the use of '*trivsel*' as a sensitising concept accessed information on what residents found important and what housing staff *thought* was important to residents. However, in retrospect, the question posed at the end of individual walking interviews with residents, on whether a 'well-kept' yard had any significance for them was probably more productive. It provided richer answers and one common spontaneous answer was that it was significant for their '*trivsel*'.

The individual walking interviews offered detailed information on what residents and housing staff considered 'well-kept' green space. Interviewees who were more indifferent in interviews indoors also gave thorough and emotional reflections in the individual walking interviews. The fact that these interviews were more fruitful in this respect can not only be explained by the focus on 'well-kept' in contrast to the interviews indoors. The fact that they were carried out in the environment of interest is also important. It accessed concrete examples to talk about. It was clear that they triggered memories of past situations more than interviews indoors did and on several occasions interviewees pointed out that the walks gave rise to new reflections. Kusenbach (2003) points out that interviewing people in their every-

day environment has an advantage in accessing such reflections. At the same time, it was challenging as an interviewer to experience the environment while interviewing about it. Sometimes it seemed obvious what the interviewee meant when standing and looking at a planting they regarded as 'well-kept' or 'in order'. Therefore I missed following up what they referred to as being 'well-kept' on a few occasions.

Following the staff on a day of work provided useful insights into how they thought about their work, how they reasoned about their inputs and distributed their efforts (see Paper III). This method allowed more time for reflection in the conversations, which turned out to be positive for me and the respondents. To take one example, the interview indoors with one member of maintenance staff was very short and did not give that much information. It was hard to get the conversation going. When followed on a day of work this member of staff gave very personal reflections on how to distribute the maintenance inputs as we weeded flowerbeds together. In line with Johansson (1998), I found that this method led to new questions arising that I would not otherwise have asked.

The different interviews were made to reflect people's experience, but how well they do so may depend on several things. It is not possible as a respondent to verbalise all aspects of one's experience. Respondents gave both critical and positive views on maintenance in the interviews, but some may have felt restricted in what they could or could not say. Residents with restricted opportunities to move somewhere else (due to being unemployed *etc.*) may have been reluctant to express some critical opinions of the housing services.

Regarding the choice of interviewees, quite a few were rather involved locally; they had quite a lot of interest and contacts in their housing area. This is quite natural, as people with such an involvement are probably more interested in being interviewed than those not involved in the same way. Some of the emphasis on the locally involved in the material can be explained by the fact that some of these interviewees were recruited through recommendations from others (residents and occasionally from housing staff). Liedholm (1984) showed that residents with local knowledge and interest had the strongest demands and views on the maintenance of green spaces. Therefore Liedholm suggests that when their demands are fulfilled, those of other residents will be too. This may not be the case, as residents with other interests may have other types of wishes and demands. Residents who were not so locally involved were included too, and the results describe their views too. The positive side of including quite a few locally involved

individuals is that they provided a lot of information and often had many opinions and concerns related to the green spaces.

In a qualitative study the role of the researcher is important and needs to be discussed. As Rose (1997) points out, this is a difficult task since the researcher simply does not know about all the ways in which he or she may influence the interview situation. The social position of the researcher versus the interviewee is one example of a characteristic that can affect the interview situation. As I am a young woman I was probably not regarded as an authority person. This may have opened the way for some of the more critical opinions, and for openness in reflections. As an example, respondents would probably not have expanded on reflections that they first said claimed to be a bit “silly” or “weird” if I had been seen as an authority. My social position versus interviewees can also have had an effect on the recruitment of interviewees. Being a woman probably made it easier than for a man to get to interview other women in their homes. I also felt slightly more relaxed with visiting women than men in their homes for interviews indoors. This probably contributed to more female than male residents being interviewed, even if it was not a conscious choice.

Finally, presenting empirical material that has been translated from Swedish to English has its issues. Not all words and expressions in the material were easily translated to English. There is a risk that the tone and meaning of statements changed slightly through translation. For the interpretation to become as ‘true’ as possible to the material, the interpretation was based on the Swedish material. To make sure that the translations were as close in meaning as possible, they were made in cooperation with co-authors and/or checked by others.

## Description of the three housing areas

“..the area is built in a period when the buildings were supposed to look like this. So it [the yard] is classic for its age. They have changed the balconies, *etc.*, they have tried to change the buildings and the environment of the yards too...”

- Resident in case B, male, age 35

The three multi-family housing areas studied are situated on the outskirts of towns in three municipalities in southern Sweden. They were built in a period when many housing areas in Sweden were built according to rational principles and in a ‘modernist urban design’ (Klasander, 2005). Like many housing areas from that time, these housing areas have gone through physical restorations of the buildings and green spaces, just as the resident cited

above pointed out. Still, it is possible to recognise characteristics of the housing areas that may be described as ‘classic’ for their age. The traffic is closed off and there are large parking lots outside and walking and cycling paths within the housing areas. These paths lead to 2-3-storey buildings surrounding a number of yards. The buildings surround the yards in three (case C) or four directions (case A and B) but does not fully enclose them. The yards are primarily for the residents to use, but since they are not fully enclosed they are physically accessible to anyone. In all three housing areas the yards have undergone renewal projects in the 1980s. In all housing areas there are other green spaces surrounding or integrated, apart from the yards. Some of the characteristics of the housing areas are summed up in Table 4.

Table 4. *Characteristics of the three housing areas*

	A	B	C
Housing company size (in approximate number of apartments)	2000	2000	1000
Inhabitants in municipality	40 000	30 000	20 000
Construction year for housing area	1974	1972	1969
Distance to town centre	2 000 m	1000 m	500 m
Apartments in housing area	370	360	450
Floors of buildings	2	3	3
Number of yards in housing area	6	6	14
Size of yards	2500 m <sup>2</sup>	4500 m <sup>2</sup>	2500 m <sup>2</sup>

The figures apply to 2004, when the first field work was carried out.

The housing areas are similar in many respects, but there are differences too. Table 4 shows for example that the size of the municipalities in which they are situated differs (in terms of number of citizens), as does the distance to the town centre. The size of yards varies too, but all yards are rather large and the B yards are noticeably larger (see Table 4).

### *The social context of the housing areas*

The housing areas seemed to be relatively similar as social contexts. At the time of the study, they were all considered to have some apparent social problems and a negative external image, or reputation, in the towns to which they belonged. It was hard to find comparable statistics on the composition of residents but statistics on the age composition of residents were available, see Table 5.

Table 5. *Age composition of residents in the housing areas studied*

Age	A		B		C	
0-15	246	31%	199	25%	140	18%
16-24	122	15%	148	19%	126	16%
25-44	222	27%	226	28%	229	30%
45-64	127	16%	150	19%	198	26%
65-	92	11%	82	10%	73	10%
TOTAL	809	100%	805	100%	766	100%

The figures apply to 2004 for case A and B and 2006 for case C.

The age composition of residents was rather similar in the three housing areas (Table 5). The larger number of children in case A and B than in case C may be relevant. More children might mean more active users of the green spaces, and thus more intense use and wear and tear. Housing staff described the housing areas as having mixed resident composition as regards age, family types and ethnicity and comprising economically disadvantaged households, *e.g.* dependent on social welfare.

### *The yards*

The content and physical characteristics of the yards were quite similar, as the aerial photographs in Figures 7-9 show. The yards had greenery, play equipment and other built equipment, hard surfaces and seating areas. Some of the built equipment was quite aged at the time but some had been refurbished. The greenery comprised of lawns, trees and plantings with shrubs. Shrubs were more usual than perennials in plantings, except in case C, where perennials were quite usual. The plantings were placed in the middle of the yards and along the front of the buildings. The yards in case A were more open and less leafy than the yards in case B and C. There were private patios and/or balconies along one or several of the houses. The yards in case A and B had tarmac areas for ball games, *etc.* One or several of the surrounding 2-3-storey buildings had entrances facing the yards. This meant that the yards were passed on a daily basis by residents.



Figure 7. Yards A1(top) and A2 (below).



*Figure 8.* Yards B1(top) and B2 (below).





*Figure 9. Yards C1(top) and C2 (below).*

The yards of the three housing areas were similar in many respects but at the time of the study they had some differences in use, physical character, maintenance level and/or who was responsible for carrying out the maintenance (see Table 6). These differences were intended to give rise to reflections in the interviews.

