V. Constructing a New Concept of Change

"The struggle for control of urban spaces is an ambivalent mode of sociation, one that cuts systematically across the whole of everyday life: in and by producing themselves, groups produce exclusive spaces and then, in turn, use the boundaries they have created to define themselves."
Berking, Helmuth. Frank, Sybille. Frers, Lars. Löw, Martina. Meier, Lars. Steets, Silke and Stoetzer, Sergej eds. (2006) Negotiating Urban Conflicts. Interaction, Space and Control, Bielefeld, p.9

"Most difficult of all, perhaps, and quite at the heart of the city experience, is to find some objective way of recording how residents think about the place in their minds: their ways of organizing it and feeling about it. Without some knowledge of this, one is hard put to make an evaluation, since places are not merely what they are, but what we perceive them to be."
Lynch, Kevin (1983) A Theory of Good City Form, Cambridge MA, p. 354

1.   Zooming in: The Parkstadt Bogenhausen Housing Estate in Munich

1.1   Justifying Empirical In-Depth Analysis

Upon discussing the research goals and the proposed methodology at the outset of this book, I defined the new concept as the envisaged outcome, rather than formal theory. I do not intend to establish a theory about the voids on the positional map described in the previous section, or work towards their stabilisation by developing a coherent framework or theoretical fixation. For the same reason, I do not at this stage work towards the new concept on the basis of extending and juxtaposing the positions identified in the analysis of narratives so far, although the theoretical base seems to have developed a sufficient degree of thickness to support this option. Rather, for the purpose of constructing an empirically grounded concept that defines a new position on the map, I focus on a specific urban situation, leaving behind, at least temporarily, the abstract level of architectural and urban theory. In this sense the research process draws methodologically from Jane Jacobs, who on confronting the problematic of generalisations and abstractions in modernist planning highlighted the need to engage with the specific:

> "City processes in real life are too complex to be routine, too particularized for application in abstractions. They are always made up of interactions among unique combinations of particulars and there is no substitute for knowing the particulars." (Jacobs 2011 [1961], p.442)

The case chosen for analysis is the Parkstadt Bogenhausen housing estate in Munich. Focussing on a single case allows the analysis to engage with the situation in greater depth. The research process is meant to generate and assemble empirical data that is substantial enough to support the development of a new concept. The basic question is if the Parkstadt arena, and therefore the Parkstadt Bogenhausen housing estate, participates in urban and architectural change, and if so, in which ways and with which possible consequences?

Being a local resident enabled me to observe the estate over a period of several years – at times consciously through the eyes of the critical architect and urbanist, at times unconsciously and immersed in practices of the everyday. Like all other co-owners of the estate, be they residents or non-resident owners, I am connected to the collective decision-making process, which deals with current affairs and which co-determines the future trajectory of the estate. My observations and my participating in the process led me to the perception that there is something special about the estate, that its dynamics are different when compared to the city around it. The specificity of the estates' trajectory raised some of the questions that led to the formation of this research project. In studying a case that is on my doorstep, I follow a research tradition established by Robert Park, Kevin Lynch, Henri Lefebvre, Jane Jacobs, David Harvey, and others. Harvey, who throughout his work as a researcher and activist sought to relate theory and criticism to the actual urban conditions that he found at his place of residence, conceives this connectedness to local issues as a means of providing a real-life grounding to academic work, but also to put academic knowledge to the test and to make a difference (Harvey 2000, p.16, p.20). Being local, as a researcher, facilitates

Figure 47: Parkstadt Bogenhausen housing estate, shopping centre and restaurant, Munich, photo 1970 © by Kurt Otto (published in: Neue Heimat Bayern Gemeinnützige Wohnungs- und Siedlungsgesellschaft mbH 1971)

Figure 48: Parkstadt Bogenhausen housing estate, shopping centre and former restaurant, Munich 2016

Figure 49: Location of the Parkstadt Bogenhausen housing estate in the Munich metropolitan region, 2016. Map adapted from https://geoportal.bayern.de/geoportalbayern/
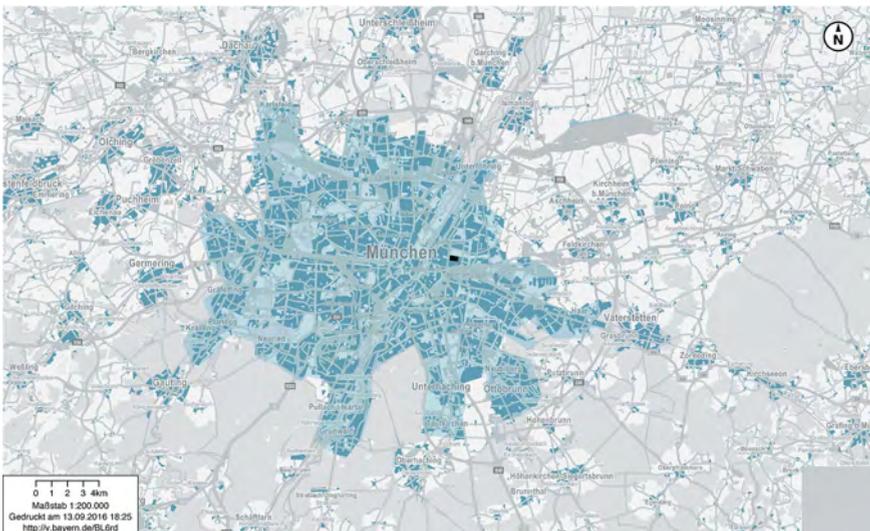
access to people, processes, observations and information. It provides opportunities for participating and engaging in local actions, debates, and situations. At the same time it raises issues with respect to method and the way material is used, interpreted and presented. As in any kind of field work, it requires the researcher to critically reflect on her or his own position in the field.

## 1.2   Housing Estates as Sites of Urban Enquiry

Transformative processes in housing estates relate to the wider dimensions of urban change. Tatjana Schneider and Jeremy Till suggest that "of all building types it is housing – and in particular public housing – that is most exposed to outside influences." (Schneider and Till 2007, p.14) The problem of change is a collective process and relates to questions of power. Theorising the constitution of space through the establishing of spatial relations in action, Martina Löw proposes that

> "the constitution of spaces in action is not as a rule done in isolation, but takes place in processes of negotiation with other actors. Negotiation of power structures is an immanent aspect of this process." (Löw 2016 [2001], p.191)

Research into the production and changing of spaces engages with problems that tend to cross over – and therefore challenge – disciplinary boundaries. This raises difficulties in how we represent, analyse and practically respond to phenomena of urban and architectural change. The exclusion of either micro or macro scales in analysis (Soja 2000 [1996], p.310; Brenner 2013), as well as the tendency to think in categories of objects rather than process and the performative (Wolfrum and Brandis 2015) further contribute to the difficulty, in particular when we approach the more nuanced transformations in cities. Understanding how housing estates change over time defines such a nuanced and process-based problem. Many housing estates were and still are designed without future changes in mind. Yet housing estates do change, irrespective of the original design intent. The question, then, is not 'if' housing estates change, but rather 'how' they change. As we have seen in the preceding analysis, there are multiple ways to conceptualise and engage with problems of change in architecture and urbanism. Too narrowly framed forms of analysis have produced bias, such as the persistent and instrumentalised myth of Pruitt-Igoe (Bristol 1991). Hence, as argued in the methodology section, I propose to combine in the research approach architectural/spatial perspectives with process-based perspectives and social dimensions. The analysis, then, will include collective processes and the practices and politics of 'doing' change.

