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Promoting neighbourly interactions by the common use of green spaces

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Promoting neighbourly interactions by the common use of green spaces

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1. Abstract

The paper aims at discussing physical and organisational preconditions for the promotion of neighbourly interactions in residential environments. These interactions decide whether neighbourly relationships are predominantly perceived as pleasant or rather conflictual. Based on an interview study and two participation processes, the paper analyses the residential environments' function of promoting neighbourly interaction. In this context, it investigates chances and risks of physical and organisational frameworks regarding participation in redesign, common use and care-taking of green spaces in German Post War housing estates. As common pool resources, these spaces offer several forms of use, although noisy and vivid activities are generally not welcome. Moreover, designed and maintained by professionals, participation in shaping one's own living environment as well as common care-taking by residents is rather unusual. However, good practice examples show that creating opportunities for common use, participating in the environments' design and care-taking may not only create accepted spaces for neighbourly interaction, but also directly stimulate neighbourly relationships. Summarizing, an accepted and liveable environment must not only offer physical facilities, but needs adequate institutional arrangements for their use and has to meet the residents' interests.

**Keywords: neighbourhood interaction, common pool resources
residential green spaces, participation**

2. Introduction

Lately, a Berlin newspaper reported that a housing company did not accept a family with three children to move in their post-war housing estate. They argued that they could not expect of the older residents to accept playing children in their residential environment and that they worry about consequential care-taking costs to be borne by all residents. On the one hand, this emphasises the strong interrelationship between social problems and the physical environment. On the other hand, this type of "management" enforces exclusion rather than intermediation.

The core problem with commonly used green spaces is that of potential overuse and destruction of the resource. Moreover, rival use can lead to users restricting the potential use of others and/or affecting the quality of the public good (Ostmann et al. 1997, p. 107). Similar problems can be found for semi-public goods (*Allmenden*) like residential green open spaces. Therefore, the implementation of institutional arrangements for their use and care offers a chance to foster economical, ecological and social sustainability on a local level. Here, a Common Property Regime (CPR) as a system of rules and rights can serve as a starting point for developing a management system for commonly used residential greens as well as for the improvement of the neighbourly community.

In order to analyse existing arrangements for the use of residential green spaces, we carried out an extensive interview study in six German post-war housing estates in Berlin in 2003/2004¹. This empirical analysis was conducted in the context of an interdisciplinary

¹ The interviews were designed as qualitative, problem-focused and semi-structured interviews of one up to two hours. In order to obtain a cross-sectional sample, we tried to consider different groups within the neighbourhood concerning age, children in the household, migration background and sex. A total number of 53 residents were interviewed. The interviews were evaluated with ATLAS/ti, a software programme for qualitative data analysis.

project on social and physical changes in German post-war settlements². One research focus was to analyse the role of residential green for the local social atmosphere. We tried to capture what residents think of the state of their residential environment, if and how they use and appreciate it, what conflicts arise by the use of green spaces and how conflicts are solved. Another major field was the neighbourhood: What kinds of contacts exist regarding to their frequency, intensity and quality? Where do contacts take place? Referring to the evaluation of that interview study, the project conducted two participation processes involving residents in the redesign of residential green spaces in 2005. In this context, we developed a new participation method called “The Green Folder” that allowed residents to creatively express their wishes and ideas on liveable residential green open spaces³. In the following, we present our findings on the role of commonly used residential green spaces for the promotion of neighbourly interactions that are based on the results from the interview study and the participation processes.

3. Semi-public green open spaces in post-war housing estates

The planning of German post-war settlements of the 1950ies and 60ies is based on the idea of creating urban neighborhoods that provide good living conditions for working class families. A line structure of buildings mainly developed by the Bauhaus architects in Dessau, was regarded as the most promising settlement form to fulfill these goals. The basic idea of line-structured settlements was to establish neighbourhood units of 500 to 2000 inhabitants, providing enough green space to create a park-like feeling in central urban areas. The following aerial photo illustrates this particular building type:



Figure 1: Berlin-Neukölln: Settlement “Tropfsteinweg”⁴

Today, line-structured settlements comprise a third of the total amount of dwellings in Germany. As they are mainly built and owned by cooperatives or municipal housing societies, rents are still comparatively low. For these post-war settlements provide good living conditions, particularly in comparison to the big housing estates of the 1970ies, they are quite popular. So, apart from a big proportion of first generation tenants, particularly a lower or higher middle-class population moves to post-war settlements.

