Various Images Versus the Stigma of Large Housing Estates: The Leipzig-Grünau Example

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Abstract

Large housing estates (LHEs) in eastern Germany are often stigmatised in media and public discourses. They are considered symbols of the state-socialist era. Furthermore, LHEs are usually presented as monotonous entities without inner variation, also in scientific literature. This poses the risk of a general and thoughtless stigmatisation of these estates. This paper focuses on the concept of territorial stigmatisation. Although stigmatised from the outside, in many cases the internal image contrasts the external one. Previous literature indicates four main aspects that need more attention in scientific studies on LHEs and territorial stigmatisation: (1) a long-term perspective including the area's historical development, (2) the analysis and evaluation of micro-scale data independent of common statistical boundaries, (3) the residents' perceptions of their living environment, and (4) a more critical reflection in the academic discourse about one's own role as a knowledge producer. By using the Leipzig-Grünau LHE as an example, we explore, first, how the internal image has changed over time, and second, whether micro-scale differences within the estate can be identified. We draw on findings of a long-term study investigating the development of the Leipzig-Grünau LHE since 1979. The results illustrate that the respective historical context has had a major influence on image generation over time. Furthermore, a micro-scale analysis reveals that even subspaces in immediate proximity differ with regard to socio-demographic characteristics, the housing and neighbourhood conditions and ownership. In particular, the residents perceive their living environment in a more nuanced way, which influences their image of the estate.

1. Introduction

Large housing estates (LHEs) in eastern Germany have received increased attention from the public and from urban planning institutions in recent years. With regard to the availability of affordable housing and the accommodation of migrants, these neighbourhoods perform an important integration task. Nevertheless, LHEs are often stigmatised in media and public discourses. They are seen as places where a socially deprived population is concentrated, which leads to social conflicts. Through the repeated use of particular wording such as "social hotspot" or "no-go area", this stigmatising procedure continues (cf. Pinkster et al. 2020; Glasze et al. 2012). Negative stereotypes cause outsiders to avoid going there. For many, these neighbourhoods also appear monotonous, grey and uniform. The impression of grey monotony is intensified through common visualisations (e.g. in newspaper articles) that merely show the juxtaposition of colourless buildings. However, during the existence of the German Democratic Republic (GDR), when most of the LHEs were built, such imagery was seen as a positive expression of the guiding socialist principles of equality and uniformity (cf. Grossmann et al. 2017; Wassenberg 2018).

In the decades after World War II, the housing shortage was addressed with mass housing and high-rise buildings erected using industrial construction methods. This strategy has been pursued in West Germany since the 1960s and 1970s, and to a much larger extent in East Germany since the 1970s. At that time, there was a shortage of 2.8 million dwellings in the GDR (Rietdorf 1997: 19). Usually people had to wait about ten years for a new dwelling (Häußermann, Siebel 1996). For this reason, the state leadership decided on a housing construction programme to reduce the deficit by means of industrial housing construction. The residents welcomed the new and modern housing opportunities. In contrast, LHEs today often face stigmatisation that is related to their specific architecture, building techniques and materials, or their peripheral location (Wassenberg 2004; Brattbakk, Hansen 2004; Pinkster et al. 2020; cf. Schultz Larsen, Delica 2019). Furthermore, they are considered symbols of the

state-socialist era and the respective housing and living conditions (Kabisch 2020). This illustrates that a neighbourhood's historical development plays a decisive role in understanding the underlying dynamics of its stigmatisation (Permentier et al. 2008; Dean, Hastings 2000; Junnilainen 2020).

When we talk about stigmatisation in this paper, we are referring to Wacquant's theory (1993) of territorial stigma, or housing stigma (Horgan 2020; Smets, Kusenbach 2020). Territorial or housing stigmatisation means that a certain neighbourhood or a specific form of housing or tenure type is stigmatised ("blemish of place", Wacquant 2007: 67), but not the individuals living there per se. Therefore, we are not referring to Goffman's concept (1963) of stigma that is identity-based (e.g. stigmatisation based on racial, ethnic or class differences). Furthermore, "stigmatisation" is understood as a process and "stigma" as a state, albeit a dynamic one (Horgan 2020). The terms "image" and "reputation" are used here interchangeably. They can be positive or negative, whereas "stigma" always has a negative connotation (Wassenberg 2004; Smets, Kusenbach 2020).

Neighbourhood images can change over time. There is a number of studies that focus on de-stigmatisation strategies, e.g. through estate regeneration and/or social mix policies (Lelévrier 2021; August 2014; Musterd 2008; Brattbakk, Hansen 2004; Hastings, Dean 2003; Raynor et al. 2020; cf. Norris et al. 2018). The findings show that estate or urban renewal does not necessarily lead to a renewal of the area's image (Wassenberg 2004; Hastings 2004; Dean, Hastings 2000). Wassenberg (2004: 290) outlines that changing the image of an estate "is a slow and long-lasting process", and it is particularly challenging as "reputations are connected to the history of the neighbourhoods" (Permentier et al. 2008: 16). Thus, stigma is somehow sticky or intractable (Pinkster et al. 2020; Hastings, Dean 2003; Hastings 2004; Norris et al. 2018). In the worst case, stigmatisation can become a self-fulfilling prophecy. There is also the paradox of when public programmes and interventions aimed at estate regeneration actually

consolidate the stigma by designating neighbourhoods as problem areas (Schultz Larsen, Delica 2019, 2021; Baum, Otto 2020; Lelévrier 2021).