Housing estates have an ambivalent relation to the city. On the one hand they co-constitute the city as agglomeration of goods, people, and ideas, while on the other hand the planning of large housing estates "[…] has literally set itself against the city and the urban to eradicate them." (Lefebvre 1996 [1968], p.79) Housing estates tend to be linked to rigid urban hierarchies, if often with insufficient territorial integration (Hillier 2007 [1996], pp.138ff). They occupy an intermediate level between the levels of the dwelling and the city. They relate to the intrinsic web of social interactions and spatial practices of the everyday, as well as to the more abstract levels of planning thought, institutions and urban organisation. Housing estates may be conceived of as privileged

Figure 50: Parkstadt Bogenhausen housing estate seen from the town hall tower in the city centre, Munich 2013
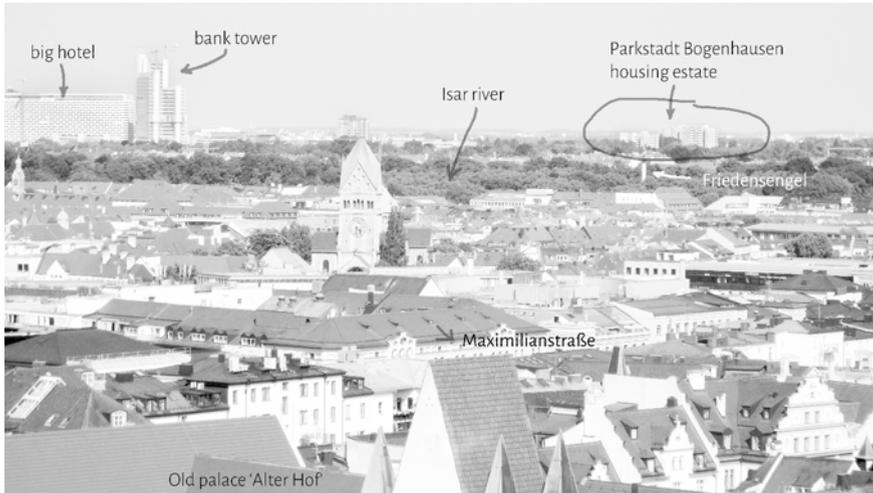
sites of enquiry, for we may approach them from either above or below, and conversely, probe into the micro or macro if we take the estate as point of departure. This has obvious advantages for modes of analysis which seek to connect to different discourses, different levels of power and different areas of social interaction. Housing estates define a situation of convergence. They may act as pivotal or focal point within an open field of enquiry. The methodological setting-up of the case-study element draws from this specific capacity. The problematic of housing estates has been the subject of many critical enquiries in the past, of which I have briefly discussed the case of Pruitt-Igoe. In his 1971 essay "The Superblock", Alan Colquhoun theorises the preconditions for and architectural consequences of organising the modernist city on the basis of large single entities (Colquhoun 1971). Colquhoun suggests that, irrespective of the specifics of each site, there would

> "[...] always [be] one common factor: the enormous reserves of capital that exist in the modern economy which enable either private or public agencies, or a combination of both, to gain control over, and make a profit from, ever larger areas of urban land. [...] The financing of a piece of land by a single agency usually results in the buildings on this piece of land being consciously designed as a single entity. The larger the area of land, the larger the volume of building that is subject to a single architectural concept." (ibid., p.83)

Hence, if we encounter a single concept from this era, its architectural and urban characteristics have to be seen as being closely related to specific forms of social organisation, modes of production, and flows of capital. Many housing estates were constructed by a single agency and follow the idea of a single concept. If basic decisions about ownership, levels of control and project size precede the architectural process, major parameters that determine the ways and the capacity in which architecture can respond to change are established before architectural design has even begun. A dis-

cussion about how design concepts may contribute to change, therefore, will seek to address the broader situation in which design and change are positioned.

1.3   Divided Biography of the Parkstadt Bogenhausen Housing Estate

The history of Parkstadt Bogenhausen housing estate is closely related to the history of the Neue Heimat group. The origins of Neue Heimat (NH) date back to the 1920s, when it was one of many non-profit housing associations owned and managed by the trade unions in Germany. In 1954, all housing associations of the trade unions in West Germany were united to form a single, non-profit enterprise under the parent company Neue Heimat in Hamburg. NH was owned by the Federation of German Trade Unions 'Deutscher Gewerkschaftsbund' (DGB). The Parkstadt Bogenhausen housing estate was commissioned in 1954 by GEWOG ('Gemeinnützige Wohnstättengesellschaft von 1910 mbH'), an affiliate company of NH, also seated in Hamburg. The Neue Heimat Bayern (NHB)[1] acted as developer ('Maßnahme- und Bauträger') and assumed the management of the housing estate during the following decades. In 1962, the ownership of the estate passed from GEWOG to the parent company Neue Heimat, and finally to Neue Heimat Bayern in 1967 (Neue Heimat Bayern 1981; Bernst 2006, p.43; Stracke 2011, pp.158f; Lepik and Strobl 2019, pp.134–136).

In 1954, the planning department of NH, then directed by CIAM co-founder and initiator of the 'Neues Frankfurt' housing programme, Ernst May (Harlander 1999, p.248), developed an initial proposal for the Parkstadt Bogenhausen housing estate in Munich. The design of a unified project on a single superblock became possible after the urban layout sketched out by Theodor Fischer half a century earlier had been altered (Wolfrum et al. 2012, p.258). May's proposal was rejected by the local authority on grounds unknown today (Seidel 2008)[2]. Subsequently, an urban design competition was held. Munich architect Franz Ruf's scheme was awarded first prize. Ruf developed the master plan for the site and worked on the design of several buildings in the estate, for example the central shopping centre. Other contributing architects include Johannes Ludwig, Hans Knapp-Schachleiter, Helmut von Werz, Matthä Schmölz and Johann Christoph Ottow. The landscape design was by Alfred Reich (Neue Heimat Bayern 1981). The estate was designed for approximately 6000 residents[3], complete with

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1 NHB names are not consistent in the literature. In NHB's report on the occasion of the 25th anniversary of Parkstadt the developer of Parkstadt is named "Neue Heimat Bayern, München", while the report's corporate author is named "Neue Heimat Bayern GmbH" (Neue Heimat Bayern 1981). In the report of 1971, NHB is named "Neue Heimat Bayern, Gemeinnützige Wohnungs- und Siedlungsgesellschaft mbH, München" (Neue Heimat Bayern 1971a, p.16). This name is also used by Karin Bernst in the 50th anniversary report of 2006 (Bernst 2006, p.43). In the English supplement to the 1971 report, the name "Neue Heimat Bayern Non-profit-making Building Society Limited, Munich" is used (Neue Heimat Bayern 1971b, p.1). For clarity, I use the name 'Neue Heimat Bayern', or 'NHB', assuming that the full company name is "Neue Heimat Bayern, Gemeinnützige Wohnungs- und Siedlungsgesellschaft mbH, München".

2 The plans and documents relating to this initial design proposal by the office of Ernst May are lost, respectively cannot be located (Seidel 2008).

3 The 1971 report provides a figure of 6000 residents (Neue Heimat Bayern 1971b, p.3); the exhibition catalogue of 2019 speaks of an initial target number of 8000 residents (Lepik and Strobl 2019, p.134).

Figure 51: Parkstadt Bogenhausen, view across the housing estate towards the west and the city centre, Munich 2013

local shops, restaurant, kindergarten, school, central laundry, recreational facilities and estate heating plant (Neue Heimat Bayern 1971b, p.3). Two congregational community centres were built in the proximity shortly after the completion of the estate.

The housing estate is included in the 15th anniversary report of NHB, which was published in 1971 in German, English and French (Neue Heimat Bayern 1971a and 1971b). The English supplement is titled "15 Years of Housing Construction and Town Planning by the >Neue Heimat Bayern< – Non-profit-making Building Society Limited, Munich, 1955–1970" (Neue Heimat Bayern 1971b, p.1). The "Bogenhausen Park Town" is presented as "Munich's first self-contained residential estate" (ibid., p.3).

In line with the concept of "planned neighbourhoods" (ibid., p.2)[4], the scheme provides a mix of different building types and apartment sizes, based on the idea that this would contribute towards the establishment of a mixed residential community. The buildings are situated within open green spaces and are connected by a scenic drive and a network of footpaths. The estate comprises point blocks, slab blocks of various heights, and low-level housing. 135 units of terraced housing are located in the eastern part of the scheme and were sold on the private market upon completion. All other residential and commercial units remained with the NH group with the exception of the restaurant. The western part of the estate has a floor area ratio of approximately 0.95, the eastern terraced housing area approximately 0.73[5]. The development of the estate was financed without access to publicly subsidised funding, due to the high asking price by the municipality which owned the land (Harlander 1999, p.272). As a result, rents exceeded the local level in 1956 by 40% (ibid.). However, in 1970, the NHB administration

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4 See also Tilman Harlander about „neighbourhood-units" (Harlander 1999, p.241), as well as Werner Durth in the same edited volume (Durth 1999, p.51). Harlander locates the concept of neighbourhood-units within an international modernist discourse, while suggesting that in the case of Germany parallels with the NS concept of „Siedlungszelle" can not be disregarded (Harlander 1999, p.241).