Regarding the green spaces within line-structured settlements, we can distinguish two types that differ according to their degree of privacy and their location within the estate.

² Research Project “Line Break” (“Zeilenumbruch”). „Line Break“ refers to the recent changes in German post-war settlements characterised by a line-structured building arrangement. The project was funded by the German Federal Ministry of Education and Research. Full title: “Structural Alteration rather than New Construction: Potentials for the Socio-ecological Redesign of Post-war Housing” (www.zeilen-umbruch.de).

³ For further informations on the interview study and the participation process, please contact the authors.

⁴ Post-war settlement in the south of Berlin.

On the one hand, there are green spaces between the building lines that are directly assigned to the bordering houses:



Figure 2: Green interspaces in the settlement „Tropfsteinweg“

On the other hand, there are rather public green spaces in the centers of the estates that have a more open, park-like character:



Figure 3: Park-like, spaciouly greens in the settlement „Tropfsteinweg“,

As semi-public spaces, open access is typical for these residential environments. Even on green spaces with physical and visible boundaries like fences, hedges or a heightening of the lawn as a “soft border”, non-residents can enter, too. Consequently, the common pool resource is not explicitly appointed for residents use only. Therefore, these spaces are rather delimited by social conventions of property lines, sometimes supported by signs that prohibit trespassing.

Communal green open spaces within or near residential areas have a particular significance for less mobile sections of the population, such as children, senior citizens and handicapped, but are also of a high value for after-work recreation. However, as the Berlin Senate states, the simply designed green spaces in post-war housing estates, also ironically named as “distance green”, only possess a minor leisure quality that cannot compensate for deficits of public green spaces (Berlin Digital Environmental Atlas 2006, chap. 06). Raising their quality, residential green spaces in German post-war housing estates could serve as commonly used recreational areas and meeting places on the doorstep. But how do green spaces become meeting places? The next section analyses the conditions of neighbourly interactions in residential environments.

4. Neighbourly interactions on residential green spaces

Identification with the residential environment

During the last decades, the social development of urban districts has become a major field of action for urban planning. As many institutions and programmes (e.g. the German

programme “The Socially Integrative City”⁵, the Berlin Local Agenda 21, INTERREG IIIC of the European Commission etc.) document, the main goal of social urban development is the social cohesion of the local population. Social sciences are implicitly or explicitly concerned with social cohesion in neighbourhoods by analysing theoretical concepts like social capital, social networks or social urban development (cp. Haus 2001, Senatskanzlei Berlin 2000, Putnam 2000, Coleman 1996, Bourdieu 1983 etc.). In this context, social cohesion is usually connected to “good” neighbourly communities providing trust, company and support to their members. But what is the relation between social cohesion and green spaces in residential estates?

Within integrated urban development strategies, the social development is often connected to the physical regeneration of urban districts. This indicates that public spaces play an important role for the social atmosphere in neighbourhoods, since they function as meeting places for the local population. However, neglected or indefinite environments can also impair the social community by creating an atmosphere of insecurity or anonymity. When reviving public spaces, social urban development strategies generally aim at promoting the social cohesion of local communities by increasing the identification with the living environment. The programme “The Socially Integrative City” for instance demands in the action field “housing” the “support of active neighbourhoods” and the “promotion of the identification with (...) the residential environment” (DIFU 2000). Equally, the Berlin Senate for Urban Development states that “the quality of the public space essentially influences the residents’ identification with the urban district” (Berlin Senate for Urban Development 2004, p. 5). Due to a higher concern of the local population, semi-public spaces like those in German post-war settlements represent even better conditions for identification than completely public spaces. Therefore, our analysis of the impact of green spaces on neighbourly interactions focuses on their function for promoting identification with the personal residential environment in order to strengthen the local social cohesion.

However, identification with the personal living environment is a popular, but indistinct goal of modern urban planning. Besides rational, social and emotional relationships, identification is defined as the highest degree of commitment to the own living environment (Hoorn 2000, p. 44). While rational ties refer to certain practical characteristics e.g. low distances to work or school, social ties depend on the social contacts within the neighbourhood. If a person is rationally and socially tied and additionally feels a certain bond to the physical environment, one can speak of an emotional relationship. Identification is achieved by living in the neighbourhood for a longer time and feeling “rooted” in the district. In this case, residents express that the neighbourhood somehow represents their personality to a certain degree. All degrees of personal ties to the neighbourhood result from an interaction between social and physical factors. In this context, Hoorn distinguishes residents’ demands from neighbourhoods’ offers (Hoorn 2000, p. 43 et seq.) that should correspond in order to establish a bond to the personal living environment.