In addition to the temporal perspective, the spatial perspective referring to different scales also needs to be taken into consideration in the context of stigmatisation and image building. Various studies point to different trajectories of LHEs (for a general view see Hess et al. 2018; Kovács, Herfert 2012; Altrock et al. 2018). There are differences within one nation (Gorczyca 2016; Pirrus 2021), within one city (Marques Pereira 2017; Kährik, Tammaru 2010; Szafrańska 2011) and within one estate as well. Nevertheless, only a few studies investigate internal differentiation within one LHE (e.g., Temelová et al. 2011; Lelévrier, Melic 2018). This raises the issue that scientific literature and public discourses usually present these estates as uniform entities without inner variation. Often, a differentiated view is missing. However, this is necessary for a factual discussion on the potentials of residential areas and the challenges they face in terms of avoiding generalising stigmatisation (Kabisch, Grossmann 2013). In order to obtain a differentiated picture, "data at fine-grained geographic scale […] and data that can be longitudinally analysed over time" are required (Hess et al. 2018: 26). Many studies rely on already existing data from national panels or municipal statistics. At the micro-scale, however, comprehensive data are rarely available (cf. Temelová et al. 2011; Lelévrier, Melic 2018). This makes it more difficult to analyse, evaluate and compare subspaces that do not correspond to statistical boundaries.

Beyond that, we stress the importance of the residents' perspective on their LHE in the respective historical context. Their subjective assessments and perceptions provide information about image and residential satisfaction (Kabisch et al. 2021) as well as place attachment (Kirkness 2014). The residents perceive their residential environment in a more nuanced manner (Schultz Larsen, Delica 2019; Permentier et al. 2008). They acknowledge the amenities and also take the shortcomings into account. Most of the residents like living in their neighbourhood and feel connected to it. In particular, long-term residents who have lived in an

estate for decades develop emotional relationships with their residential environment. The residents' positive internal image is often at odds with the negative external image that is contributing to stigmatisation (Wassenberg 2004; Permentier et al. 2008; Arthurson 2012; August 2014; Jensen, Christensen 2012; Palmer et al. 2004). To counteract this, several de-stigmatisation strategies developed by local actors and residents have emerged. For instance, image campaigns, media reports and social and cultural events can contribute to a more colourful and diversified picture of estates. Another strategy used by the residents in stigmatised areas includes the construction of "internal dividing lines" (Jensen, Christensen 2012: 88). This can be in the form of blaming the stigma on certain groups, e.g. the immigrants (Wacquant 2007; cf. August 2014; Pinkster et al. 2020). From a spatial perspective, the residents often distinguish between "good" or desirable parts and "bad" parts within the neighbourhood, or even between particular building entrances (Raynor et al. 2020; Palmer et al. 2004; Wacquant 2018). Pinkster et al. (2020: 537) state that residents identify "particular high rises or squares where social problems are concentrated". Therefore, some authors emphasise that we should speak of several or fractured images, instead of "*the image* of an estate" (Dean, Hastings 2000: 13; cf. Palmer et al. 2004).

Besides the residents, various other actors play an important role in influencing the image of an estate. Hastings (2004) lists community activists, public and private services, and the media, for example. In our view, one essential group is missing in this list and that is the scientists – including their experiences, communication and wording (cf. Wacquant 2018: XXI). Wassenberg (2018) states that most scientists neither live in LHEs nor visit them unless it is absolutely necessary. Schultz Larsen and Delica (2019: 19) refer to academics as producers of knowledge. The authors point out that many of them "wittingly or unwittingly contribute to the production of territorial stigmatisation". Repeatedly using stigmatising phrases such as "socially deprived area" to describe and analyse the conditions and interrelations in a particular area actually helps to consolidate these characteristics instead of eliminating them. August

(2014) emphasises that careful analyses are necessary to avoid inaccurate characterisations. In her paper, she provides a counter-narrative to the common stories about Regent Park, a public housing estate in Toronto, by presenting the positive aspects of the neighbourhood without ignoring the real existing problems, both in a nuanced way.

Drawing on the foregoing, we can identify four aspects that need more attention in scientific approaches dealing with LHEs and territorial stigmatisation. First, long-term studies on neighbourhood development from a social science perspective are indispensable for understanding the dynamics of image generation influenced by the specific history of an area and for detecting path dependencies. Second, there is obviously a lack of micro-scale data and this is leading to undifferentiated statements about certain neighbourhoods, especially those that are stigmatised from the outside. Third, the residents' perception of their living environment is essential for creating realistic images. Fourth, academics need to reflect more critically on their own role as analysts, knowledge producers and communicators who can contribute to stigmatisation through thoughtless wording. This aspect was already discussed in other contributions (Bourdieu 2013; Boltanski 1987).

Against this backdrop, we focus the first three points and address two research questions. To answer them, we draw on the findings of a long-term study that has sociologically tracked the development of the Leipzig-Grünau LHE in eastern Germany since 1979. The focus of the investigation is the residents' perspective on their living conditions and the social environment.