5 Based on own calculations.

Figure 52: Parkstadt Bogenhausen housing estate, occupying an urban superblock. Today's commonhold-type entity according to WEG is marked in blue, while the other areas of the urban scheme are marked in beige, 2016. Map adapted from https://geoportal.bayern.de/geoportalbayern/

was able to confirm that the rents in the estate had reached a level 40% below the average (Neue Heimat Bayern 1971b, pp.3f). Towards the end of the 1970s, the Neue Heimat group had to deal with financial difficulties, management problems and cases of corruption (Fuhrich et al. 1983). The group decided to sell parts of its housing stock as a response to the situation (Bernst 2006, p.48). Eventually, the group was wound up in stages. In the case of Parkstadt Bogenhausen, the planned sale of individual dwelling units required the estate to be converted into a commonhold-type entity according to the WEG (Wohnungseigentumsgesetz 2014 [1951]), which was enacted in 1984 with the adoption of the commonhold declaration ('Teilungsurkunde'). The entity was established on estate-level rather than on the level of single buildings. Hence, all 1960 residential and commercial units are contained in a single WEG construct.

Today, Parkstadt Bogenhausen is understood to be the largest entity according to WEG in Germany (Bernst 2006, p.48)[6]. Occupying 15ha of urban land, it has the size of an urban quarter. Initially, the units were exclusively sold to the occupiers, or their closest relatives (Wittemer et al. 2006, p.134). Despite the specific circumstances, the conversion of the estate into a WEG construct and the subsequent sale of the trade union property may be classified as a privatisation process. In 1989, 572 residential units of the Parkstadt Bogenhausen housing estate were left with the NHB

6   No official comparative data on the size of WEG entities in Germany is currently available. Statements about Parkstadt Bogenhausen to be the largest WEG entity in Germany are reproduced in different sources, for example in (Bernst 2006, p.48), and were confirmed by the administration, and others.

Figure 53: Parkstadt Bogenhausen housing estate, view across the big lawn, Munich 2017

(Wohnungseigentümergemeinschaft Parkstadt Bogenhausen 2016)[7]. By then, the larger part had already been privatised. In 1990, the private investor Doblinger Unternehmensgruppe GmbH acquired Neue Heimat Bayern together with its remaining assets in the housing estate. The overall number of residential units that passed from NHB to the Doblinger Unternehmensgruppe GmbH for almost one billion Deutsch Marks was in the region of 33,000 (Hupe 1990). Nearly half of them were located in the Munich area (ibid.). The investor renamed NHB as Bayerische Städte- und Wohnungsbau GmbH, and transferred the former NHB housing stock to the group's newly established subsidiary company Wohnungs- und Siedlungsbau Bayern GmbH & Co. OHG (Bernst 2006, p.48). During the following 15 years, the units held by the company in the Parkstadt Bogenhausen were gradually sold on the private market. The housing estate was listed in 1992 on grounds of its ensemble character and the quality of the estate as a whole (Denkmalliste Bayern 2017a, 2017b). Within the ensemble, the shopping centre and the adjacent restaurant are listed as individual buildings. The two church buildings in the proximity, which are linked to the estate in terms of planning history and in terms of community life, are also listed. Since its foundation in 1984 the successor organisation to the NHB, Bayerische Städte- und Wohnungsbau GmbH and its corporate reconfigurations, have been entrusted with the estate's administration on behalf of the WEG collective.

Despite the continuity in terms of administration and inhabitants, we can speak of a divided biography of the estate, in that the estate's current WEG period was preceded by almost thirty years of single ownership and centralised management. From a research point of view, this offers the advantage of drawing comparisons between the two periods. It also allows us more clearly to distinguish between research into the

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7 Karin Bernst provides a figure of 672 residential units for 1989 (Bernst 2006, p.48), while the annual meeting minutes of the same year provide a figure of 572 residential units, 9 commercial units, and 297 garages (Wohnungseigentümergemeinschaft Parkstadt Bogenhausen 2016). For consistency I use the 572 figure of the annual meeting minutes in the following mappings.

historic past, and research into the urban present. While the first phase is historically closed, the second phase could be seen as part of an ongoing process. Hence, it lends itself to committed, "future-orientated research" (Denzin 2000, p.915) that seeks to make a difference by enquiring into the possible future(s) of the estate.

The design and development of Parkstadt Bogenhausen Housing estate in Munich between 1954 and 1956 has to be seen within the wider context of post-war (re-)construction, the acute housing crisis that prevailed during this time, and the restructuring of West Germany as capitalist economy and modern welfare state. The beginning of the nationwide building programme in West Germany is framed by two processes. The adoption of the new Housing Act (Wohnungsbaugesetz) on 28 March 1950 and its implementation on 24 April 1950 provided the legal framework for housing construction (Diefendorf 1993, p.140, p.237; Beyme 1999, p.102; Harlander 1999, p.264), while the lengthy public controversy about reconstruction laws and the draft general building law did not come to a conclusion until 1960, when the new building law ('Baugesetzbuch') was finally adopted (Diefendorf 1993, pp.221ff; Harlander 1999, pp.267f). The European Recovery Program ERP, which had been implemented through the Economic Corporation Administration ECA between 1948 and 1952, provided assistance in terms of funding, organisational models and conceptual orientation (Diefendorf 1993, pp.142ff; Durth 1999, pp.61ff). Despite its comparably small absolute volume, historian Jeffry Diefendorf suggests that the ERP's multiplier effects should not be underestimated (ibid., p.143). In 1949, the year when both the Federal Republic of Germany and the Germany Democratic Republic were established, statistics provide a figure of 222,000 newly constructed residential units for the FRG territory (Statistisches Bundesamt 2000, p.49). Production increased sharply to 372,000 units in 1950 and reached a first peak in 1956 with 591,082 units (ibid.). A total of 5.4 million units were constructed between 1951 and 1960 in the Federal Republic (ibid., p.47). It remained on roughly this level until 1975. Against this background, the Neue Heimat group rose to become the largest building enterprise, housing stakeholder, and major policy advisor in the Federal Republic of Germany (Bernst 2006, p.47). Numerous large-scale housing projects and urban development schemes that were realised by the Neue Heimat group are part of the built heritage in German cities today (Lepik and Strobl 2019).

Hence, we can say that the significance of the Parkstadt Bogenhausen housing estate is defined by both the generic and the specific. Like many other housing schemes of the same period, the estate is influenced by modernism and the sociopolitical agenda of the time. It was built within the modernist framework of conflict evasion, simplification, tight-fit-functionalism, and deterministic models of space. The welfare state's homogenising tendency is inscribed in its spatial layout, its architectural language, and the way it was organised and managed. It combines both ideas of humanist universality as well as economical rationality and uniformity (Hiller et al. 2017). In this respect, the estate is one of many similar examples of housing construction dating from the late 1950s. Architectural research dealing with the legacy of modernist housing makes use of the similarities between different schemes and emphasises their shared origins. On this basis, it is possible to produce research knowledge thatcan be applied to typical – or generic – problems in housing. The generic quality in the Parkstadt Bogenhausen housing estate enables us to connect to this knowledge in different ways. Hence, there is reason to expect the findings of the case study to be have necessary relevance for other, similar estates.

Figure 54: A different view of the Parkstadt Bogenhausen housing estate. Each folder represents 10 units at the administration's local office. Paper-based administration is, however, in the decline, Munich 2018

However, there is no such thing as 'the' housing estate (Kling, in press). The limits of comparability and the possibility of thinking in generalisations are defined by the specific. The estate is located in a specific city that follows its own trajectory of development – a condition conceptualised by Helmuth Berking and Martina Löw as the "intrinsic logic" of cities (Berking and Löw 2008; Löw 2008; Löw 2016 [2001], p.xvii). The estate is situated within a web of relations that operate on different scales that connect to different actors, institutional arrangements, and different interests. The specific lies also in the size of the estate's current ownership organisation, in the outcomes of the collective decision-making process, and in its contingent future.