Within the neighbourhood’s offers, we can distinguish social from physical offers. Regarding social offers, the precondition for an identification with the residential environment is that there are no conflicts between the residents (rational bond), while the ideal is to identify with the neighbourly community. Since neighbourhoods are the more harmonious, the more socially homogenous their residents are (Friedrichs 1983, p. 250), an identification with the social residential environment is more probable, if the resident considers his neighbourly community as appropriate for him. The most obvious sign of a social cohesive neighbourly community are regular and intensive contacts between the residents. Considering German post-war settlements, social key parameters are the dominance of elderly residents often representing more than two thirds of the local population, as well as the preference of German or migrant families to move to these estates due to their qualities for children, such as the car-free design with extensive green spaces. Thus, referring to the neighbourhood’s

⁵ www.soziale-stadt.de

social offers, the local population is basically polarized in families and elderly residents that have quite different demands regarding the use of green spaces.

Regarding physical offers, green spaces in residential estates should meet four bond potentials of urban spaces: Social meeting opportunities, functional equipment, aesthetical appearance as well as a symbolic meaning in order to promote the residents' identification with the own living environment (Hoornt 2000, p. 44). Within our research on the role of green spaces in German post-war settlements, we analysed the residents' view on all four aspects. However, focusing on the role for neighbourly interaction, the provision of social meeting opportunities is the most relevant bond potential of green spaces for the resident's identification with the own living environment. In German post-war estates, the most important physical key parameter is that green spaces are usually designed as so-called "distance green", which means that apart from few shrubs, they usually consist of a simple lawn between two building lines. Hence, in comparison to other (semi-) public spaces in neighbourhoods like e.g. public buildings, plazas or streets, green spaces in post-war estates generally have an indistinct function. In order to define them as places for social meetings, the residents must appropriate them by an active use. An accompanying measure of promoting the appropriation of residential green is to involve the residents in design and care-taking of the according spaces. In this respect, also the local physical offers for the residents' identification are closely connected to the goal of promoting neighbourly interactions.

Patterns of neighbourly interactions in semi-public spaces

In communication theory, a neighbourly community is based on neighbourly relationships that are usually defined by regular interactions between the residents. Obviously, a "good" neighbourly community consists of "good" neighbourly relationships. In this context, residential environments can either promote or restrict interactions between residents in general and – to a certain extent – affect the quality of the according relationships. In spite of the present popularity of social urban development strategies, there are still only few analyses that deal with the question of how living environments actually influence the social life of their residents. In order to explore how green spaces can promote or restrict interactions between residents and to explain how they can affect the quality of the according relationships, one must have a closer look on communication processes within neighbourhoods.

First of all, the perception of a "good" neighbourhood is generally based on a subjective construction of the personal social living environment. So, the resident's judgment of good or bad relationships is based on his or her own experience as well as on the observation of the local public life. When asked for their neighbourly relationships, the interviewees firstly described direct personal contacts, which are usually perceived as pleasant private or group meetings: *"I meet my neighbour every morning and we walk together, no jogging, no nordic walking, just walking the dogs and then, we also talk to each other, of course"* (BLS 1). It is also common to explain neighbourly relationships by an exchange of support: *"I give her the keys and ask, if she could supervise them or I'll bring them over or she brings her children around"* (BLS 10). Consequently, at first sight, residents define neighbourly relationships by direct and active contacts to other neighbours. If these contacts consist of exchanging support, the according relationship is perceived as "good", while quite obviously conflicts to neighbours result in a perception of "bad" relationships.

However, involving less conscious communication processes, indirect and passive contacts also significantly influence the residents' view on their neighbourhood. According to Watzlawik, Beavin and Jackson (2000, p. 51), *"one cannot not communicate"*, so every kind of interpersonal behaviour, such as gestures or a certain glance, is a mean of communication and transmits a message to the counterpart. Therefore, an image of the neighbourly community can also simply be based on non-verbal communication. An interviewee described this kind of communication within very weak neighbourly relationships as follows: *"You live next to each other, greetings, don't harm each other, you are sometimes annoyed"*