Table 6. *The yards studied*

Yard	Use and character	Maintenance
A1 & A2	A1 more leafy, described as less used and worn than A2.	Different local caretakers' responsibility
B1 & B2	B2 more leafy, described as less used and worn than B1.	Both maintained by the team
C1 & C2	C2 much more leafy, described as less used than C1. It was less intensively kept than C1.	Different teams of residents responsible with different time put down

In case A, both yards were quite open in character. They had only a few small trees and the shrub plantings were fewer and smaller than in case B and C. A1 appeared more leafy than A2 (see Figure 7), both to me and to interviewees. It was less worn and littered than A2. Detailed statistics showed that there were fewer residents and children living around A1 than A2. The yards were tended by different local caretakers.

In B the yards were quite leafy and had wide shrub plantings and large trees in the centre of the spaces. B1 was not quite as leafy as B2, however (see Figure 8). In B1 the shrubs were lower and more pruned than in B2, where several shrubberies had a more free-growing character. The two yards were said to be the most intensively used in the housing area, B1 being the most extreme in that respect. In terms of litter, amount of weeds, *etc.* they were quite similar and they were tended by the same personnel in the circulating team.

In case C, C1 was significantly more open and more intensively kept than C2 (see Figure 9). In C1 the shrubs were cut down low, shaped and no weeds were detected on visits. In C2 the shrubs were larger and free-growing and weeds were to be seen. The yards were maintained by different teams of voluntary residents. The team that maintained C1 had several retired people who spent a lot of time on maintenance, while the C2 team had fewer active residents in self-management and most had full-time occupations.

### *The maintenance of green spaces*

The maintenance of green space in the three housing areas had several differences and the case with self-management stands out in several respects. One notable difference lay in the approximate intervals of the maintenance inputs (presented in Paper I). While the yards were cleaned on daily basis in case A and B, they were only cleaned weekly in case C, where residents carried out upkeep. How the maintenance of green space was organised and carried out in the three housing areas is described more in detail below.

In case A, three in-house local caretakers performed green space maintenance as one of many duties in the housing area. They were responsible for both outer and inner maintenance. They planned, distributed and performed their inputs quite freely, when needed and suiting their schedule. They ordered some maintenance of green spaces, such as mending broken lighting, from contractors. A central customer services had the formal responsibility for contacts with residents, but the local caretakers had many informal contacts with them. There were some ambitions for renewing the spaces and plantings among the local caretakers but their work can mainly be described as being about preventing the spaces from degrading. Regarding upkeep of vegetation, shrubs were mainly pruned by cutting them similarly one or several times per season (see Paper I).

In case B the circulating team consisted of three full-time employees, 12 seasonal employees and a number of young people employed over the summer holidays. The team performed upkeep of vegetation and maintenance of most equipment on seven main occasions per year in all housing areas of the housing company. Local caretakers cleaned yards between these occasions. The team formally worked as a kind of in-house contractor for maintenance of green space, ordered by the local caretakers in the housing areas. Informally, it worked independently under the leadership of a team leader who had a social agenda. The team leader had an involvement with young people with problematic backgrounds, which *e.g.* resulted in these young people being employed to work in the team during summer holidays. The team aimed to increase upkeep and develop the spaces through *e.g.* adding new planting material and using various strategies for pruning.

In case C about 50 voluntary, active residents performed almost all maintenance (apart from tree-care) of green spaces in a self-management system. The system was formalised and the active residents received a small rent reduction. They were divided into different teams, comprising residents from two to three yards, each with a team leader. There was great variation between teams in the number of active residents, the intensity of work and

whether work was performed individually or as a group. The plantings by the buildings were usually the responsibility of individual active residents. The variation in how individuals and teams performed the maintenance was easy to detect when comparing yards and plantings. The technical qualities varied widely, as did the plant material. In some of the plantings there were shrubs but in others they had been exchanged for perennials and/or annuals. While some plantings had heavily pruned shrubs and no weeds in sight, other plantings were weedier with free-growing shrubs.

To sum up, the housing areas studied were similar in many ways but there were differences between them. Some of the characteristics, such as the variation between yards in how they were kept, the apparent social problems and images of the housing areas, contributed to the understanding of residents' maintenance-related benefits.

## 4 Results & summary of papers

This thesis focuses on some central benefits that the maintenance of green spaces can contribute for residents: ‘well-kept’ (Paper I), safety (Paper II) and justice in distribution (Paper III). These three were central in interviews with residents and housing staff in all three housing areas in the case study. They are termed ‘benefits’, as a positive experience of these aspects can have a positive outcome on residents’ quality of life and can thus be beneficial. However, they were identified through informants’ positive *and* negative experiences at present. It was not unusual for them to speak of the negative experience of not feeling safe in the green spaces of the housing areas or sensing an unjust distribution. Other benefits were apparent in the material but are not thoroughly analysed or presented here. One other benefit worth noting was the feeling of personal pride related to the experienced technical quality and especially how the yards appeared to visitors. This was taken up by residents and housing staff and is one benefit worth future attention. The text below starts with introducing a central trait in relation to all three benefits that were explored further in papers. Thereafter follows a summary of the empirical findings from the case study and the telephone survey, as they were presented in the papers.

During analysis, it became increasingly obvious how important residents’ relationship to the local context of the housing areas was for how they experienced the maintenance of the green spaces. Their experience was obviously coloured by the relationship to other residents, to the housing staff and housing company. This was the case in relation to all three benefits explored. For example, ‘well-kept’ (Paper I) was initially intended to concern the maintained green space, in physical and technical terms. However, as residents and housing staff both considered other elements than the physical ones, such elements were explored too.

The view of the maintenance staff was one important maintenance-related element that influenced residents' benefits. For example, residents often described the yard as being 'well-kept' by the housing company, yet it looked littered. They often had quite positive views of the maintenance staff's effort and care, and thereby those of the company in general.

The view of other residents was one important social element that influenced residents' benefits. Residents often had quite established views of other residents; who they were and how they used and affected the yards. Other residents were regarded as being tidy or careful and the opposite, *i.e.* breaking things or causing high tear and wear. These views were connected to the yards, with the residents living by some yards being seen as more 'tidy' than others. Instead, residents held themselves and other residents responsible for a poorer state. Thus, the sometimes negative view of people living in the housing area seemed to contribute to residents being content with the technical quality. The image of other residents was central in relation to a just distribution too. These views were often considered in relation to how maintenance staff should distribute their efforts, what was 'fair', 'right' or 'just' or the opposite (Paper III). Thus, the views of other residents among residents clearly influenced what they thought of as a 'just' distribution. One important social element in relation to the experienced safety in the housing areas was to have social knowledge (knowing people who live in the housing area). This was an element that residents brought up, in addition to pruning of vegetation, of shrubs in particular, and the function of lighting (Paper II).

Housing staff also brought up the importance of the social context in relation to the identified benefits, but not to the same extent or emphasis as residents. They mainly described management-related reasons why the yards were not always up to standard or 'well-kept' (Paper I). This was one important difference between residents and housing staff.

In sum, several different maintenance-related elements and elements of the social context of three housing areas contributed to residents' experienced benefits.

## What is well-kept green space? (Paper I)

It is often regarded as important that green space is 'well-kept', but what people may refer to as 'well-kept' has received little attention in research. The individual walking interviews explored what residents and housing staff viewed as 'well-kept' green space. The interest was on the following issues: (1) What a well-kept physical state of green space is due to residents and housing staff and (2) What other aspects than the physical state they take into consideration when regarding well-kept green space.

The first issue (1) was explored in relation to the three main types of upkeep inputs (cleaning, maintenance or replacement of broken and worn equipment and upkeep of vegetation. see p. 21) and the physical elements (litter, pruned shrubs, *etc.*) related to these inputs. In the interviews residents and housing staff described all three main inputs and the elements that they counteract as part of well-kept green space. The playgrounds and their maintenance caused a lot of worry in all three housing areas. Of the residents, parents with children of pre-school age and grandparents with visiting grandchildren had more detailed opinions of the playgrounds and were most concerned, but others were too. The concern for the state of playgrounds was closely related to a worry about children's physical safety.

There was a general tendency to describe cleanliness and order as an important part of well-kept green space. Yards and plantings that were described as being 'in order', that were 'clean', 'fresh' and 'tidy' were often regarded to be more well-kept. Several different elements were associated with 'order' and 'disorder', such as litter and the character of the vegetation. Most residents thought that shrubs should be pruned to some extent to be well-kept. Shrubs pruned quite heavily in a 'styled' fashion (see Figure 10) were often regarded as being in order. Not all interviewees spoke of this type of upkeep of vegetation as ideal, however. Several of the housing staff did not consider that kind of treatment of shrubs to be part of a good upkeep. Still, they explained that they needed to conform to it to avoid getting complaints from residents. Thus, the urge for 'order' seemed to overshadow other preferences.