(1) How has the internal image of the Leipzig-Grünau LHE changed over time, based on the residents' perceptions? (Q1)

(2) Are there any micro-scale differences within the LHE concerning socio-demographic characteristics and subjective assessments? (Q2)

We start by referring to the entire Leipzig-Grünau LHE as the overarching spatial scale. Then, we focus on smaller subspaces that we have identified. In doing so, we follow up on our first research findings about the stigmatisation challenges facing this LHE, which we presented in this journal in 2006 (Bernt, Kabisch 2006).

In the following section, we introduce our case study area, the Leipzig-Grünau LHE. After an outline of the methods used, we present our findings with a special focus on long-term and micro-scale data. Then, we discuss and interpret the results. The paper ends with our conclusions.

2. Case study area: The Leipzig-Grünau LHE

The Leipzig-Grünau LHE is located at the western fringe of the city of Leipzig. Characterised by its prefabricated concrete panel architecture, it stands out visually from the surrounding neighbourhoods and most parts of the city. In addition, its rents are among the lowest in Leipzig, which means that the proportion of low-income households is comparatively high here. The Leipzig-Grünau LHE was built between 1976 and 1989 and was the result of a political declaration made by the former state-socialist government in the GDR. The government aimed to solve the housing shortage and provide acceptable housing conditions for the entire population. In the 1970s and 1980s, the estate was typical of new housing construction in East Germany and in the entire eastern European socialist block. Even today, it is still recognised as a symbol of the state-socialist period. This contributes strongly to the image of the estate (Kabisch 2020).

At the end of the housing construction phase in 1989, about 86,000 residents lived in the estate in approximately 35,000 rental apartments, which are arranged in eight housing complexes (Kabisch, Grossmann 2013).

Over the decades and in particular after the German Reunification in 1990, Leipzig-Grünau experienced profound and dramatic development phases, which were reflected by its changing image and ultimately resulted in stigmatisation.

In the initial phase of its erection in the late 1970s and early 1980s, the LHE provided better housing conditions compared to the old, inner-city buildings in need of renovation and renewal. For instance, central heating, hot running water, a bathroom (with bathtub) inside the dwelling, and separate rooms for the children were highly appreciated. Thus, many young family households received an acceptable apartment of their own for the first time. Therefore, the estate became a very young city district that was well equipped with social infrastructure for children and youth. During this period, the estate had a very good reputation compared to other districts in Leipzig (Bernt, Kabisch 2006).

But as early as the second half of the 1980s, the first signs of decreasing housing satisfaction could be found. Serious economic difficulties led to restrictions in the construction process. Six-storey blocks without lifts were built in an effort to fulfil the targets set by the state housing construction company (*Wohnungsbaukombinat*) despite the financial constraints. The new quarters were characterised by very compact block structures and they faced delays in the provision of diverse infrastructure facilities.

In the course of the German Reunification in 1990 and the economic collapse in East Germany, many residents were forced to leave the estate in order to find a new job or an apprenticeship in other regions, mostly in West Germany. Other residents used the chance to move to other, renovated inner-city apartments in Leipzig or to places where they could build or buy a single-family house. At that time, housing stocks in the inner city were renewed and a large number of single-family houses was constructed in suburbia, both supported by state subsidies. This marked the beginning of a dramatic loss of population at the estate which lasted for around 20 years. The number of residents was halved by the end of the 1990s. A

predominantly ageing population remained. Among them are many long-term residents who have lived in the estate since it was built and are still there today (Kabisch, Grossmann 2013).

The unimaginable population loss of this one estate caused a previously unknown level of housing vacancy, underused social and technical infrastructure facilities and the deterioration of overall living conditions. These circumstances forced further outmigration. As a result of these developments, which occurred in more or less all LHEs in East Germany, the government established a restructuring programme for subsidised housing demolition and upgrading. In Leipzig-Grünau, about 6,800 apartments throughout the whole estate have been demolished. This included 15 of the 20 16-storey buildings, which each contained about 130 apartments. These 16-storey buildings had been considered landmarks of the Leipzig-Grünau estate. Plans to tear down entire residential complexes at the fringes of the estate were not implemented. Nevertheless, the public discussion about it created uncertainty and fear among the remaining residents, who were concerned they might have to leave their homes.

The demolition of apartments was mostly carried out by the municipal housing company which faced a huge amount of debt after the complete change in the economic situation following the German Reunification. High vacancy rates, apartments in dire need for renovation and the chance to reduce the company's debts were the key reasons for the largescale demolitions.

In addition to the urban restructuring, the German government amplified existing pressure throughout eastern Germany to privatise the entire housing stock in LHEs. In this instance, privatisation did not mean that the residents bought their apartments, although this was initially intended. They rejected this offer due to lack of private financial resources. Furthermore, many residents did not know if they could stay, because they were threatened by unemployment. The housing stock continued to be rental housing. Up until this point, the municipal housing company and eight housing cooperatives had managed the housing stock. While the housing cooperatives could keep their housing stock, the municipal company had to

sell large parts of its stock. Several private and investment enterprises bought blocks and sometimes resold them. New actors known as intermediate acquirers (*Zwischenerwerber*) appeared. The housing ownership structure became very diverse, opaque and uncertain (for an overview on privatisation and financialisation, see Bernt et al. 2017).