with others, that's how it is" (BLS 3). Another one pointed out that "even the elderly" neighbours are astonishingly open, but answered when asked for her contacts to neighbours: "No, I don't have any contacts, only in the hallway. You are kind and say hello, but no closer contact" (BTR 2). Another resident stated that she has no contacts, but still a strong feeling of trust and security, "since everybody looks after everybody, nothing disappears here" (BLS 4). On the opposite, passive contacts can also promote a feeling of insecurity and fear: "I'm really scared, as you know these guys from hearsay – they sell their own grandmother" (NMP 4). As there are no direct contacts, very weak ties are also a basis for prejudices: "Most of the families here are on welfare and these guys have nothing to do the whole day. So they spread out and set up swimmingpools for the kids (...) they are loud, talk until midnight, as if the whole area belongs to them" (NMP 3). Consequently, passive neighbourly interactions seem to influence the personal perception of the neighbourly community rather indirectly and unconsciously. By affecting images of the neighbourhood, they are, however, as relevant as active interactions for the residents' view on their social environment. Moreover, they also have a considerable impact on the use of residential environments.

Thus, it is important to take both active and passive interaction into consideration when analysing the role of residential environments for neighbourly interactions. While active interactions affecting stronger relationships do generally take place within buildings or in the private space, i.e. from door-to-door, the interviewed residents mainly reported of passive interactions on green spaces. However, according to the urban development goals of promoting social cohesion and an identification with the living environment, it is important to stimulate active neighbourly interactions on green spaces, i.e. the common use and care-taking of the residential green, as well. But what are actually risks and chances of neighbourly interactions on green spaces?

Regarding the construction of "good" neighbourly relationships by supportive interactions, the interviewed residents distinguished the following categories of support exchange⁶:

Interaction	Support category	Examples
Active interaction	Active community building	Sharing interests e.g. children, church, gardening etc.
	Bigger mutual aids	Supervising children, dietary group, watering flowers during vacation etc.
	Active integration	Invitations, common activities (swimming etc.)
Passive interaction	Passive community building	(„convenient“) social control, common feeling of security, well-being etc.
	Small mutual aids	repositing a parcel, giving information for new tenants etc.
	Passive integration	„Hello and good bye“, knowing each other, feeling of being at home, etc.

Table 1: Classification of support within neighbourly relationships

According to this, green spaces can promote the construction of a "good" neighbourly community by offering opportunities for interactions that promote the exchange of mutual aids, as well as integration and community building processes. While residents rather exchange mutual aids from "door-to-door", i.e. in the private space, integration and community building processes based on passive interactions actually occur in semi-public or public spaces. Since common use of the environment is rather unusual in German post-war settlements, residents are more likely to express their cognition of integration and community building by personal feelings and observations rather than by direct contacts in open spaces. One interviewee for example explained that she does not recognise a "good" neighbourly community and that her observation applies to the whole neighbourhood with the exception of elderly or Turkish residents, "since they have a completely different social life – there's

⁶ The according interviews were literally transcribed, and subsequently coded and categorized by using the software Atlas ti.

more family! Concerning us German people from the younger generation, it's like 'I'll better close the door!' (BTR 4). She also connects this image of her neighbourhood with the existence of a public life by comparing her present neighbourhood to her former one: "Before, I lived in the 'Graefe' district (...) and there were always some people sitting in the courtyard or you knew the others from the street" (BTR 4). As this example shows, residents describe a social cohesive community by the perception of frequency and intensity of contacts in public or semi-public spaces: A good community maintains frequent family-like contacts in the environments, while in an anonymous neighbourhood, residents "close the door" and seclude themselves in their private space.

Consequently, in residential semi-public spaces, one can observe, if neighbours maintain stronger relationships or not: "Not in the house, you have to go outside, like the women on playgrounds, the children, all nationalities, they are talking to each other" (SBW 3). In this context, the pure observation seems to be sufficient to produce an image of the neighbourhood: "In the evening, this neighbour and another one sit at the table over there, talking and so on. That's nice. Even if you don't join them, it's convenient, the atmosphere..." (BLS 11). Thus, green spaces can indirectly promote a "good" neighbourly community, if they are appropriated by the local population. Regarding physical offers, the according green spaces should provide meeting points that either fulfil certain functions e.g. a café, a neighbourhood center, a chess field, or are of an indistinct use, such as a pond with benches or table settings, in order to be appropriated. Referring to social offers, residents should be integrated in the design, use and care taking of the residential environment in order to make them feel responsible for the local green spaces. However, both, active or passive interactions on green spaces stimulated by the according social and physical offers can also result in conflicts between neighbours.