There were differences between the cases as regards the elements the residents emphasised in relation to order. In the two cases where professional staff performed maintenance (case A and B), litter and cleaning were emphasised and litter was described as a usual sight on the yards. However in case C, where residents did the upkeep, cleanliness or litter related to human activities was hardly brought up at all or detected on visits. Active residents

in the self-management group reported that people got told off for littering. The residents in this case emphasised instead the upkeep of vegetation, in particular the pruning of shrubs, in relation to 'order'. Pruned shrubs were referred to as imposing 'order' (see Figure 10), while free-growing shrubs or those which had not been pruned for a while were seen as 'litter' or 'brush'. It was easy to see as a visitor that active residents had implemented these ideas in one of the yards studied. The results suggest that when litter is unusual and cleaning is functioning well, the upkeep of vegetation gets more focus in relation to the experience of order.



Figure 10. Shrubs 'in order' in the three cases, case A (left), case B (middle) and case C (right).

In sum, the study also identified five aspects other than the physical state of the yards that were taken into consideration by residents and housing staff (issue 2). They were:

1. The image of residents.
2. The image of housing staff among residents.
3. Actual wear and tear and littering.
4. How maintenance work and inputs were organised and implemented.
5. The general image of the housing areas within the town.

When the image of the residents (1) living around a yard was positive, *i.e.* that they were 'tidy' or 'careful', the yards were often regarded as being 'well-kept'. This was particularly the case among residents but housing staff made this connection too. The image of housing staff among residents (2) was generally positive in case A and B. Since they were regarded as doing the best they could, the yards were considered quite 'well-kept'. The positive image of the local caretakers among residents in case A (combined with a negative image of some residents' use of the spaces) clearly contributed to them being content with the upkeep. They were content despite commenting on broken items and apparent litter. In cases A and B the actual wear, tear and littering (3) and the signs of these processes clearly negatively influenced the experience of the spaces. How maintenance work and inputs were



organised and implemented (4) was also taken into consideration by both housing staff and residents. Housing staff believed for example that organisational changes to a cleaning schedule contributed to why yards were littered in one of the housing areas. Residents' tendency in case A to regard the local caretakers' efforts in positive terms seemed to positively influence the views of the physical state that they produced. In case C the view of the 'good team' in which residents worked together was clearly a part of the positive judgement of one of the yards. The general image of the housing areas (5) within the town had a more indirect influence. One resident in case B who suspected that the housing staff did not devote the same time and energy to her housing area due to its negative external image was one such example. Residents who knew a lot about the housing area, its people and what was happening there (the locally concerned and active residents in self-management) tended in particular to have other grounds than the physical state for their opinions.

There was an important difference between residents and housing staff in what kind of causes to the state that they emphasised; the shortcomings in maintenance or high tear and wear by users. The housing staff tended to place more emphasis on the influence of the inputs and how they could be improved. The residents talked to a greater extent about how other residents caused the state of spaces, while maintenance staff were seen as doing what they could. One way to interpret these results is that both groups emphasised what they had most knowledge and beliefs about. Residents know the housing area and its people, while their insights into the management process are often restricted. Housing staff, in contrast, know a lot about the management process and its possible shortcomings.

To conclude, when one is connected to the place and has 'knowledge' about the context, by living there or managing the space, the physical state of green space is just *one* part in the experience of well-kept. For example, it was clear that residents not only considered whether the spaces were well-kept in terms of the physical state, but also the operational staff's or active residents' *efforts in keeping it well*. The five identified aspects can all influence the expectations on the physical state, and on what is regarded as well-kept. For those without prior experience of the place the physical state can instead be expected to be the primary base for experience. The various aspects that might affect expectations on green space maintenance, such as the five aspects brought up here, are important for housing organisations and possibly also other green space providers to consider.

## Safety in multi-family housing areas (Paper II)

The experience of safety in the housing areas and green spaces was a central theme in interviews with both residents and housing staff. Based on their descriptions, key elements to feeling safe in a housing area were explored and discussed. The key elements identified were contextualised and given meaning in a broader understanding of how safety is socially constructed. The inspiration from the theoretical perspective of social constructivism meant that people's understandings of safety were not only regarded as individual experiences. The understandings were also acknowledged to be part of a larger social system that is culturally and historically dependent (Burr, 2003). The perspective emphasises that our experiences are constructed through interactions with others.

The interviews showed that residents and housing staff emphasised the importance of the same physical elements in relation to safety: well-functioning lighting and pruned-back, low vegetation (shrubs in particular). The desire for light can be related to a low sense of safety being closely linked to darkness. The negative construction of darkness in our society (as frightening) can therefore be partly why lights were emphasised. Pruned-back shrubs and lighting were often brought up together and regarded as important since they improved visibility. Another part of the understanding is thus that the elements together have a function, to aid visibility.

Social elements were also brought up in relation to safety. However, such elements were more emphasised by residents than housing staff. Elements that residents emphasised were: physical signs of social disorder (such as litter), unwanted people and, not least, social knowledge. Unwanted people, such as those associated with disorderly behaviour, were often described as having a negative effect on sense of safety. Social knowledge, on the other hand, contributed positively to the experience of safety and refers here to a local knowledge of people belonging to the area. It makes it possible for residents to recognise others within the local area, know where people 'hang out' and who their neighbours are. Residents even noted that when they knew that people belonged to the area, it made them less threatening, even if they were associated with disorderly behaviour. Social knowledge as a key element in relation to safety is intertwined with several other societal constructions. Two of those are the idea of 'the stranger' as potentially dangerous and unpredictable and familiar people, on the other hand, as associated with feeling safe. The desire for social knowledge can easily be connected to the home as a familiar place.

The study showed that lighting and low shrubs are important, since they increase visibility. The visibility provides the means to practise social knowledge and separate the wanted from the unwanted people. The emphasis on light and cut shrubs suggests that the physical environment is important in relation to safety and that the 'design away fear' approach might very well be effective. However, this study is in line with studies emphasising the complexity in the experience of safety. Here, it included several key elements, both physical and social, intertwined with influential constructions. That cutting shrubs and improving lighting alone would increase safety in a housing area is far too simplistic an interpretation of the findings. Physical and social measures should be combined to improve safety.

### Justice in the distributed maintenance of green spaces (Paper III)

What principle should the distribution of green space maintenance follow? This is not a simple question, but it is seldom discussed. The interviews showed that residents and housing staff considered justice to be an important principle for distribution of green space maintenance. However, their statements showed of various ideas of what a just distribution is. Their different conceptions, ideas, of a just distribution of maintenance of green spaces were explored. The conceived distribution of open space maintenance was the primary focus, but the actual distribution was also explored in order to better understand how conceptions relate to actual distribution.

Justice was not a term used or asked for in any of the interviews. Still, it arose as a theme related to green space maintenance distribution in all three types of interviews. The conceptions were interpreted from residents' and housing staff's statements on what distribution principles they believed should be applied and what they regarded as 'just' or 'fair'. Housing staff talked about how resources and inputs were and should be 'justly' distributed. Residents reasoned whether they got their fair share of services, whether the efforts of staff or active tenants were conceived to be just and why. Particularly fruitful were statements from both residents and housing staff regarding whether it was 'just' or not that some yards were in a better state than others, thus how maintenance should respond to varying physical decline of the spaces. Since both residents and housing staff know and experience the outcome and procedure (how the maintenance is performed) of this service (particularly when active in relation to upkeep) statements on both these aspects of distribution were included. From their statements different conceptions, qualitatively different understandings, of a just distribution of maintenance of green spaces were interpreted. The analysis was inspired by the phenomenographical approach, as described by Larsson (1986).

In short, it is about interpreting qualitatively different views, or conceptions of a phenomenon.

The conceptions of a just distribution found among residents and housing staff could be classified into the following main principles:

- equal outcome
- same inputs
- less inputs when decline is high
  
- outcome all tenants' responsibility
- when you have influence
- when inputs equal compensation

The first three principles were identified among residents and housing staff in the two housing areas with professionally performed maintenance (case A and B). The three latter principles only appeared as conceptions of a just distribution among residents in the housing area with self-management. It must be noted that residents in all three cases often said that the inputs performed by staff or volunteer residents were sufficiently intense. At the same time they described the resources available to maintain these spaces as scarce. Since they experienced the resources to be scarce they may, presumably, think that quite limited maintenance inputs are just.