Since then, the ownership structure has settled down. In 2020, 16 private companies, eight housing cooperatives and the municipal housing company were active in the estate. Each housing company pursues its own strategy and targets. Thus, the LHE now features a mixture of different housing characteristics and rental conditions, levels of company engagement, resident demographics and the settledness of residents in the apartments (Kabisch, Pössneck 2021).

This blend of housing companies can be found in more or less all the housing complexes within the LHE (Figure 1). All of them are well equipped with social infrastructure and service facilities – such as supermarkets, schools, kindergartens and healthcare facilities – and have public transport connections. The entire estate has extended green spaces and is adjacent to some large parks. At the western fringe, a lake provides attractive recreation conditions.

In the course of increasing investments since 2010, a stabilisation and a slow growth in population numbers could be observed. In 2020, about 45,000 inhabitants lived in the LHE (see Table 1). A remarkable increase occurred in 2015/2016 when a large number of migrants including many families with children arrived in Leipzig-Grünau. Alongside them, other young residents moved in, leading to a more balanced age structure in the estate.

The entire development was accompanied by a slow change in the estate's image. Repeated top-down image campaigns for de-stigmatisation began, financed by the municipality. Catalogues and brochures describing the living conditions were produced and distributed. But these initiatives only had a short-term effect, if any. The continuous engagement of diverse local initiatives and institutions has proven to be more sustainable with regard to image improvement.

3. Methods

Extensive surveys were carried out as part of a long-term research project in the Leipzig-Grünau LHE, which started in 1979 (Kahl 2003). Between 1979 and 2020, eleven surveys were conducted (Table 1). At the core of each survey, a fixed set of addresses based on street and house number, not on persons, were used. In the course of the project, the sample size grew slightly in order to capture the nuances and specifics of the estate as much as possible.

Since 2004, up to 1,000 questionnaires have been distributed in each survey, reaching a response rate of at least 73%. The addresses were determined based on building characteristics, apartment size, location, ownership and sociodemographic features to achieve a balanced proportion among the variety of housing situations. These addresses are spread over the entire estate. Thus, we can compare the results over time and interpret the data on different spatial scales, from the entire estate to a micro-scale level.

This key method has always been complemented by in-depth interviews with planners, decision-makers from various institutions and representatives of the civil society. Observations, photo documentation, the use of geographic information systems, cartographic visualisations, and other visual material provided were used to document the changes in the estate. We have also analysed media reports and municipal planning documents. All of this has enabled us to gain a comprehensive range of material that promotes the precise interpretation of the questionnaire results (for a detailed description of the methodological design, see Kabisch, Pössneck 2021).

The questionnaire encompasses several equal indicators which were used repeatedly, e.g., those concerning housing satisfaction, neighbourhood relations, sociodemographic characteristics of the respondents and their perspective on the estate's image. The indicator set is complemented by several indicators dealing with topics that emerged at the time of the respective survey. Most indicators consist of one multiple choice question. Several closed indicators are supplemented by a request to explain briefly in one's own words the reason for

the answer given. These explanations are categorised using a content analysis and underpin the results of the statistical evaluation.

To operationalise the image issue and negative connotations related to stigma, we use the key indicator *"Would you recommend moving to the Grünau LHE to a good friend?"*, which was used in 10 of the 11 surveys (except 1983). The respondents could answer "yes", "no" or "don't know". Additionally, they were asked to give a short explanation for their answer. We consider the answer "yes" to be synonymous with a positive image of the estate.

This indicator has been tested and used successfully in several surveys beyond this study. It provides an honest and comprehensive judgement of the housing conditions experienced by the respondents, without confronting them with a request to directly evaluate their personal housing situation. If such direct requests are made, respondents often shy away from answering. But, in relation to a good friend, the respondents can easily put themselves in a hypothetical situation in which they are asked for advice. We proceed from the conviction that no one will give bad advice to a good friend. The indicator was interpreted both in relation to specific groups and spatially.

To further capture the diversity within the LHE, we carried out a micro-scale analysis and identified several subspaces below the housing complex level. They are located in the more densely built and inhabited housing complexes 4, 5.2, 7 and 8 (see Figure 1). These subspaces were identified based on location, ownership structure, sociodemographic characteristics of the residents, their assessments and perceptions. At least 30 respondents per subspace were included.

This procedure resulted in one group of subspaces where positive assessments regarding the living environment dominate, and another with rather critical evaluations. For discussion and illustration, this paper presents examples from these two groups.

4. Results

4.1 The internal image of the entire Leipzig-Grünau LHE from the residents' perspective

The answers to the indicator "Would you recommend moving to the Leipzig-Grünau LHE to a good friend?" provide serious insights about the residents' perception of their housing environment and deliver a broad spectrum of pros and cons related to living in the LHE. The repeated use of this indicator in the long-term study shows varying results (Figure 2).

While in the early stage of the LHE consent reached high values – 78% of the respondents answered with "yes" – in the following period these values decreased permanently until the mid-1990s. At the same time, there was a considerable increase in the proportion of those respondents who expressed concerns and answered "don't know". In the following two surveys after 1979, the consent of the respondents decreased as an expression of perceived shortcomings. The results of the 1992 survey mark a break in the agreement values, reflecting the dramatically changed socio-economic conditions after the German Reunification in 1990. This poor assessment continued until 1995, when the lowest value was reached. In that survey, it is obvious that the highest proportion of respondents doesn't recommend moving to the LHE (28%).