Thus, regarding the definition of a "good" neighbourhood by the absence of conflicts, competing claims on green spaces can also give a hint on the quality of the local community. As the incident introducing this paper illustrates, many post-war settlements are marked by an interest conflict between elderly residents preferring a quiet and "clean" atmosphere. But, families, children, teenagers or residents of a migrant background would like to use the green spaces for leisure activities and often start appropriation due to the absence of regular meeting points. Though, this is not always welcome. As one interviewee reports, formerly "the girls used to play with their dolls and plaids, quite cute, and in the afternoon, the 14- or 15-year-old played with the ball (...) But now they have put plants all over, as they do not want that anymore" (BTR 3). In contrast, some residents also call attention to teenagers on green spaces: "There are some conflicts, mostly with the youths (...) a problem with unemployment, they don't know where to go to. So, they linger around, deal with drugs and make some trouble" (BLS 2). All residents based their opinion on observations, i.e. passive interactions, on green spaces, since they did not actively interfere in the according situation.

Options of avoiding conflicts by the design of green spaces are limited. Thus, it is more important to indirectly influence the residents' perception of the neighbourly community by additional structural measures that help to mediate between different user groups. Therefore, it is necessary to detect relevant sources of conflicts regarding the common use of green spaces and to stimulate an active discussion on that with those directly (potential users) and indirectly (e.g. those annoyed by noise) affected. Further information on how to organise the common use, care taking and design of green spaces and to negotiate different preferences of residents will be given in the following section on Common Property Regimes.

5. "Tragedy of the commons" on residential green open spaces

The "Tragedy of the commons" results from the non-existence of an identifiable group managing the resource together with open access and rivalry in consumption. This can lead to inefficiencies and possible destruction of a public good-resource (e.g. Swiss Grazing Commons/ *Allmenden*) (see Hardin 1968, p. 1243 et seq., Stevenson 1991, p. 2 et seq.). The term "commons" refers to the property rights in which the common pool resource is held. It is a social institution, not a physical or tangible object (Feeny/ Berkes/ McCay/ Acheson 1990,

p. 3, Stevenson 1991, p. 40). While private property is not the only or necessarily the best solution to open access problems (Stevenson 1991, p. 39), a common pool resource can be managed in a common property regime (CPR) situated between public and private ownership. In cases with restricted access, a well-defined group of users has the possibility to develop a common management i.e. to arrange and systemize the use of the resource (see Stevenson 1991, p. 2).

Referring to the residential environment, the economic theory of common property regimes can serve as a framework for developing management systems that go beyond the existing ones. Even if held in private property by housing companies, residential green open spaces in post war housing estates are characterised by rivalry in consumption and a more or less open access which means that potential users can not easily be restricted from using or entering the settlement. Moreover, the owners often manage the resource by outsourcing care-taking activities to professionals, which results in a corresponding lack of responsibility on side of the residents as users. Remarkably, this partly holds for cooperative housing societies as well, although here users are owners at the same time.

With regard to the appropriation of residential environments, the Berlin Local Agenda 21 Draft from April 2004 demands the promotion of residents' participation in municipal housing companies. Moreover, another "action goal" is to transfer care-taking activities to the residents as far as accepted by the owners (Stadtentwicklung 2004, pp. 28-29). Until now this goal is realised in intercultural or community gardens as commonly used green spaces, but it should be fostered in "regular" residential green spaces, too.

To be managed as common property, green spaces should comply with the following characteristics (Stevenson 1991, p. 40 et seq.):

1. well defined boundaries (e.g. physical and social parameters);
2. resource extraction by multiple included users;
3. a well-delineated group of users distinct from persons excluded from resource use;
4. explicit or implicit well-understood rules among users regarding their rights and duties to one another about the resource use;
5. competition for the resource imposing negative externalities on each other;
6. joint, nonexclusive claim on the resource before appropriation or use;
7. a well-delineated group of right holders, which may or may not coincide with the group of users.

The following section analyses in how far residential environments of German post-war settlements as common pool resources meet these preconditions for constituting a common property regime in the view of the residents.