Beginning with the first three principles, the 'equal outcome' principle is about adjusting green space maintenance inputs to differences in decline so that the outcome is the same in different yards and over time. The 'same inputs' principle is when the level of inputs is constant regardless of the degree of decline. The third principle is applied when less inputs are distributed to green spaces with high decline, which is the opposite from the equal outcome principle. A heavy and quick decline *may* be regarded as a sign that the users do not care that much about the space and that they therefore should not be 'rewarded' by more inputs. Thus, this principle is related to a principle of 'rewarding' the tidy. When practised, it gives the largest difference in outcome between green spaces with different amounts of decline, compared with the 'equal outcome' and 'same inputs' principles.

All of these three principles appeared among housing staff as conceptions of a just distribution. The conception that guided their work even varied among housing staff working for the same organisation. The conceptions of a just distribution varied among residents too, but it was common to regard the 'same inputs' principle as a just distribution. They often felt that inputs should remain the same, even if the state of the yards varied, since it was mainly residents who caused a worse state. The insights from the FDWs

with maintenance staff in cases A and B showed that there were some subtle, yet consistent, tendencies in the distribution provided. Less worn, torn and littered yards seemed to receive more maintenance inputs than other yards. This suggests that the 'less inputs when decline is high' principle was partly practised. This practice seemed to be a side-effect at least to some extent from decisions taken on a strategic or tactical strategic level in the organisations.

The three latter principles only appeared in the case with self-management. The 'outcome as all tenants' responsibility' may be expected as inputs were dependent on tenants' voluntary efforts. However, that responsibility was seen as being that of *both* active and non-active residents. It must be noted that some variation of the outcome seemed to be accepted, but when the outcome was regarded as too poor it was regarded as 'unjust' that people did not take their responsibility. The other two conceptions of a just distribution found in this case were; 'when you have influence' and 'when inputs equal compensation'. These conceptions of a just distribution reflect the fact that both active and non-active residents emphasised procedural aspects of distribution more than residents in the other housing areas did. Several residents, both active and non-active, regarded it as unjust that they did not have enough influence over maintenance. A just distribution is thus when you have influence. The conception that the 'inputs should equal compensation' meant that the active residents should do their duty well enough to somehow correspond to the money they received. Both active and non-active residents had thus other conceptions than in the other housing areas studied. Therefore, it seems as if the non-active residents' perspective changed too when neighbours performed maintenance instead of professional staff.

There can be many different principles guiding green space maintenance distribution in rental multi-family housing areas. However, the interviews show how important (and widely varying) the personal conceptions of justice are in relation to this kind of distribution. To some extent the conceptions seem to depend on the individual's role and insight into the services. The conceptions are important to regard as they can influence how residents experience and providers distribute the maintenance of green space in a neighbourhood. They can give rise to different expectations and claims of services. The different conceptions in relation to the same space, service and organisations pose a challenge for actors dealing with strategic decisions on green space maintenance.

## How housing companies organise maintenance of green space and why (Paper IV)

How housing companies organise their open space maintenance and what arguments they have for their choice have not previously been mapped out. The two telephone surveys (mine and Pål Castell's) investigated this in 62 Swedish housing companies, municipal and private. Three aspects, all of which were included in the concept *organisational structure*, were explored: (1) Whether performed in-house or by a contractor, (2) whether performed by local caretakers (in Paper IV referred to as local managers) or circulating teams and (3) whether and how residents were involved in maintenance.

The surveys showed a wide variety of organisational structures among the housing companies studied, but some tendencies were noted. In-house performance was about as common as contractor performance. More companies relied on circulating teams than on local caretakers. Circulating teams were more common among smaller companies (with fewer than 500 apartments). Many had mixed structures, *i.e.* had local caretakers and circulating teams, and so on. The combination of having in-house local caretakers was more common among municipal housing companies than among private ones. A limited number of housing companies had formal resident involvement processes, or self-management, in their housing areas. Self-management was only found in municipally owned areas and almost only in areas with local caretakers.

The housing companies gave many different arguments for their choice of organisational structure. Some arguments were economic and work-related (*e.g.* flexibility, diminishing the risk of having own personnel, the size of company and skills among staff, *etc.*). Other arguments were related to technical quality. Still others were about the relationship to residents and their benefit from the service. The same arguments sometimes supported different organisational structures, but there were some main tendencies. Some aspects of the organisational structure were rather motivated by their effect on relations to and between residents. Other aspects were instead more related to efficiency/technical issues. In-house management and local caretakers were for example often motivated as being positive for residents, *e.g.* their safety, and the company's relationship to them, by *e.g.* building trust. Interviewees even indicated that residents could become more satisfied with the technical quality of maintenance with local caretakers. Contractor management and having circulating staff was motivated by the technical quality provided (but not undisputed) and the economic benefits for the company. Regarding self-management, the emphasis was on the relationship to and between residents, and the increased influence that residents had over

their living environment. Self-management was regarded both as positive for the relationship between residents, by contributing *e.g.* to increased social cohesion, and as negative, since it may trigger conflicts.

Finally, there may be many different factors that contribute to housing companies' choice of organisational structure (*e.g.* company size, skills of staff and reluctance to change). This study showed that housing companies' choice of organisational structure was partly a choice in which concerns for relations to residents, the residents' benefits, the economy and technical quality were weighed against each other. The wide variation of organisational structures among the housing companies and the many mixed ones showed that their choices often mirrored several different types of motives, *e.g.* economic efficiency or relations to residents. However, it was clear that every company liked to express its concern for being economically beneficial, irrespective of its organisational structure. In a way, this motive appeared to be the most fundamental one.





## 5 Discussion

User benefits from green spaces have been a popular focus in green space research but the user benefits related to maintenance have received less attention. This study adds to the understanding of what benefits maintenance of green space can contribute for residents in rental multi-family housing areas. Several such benefits were identified and explored, but there can be others. The benefits identified were to experience well-kept green space, safety in the housing area and justice related to maintenance distribution. The experience of well-kept was in turn closely linked to the experience of order and safety of children. The study also showed some of the complexity in the experience of these benefits. Elements related to the maintenance and to the social context are both linked to how residents experience the benefits.

The following discussion focuses on and begins with discussing residents' experience of these benefits. It continues with discussing in what ways the organisational structure and residents' role in relation to upkeep influences how residents experience the maintenance of green spaces. Thereafter some attention is paid to understanding the identified benefits in relation to shared residential green spaces as compared with public parks and private gardens. After that, the findings concerning residents' benefits are used to discuss and develop the model for management of urban green spaces. The residents' perspective is then compared with the perspective of the providers. Finally, the question of how to provide better maintenance to residents is discussed and reflected upon.

## Residents' experience of the maintenance-related benefits

The technical quality of maintenance, the physical influence that different techniques, inputs and intensities have on the spaces, contributes to residents' experience of the green spaces and their housing area overall. This study is thereby in line with research stating that users find the 'maintenance' in terms of its physical influence on green spaces to be important. This has been pointed out in relation to public green spaces (Tyrväinen *et al.*, 2003; Ward Thompson *et al.*, 2005; Özgüner & Kendle, 2006) and residential green spaces (Berglund & Jergeby, 1989; Jorgensen *et al.*, 2007).

The design and content of the spaces influence what people think that maintenance should focus on. Where the playgrounds are new, people may not focus on them as the respondents did in relation to the worn playgrounds in the studied areas. Where the greenery is lower, has a more formal design and is possible to see over, people may not talk about it as much in relation to safety or order.

The technical quality has of course practical functions for the use of these spaces. Shrub pruning may for example also be connected to plants growing too high or wide and intruding on other functions. They can for example block the view from kitchen windows or grow over paths. However, the fact remains that the technical quality of maintenance was closely associated with all benefits identified.

What residents regard as good technical quality is not easily identified though. The residents in this study were not necessarily more pleased when maintenance intensity was higher. This finding disputes the common view in the green space sector that there is a direct relationship between maintenance intensity and experienced technical quality (see p. 21). In this study it varied between individuals and contexts as to what was regarded as important and good enough. While some residents regarded some weeds or twigs in the shrubberies as fine, others did not. Residents also emphasised the three main inputs differently in the two cases with professional staff performing maintenance than in case with self-management. Litter was seen as the main sign of disorder in the cases with professional maintenance. However, in the case with self-management, the active and non-active residents emphasised shrubs that were not sufficiently pruned. The different emphasis cannot be explained by different amounts of vegetation in the housing areas. They were quite similar (at least in case B and C). Instead, one possible way of interpreting this finding is that there is a hierarchy among at least two of the three main inputs; the cleaning and upkeep of vegetation. It seems that when cleaning functions well, people may notice and emphasise other inputs more, such as the upkeep of vegetation. The maintenance of equipment

does not seem to be included in this hierarchy, since the results of it were not that closely associated with order. What people regard as good technical quality depends also on their expectations on the local context when they know the place well (Paper I). To conclude, what people regard as good technical quality is complex to measure and is contextually dependent.