Finally, the case study engages with a WEG entity, which is the largest of its kind in Germany. This implies advantages in terms of positional clarity of the analysis, as well as limitations in terms of comparability.

1.4   Commonhold-Type Ownership According to the WEG

The WEG act ('Wohnungseigentumsgesetz'), first approved in 1951, regulates commonhold-type property rights in Germany (Wohnungseigentumsgesetz 2014 [1951]). The property right consists of a clearly defined and self-contained spatial unit ('Sondereigentum'), usually a single apartment or, in mixed-use developments, a commercial unit. This right is combined with a share in collective property rights ('Gemeinschaftseigentum'), such as the plot of land on which the property rights are situated, the communal areas, the building structure, and the external envelope of the building. The property defined in this way may be bought and sold independently from the other property rights in the WEG entity. Each commonhold-type entity is established on the basis of a commonhold declaration ('Teilungsurkunde'), which sets out the extent of the properties, the rights and obligations of its members, the allocation of votes, and charges.

The collective of property right owning members ('Wohnungseigentümergemein-schaft') is a legal body in its own right. It may enter into contracts, take legal action, and assume liabilities. The collective appoints the housing administrator, usually an external company, and elects members to the advisory board ('Verwaltungsbeirat'). The legal body adopts decisions in formal meetings, usually by a majority of the members present, in which each owner of a property right exercises a single vote, depending on the provisions, regardless of unit size. The formal meeting is held regularly, usually once a year, with the option of having non-regular meetings ('Wohnungsei-gentümerversammlung'). The advisory board may be trusted with special tasks, such as conducting audits. The board tends to meet on a more regular basis and is in contact with both the administrator and the members. Commonhold-type property rights are established in many countries, acting as legal frameworks for ownership in condo-miniums, multi-occupancy buildings, and similarly organised properties. In 2002, it was introduced in the UK to complement the traditional freehold/leasehold system (Commonhold and Leasehold Reform Act 2002).

1.5   Housing Estates Beyond 'Mass Housing'

To engage with a 1950s housing estate means to engage with and connect to the criti-cisms that frame the different phases of post-war urbanism and housing production during the second half of the 20th century. The reconstruction phase and late modern-ism have been, and continue to be, the subjects of fierce controversy. Large areas of the built environment are organised according to modernist principles. They are part of today's urban heritage. Housing projects dating from this phase have reached a life-time of 40 to 60 years. Most of them have already experienced some kind of moderni-sation or reconfiguration. A growing number are currently being replaced by urban renewal schemes, or are in this sense endangered. Financial interests and short term political thinking are often opposed to the long-term commitment that seems to be required for housing estates. Some "discourse coalitions", to use a term by Maarten Hajer introduced earlier (Viehöver 2011, p.201), may choose to instrumentalise the needs and problems of local communities to their own ends – Pruitt-Igoe, Sarcelles, or Scampia continue to be discursive sites for the formation of "single stories" (Adichie 2009; Kling, in press).

However, housing estates and modernist urban developments are, above all, mean-ingful places, homes, and workplaces in the lives of many residents and users. Decades of occupation, appropriation, and sometimes neglect or reconfiguration have gener-ated the estates we know and experience today. Many of them have diversified (Kling and Ott 2019) and are today home to heterogeneous, vibrant communities. Each period and political system has experimented with and developed its own versions of housing estates, resulting in a diversity that is unique if compared with the architectures of private housing. The combination of social vision and collective pragmatism produced the unique historic constellations in which post-war housing estates could be realised. Their architectural qualities are once more appreciated, without brushing aside the problems many of them may be facing. There is a growing public interest in both late modernist heritage as well as housing, which finds its way into publications, exhibi-tions, public debates, design competitions, and on-site projects – not least because of

Figure 55: 'The revolutionary Prussian's Ghetto' (Gäbelein 2005). The title reproduces the former, rather unhappy nickname of the housing estate, which alluded to the high percentage of residents which initially did not come from the Munich region (Krack 2006, p.112). The newspaper article is pinned to the information board at the administration's local offices, conveying a sense of shared pride, Munich 2018

the housing crises and rising rents in European cities. The generalising stigmatisation of housing estates seems to have gradually given way to more differentiated views.

In the contemporary debates on housing, interest groups, architects, historians, and local communities seek to raise awareness of the agenda of the post-war planning generation, and the particular urban and architectural qualities it has produced (Krack 2006; Braum and Welzbacher 2009; Harnack and Stollmann 2017; Lepik and Strobl 2019). Focussing on change and the relationship between space and social processes, Maren Harnack showed how four social housing schemes in London[8] experienced a 'comeback' in terms of the way they are perceived by the housing market and appropriated by the residents (Harnack 2012). Based on her studies, Maren Harnack suggests that we should be more critical in questioning practices of demolition and subsequent reconstruction, and assign greater weight to softer approaches, management issues, individual needs and choices, as well as authenticity (ibid., pp.216f). Berlin's application to host the International Building Exhibition IBA in 2020 included a study on possible ways to further enhance the quality of life in the city's late modernist housing estates and large scale residential developments (Benze, Gill and Hebert 2013). EUROPAN, the leading architecture and urbanism competition for young professionals and theorists has repeatedly included 1950s, 60s, and 70s housing estates to their competition briefs as part of the competition's gradual shift from the single building towards more complex urban situations (Rebois 2010). What seems to unite these recent research projects and design proposals is the movement away from the

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8 Maren Harnack's case studies include Keeling House by Denys Lasdyn, Trellick Tower by Ernö Goldfinger, Brunswick Centre by Patrick Hodgkinson and Aylesbury Estate by F.O. Hayes. The analysis is based on different architectural and sociological methods.

dismissive concept of 'mass housing' and towards perspectives that seek to engage with local situations in new and unconventional ways. Rather than defining architecture and urban design as the organisation of built form, they highlight and work with their connectedness to social processes and complex spatial relations.

Applied research and professional work concentrates on the solving of immediate and practical problems. Its research into housing estates is usually dedicated to its physical and material properties, energy efficiency, optimisation of floor plans, comfort standards, financing, practical management, or questions of image and marketability. Some approaches seek to extend the scope of questions raised in this field[9]. However, where housing corporations, the building industry, and the federal governments act as the main clients and sponsors of research, agendas tend to be pre-defined, economic questions foregrounded, and power relations and political questions excluded, or at least uncritically reproduced. The research produced in this way receives its strength through the narrow and precise frame it applies to the broad field of housing. It is demand-driven and aimed at the production of matters of fact. Without questioning the merits and justification of such research, we should not expect it to go far beyond the specific requirements and interests of the client. If we seek to extend the analytical sensitivity in research projects, different research perspectives need to be included.

2.   Empirical Grounding: Mapping Transformative Interactions

2.1   Combining Different Mapping Perspectives

The problems and challenges associated with housing estates are multi-facetted. They rarely reside within a single disciplinary domain. In the proposed analysis of the Parkstadt Bogenhausen housing estate in Munich, I will not focus on known problems such as construction defects, tight-fit functionalism, comfort issues, accessibility, conservation, energy efficiency, or the lack of quality in open spaces. These problems need addressing, not only in the Parkstadt Bogenhausen estate but in any housing estate, and they are being addressed. The phenomena I am interested in – the strange pattern of change observed in the Parkstadt Bogenhausen housing estate – requires the research to extend, and to a certain degree leave aside the standard toolbox of architectural and urban analysis.

Based on the methodological considerations discussed earlier, I propose to include the following broadening analytical perspectives in the case study:

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9   For example the projects sponsored by the Wüstenrot-Stiftung which seek to combine research with design innovation and architectural theory. The foundation hosts annual workshops relating to contemporary issues in housing and urbanism and supports publications and research projects, for example the design orientated "Raumpilot" (Jocher and Loch 2010). Their 2008 workshop and symposium (Zukunfts-Werkstadt Wohnbauen) in Frankfurt, for example, explored the possible transformation of the 38 storey AfE tower in Frankfurt a.M.. The author had the opportunity to visit the workshop led by Inken Baller and Günter Barczik.