Boundaries of the resource unit

Green spaces in German post-war settlements are physically framed by the adjacent buildings on two opposite sides and by more or less public paths on the other sides. But, how do residents individually mark off their green spaces? The definition of the resource boundaries manifests in the way residents occupy their residential green open spaces and care for them. Some of the residents get involved in sweeping and replanting the grounds, parents care for tidiness on playgrounds (e.g. collecting cigarette stubs), and so on. *"...over there, there is an area, I can show you there was only weed. I got angry about that, so I bunked it and sowed grass. My wife planted flowers. And then, they asked: 'Why do you do that'? (...) And then I say, I like to have it nice here (TSW 3)."* However, others remark that *"There are landscape architects and gardeners who care for the greeneries. The neighbours only care for their own gardens"* (NMP 10). In that way, they signal what part of the area they do - or do not - feel responsible for and use for leisure activities. This is not identical to the acceptance of the use by others causing externalities. A general appreciation of common use

and care is presented in the following statement: „*The outside belongs to me, too.*” (BTR 2). Other interviewees associate entering the residential green open spaces with a feeling of being at home: “*I must honestly say, it starts here at the Britzer Damm, where the green starts...(...) I felt at home from the beginning...(...) Perhaps it was the spacious greenery, and simply the silence.*” (BTR 1). Another interviewee answered on the question, how he would define his home district: „*Yes, sure, the settlement belongs to it. It’s not just our garden and our apartment. It’s the whole area*” (SBW 8). Additionally, a great part of the interviewees acknowledge their residential green as designated for common use and care, which is in need for a management system like CPR.

Admission and exclusion from resource use

In the interviews and the participation processes, two major areas of conflict became obvious: Firstly, the competition of use between residents and non-residents and secondly, the competition of use among different groups of residents. While residents have an explicit right to use their green surroundings, non-residents do not have this explicit “permission”, although access may not be restricted by the owner. This revealed as a major problem within one of the participation processes conducted. Residents welcome garden furniture on their green spaces for their own use, although they fear the misuse of benches and picnic tables by non-residents, especially people drinking alcohol. In the participation workshops, they stated their actual experience with people entering their residential environment, causing noise and waste. Most of the residents are elderly people that do not have the courage to intervene as a single person. Particularly in the evening or during the nights, janitors or security personnel to address to are not on site. As a result from the participation measure, a portable bank will be placed in front of a central laundry building. By day the housekeepers on site have an eye on it and lock it up during evening and night time in order to keep off the non-residents. A measure resulting from the participation workshop was to establish “godparenthoods” for certain benches, which means that volunteering “godparents” care for one bench and intervene as a group in case of an unwanted occupancy. This example shows the importance of combining the design and furnishing of green spaces with rules and institutionalized solutions accepted by residents.

Rules among users regarding rights and duties about resource extraction

By demanding well-understood rules, Stevenson refers to the most important rule for commonly used resources: Common Property Regimes need some method to control who may take how much of the resource. An additional set of rights should define

- the amounts of the resource a single user can exploit or consume,
- how rights can be transferred,
- what financial obligation a user has to the group,
- what work requirement he or she has and
- how the rules themselves are changed.

Those rights can be accepted formally or informally, explicitly or implicitly. In traditional societies, institutional structures govern and manage the resource, put into place by the users. Nevertheless, rules and conventions of resource extraction under common property regimes always appeal to some authority higher than the individual user or any subset of users. This authority may be formal (e.g. a janitor or a housing company), or may exist in an informal manner as group consciousness and peer pressure (Stevenson 1991, p. 41 et seq.).

Signposts are obvious means to express rules and duties. Throughout the residential environment, they mark areas, where people are not allowed to trespass, cycle or to walk their dogs.



Figure 4: „Playgrounds are not made for dogs!“



Figure 5: „Keep off the grass!“

While dogs are predominantly not welcome on playgrounds because of security and sanity reasons, the prohibition of the use of green spaces is controversially discussed. Some residents defend a more extensive use, e.g. *“that one can do something, perhaps cultivating vegetables. A granny would have fun to get some fresh tomatoes from the garden or strawberries or else. And, first of all, this could be interesting for the kids, that they can cultivate a patch on their own”* (NMP 1). However, others complain *„that certain families spread out in front of the door. Surely, it’s a question of organisation by the administration, since these outdoor facilities are not completed yet, people occupy the whole lawn. But, I don’t know, if this is the way it’s supposed to be.”* (NMP3).