‘Well-kept’, in turn, is a *very* relative measure, since it varies not only between individuals, but also in the way that individuals consider various elements in their evaluations. A positive image of maintenance staff seems for example to contribute to yards being regarded as well-kept, despite sometimes stated poor technical quality. In this study maintenance staff were often regarded as keeping the yards well and this contributed to yards being referred to as well-kept.

It is clear that residents’ experience of maintenance of residential green spaces does not only concern the technical quality. What they experience as a good maintenance overall is tied to their experience and expectations on other parts of the local context. This was the case with all three benefits identified. Other elements of maintenance have an influence, such as the image of staff and how work is provided (such as staff being apparent in the housing area, the distribution of inputs, *etc.*). Elements of the social context have an influence too, such as the image of other residents, social knowledge and the housing area image. The different maintenance-related elements and elements of the social context related to the benefits identified in this study are mapped out in Figure 11. There may be other elements of the local context that contribute too; maintenance-related, related to the social context and of other kinds. One other kind already discussed is the physical context and design of spaces.

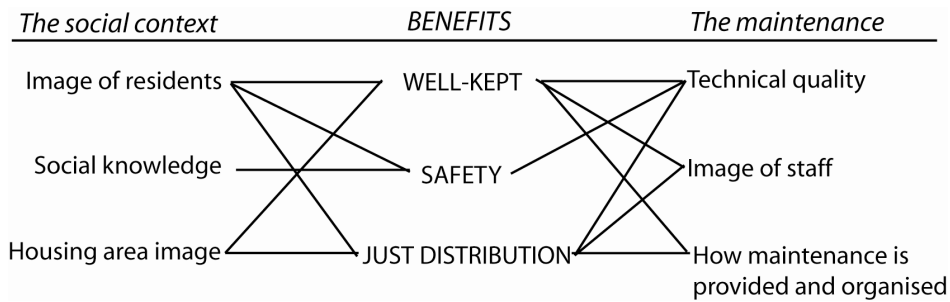


Figure 11. Map of central elements in relation to the experience of well-kept, safety and a just distribution in relation to residential green spaces.

The complexity in the experience of the identified benefits is illustrated in Figure 11. For example, the experiences of well-kept and a just distribution were related to all above-mentioned elements, apart from social knowledge. Social knowledge was not explicitly explored in relation to these benefits and is therefore not related to them in Figure 11. One could suspect, however, that residents who have more social knowledge have more rigid and developed images of other residents. These images can in turn influence the experience of well-kept or a just distribution. If that image is negative, a yard can for example be regarded as well-kept enough despite apparent litter, since they do not ‘deserve’ more inputs. Social knowledge can thus influence these experiences too. The housing area image was a social element that was clearly related to the experience of well-kept and a just distribution. It refers here to the external image, or reputation, of the housing area in the town in which they are situated, as described by informants. It is thus the image that residents and housing staff think other people have of these housing areas.

In relation to safety several elements in combination can contribute to the experience, and social knowledge seems to be central. The visibility provided by lighting and cut shrubs can make it possible for residents to practise their social knowledge and thereby feel safer. The external housing area image was not explicitly related to safety by informants. They are therefore not linked, and the relation between the two is uncertain. On one hand, one could think that residents own safety is not that affected by the external image *e.g.* if other people seem to think that the area is unsafe or not. The residents make their own judgements from how they experience the area on a daily basis. On the other hand, if residents think other seeing

their housing areas as unsafe it may lead to that they re-negotiate their own safety and feel less safe as *e.g.* Koskela and Pain (2000) suggest.

Looking at the maintenance-related elements explicitly, the technical quality is part of the experience of all three benefits. The image of staff and how maintenance is provided and organised are related to the experience of well-kept and a just distribution, but not to the experienced safety, something discussed later in this chapter (see p.79).

There is a complexity in the experience of the benefits identified. Several different elements, maintenance-related and of the social context, contribute to them. Maintenance of green spaces is thus a part of the experience of the benefits identified, amongst other elements in the context and sometimes in combination with them.

### **Residents' experience related to organisational structure & role in relation to upkeep**

The organisational structure and residents' role in relation to upkeep (as a result of the structure) does in some ways influence how residents experience the maintenance of green spaces. For those who spend more time in the housing area and/or are active in self-management, that influence may be more substantial than for others.

When it comes to professional maintenance, it seems to be an advantage in some respects to have local caretakers instead of circulating staff. In this study residents talked a lot about the efforts of the local caretakers and seemed to experience them very positively. The positive image of local caretakers may not only be about the organisational structure, as the individuals who work as such are of course also important. Still, a positive image is supported by local caretakers becoming well-known and people knowing about their daily efforts. Residents seemed to be even more pleased with technical quality when maintenance staff were local. This was a motive for having local caretakers from housing companies' point of views, as shown in the telephone survey. The advantages with having local staff are often acknowledged in the housing sector, as for example Johansson (1998) points out. They are, however, seldom specifically linked to how residents view the technical quality of the green spaces.

When comparing professional maintenance to self-management systems, the latter is a completely different situation for all residents, for active as well as non-active residents. For the active residents, self-management gives them access to other kinds of benefits, as others have noted (see *e.g.* Castell, 2010 for such benefits). It also gives them a dual role in the housing area. The

self-management means they not only live there, but perform maintenance tasks too. Thereby the spaces become more closely related to their image and identity. This was mirrored in the way that residents talked about the spaces as 'theirs' (Paper I). Thereby, it is their image that is at stake when the yards are not up to standard. This was shown in the increased interest that active residents had in the 'order' of spaces in case C. It was also shown in the fact that littering was not a problem. The dual role can give an increased interest and possibility to set norms for how others behave in the spaces. During work outside it is easy to make sure that other residents live up to those norms.

Both active residents' and non-active residents' perspectives seem to change in a self-management system compared with when they are not expected to contribute. The non-active residents emphasised for example, in similarity to active residents, procedural aspects of provision in relation to a just distribution, or *how* work was provided, more than passive residents did. Examples of such procedural aspects were their own influence and that maintenance efforts from active residents should equal their compensation (Paper III). The fact that both active and non-active residents emphasised procedural aspects more can be related to their increased insights into the management process. Also non-active residents can become more well-informed by talking to neighbours who are active. In addition, it can be noted that residents, active as well as non-active, seem to expect more from neighbours carrying out the duties than from professional staff. Even if shrubs were heavily pruned in case C, residents still did not always approve of the 'order'. Higher expectations can be both positive *and* negative. It may for example be positive for active residents when living up to the expectations. It was however very negatively experienced to live by yards which were not well-kept and to be in the team which could not keep up with the 'good team'.

It may be positive for active residents that they relate to the spaces, that they feel more connected to where they live and set higher norms and standards. For other residents this can be negative, however, especially if active residents tend to treat the space as their private gardens. The norms that active residents set on how to use the spaces are not necessarily shared by all residents. Non-active residents in this study talked for example about children's play being restricted. Strict norms for acceptable behaviours in housing areas with self-management systems have been noted in other studies too (*e.g.* Alfredsson and Cars, 1996; Castell, 2010). This study adds nuances to early positive reports in Sweden of self-management in rental housing areas (Alfredsson and Cars, 1996; Berglund *et al.*, 1995). It is rather in line with

studies that acknowledge that user participation may not only be positive and not for all user groups (Westphal, 2003; Delshammar, 2005; Castell, 2010). User participation in maintenance of green spaces needs to be regarded from the perspective of various user groups.

To sum up, the organisational structure and residents' role in relation to upkeep influence how maintenance of green spaces is experienced in some ways. Furthermore, self-management can have many positive and negative and in some ways substantial effects for the residents.