The results of the survey in 2000 show a slight rise in consent caused by the perception of the first upgrading measures. In 2004, the proportion of respondents who would recommend a good friend to move to the LHE grew remarkably to 60% from just 40% in 2000. It reached the highest value in 2009 at 69%. In the following two surveys, it decreased a little. But since 2004, all the survey results have revealed that around 60% of respondents recommend moving to the LHE.

To get deeper insights into the reasons for their answers, the short explanations provided by the respondents were sorted and compared. Considering all the answers of the four surveys since 2004, we can recognise an amazing accordance concerning the arguments used (Table 2).

Moreover, in all the surveys, the number of explanations with positive connotations exceeds the critical ones.

The respondents who would recommend that a good friend should move to the LHE, are those who especially valued the "physical" characteristics of the estate over time. In contrast, those who hesitate or wouldn't recommend a good friend to move to the LHE primarily emphasise features that describe communal life and social relations at the estate. The same positive and critical aspects have been listed in all four surveys. Obviously, this has been consolidated over time.

With regard to the critical factors, the respondents observe a number of people negatively affecting the social relations and the residents' usual daily routines, e.g. through noise or littering. In recent years, this perception is increasingly linked to the inflow of migrants.

Beyond this, stigmatising narratives from outside the LHE repeatedly appear among the reasons for not recommending that a good friend should move to the LHE. Many residents are aware of the negative image from outside, e.g., "Grünau does not have a good image". They complain about the general stigmatisation of the entire estate in the local and regional media if one criminal event occurs. In the survey in 2020, the respondents demanded that their LHE be treated fairly and respectfully. They defend the various advantages of the LHE without overlooking its shortcomings and declare: "Grünau is better than its reputation".

A closer look at the respondents who answered "yes" revealed that several of them added a caveat: they would recommend that a good friend moves to the LHE, "but not everywhere". Thus, we can see that the respondents construct their own internal dividing lines within the LHE. In some explanations, the respondents stress the differences between housing complexes, such as "recommendation not for each housing complex" or "the location within Grünau is decisive". Several respondents explicitly highlight that the place where they live is worth recommending, compared to other locations in Leipzig-Grünau (e.g., "I only like the part

where I live"). Another distinction is made in relation to ownership. In contrast to residents in other housing stocks, those who live in apartments owned by the housing cooperatives emphasise their pleasant residential conditions. This is exemplified by the following explanation: "in areas with housing cooperatives, because there are people living there who are co-owners".

This can be confirmed by comparing the ownership structures with the distribution of "yes" answers to the question "Would you recommend moving to the Leipzig-Grünau LHE to a good friend?". The proportion of "yes" respondents living in residential stocks owned by housing cooperatives (67%) is higher than the proportion of those living in apartments owned by the municipal housing company (44%) and the largest private housing provider (46%) in Leipzig-Grünau.

Using socio-demographic characteristics for a group-specific interpretation, we can state that residents older than 65, people with comparatively higher income and households without children recommend moving to the estate to a higher degree than the other groups (Chi², $p<0.01$).

In the following section, we will focus on subspaces and their different characteristics that influence the internal image.

4.2 Micro-scale differences within the Leipzig-Grünau LHE

In this section, we present the results of a micro-scale analysis based on the 2020 survey. All in all, we identified ten subspaces. In this paper, we focus on four subspaces. They are located in the housing complexes 4 and 5.2 (see Figure 1 for an overview).

Although in close proximity to each other, the selected subspaces differ remarkably (Figure 3). In the subspaces 5.2 and 4.1, the proportion of respondents who answered "yes" to the question "Would you recommend moving to the Leipzig-Grünau LHE to a good friend?"

is above the average of the entire sample (> 60%). In the subspaces 4.2 and 4.3, it is below. The difference is statistically significant (Chi², p<0.05).

This leads to the assumption that the subspaces 5.2 and 4.1 can be grouped together, likewise the subspaces 4.2 and 4.3, as they have further characteristics in common. For comparison, the following indicators were selected: age, duration of residence in the estate, net equivalent income (NEI), and the proportion of respondents who feel entirely comfortable in Grünau. The ownership structure is additionally taken into account, as it has had a decisive influence on the historical development of the LHE. In Table 3, the proportions related to the respective subspace are compared to the average of the entire sample.

The results confirm the above assumption, although a distinction without any exceptions is not possible. For instance, residents in subspace 4.1, who live in 11-storey buildings, express a very high need for renovation compared to the subspace 5.2 residents. Despite this, an above-average level of satisfaction with the apartments is found here. This underlines the internal micro-scale differentiation within the LHE.

Our overall micro-scale analysis – including other subspaces – revealed two main groups: one with predominantly positive assessments in relation to various aspects of residential satisfaction, and another with rather critical evaluations. The subspaces 5.2 and 4.1 belong to the first group, the subspaces 4.2 and 4.3 to the second one. Despite a few exceptions, residents in subspaces with more positive assessments tend to be older, with a longer duration of residence, and a higher income compared to the other group (Mann-Whitney-U test, p<0.001). Furthermore, this group has a significantly higher proportion of respondents who feel entirely comfortable in Grünau (Chi², p<0.001).