Explicit references to what is allowed on site are rather unusual. Prohibitions and allowances are formally and explicitly put down in the house rules. These documents incorporate rules referring to a joint, nonexclusive claim on the resource before appropriation or use as a prerequisite for CPR. According to the German Tenants’ Federation (DMB - Deutscher Mieterbund), the house rules organise the common life of all residents in a housing estate concerning noise, playing children, cleaning the playground, the right to bring friends of children, barbecues, vehicles, pets and the cleaning of the staircases and of the environments (DMB 2006). Following the Federation’s standard house rules, residents are responsible for the cleaning of the house, too. However, today, most of the housing societies have outsourced those services including care-taking for green spaces. Referring to the children’s demand of playing this should be met in an adequate manner. But, as the initially described incident shows housing companies often find solutions worth to criticise. In contrary to that practice, we found a general acceptance in three of the five settlements studied: *“Children are loud. Children exist to be loud”* (BLS 8). Obviously this acceptance is connected to the high proportion of families with two or more children living there.⁷

Mainly focusing on silence and tidiness, most of the existing house rules do not always meet the needs of all resident users, especially of those who prefer a more intense use of their residential environment. However, a more intensive use has to be accompanied by a broader set of rules and rights, which should be established with the participation of those residents concerned.

Referring to the rule that states the need of the rights and duties about resource extraction, the term “extraction” has to be qualified in the case of residential green open spaces. Common gardening on commonly used green open spaces in urban residential areas is rather unusual. Therefore, the term extraction has to be understood in a more figurative way referring to the aspect of recreation. What kind of recreational functions can be “extracted” by users? How can users “exploit” the resource? Within the interview study, we asked for the relevance of residential green open spaces.

The most obvious advantage of residential green spaces in German post-war settlements seems to be that it is just green: *“There is nothing special here, unless it’s green. (BTR 21)”*.

⁷Children of all ages including adults. The average number of children per household is in e.g. BLS = 2,7.

Almost half of the persons interviewed referred one or more times to the aspect of green. They are looking forward coming home looking at “*beautiful flowers and all that greenery*” (BLS 1), appreciate the existence of lawns and trees: “*It was very important for me that I have a tree right in front of my nose.*” (BLS 6).” Within the participation process a landscape architect reported that cutting down trees resulted in vehement protests from residents losing shadow and screening from view. Moreover, many interviewees appreciate trees, because they absorb exhaust gases and make the residential environment looking well-kept. The connection of greenery and silence was stated by several interviewees from different settlements. Moreover, residents emphasised the view on a park-like surrounding and the natural design of the green spaces. A visitor felt like being in a village, as one interviewee reported. Asked for their wishes on future measures within their residential environment, two residents explicitly expressed their wish “*to conserve the green open spaces within the next hundred years*” (NMP 7, TSW 4).

Besides the recreational function of a green view, residential green spaces are used in different ways. One interviewee set priorities to the aspect of using green spaces at all: “*Lots of grass, that is beautiful, sure, but it looks as if it is probably not used at all. But I think grass is beautiful, only if it is just used*” (TSW 4).

How far the residential environment can play a major role within the daily life depends on several facts. As far as the results of the study are concerned, characteristics like the family situation and age (singles, young people with children, elderly with adult children, elderly without children), job situation, the existence of attractive offers nearby or the mobility of people influence the use and appropriation of the personal residential environment. One elderly interviewee for example states that she does “*not have [young] children anymore, so the playgrounds are of no interest*” (BLS 1). Another interviewee refers to a lawn, where twenty to thirty teenagers sit, which from his point of view “*feel extremely comfortable*”: “*As an elderly person, I say to myself that I do not have to have that anymore. I read and travel a lot, so I don't care that much to sit over there.*” (NMP 3). In contrast, another resident explains: “*For myself, if I were older, I would live in the city centre, to be closer to everything, (...) but if you have children, you want the children to have space for moving*” (BLS 2). Some interviewees also emphasised public parks or forests as preferred alternative: “*We do have a municipal park, it's a bit far from here, [but] it's a nice way, most of the times we go there*” (BLS 13) or: “*We do have nothing to do anymore, just our garden, and us. For taking a walk, we go to the forest*” (TSW 2).