### The residential context of the green spaces

Several of the benefits identified are also raised in research concerning people's use and experience of parks and other public green spaces. People's experienced safety is for example often regarded as very important in relation to parks (Burgess *et al.*, 1988; Dunnett *et al.*, 2002). The concern for the physical safety of children can be recognised from research on public outdoor playgrounds (Jansson, 2009) and parks (Burgess *et al.*, 1988). The frustration when cleaning and maintenance of equipment is not performed to an expected quality can be recognised from research on parks (*e.g.* Gobster, 2002). However, in some respects the experience of the benefits seems to be qualitatively different from both public parks and private gardens.

There are several principal differences in how the benefits are experienced in residential green spaces as compared to in parks. One important difference is that residents cannot avoid their residential green spaces if they experience them negatively. They still have to experience them on a daily basis, which can cause them to develop quite rigid and strong beliefs about other users and the social context in general. This is in contrast to parks, where beliefs about other users are generally not as developed. In parks, people generally have less social knowledge. This is an important difference regarding the experience of safety. The visibility provided by lighting and shrubs may also be important for park users' experience of safety (Dunnett *et al.*, 2002). However, visibility does not have the same function as in residential green spaces, where it is closely associated with the ability to develop and practise social knowledge. To continue, residential green spaces are frequently overlooked by people, since people pass them by and may look out from the windows from the surrounding apartments. They are also close to the home and well-known. All these characteristics may contribute to people feeling safer in these spaces than in parks during the day. At night, however, the residential green spaces and parks offer some of the same negative characteristics in relation to safety. The differences between these spaces may

also explain why visible and often apparent staff were not associated with increased safety in this study, as they often are in relation to parks (Burgess *et al.*, 1988; Dunnett *et al.*, 2002). Since parks are not always overlooked by other people, visible staff may have a positive effect on low experienced safety in daytime.

The experience of shared residential green spaces seems to have several similarities with private gardens. The fact that the order or tidiness of the spaces is important is in line with previous research on residential green spaces (Berglund & Jergeby, 1989; Kristensson, 2003; Jorgensen *et al.*, 2007) and in relation to private gardens (Nassauer, 1995; Chevalier, 1998). The fact that both spaces are part of people's homes can easily add to the understanding of why order was emphasised. The tidiness of the home is often regarded as important, as it represents people's identity (Dovey, 1985; Nassauer, 1995; Chevalier, 1998; Saito, 2007). Since the order of the residential green spaces mattered to residents, one can suspect that shared residential green spaces are also connected to people's identity.

The connection between residents' identity and experience of order is in some ways more problematic in the spaces studied than in relation to private gardens. This is because the residential green spaces of interest, just as parks, are shared spaces and are normally maintained by a third party. This means that their possibility to control the appearance of the spaces with which they identify themselves is lower than for people who have private gardens. The order of one's private garden is within one's own control so there is no one else to blame. Therefore the order of one's garden is about one's own achievement in showing a positive image towards oneself and others. If neighbours have untidy gardens, these may be seen as 'polluting' other gardens (see Chevalier, 1998), but it is primarily the neighbours' responsibility and identity that is 'at stake'.

The state of residential green spaces is instead associated with many people's identity and way of being. In this study the maintenance staff or housing company were not mainly regarded as causing the disorder of spaces by performing poor inputs. Instead other residents were, through their wear and tear. The views of the 'order' of the spaces and of other residents were thus closely connected. Residents included various categories, such as youths, immigrants, newcomers, *etc.*, in their statements about who contributed to the order or not. Frykman and Löfgren (1979) suggest that the individual views of order and tidiness of the home have been expressions of class belonging and differences for a long time in Sweden. They claim that such views have been a way to legitimise control over those with lower class belongings, by claiming them to be untidy or unclean. If social belonging



other than class is considered, the Frykman and Löfgren (1979) understanding of order is more relevant for the present findings. It means that the residents' statements on who is contributing to the order and disorder may, at least partly, be seen as a way of positioning themselves against others. Their statements may at least partly be an expression of social belonging and differences around a yard. However, this kind of understanding of the urge for order may not only be part of a Swedish culture as suggested by Frykman and Löfgren (1979). It is clear that a similar urge for order and neatness is apparent in relation to residential green spaces elsewhere, such as in the US (Kaplan, 2001) and UK (Jorgensen *et al.*, 2007). The connection of residential green spaces to people's homes and identity suggests a stronger emphasis on order in these kinds of spaces than in parks.

To conclude, some of the same maintenance-related benefits that were found in this study may be applied in public green spaces and private gardens, but the experiences of the benefits are in some respects qualitatively different in residential green spaces. The fact that these spaces are shared by people *and* close to their homes provides different conditions for their experience.

### **A model for understanding residents' benefits from maintenance of residential green spaces**

The general model for management of urban green spaces (in Figure 1 on p. 16) can be a useful starting point for understanding residents' maintenance-related benefits relative to residential green spaces. The identified benefits all concern the relations to the management organisation, the managed green space and its technical quality as provided by the management organisation.

However, the results show the importance of some elements that are not properly highlighted in the general model. One such element is the social context. In the general model, the users are regarded as one and the same element and the external image of the housing area is not regarded at all. Since residents' image of each other and of how (they think) others look upon their housing area are important for their experience, these elements need further consideration. When regarding the general model the importance of maintenance staff in the management organisation may also be underestimated. They are essential actors in relation to the provision and residents' benefits from it. They have a substantial influence on the maintenance direction and their image among residents influences residents' benefits, such as the experience of 'well-kept' space. There are versions of the general model in which the management organisation is divided into the strate-

gic/policy, tactical and operational level (see Jansson, 2009; Randrup and Persson, 2009). These versions can give a more detailed picture of the organisations. However, here the point is that *the people* who perform the tasks on the operational level have an important role. The relationship between residents and maintenance staff needs to be further highlighted, such as in the refined model below.

In sum, the elements and relationships that need further attention in relation to residential green spaces are: residents' relations to other residents, the housing area image and the relationship between residents and maintenance staff. These elements are highlighted in the model in Figure 12. In the model, 'residents' as subjects receiving benefits are distinguished from 'other residents'. This is to emphasise that their maintenance-related benefits depend on their relationship to other residents. The model does not consider *e.g.* how the housing area image is created or the relationship between housing company and maintenance staff. Its purpose is to point out some important elements that influence the benefits studied.

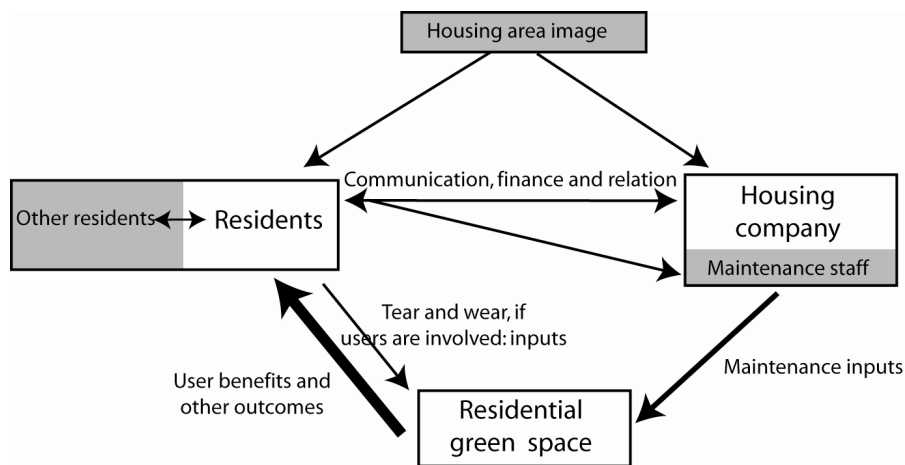


Figure 12. A model of residents' benefits from maintenance of residential green spaces. The grey marked areas are new elements compared with the general model for management of urban green spaces (see Figure 1).

The model illustrates a main point of this study – that we cannot understand residents' benefits only through studying the factual maintenance inputs they receive and how they are experienced by residents. We need to understand their experience and expectations of other parts of the local context too, such as the elements pointed out above.

In a self-management system the relations change in some ways. This is illustrated in Figure 13. The benefits are then very much connected to the fact that the residents themselves or their neighbours do a significant part of the upkeep of the spaces instead of a housing company. The thick arrow coming from residents and not from the housing company illustrates this fact. The relationship to other residents becomes very central in understanding residents' benefits from maintenance of green spaces in a self-management system. The housing company still sets the conditions for the maintenance of green spaces, by for example giving the rent reductions to active residents. The company also decides on how maintenance is to be organised in general and on the resources given. Therefore, the relationship to the housing company may not be less important for residents, but simply different.