The main and most obvious distinction between the two subspace groups is the ownership structure. Whereas the housing stocks in the subspaces with predominantly positive assessments are almost all owned by housing cooperatives, those where the residents express themselves more critically are managed by the municipal housing company or by a private

housing company. The latter is a major foreign property owner that owns more than 4,000 rental units in the Leipzig-Grünau LHE.

5. Discussion

The varying, wavelike answers to the question "Would you recommend moving to the Leipzig-Grünau LHE to a good friend?" between 1979 and 2020 (Figure 2) can be explained by paying close attention to the conditions of the respective context and how they are perceived by the residents. The survey results of 1979 clearly showed that the majority of respondents viewed the housing conditions offered by the LHE as an improvement compared to their former dwellings. Previously, many residents either did not have an apartment of their own or had one in poor condition. Consequently, most of the respondents would recommend moving to Grünau to a good friend. Agreement initially decreased slightly until 1981 and then there was a strong decline until 1987. This corresponds with the economic difficulties that led to the delayed completion of provision and service facilities as well as roads and paths. Additionally, housing satisfaction was significantly reduced by the intensification of housing construction at that time, which resulted in the erection of highly dense residential quarters characterised by six-storey buildings without lifts. This negative trend continues during the period of the German Reunification. Rapidly increasing unemployment and a lack of training opportunities forced many residents to move out of the estate to other locations in Germany (1992). Furthermore, other residents took advantage of the changed circumstances to move to single-family houses in suburbia or to renovated apartments in the inner city. This mass exodus was considered as a distinct sign that residents were rejecting these kinds of estates. In addition to its existing shortcomings, public media and political voices marked and stigmatised the LHE as a typical symbol of the state-socialist regime and argued that it should be eliminated. As a consequence, the housing companies faced vacancy rates of up to 30% of their stock. They were threatened by insolvency, which caused fear among the remaining tenants. Many of them observed a

downgrading of the buildings and the entire estate. At that time (1995), only one third of the respondents answered "yes" to the question of whether they would recommend moving to Grünau to a good friend.

Around this time, state-financed programmes started to stabilise the housing sector. They included the demolition of empty apartment blocks, the upgrading of buildings and surrounding infrastructure and the enhancement of green spaces nearby as well. These growing investments in the maintenance and improvement of the estate were recognised by the residents (Bernt, Kabisch 2006). The increasing efforts to improve the housing and living conditions led to a stable rate of consent of 60% up to and including the last survey in 2020 (exception 2009: 69%). This result is remarkable. It indicates that the majority of the population has had a strong attachment to their place of residence over the last one and a half decades. They appreciate the large green areas, diverse services and provisions for different age groups and the affordable housing. But they recognise the estate's shortcomings, too, namely the deteriorating social relations and persistent stigmatisation from outside.

Although the questionnaire results show a predominantly positive attitude, which is expressed in the reasonably high number of those who would recommend moving to Grünau to a good friend, many respondents stress the need to differentiate between the various parts of the LHE. This perception is underlined by the results of the micro-scale analysis. The identification of several subspaces below the housing complex level illustrates the internal diversity related to the sociodemographic characteristics of the residents, their assessments and perceptions, and the ownership structure. Subspaces within one housing complex, even if they are in close proximity to each other, can have very different features. The targets and rental strategies of the owners play a decisive role here. The plurality and the very large number of housing companies (25 in 2020) led to further socio-spatial differentiation, in comparison to the analyses of 2004 (Bernt, Kabisch 2006) and 2009 (Grossmann et al. 2017).

Housing cooperatives are locally anchored and act in the interests of their tenants, who have a special status as "co-owners" (subspaces 5.2 and 4.1). Major foreign property owners, like the one that owns the housing stock in subspace 4.3, are primarily profit oriented. Whereas the municipal housing company aims to provide affordable housing to low-income households (subspace 4.2). The difference in ownership strategies is reflected in the variety of subspaces.

This diversity is often not acknowledged outside the estate. Media reports, political statements and, sometimes, scientific descriptions provide an undifferentiated and partly wrong picture of the entire LHE with its 45,000 inhabitants. They make generalisations based on single criminal actions and use inappropriate wording as well as outdated visualisations. For instance, they describe the general housing conditions in Leipzig-Grünau by showing the few unrenovated 16-storey buildings that are located in subspace 4.2. The housing that is in a good state of repair in other subspaces, the green embeddedness or the many social institutions and cultural events aren't given sufficient attention. Neglecting this multifaceted and colourful picture of the estate contributes to its stigmatisation from outside.

In contrast, the residents perceive their living environment in a more nuanced way and distinguish between certain subspaces. Other studies on neighbourhoods and stigmatisation come to the same conclusion after surveying, or interviewing the residents (Palmer et al. 2004; August 2014; Pinkster et al. 2020; Wacquant 2018; Jensen, Christensen 2012). With our statistical analysis, we were able to go one step further and identify the characteristics of the different subspaces. This is significant insofar as municipal data are rarely available at the micro-scale, often for privacy reasons (cf. Hess et al. 2018: 27). Our results confirm the initial assumptions on stigmatisation challenges we formulated back in 2006 (Bernt, Kabisch 2006) and provide more detailed and precise explanations.