Figure 56: Parkstadt Bogenhausen, stationary shop and café at the shopping centre, Munich 2018

1. **Arena/social worlds perspective:** The WEG-framed housing estate may be conceptualised as an "arena" in which the collective co-produces itself through repetitive acts of decision-making. Multiple "social worlds" intersect in the arena and make it a space of convergence and conflict. The social worlds/arenas theory was first proposed by Anselm Strauss and subsequently reframed and further developed by Adele Clarke for application in situational analysis (Clarke 2005, p.19). The theory emphasises contingency, difference and the presence of all relevant actors and structural conditions "*in* the situation" (emphasis in original, ibid., p.71), including human actors, institutional worlds, discourses, and non-human actors. Through this perspective, I seek to extend the analytic range of architectural and urban enquiry, and at the same time establish a site of analytical convergence.

2. **Timeline perspective:** Interactions may be conceived as space/time bound events that unfold as contingent process. Decisions are not conceptualised and analysed as isolated events, but in their relatedness to preceding and following decisions and in their wider context. The timeline emphasises the political and the generative power of discourses (Clarke 2005; Clarke, Friese and Washburn 2018) and of controversy (Yaneva 2012). It raises the question of alternatives, and reconstructs sequential and rhythmical aspects of interactions (Lefebvre 2013 [1992]). In this sense, it connects to the temporal analytical dimension in situational analysis and its "[...] capacities to handle collective history and change over time." (Clarke and Keller 2014)

3. **Multi-scalar perspective:** This perspective is based on the understanding of the problem as related to, and influenced by, processes that are located on different scales. A multi-scalar perspective allows us to approach the situation from above and below, taking advantage of the estate's privileged position at the intersection of micro-narratives and the urban scale. The resulting movement through micro-, meso- and macro-perspectives raises problems in terms of keeping the research in

focus, but it reduces the risk of producing blind spots through rigorous demarcation (Brenner 2013).

In the following analysis, different mapping techniques are applied to each perspective. I have outlined the basic methodological considerations in Chapter I of this book, to which I add further explications in the following sections. The case study evolves along four different types of mappings: Perspective 1 translates directly into a single map, the mapping of the Parkstadt arena. Perspectives 2 and 3 are combined to produce, firstly, an extended timeline diagram which may be conceived as representing the 'situational process', secondly a tabular list of categories and codes which assembles the decisions made during the annual meeting of the collective, and, thirdly, a series of negotiated concerns. Pertaining to the relationship of researcher and actors in the field, I follow Albena Yaneva's injunction that the idea "[…] is not to teach actors what they are incapable of understanding but to learn from them how to observe their collective existences." (Yaneva 2012, p.4) I had the opportunity to present an intermediate stage of the case study project at the Third Oikonet International Conference on 'Global Dwelling: Sustainability. Design. Participation', which was held in Manchester on 23.09.2016 (Kling 2016).

2.2   Mapping the Parkstadt Arena: Social Worlds/Arenas Perspective

I have outlined some basic assumptions and methodological principles of situational analysis and of the related social worlds/arenas theory in Chapter I of this book. Situational analysis assumes that issues of broader concern and collective action are negotiated between and through social worlds that partially and temporally participate in arenas. In terms of analysis, all elements constitutive of a situation are understood to be present in the situation (Clarke 2005, pp.71f).

Arenas are sites in which different social worlds participate. Social worlds are not homogenous and characteristically develop subdivisions and segments. Groups and individuals participate in multiple social worlds and arenas simultaneously. Boundaries between social worlds are permeable, subject to negotiation and shifting agreements. The partial and temporal character of social worlds distinguishes them from concepts such as community, while, at the same time, commitment to joint action distinguishes them from the casual commitment to a scene. Clarke suggests that, if "commitment to action" (ibid., p.113) is chosen as delimitating factor between social worlds, then both, action as process, as well as social entities of action – social worlds and arenas – may be empirically analysed (ibid.). Typical questions in the analysis are related to patterns of collective commitments, the 'work' of each world, the kind of commitments conceived by the participants in terms of fulfilling them, self-descriptions, perception of other worlds in the arena, actions taken and anticipated, the organisation of the social world, sites of collective action, or the relationship of different social worlds (ibid, p.115). Conflicts of different kinds are assumed to be present throughout the arena. Hence, Clarke suggests that "while some actors (individuals, collectivities, and even worlds) might prefer not to participate in a particular arena, their dependencies (usually but not always for resources) often coerce their participation." (ibid., p.110) Based on the premises of social worlds/arenas theory, I seek to represent and analyse conditions that are characterised by shifting social configurations, negotiations,

controversy, commitment, collective action, and conflict in the mappings that are to follow. However, as in any form of representation, decisions have to be made as to what is sensibly included to the mappings. Donald Schön has theorised this problem for the field of public learning. His use of the term 'situation' predates Adele Clarke's concept of situational analysis, but in this instance both uses seem to be largely compatible with each other:

> "For one thing, the issues taken to be important at any given time represent a selection from a total body of information which is of enormous complexity. The inventory of issues [...] is never adequate to the situation; it never succeeds in exhausting what might be the set of issues to be drawn from that situation. The ultimate basis for this fact is epistemological; there is simply more in a situation than can be conceptually abstracted from it." (Schön 1971, pp.141f)

Mappings are abstractions and will remain incomplete if compared to that which is mapped, even if they strive for completeness. Mappings of social worlds/arenas are unlikely to exhaustively grasp the intrinsic web of social relations. However, rather than responding by excessive data accumulation, the chosen theoretical sampling process will be extended "on analytic grounds" (Strauss 1987, p.38) where this is useful or necessary.

The data used for the mappings originates from different sources. For reconstructing the first phase of the estate up until 1984, I draw from publications made on the occasion of the 15th anniversary of the NHB (Neue Heimat Bayern 1971a and 1971b), respectively the 25th anniversary of the Parkstadt Bogenhausen housing estate (Neue Heimat Bayern 1981). The edited 50th anniversary book (Krack 2006) provides a rich description of the history of the estate, which includes the personal memories of residents, members of the administration and other actors involved with the Parkstadt Bogenhausen housing estate. The section "Parkstadt heute" by Werner Wittemer, Roland Krack, Karin Bernst, and Jan Grossarth (Wittemer et al. 2006) offered valuable information on everyday life and local initiatives for the timeline study. Further material was obtained from the Parkstadt Bogenhausen website, designed and managed by Werner Wittemer, including information on local history, the estate's architecture, past and present activities, as well as different online forums (Wittemer 2006)[10]. "Stadt am Stadtrand" (Town at the Edge of Town) is the title of a 1969 publication, in which the results of an extensive sociological study of four large housing schemes in Munich, including the Parkstadt Bogenhausen housing estate, are presented and discussed (Zapf, Heil and Rudolph 1969). While the findings seem to be too distant as to be applicable to the present condition, it can be read as an account of the main concerns related to the life in new housing estates of the time, as well as the basic premises used by the researchers[11]. Ferdinand Stracke's "WohnOrtMünchen. Stadtentwicklung im 20.

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10 The website www.Parkstadt-Bogenhausen.de has been online since 2000. The website is still maintained, but no further information has been added since the 50th anniversary of the housing estate in 2006, except in the forums.

11 The study formed the starting point for an actor-centred timeline comparison between the Parkstadt Bogenhausen and Hasenbergl housing estates which I developed together with Max Ott on the occasion of the Neue Heimat exhibition (Kling and Ott 2019). The exhibition, curated by Hilde Strobl of the

Jahrhundert" (Stracke 2011)[12] provides a broadly conceived overview of Munich's urban development process during the 20th century. Its focus on housing makes it a valuable resource for the contextualising of individual housing projects in Munich. A portrait of the Parkstadt Bogenhausen housing estate is provided complete with figure-ground plan and exemplary floor plans (ibid., pp.158f). The structure of the publication makes it possible to draw direct comparisons between schemes of the same period, like the Siemenssiedlung in Obersendling (ibid., pp156f), as well as between preceding and subsequent housing projects. Finally, there are further articles and press coverings used in the analysis, to which I do not directly refer here.