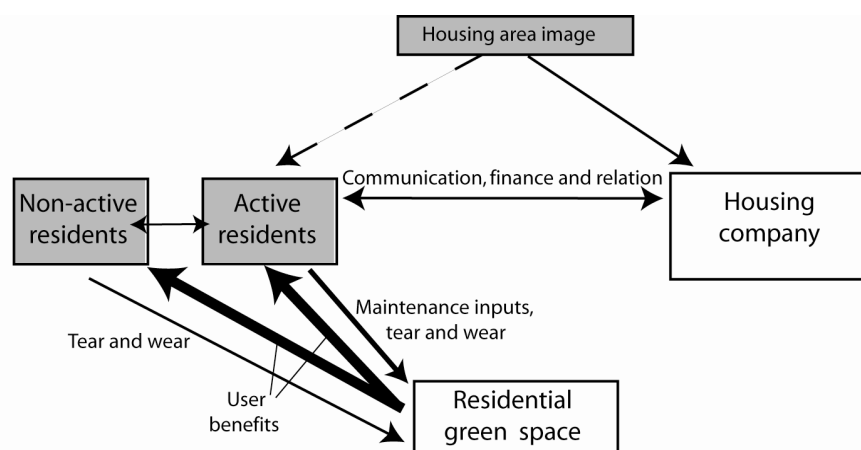


Figure 13. A model of residents' benefits from maintenance of residential green spaces in a housing area with self-management. The areas marked in grey are new elements compared with the model for management of urban green spaces (see Figure 1).

When people themselves or their neighbours carrying out maintenance work seem to change the expectations that they have on the maintenance of green spaces. It seems for example to give rise to expectations on having an influence in the process and experiencing order in spaces. Residents who are active and non-active in relation to upkeep are distinguished from each other in the model, as they have different perspectives on maintenance and since different kinds of benefits are available to them. Just as in the cases with professional maintenance, the relationship to 'other residents', those seen as untidy, *etc.*, is still important. The other residents may be of various

categories and of course not only regarded as active or non-active. Just as in the other housing areas studied, a negative external image was mentioned and affected residents' experiences. This is similar to what Castell (2010) found in his study of a housing area in Gothenburg with resident involvement in upkeep. However, the experience of an external image should not be that relevant for how residents experience the distribution of maintenance as in the cases with professional maintenance. Since residents do most of the upkeep, they do not have to think about how people who do not live there may prioritise the maintenance of their spaces (hence the dotted line from housing area image to residents in Figure 13).

To sum up, the models above can serve as analytical tools for understanding residents' benefits from maintenance of green spaces. They give a basic understanding of the elements and relations involved in the maintenance and experience of it.

### Residents versus providers

Differences in the views of housing staff and residents can serve as keys to how green space maintenance can become more optimised. This study suggests several such differences, one of which is the technical quality and the view of what good quality is. For example, residents saw it as generally positive when shrubs were rather heavily pruned, in a 'styled' way, while most housing staff did not. This difference suggests on one hand that the housing companies may not always provide the technical quality residents find best. On the other hand, housing staff also talked about having to prune shrubs in that way despite not seeing it as ideal. This may suggest that housing staff *sometimes* act against their professional preferences to please residents. Regarding the technical quality, it could also be concluded that housing companies and staff did not always prioritise what they and residents regarded as important. Had they acted in accordance with what they found important, the playgrounds would have been more well-maintained.

Their views differed regarding the social context too. It influenced residents' experience more than housing staff's views, both in relation to well-kept green space, safety and justice in distribution. In relation to safety, for example, while housing staff emphasised almost only physical elements, residents also emphasised social elements. This difference suggests that housing staff sometimes underestimate the influence of the social context for how residents experience their services.

Differences appeared between residents and housing staff interviewed, but there were noteworthy similarities in the issues they raised and found

important. The benefits identified were all raised by most residents and housing staff interviewed. The findings suggest that there are shared expectations of what maintenance should contribute. Shared expectations of behaviours can be referred to as norms (Scott and Marshall, 2009). Therefore the benefits identified can be regarded as norms regarding what maintenance should achieve in relation to residents. When doing so, new questions arise such as how these norms are created, by whom and what norms can be identified in other contexts and why. As norms in general may vary with culture and time, those identified here can do too.

It is clear that residents' benefits and the relationship to them is a major concern for the housing staff. The emphasis on residents' benefits by the providers in this study is in contrast to Bengtsson's (2010) findings in public park management organisations that park staff talked rather little about social intentions (in her terms the 'social management style'). Such a difference may be explained by the fact that the customers of housing companies are ever-present and the relationship is often rather long-term, as Johansson (1998) points out. In principle, housing companies can thus be expected to have more personal contacts with and know more about those who are to benefit from their services as related to park departments. The importance of the relationship to residents is nowadays also emphasised through the customer orientation tendency in the housing sector in Sweden (Boverket, 2008; Blomé, 2006).

However, the housing staff may not *only* have residents' benefits in mind when regarding maintenance provision, even if these were the reason given in interviews. As the telephone survey showed, both technical and economic reasons were given for the choice of organisational structure. What the maintenance is to achieve relative to residents is one of many reasons for their services. Out of the many reasons, the economical motives seems to be most influential, for the organisational structure at least, as the telephone survey suggested.

When concerning the different perspectives of housing staff and residents, it is important to note which group have most influence on the maintenance direction. Of the housing staff, the maintenance staff have an important role in maintenance provision in professional maintenance systems. In this study the maintenance staff did not have extended decision-making power, still they were quite free to set the direction of their work. The freedom of staff and their important influence on the maintenance direction has been acknowledged in relation to housing services in general (Franklin, 1998; Johansson, 1998; Blomé, 2006). This is important to note, as the intentions of members of maintenance staff can vary. It leads to different directions of

services within an organisation, directions that are not necessarily in line with the strategy of the housing company. One important sign of varying intentions in mind among housing staff, managers and maintenance staff included, was the different principles of a just distribution. The conceptions differed among those who worked for the same organisation. Their varying intentions can have very concrete effects on residents' benefits, regarding for example their image of other residents. It is quite different when the maintenance staff maintain the yards to an equal outcome than with less inputs where the decline is high. If a yard with a high decline gets even worse, it can contribute to the already established image that some residents living there are 'untidy'.

### Providing a better maintenance to residents - conclusions and final reflections

To conclude, the findings of this study show that the experience of maintenance of green spaces is multifaceted in many ways. The experience of the benefits identified involved various elements and varied between individuals, groups and housing areas. This is in line with research acknowledging that people's knowledge of and relation to the context influences their experience of green spaces. This study adds the dimension that this kind of knowledge of and relation to the context also colour the experience of *the maintenance of green spaces*.

The experience of the benefits may be complex, but the maintenance contributes to residents' experience of well-kept green space, safety in the housing area and receiving a just distribution. In other housing areas with different social and physical conditions other benefits than those found and studied here may appear. In other housing areas there may also be other elements involved in their experience. The fact that the social context (the negative area image, *etc.*) was in some ways negatively experienced in these housing areas probably contributed to it being emphasised. In housing areas where residents have a more positive image of residents' behaviours and a more negative image of housing staff, they might expect, demand and receive better technical quality. This might also lead to benefits such as justice in distribution being differently interpreted. Still, as the benefits identified characterised interviews in all three housing areas, and have been raised in other studies, they can be expected to appear elsewhere too. So, when it comes to how to provide better maintenance to residents, one part lies in trying to add positively to these experiences. The connection to these benefits also shows the negative sides when maintenance does not function well.

Then it can contribute to residents feeling unjustly treated, unsafe and living in a place in disorder. This can obviously influence their quality of life, for some more than others.

When aiming to provide better maintenance to residents it is important to consider *why* residents seem to be pleased with the maintenance in a particular housing area. Is it because the technical quality is fine or is it because the maintenance contributes other qualities? Are there issues in the social context that may give low expectations and how should the housing company react to different expectations? Local conditions can contribute both to how the technical quality is experienced and the benefits that are considered important. In order to provide better maintenance to residents, housing staff need a through understanding of residents' experiences of the local context where they live. A better maintenance is thus a management and maintenance of green spaces that is more locally adapted. Such management and maintenance needs to be built on local knowledge about residents' experiences. A way of attaining such understanding for providers could be to perform walking interviews with residents.