6. Conclusion

In this paper, we discussed the development of an LHE in the context of image building and stigmatisation. We differentiated between the production of the internal image by the residents and the stigma from outside.

For our approach, we used the findings of a long-term study. This made it possible to pursue the development of the internal image over time. We can confirm that the character of the estate's image is dynamic. It strongly depends on the historical context and how the residents perceive it (Q1). By using the specific indicator "Would you recommend moving to the Leipzig-Grünau LHE to a good friend?", we were able to illustrate the extreme fluctuation in the attitudes of the residents towards the estate. Thus, the respective internal image is a reflection of the residents' alternating rejection/appreciation of the estate.

To get deeper insights into the composition of the estate and the residents' perceptions, we carried out micro-scale analyses. By using selected objective and subjective indicators, we defined several subspaces. They provide evidence for the internal differentiation within the LHE (Q2), which contributes to the internally differentiated generation of images. Therefore, in line with other studies (Dean, Hastings 2000; Palmer et al. 2004), we can confirm that an estate does not have one single image. When developing new residential areas, this diversity should be taken into account from the very beginning. Today, there is again a strong call for serial construction in Germany to address the current housing shortage in large cities. Despite structural homogeneity, a variety of façade designs, as well as diverse green spaces and infrastructure facilities, can contribute to the development of subspaces with their own characteristics in order to prevent general stigmatisation.

Micro-scale analyses are indispensable for developing targeted and appropriate recommendations for action in existing estates. Although collecting social data is resource-intensive, it is of high value. By establishing respectful contacts with the residents, scientists can gain comprehensive insights concerning the variety of housing and living conditions and

how these are evaluated. This leads to improved data interpretation and contributes to realistic and fair communication about LHEs. Our message is: Give the local people a voice instead of just talking about them.

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Figures

Figure 1. The location of the city of Leipzig in eastern Germany, the location of Leipzig-Grünau within Leipzig, and the Leipzig-Grünau LHE with its eight housing complexes (HC) and ten, numbered (e.g. 4.1) subspaces.
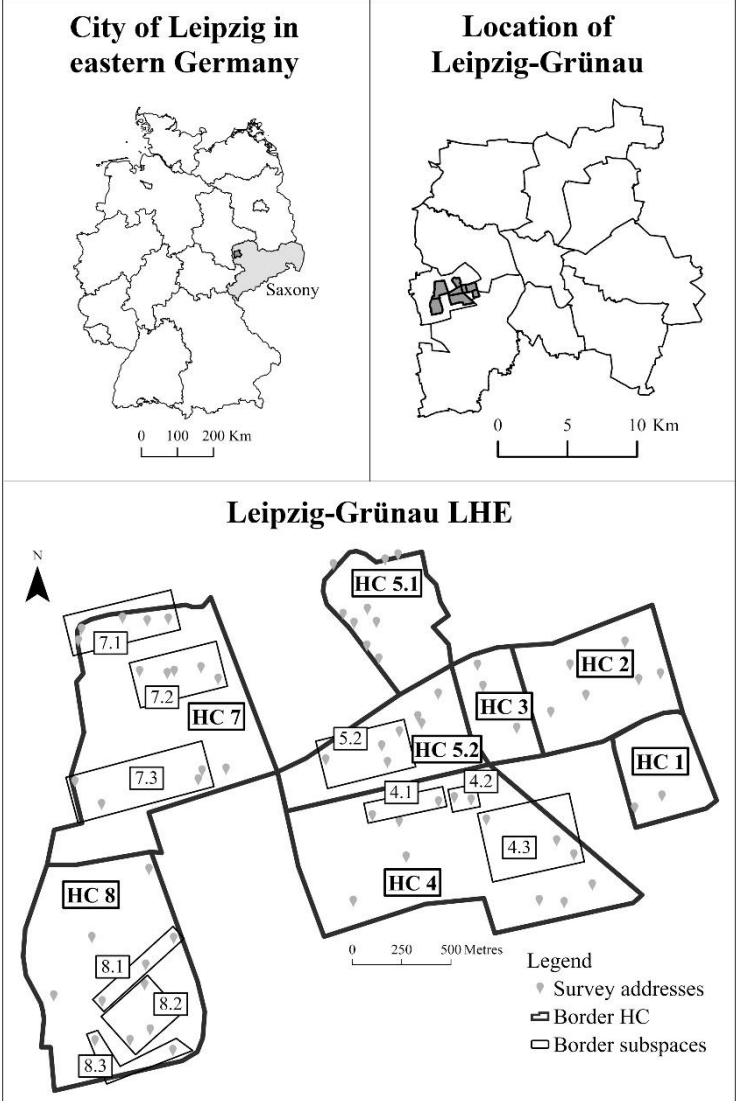
Figure 2. Varying answers to the "Good friend" indicator between 1979 and 2020 (Adapted from: Kabisch, Pössneck 2021: 123).
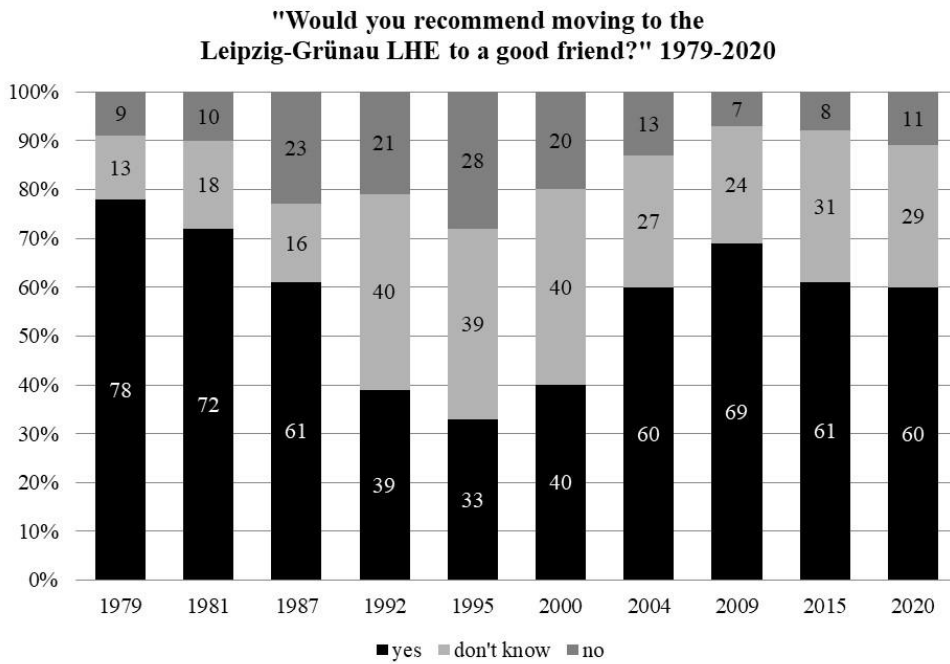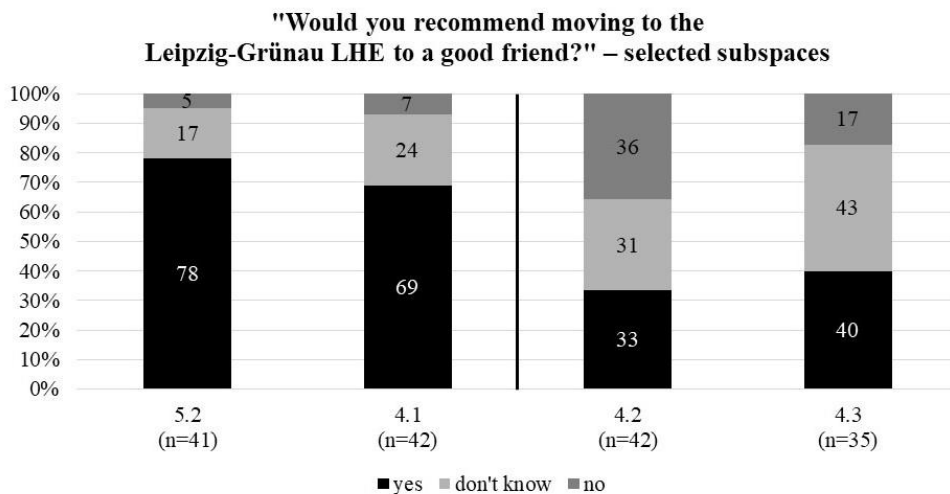