For the second phase I draw, again, from the edited 50th anniversary book (Krack 2006) and other published material. A major source of material is provided by the minutes of the annual meeting of property right owners (Wohnungseigentümergemeinschaft Parkstadt Bogenhausen 2016). The use of archived material is gaining significance in social research, not only because it continues to multiply, but also because electronic means improve its accessibility and availability for digital data mining (Clarke 2005, p.183). Pertaining to the use of archived material in situational analysis, Adele Clarke asserts that organisational documents, minutes, websites, or reports are produced by organisations to present themselves, to address particular audiences, and, in doing so, provide the researcher with additional information about the world in which she or he is interested (ibid., p.152). The minutes contain different kinds of information. On the one hand, they address different topics and provide a formal account of the decisions made. On the other hand, they contain implicit information about the relations between different actors, the emergence and closure of discourses, or the constellations of power inscribed into institutionalised processes. My decision to choose formalised communications as the main source of empirical material rather than interviews was in part influenced by the specific situation of being immersed in the field. And finally, information of different kinds is inscribed in the estate itself. The estate may be conceived as a device for the fragmentary physical recording of past transformations and collective human action, an aspect which I have discussed on a more general level earlier.

The goal of the mapping of social worlds/arenas that I discuss in this section is to identify, locate, and relate to each other the various collective actors, institutional worlds, and nonhuman actors that engage in the 'Parkstadt arena'. The arena is not identical with the 'Wohnungseigentümergemeinschaft Parkstadt Bogenhausen' as defined in the commonhold declaration ('Teilungserklärung'), because it includes other social worlds that commit to the discourses in the Parkstadt arena. Despite this, the arena becomes tangible and visible in the annual meeting of the 'Wohnungseigentümergemeinschaft'. The meeting is the institutionalised situation in which, among other issues, change (or non-change) is collectively negotiated. The participants in the meeting are part of different social worlds that assemble around, and meet within, the arena. Participants may be committed to the ongoing concerns of more than one social world.

Architecture Museum in Munich, showcased the enormous building and development output of the Neue Heimat group in West Germany between 1950 and 1984 (Lepik and Strobl 2019).

12 Professor Ferdinand Stracke held the Chair of Urban Design and Regional Planning at TUM between 1989 and 2003 (Stracke 2011, p.384).

Figure 57: Map showing the Parkstadt Arena and participating social worlds
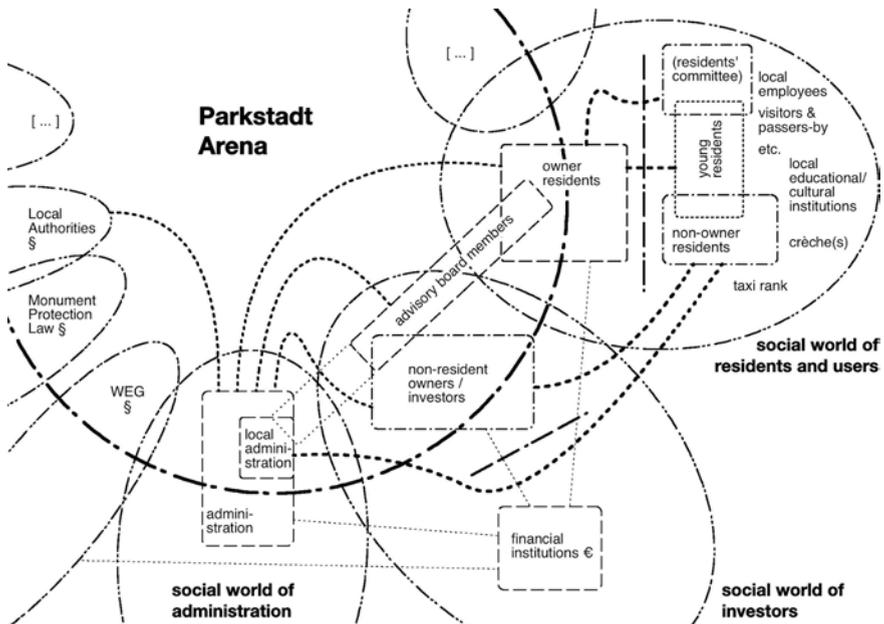
The main social worlds include local residents and users, investors, and the administration. There are other social worlds that participate in the arena, for example WEG legislation, planning and building regulations, preservation, or the housing market. These social worlds are implicit human or nonhuman actors in the situation. They are, at times, referred to in the meeting minutes and they have their specific impact on the pattern of change we observe in the housing estate. The graphical non-closure of the arena suggests that there are more social worlds than shown on the map.

Probably the most obvious social world is composed of local residents and users. What is characteristic of this social world is that not all local residents and users participate in the arena. The vertical line indicates that there are restrictions. Among the residents, only property owners are entitled to vote and actively participate in the Parkstadt arena; non-owner residents, young residents, locally employed, or the more casual users of the estate, are not admitted to the decision-making process. If they wish to participate, they can only do so indirectly. Non-owner residents may speak to their landlords or to the local administration[13], young residents to their owner parents, and locally employed, or local businesses, to the owners of the rented commercial units. Likewise, residents' committees have indirect access to the arena through owning residents. This subworld is put in brackets to indicate that residents' committees in the Parkstadt had limited lifetimes in the past. There is no active committee at the present moment. The social world of investors comprises non-resident owners as well as institutions that have a financial interest in the estate. Institutions act indirectly upon the social worlds and subworlds that engage in the arena, by defining interest

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13   The link between non-owning residents (tenants) and local administration was confirmed through interviews.

rates, terms and conditions of financing, and influencing the market situation. Resident owners are also shown to have a financial interests in the estate, since these partly overlap with the world of investors. The administration of the estate is part of a larger organisation, which in turn is part of the social world of estate administrators. The local administration operates a site office. Some of its staff are local residents. However, not all owner residents and non-resident owners participate in the arena, despite their entitlement to do so. At the annual meetings, between 300 and 400 votes are typically cast, which is less than 20% of all votes and below the 50% threshold required by law. It is due to a special clause in the housing estate's commonhold declaration that the annual meeting constitutes a quorum irrespective of size. Hence, if we compare the absolute figure with the number of actors who are related to the housing estate and the Parkstadt arena, we see how small the actual number of decision-makers is.

The social worlds/arenas map shows what kind of multiple social worlds assemble in and around the Parkstadt arena, and how they relate to each other. In the arena, social worlds form changing coalitions, establish situations of confrontation or agreement. They touch and interpenetrate each other, or otherwise seek to maintain distance. Each social world is associated with its specific ongoing concerns, practices, actions, or commitments, which contribute to the process of change in the Parkstadt Bogenhausen housing estate. The arena and its participating social worlds reconfigure themselves and are thus in a fluid state, while at the same time providing a degree of structural stability for the collective process.

2.3   Mapping the Overall Situational Process: Timeline and Structural Conditions

The second type of map seeks to represent the overall situational process of the Parkstadt Bogenhausen housing estate. The map, or diagram, is arranged along a timeline that covers a period of more than sixty years up until the present, starting with the design and construction phase of the estate in the 1950s. The map shows connections across different scales, as well as the decision-making process in its broader context, including ownership status, formation and reformation of resident groups, decisive events, and the presence of visible and less visible actors in the situation.