Knowledge about residents' perspective is not enough; green space providers also need to be willing to adjust to these views. An important question is thus how far they are willing to adapt their practices to optimise users' experience and benefits. There are probably aspects in which green space providers have professional views that conflict with residents' views, where residents are regarded as being 'wrong'. One such aspect that came up in this study was the heavy, 'styled' pruning of shrubs. Communication between maintenance staff and residents may make it possible to find ways of maintaining greenery that residents may accept and that gives good development of the plants in the long-term. Another important question is thus what role communication can have when providers do not regard it as an alternative to adapt fully to users' views of good maintenance.

In the housing and green space sector much attention is paid to technical and economic issues and how to organise the overall management. This study questions the common view that the quality experienced increases with intensity of maintenance inputs and costs. It shows instead that the experienced quality depends on many different things, and that the same maintenance intensity may not be experienced similarly in different contexts. Thus it shows that much can be achieved in terms of experienced quality with the 'right' priorities and ways of working.

The organisational structure may have some effects for residents, such as when maintenance staff are local. Furthermore, it can add a completely new dimension to residents with a self-management system, which can have

many positive and negative effects for residents. However, other aspects of management also need attention. One important aspect is the distribution of maintenance. Another is how to implement strategies for supporting certain benefits. In relation to both these aspects, maintenance staff have a key role.

Housing companies often acknowledge that the maintenance staff have an important role as the 'face outwards' of the company, as they did in the telephone survey. However, the issue highlighted here is how to set the strategies for maintenance and support staff in order to accomplish these strategies. Should they for example accomplish a high technical quality, or make sure that they are well-known to residents? How should services respond to different use, wear and tear and external images of different housing areas and yards? An important task for green space providers is to strategically handle the important role of maintenance staff. It is easy to see the positive sides of having a stronger tactical level for management of green spaces in housing companies. On this level strategies and support for maintenance staff could be developed, just as in public park management organisations. For those strategies to become real, communication between tacticians and operatives is crucial.

To sum up, some of the potential of management to better benefit residents lies in contributing to the benefits identified. It also lies in getting more knowledge about how residents experience the maintenance, being willing to adapt to them and to improve the tactical level in order to support maintenance staff. It is important to widen the technical discussion in the housing and green space sectors and acknowledging other aspects of maintenance. This may be worthwhile in terms of optimising maintenance in relation to residents' benefits. One could ask why we often tend to focus so much on the seemingly small details in the situation, such as establishing standardised maintenance intervals and lengths of grass. Why do we not talk about the context that the grass and play equipment are situated in at the same level of detail? Or how to support an overall positive image of the place for people?



## Future research

There are many topics in which more research is needed regarding management and maintenance of green spaces, both from a user and a provider perspective. Maintenance-related user benefits have received little attention in research, but concern many people and organisations. There are many ways of examining this specific topic in greater detail, involving further exploration and in-depth understanding. We need to know more about *how* maintenance is important to people, what it for example means to have a yard that is regarded as well-kept.

Pride was one other benefit arising from this study that needs further attention in the future. It is often taken for granted that the appearance of residential green spaces is important for residents 'pride', but we need a better understanding of this connection.

There is also a need for better understanding of how different user groups experience the maintenance of residential green spaces. With a wider selection of interviewees, other benefits and issues can be highlighted. For example, the interviewees in this study were adult residents only, but children and young people are important users of residential green spaces who may have a different perspective. The kind of technical quality with pruned shrubs and a tidy appearance that adult residents preferred in this study can for example be less welcoming for children and young people. Studies of other user groups should also be made, such as people from different ethnical backgrounds and comparisons between those who are more locally involved and spend more time at home as compared to others,

The understanding of maintenance-related benefits in relation to residential green spaces could also be developed if studying various contexts. The maintenance-related benefits were studied here in three rental, multi-family housing areas in small and medium-sized municipalities in a Swedish context. It would be interesting to study other multi-family housing areas that are different in some respect, for example areas that are cooperatively owned, with positive external images, with affluent residents, in large cities, *etc.* Rental and cooperative housing are often distinguished from each other in terms of residents' interests and responsibility-taking. Therefore it would be relevant to study the impacts of form of tenure.

Users' maintenance-related benefits need to be studied in relation to different kinds of green spaces. A comparison of public spaces and residential green spaces in this respect would provide knowledge of whether and how the experience is qualitatively different, as is suggested here.

One could also suspect that people's expectations on maintenance are connected to the kind of green space provider, *e.g.* whether the management organisation is public or private. Justice is probably a principle that is more related to public organisations' maintenance provision, but it has not yet been studied. It would be relevant to compare different kinds of organisations and what principle providers and users expect from them.

Regarding the providers' perspectives, several topics need further investigation. One topic regarding housing organisations is how to support maintenance staff in their work with maintenance of green spaces. How can for example a more shared direction of work be accomplished within the organisations? Is a developed tactical level for management of green spaces as supportive as suggested here or are other parts more important? Another topic concerns how providers can access more detailed information on residents experience than what *e.g.* usual customer-surveys do. It is also relevant to study what benefits *providers* can receive from adjusting services to local knowledge on residents' experiences.

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# Appendix

## Appendix 1: Interview-guides (extracts)

Extracts from the interview-guides to the different types of interviews are presented below. The extracts show the themes and examples of questions posed.

Interviews indoors with residents

### **Themes**

The general view of the housing area and personal 'liking'

Use of the yard

The yards - technical quality and design

How the maintenance is carried out

Safety in the housing area

Contact with housing company & influence

Self-management (case C)

### **Examples of questions:**

Describe how it is to live in xxx housing area.

How do you experience living in the area? Living by this yard?

What do you think about the way your yard looks?

What do you think about the maintenance of it?

What do you know about how the yard is maintained, who it is that performs the tasks *etc.*?

Do you feel safe here in the housing area?

How do you experience the area at night?

Have you ever commented on the maintenance of the yard to the company?

What do you think about self-management?



Interviews indoors with housing staff, executive/middle managers

**Themes:**

The role in the company and related to green space management  
Choice of organisational structure  
Economy and priorities  
The maintenance of yards in the housing area studied  
The residents' benefit and influence

**Examples of questions:**

Describe your role as a X.  
What kind of decisions do you take about the green spaces and the maintenance?  
What are the motives for having local caretakers/circulating staff/self-management?  
What do you think is important to prioritise when it comes to the yards in area x?  
What do you think about the yards in area x today?  
How do you think the residents find their yards?  
Have they commented on the yards? What have the comments concerned?

Interviews indoors with maintenance staff

**Themes:**

The role in the company and related to green space management  
The maintenance work, incl. priorities  
The maintenance of yards in the housing area studied  
The residents' benefit and influence

**Examples of questions:**

Describe your role as a X.  
What kind of tasks do you perform in the green spaces?  
What do you prioritise in this housing area?  
How is it to maintain these yards?  
What do you think about the yards?  
Describe your contact with residents, what they usually comment on *etc.*  
What do you think they appreciate in your work?

Individual walking interviews with residents

**Themes**

The ideal of well-kept

The state of the yard

Elements: entrances, playgrounds, plantings by buildings, lawn, shrubbery.

Safety in the housing area

Comparison of yards

The importance of well-kept

**Examples of questions**

What is a well-kept yard to you?

How would you describe the state of this yard?

Is it well-kept to you?

Describe what you notice and react upon.

Can you describe an occasion when you found it particularly well-kept or the opposite?

Is there something in particular that you notice about this yard?

How do you experience this yard at night?

What is particularly important for your impression of the yard?

If you compare the yards, do you find them similarly well-kept or not?

What does it mean to you to have a well-kept yard?

Individual walking interviews with housing staff

**Themes**

The ideal of well-kept

The state of the yard

Details

Comparison of yards

Improvements of the work

**Examples of questions**

What is a well-kept yard to you?

How would you describe the state of this yard?

Is it well-kept to you?

Describe what you notice and react to.

What are you particularly pleased with in this yard? Not so pleased with?

Describe an occasion when you were particularly pleased with the state.

Is it something in particular that you notice about this yard?

What do you find particularly important in the maintenance of the yard?

Is there anything you think should be done more often here?

If you compare the yards, do you find them similarly well-kept?

Is there anything that would simplify your work in keeping the yards well-kept?

How do you think the yards would look in 10 years with the same upkeep as today?

If you would get extra resources for the maintenance of green spaces, what would you prioritise?

Follow a day of work with maintenance staff

The themes were the same as in the interviews indoors with this group. The interview-guide was thus similar but contained more detailed questions on prioritisation and how they worked, *e.g.* how they reacted to littering, prioritised among different duties and housing areas, *etc.*