"Would you recommend moving to the Leipzig-Grünau LHE to a good friend?" 1979-2020

Figure 3. Answers to the "Good friend" indicator according to selected subspaces (Source: empirical material from the 2020 survey).

"Would you recommend moving to the Leipzig-Grünau LHE to a good friend?" – selected subspaces

Table 1. Surveys from 1979 to 2020.

Period		No. of inhabitants	Sample size	Response rate in %
1	1979	16,000	310	94
2	1981	36,000	578	92
3	1983	60,000	346	92
4	1987	85,000	330	88
5	1992	78,000	415	85
6	1995	74,000	466	82
7	2000	61,000	560	83
8	2004	49,400	672	79
9	2009	45,400	710	80
10	2015	42,000	709	75
11	2020	45,000	736	73

Table 2. Explanation of the answers to the question "Would you recommend moving to the Leipzig-Grünau LHE to a good friend?" 2004, 2009, 2015, 2020.

Yes – consent	Don't know, No – hesitation, refusal
Large green areas, proximity to a lake	Deteriorating social environment
Many service facilities (kindergarten, schools, medical care, public transport)	Lack of cleanliness
Affordable rents for good housing	Fear of crime (burglary, theft, drug use)
Good shopping options	Stigmatising narratives about Grünau

Table 3. Comparison of subspaces to the overall average of the sample based on selected indicators (Source: empirical material from the 2020 survey).

Indicator	Grünau (n=736)	5.2 (n=42)	4.1 (n=43)	4.2 (n=45)	4.3 (n=36)
Proportion of people aged > 65	48%	56%	66%	27%	22%
Proportion of people who have lived > 30 years Grünau	39%	66%	41%	21%	21%
Proportion of people with monthly NEI < €900	22%	15%	11%	60%	25%
Proportion of people who feel entirely comfortable in Grünau	59%	68%	67%	31%	42%
Owner		Housing cooperatives		Municipal	Private