The upper section of the diagram shows how ownership changed from single ownership, through an intermediate process of privatisation, to the current dispersed form of ownership. Following the conversion and subdivision of the estate according to WEG in 1984, the NHB property rights as of 1990 passed to the investor Doblinger Unternehmensgruppe GmbH, which completed the step-by-step sale by 2001 (Wohnungseigentümergemeinschaft Parkstadt Bogenhausen 2016). In the middle section, directly above the timeline, major events of change and transformative interactions are shown. Up to the year 1984 the single owner, GEWOG Gemeinnützige Wohnstättengesellschaft von 1910 mbH, or the NHB, controlled the process of making changes and alterations to the estate. Since 1984 this authority has been with the 'Wohnungseigentümergemeinschaft Parkstadt Bogenhausen'. Every change that affects the entity is formally approved at the annual meeting of owners, with the exception of non-structural changes to the interior of private units. The map shows all decisions made in this way since 1984, whereby each decision is assigned a four digit number. The decisions unfold along the timeline and are arranged in horizontally running sequences

Figure 58: Timeline and structural conditions: Mapping the overall situational process
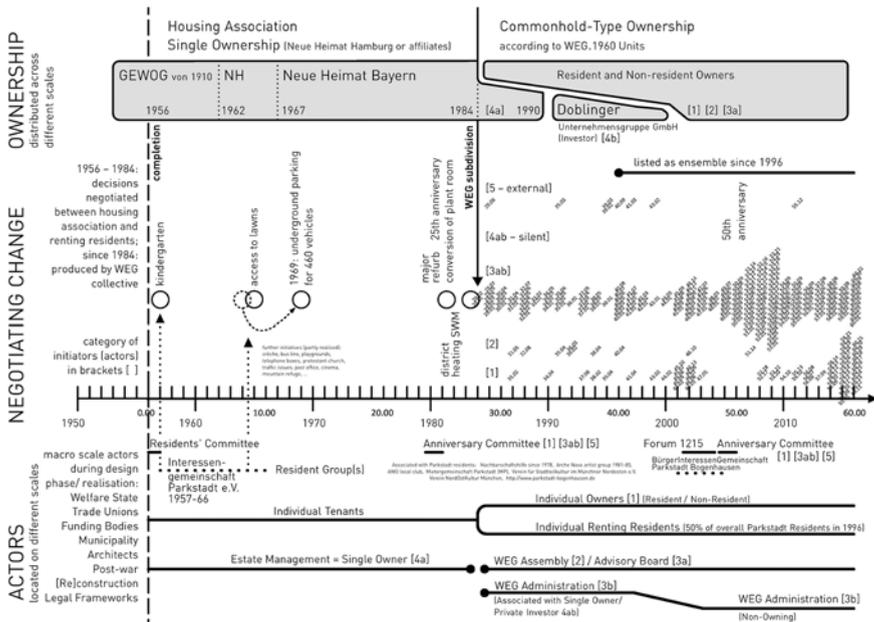
according to actor category. They form the cloud-like pattern in the middle section of the diagram. The categories indicate which group of actors introduced the respective topic to the decision-making process.

The categories comprise individual owner residents [1], the collective of owner residents (enacted during the annual meeting) [2], the advisory board [3a], administration [3b], housing association [4a], investor [4b], and external actors [5]. The category numbers in brackets are also used in the upper section about ownership and the bottom section about groups of actors. More detail on categorisation, and more detail on how the cloud-like pattern of single decisions was developed is provided in the following section. The constellation of actors is not static. The lower section of the diagram shows status changes of institutions and residents, as well as the formation of neighbourhood groups and interest groups. The list of actors is not exhaustive. It is focused on the participants in annual meetings as stated in the minutes and as identified in the social worlds/arenas map.

The presence of actors related to the macro scale is indicated in the left column at the beginning of the timescale. These actors include the welfare state, trade unions, funding bodies, professionalised practices of planning and architecture, the municipality, and legal frameworks. They are co-producers as well as the products of dominant practices and discourses. For the most part, they remain in the background of the process, except during the design and construction phase of the housing estate, and again during the establishing of the commonhold-type entity according to the WEG, when their actions are in the foreground. The overall process may be conceived as a form of negotiated order (Strauss 1978a), which relates to different scales. Continuously negotiated local processes among residents, owners, the administration, and neighbourhood groups are framed by the large-scale negotiations that affect WEG

legislation, global funding and organisational aspects. Anselm Strauss refers to them as the "structural *conditions* pertaining to the phenomena under study" (emphasis in original, ibid., p.257).

2.4   Mapping Recorded Decisions: Categorising and Open Coding of Meeting Minutes

The third kind of map is based on the minutes of the collective's formal annual meetings (Wohnungseigentümergemeinschaft Parkstadt Bogenhausen 2016) and shows detailed sequences of negotiated concerns. In this section, I provide a brief description of how I have generated analytical data by categorising and open coding. In the next section, I focus on the identification of single concerns and their translation into thematic maps.

The annual meeting minutes are drafted by the administrator, approved by the advisory board, and subsequently forwarded to all members of the collective ('Wohnungseigentümergemeinschaft'). The opening section of the minutes provides information about attendees and figures on the number of voting members present, date and duration of the meeting, and the list of topics. This is followed by the summaries of the reports of the administrator and head of the advisory board. The central section of the minutes is dedicated to the voting and decision-making process. The wording of each voting item is stated at full length. The number of approvals, non-approvals, and abstentions are listed for each item, occasionally accompanied by brief references to topic-relevant discussions. Further information is typically recorded in the closing section of the minutes. This may include proposed agenda items for the next annual meeting, announcements, recommendations, or general notes. The first annual meeting took place as part of the establishing of the entity according to the WEG in 1984. The mapping covers the period from 1984 to 2016. The annual meeting minutes from which the data for the mapping is extracted cannot be assumed as being neutral in an objectified sense. Although minutes are meant to represent factual and rational information, and although we accept them as such in common practice, they are situated within constellations of power, permeated with intentionality, and controlled by restrictions in terms of authorship. Following the paradigm of qualitative research, the subtexts contained in the minutes are treated as an integral part of the material rather than as non-factual 'noise' that needs to be eliminated.

In the analysis, the minutes are subjected to a simultaneous process of categorising and coding. All decisions that have produced changes in the housing estate, or that are related to change in one way or the other, are identified and listed. 284 such collectively made decisions were identified in the annual meetings for the period between 1984 and 2016. Decisions that are recorded in the minutes but that do not result in changes in the sense of the analysis are not included. Typical decisions that are not included are granting discharge to the administration for the budget implementation in the previous year, deciding on estate levies, or electing advisory board members. In the list, each decision is given a unique four-digit number, stating the year since completion of the estate in 1956 on digits one and two, while digits three and four count the number of decisions within that year. The decision is then assigned to one of the corresponding subcategories within each main category. The main categories comprise actors/initiators; change status; type of change; spatial unit affected; value/size of negotiated item.

Figure 59: Categorising and first section of the 1ˢᵗ coding cycle (open coding), based on the information provided by the minutes of the annual meeting (Wohnungseigentümergemeinschaft Parkstadt Bogenhausen 2016). Detail.

PARKSTADT BOGENHAUSEN TIMELINE STUDY 1984 - 2016
DATA EXTRACTED FROM MINUTES OF ANNUAL MEETINGS 1984 - 2016

INDEX	DATE	ACTORS/ INITIATORS						CHANGE STATUS				TYPE OF CHANGE				SPATIAL UNIT				VALUE / SIZE				DESCRIPTION / CODING CYCLE 1
INDEX OF INITIATIVES	DATE OF INITIATIVE MADE PUBLIC/ DECISION MAKING	RESIDENT INDIVIDUAL(S)	RESIDENT COLLECTIVE/ WEG	ADMINISTRATION / ADVISORY BOARD	HOUSING ASSOCIATION	INVESTOR	OTHER ACTORS	CHANGE APPROVED	NOT APPROVED	ADJUSTMENT / DEFERRED	CHANGE LEGALLY CONTESTED	SPATIAL / FUNCTIONAL / AESTH.	MAINTENANCE RELATED CHANGE	MANAGEMENT, RULES, LEGAL	EVENTS AND ACTIVITIES	SINGLE UNIT (INCL. TERRACE/BALC.)	SINGLE BUILDING(S)	ESTATE, ALL UNITS, INFRASTRUCTURE	OPEN AREAS	SMALL < 500000K	MEDIUM < 500000K	LARGE > 500000K	NOT APPLICABLE VNA	
28.01	07.05.84		1					1						1				1		1				Advisory board to have 7 members and to receive 5000DM annually for exp
28.02	07.05.84		1					1						1		1					1			Approval of general economic management plan
29.01	30.07.85		1					1						1				1		1				New machine for maintenance of green spaces
29.02	30.07.85		1					1					1			1					1			Ongoing Upkeeping. Approval combined with approval of general economic
29.03	30.07.85		1					1						1				1					1	Authorisation of administration to decide on small alterations related to priv
29.04	30.07.85		1							1		1						1			1			Installing of intercom throughout estate
29.05	30.07.85		1							1		1						1		1				Allowing individual installations of intercoms upon request (single or per bui
29.06	30.07.85		1		1			1				1				1					1			Authorisation of administration to approve plans submitted for planning
29.07	30.07.85		1					1				1						1					1	Increasing charges for use launderette.
30.01	30.06.86		1					1				1						1					1	Increasing charges for using launderette.
30.02	30.06.86		1					1					1			1					1			Ongoing Upkeeping. Approval combined with approval of general economic
30.03	30.06.86		1					1				1						1					1	Allocation of construction-related income (compensation) to upkeeping acco
30.04	30.06.86		1					1				1						1					1	Allocation of construction-related income (compensation) to upkeeping acco