Within the residential green spaces studied, the design and the garden furnishing, as well as their use differ widely. In some estates, residents perform a wide range of leisure activities like taking a walk, playing football or having a picnic, supported by the corresponding playgrounds and garden furniture. Moreover, some housing companies create attractive green spaces offering the possibility to play chess, table-tennis or organise a barbecue. They start contests for the prettiest balcony or allow residents to replant assigned areas. In some cases, residents appropriated those spaces on their own behalf. Other residents started to care for the green spaces in the back of their houses without formal allowance, because of the bankruptcy of a gardening-company. In other estates playing, picnic or other forms of potentially noisy and vivid recreational activities are not allowed at all. Here, most of the residents want to have a “green view”, but do not want to be bothered by extensive use of the residential environment. To bring together the different demands and needs of various user groups, one has to have a closer look on the negative externalities that are imposed on each other by using or not allowing the use of the residential green open spaces.

Users' competition for the resource and externalities

The extensive use of the green surroundings produces conflicts among different resident groups. Major conflicts concern noise, waste pollution (papers, empty bottles, dogs' excrements), destructive and sometimes violent behaviour. Moreover, conflicts generally arise on uses that are neither intended by the housing companies nor welcome by residents. So, for instance, teenagers occupy playgrounds that are meant for children only or non-

residents use facilities that are intended for local residents' use only. Consequently, this can impair the recreational function of residential green open spaces and lead to visible negligence or even destruction of green spaces and their furnishing. However, the financial impact of measures that may help to reduce those unwanted consequences of (mis)use like a commonly organised planning and care is often not evident, since within many housing companies vandalism costs resulting particularly from graffiti or damaging benches are not systematically collected.

One point of interest of the study was to analyse the increasing noise pollution by an intensified use of residential green spaces due to more offers for individual and collective leisure activities. We found out that particularly activities like barbecues, children playing, as well as listening to loud music and loud disputes inside the apartment are sources of negative externalities. Many interviewees point out the importance of silence as a quality and complain on noise pollution caused by children, the "foreigners" etc. and referring to stereotypical explanations, such as: "[it's due to] *the mentality they have and to their tradition, they have another rhythm of life, for example, they stay up till late in the evening, while I have to get up early*" (BLS 3). The noise caused by children is discussed controversial depending on ones own actual living situation (e.g. having own children or grand-children, being single and so on).

Summarizing, with different groups of users, one must always balance different demands in order to meet the needs of different resident groups (e.g. elderly and working people) for recreation by simultaneously promoting the use of common green open spaces as places for leisure activities and as meeting points.

6. Conclusion: Promoting neighbourly interactions by the common use of green spaces

Regarding the resident's relationship to the residential environment, the identification, i. e. a high emotional bond to the social and physical living environment is the most important urban development goal. In order to reach this goal, the role of green spaces in urban residential areas is to offer opportunities for supportive interactions between neighbours by creating meeting places such as table settings or sports' facilities for common activities. However, since passive interactions currently dominate on green spaces in German post-war settlements, it is important to find and eliminate the possible sources of subliminal conflicts based on passive communication on the one hand and to promote active interactions on the other hand. For both requirements, participation in design as well as an organisational framework for the common use and care-taking are important means for promoting interactions and reducing conflicts. This has to be accompanied by institutional arrangements allowing different groups of users to fulfil their individual, recreational needs without destroying the resource.

In this context, the Common Property Theory offers an approach for rethinking the idea of common use and management not only in housing cooperatives, but also in tenants' housing. As an easily accessible participation offer for different resident groups a common property-orientated management of green spaces in residential environments could meet social, economical and ecological sustainability goals. People appreciate their green residential environment and get involved in care-taking activities without being entitled explicitly. They are experts for design and a form of use accepted within a settlement, so they can develop implicit rules and actually do so. Therefore, conflicts and competition can neither be avoided nor solved by restrictions and explicit top-down rules only. Consequently, the management of green open spaces should rather refer to the framework of CPR than to the handling as a pure public or private good. So far, it can be concluded, that green open spaces in German post-war settlements show typical problems of common pool resources. Additionally they meet the characteristics for CPR defined by Stevenson, except the last rule referring to the existence of a well-delineated group of right holders, which may or may not coincide with the group of users. This rule differentiates common property from a property tenure in which a private owner grants rights to a group to use a resource (Stevenson 1991,

pp. 44 et seq.). Residents as a user group pass all of the other institutional criteria for common property. Though, the contract between the private owner and the group respectively the single tenant is still the primary means of managing the use of the resource use - and not the implicit or explicit rules that have developed within the neighbourhood. Nevertheless, a kind of common property regime transferring more power to the residents (see also Wendorf/ Felbinger 2006) could be a promising strategy to cope with the problems connected to commonly use of residential green open spaces.

7. Literature

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