For the purpose of the analysis, actors/initiators are defined as the respective group which introduces the respective voting item to the decision-making process. For the category of actors/initiators, the subcategories include individual residents, the collective of residents (enacted in the annual meeting), the administration/advisory board, housing association (Neue Heimat Bayern), the investor (Doblinger Unternehmensgruppe GmbH), and other actors. Where no specific reference is made in the minutes as to the actor, it is attributed to the joint subcategory of administration and advisory board. The next set of subcategories indicates the status of the decision made and ranges from approved, not approved, deferred, and legally contested. This is followed by the subcategories that specify the type of change, which comprise in the first column spatial, functional or aesthetical changes, in the second column maintenance related changes, in the third column management, rules and legal, and finally activities and events in the fourth column. There is some overlap in these subcategories and in some cases it is difficult to assign a decision to a single subcategory. The main distinction between the first and second column is the factor of novelty. Something that had not existed before is listed in the first column, whereas the second column is related to maintenance work, upkeep, and repairs. Further sets of subcategories describe the spatial unit affected by the decision, and the value/size of the proposed change. Here, the distinction is between single unit, single building(s), the entire estate including its infrastructure, and open areas. In the value/size subcategory the distinction is made between small – up to €50,000, medium – up to €500,000, large – above €500,000, and not applicable. The system of categories and subcategories forms the basis for a complementary quantitative analysis, which I establish further below.

Figure 60: Categorising and coding of meeting minutes. Full list including 1st and 2nd coding cycles and the basic sequence of decisions. The list is scaled down to provide an overview while maintaining the confidentiality of the material.
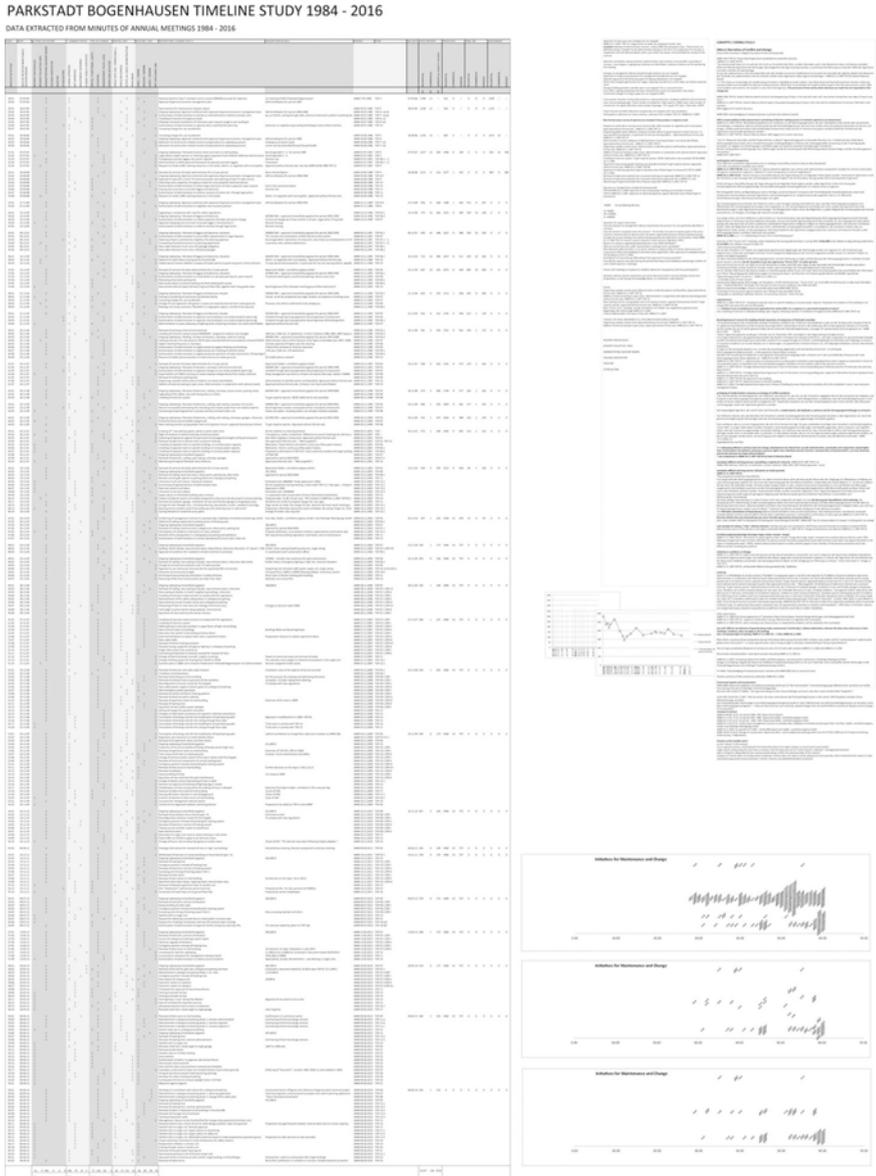
Finally, each single decision on the list is integrated into a process of "open coding" (Strauss 1987, pp.55ff) in the 1st coding cycle, followed by 'thematic coding' in the 2nd coding cycle. In open coding, which is an instrument used in GTM, a series of tags or keywords that characterise the decision in concise form are assigned to each item on the list. Coding in GTM is typically applied to a line-by-line analysis of transcripts of interviews or similarly detailed material. In our case, it is used for the coding of the

voting items which are reproduced in the meeting minutes. 'Thematic coding' is an add-on instrument which I have developed for the purpose of the analysis. Its functioning and outcomes are introduced in the following section.

2.5 Mapping Negotiated Concerns: Thematic Coding and Detailed Sequences

In the second step, the timeline is re-introduced to the analysis. The previously defined categories allow us to arrange the decisions in different ways along the timeline. For this mapping exercise, the categories of actors/initiators and decision status define the basic organising principle, together with the timeline. Each subcategory of actors/initiators is assigned a horizontal line along which the voting items are listed, not dissimilar to musical notation. Approvals or deferrals are shown in light grey, whereas non-approvals or legally contested decisions are in black. As we can see in the resulting pattern, there are great differences in terms of the number of decisions made per year, as well as in terms of who raises voting items. In thematic coding, the focus is on identifying negotiated concerns, or controversial themes, within the decision-making process. Single decisions that relate to each other are connected by means of a dotted line. The connection may be explicitly stated in the annual meeting minutes, or otherwise be implicit in the data. The codes produced in the open coding of the 1st coding cycle assists in the identification of possible thematic connections. Key events and other information that are of significance to the negotiated concern are identified in the coded data and superimposed on the pattern. In this way, the otherwise abstract pattern of the decision-making processes are made visible in the data through a series of thematic sequences that span over shorter or longer periods of time. They visualise the shifts in intensity, the pauses, as well as the ruptures and unexpected turns. In terms of saturation, or the amount of information added to a thematic map, the goal is to balance plausibility and legibility. More information could always be added. However, in line with the methodical propositions of situational analysis, the focus is on the overall map rather than on the single event or information.

Practically, thematic coding as developed for this mapping exercise progresses as an iterative process, where negotiated concerns are provisionally mapped, analysed, and fed-back into the coding process. The concerns identified so far are "loitering" and "ball games", which evolve around issues like inclusion/exclusion and the control of open spaces; "decision making", which is about the process itself and which relates to questions of participation and the distribution of power; "silent investor" as the mapping of the rare instances in which the investor is visible in the arena; "maintenance project" as the recurrent and dominant common concern; "individual modifications", which show the struggle between individual appropriation and the collective/administration; and finally "intercom", which illustrates how many steps and decisions may be required to introduce a seemingly small change. Trusting in the self-explanatory capacity of each diagram, I limit my descriptions to comments and the provision of background information.

Figure 61: Sequence "loitering"

SEQUENCE "LOITERING" 1997 - 2016
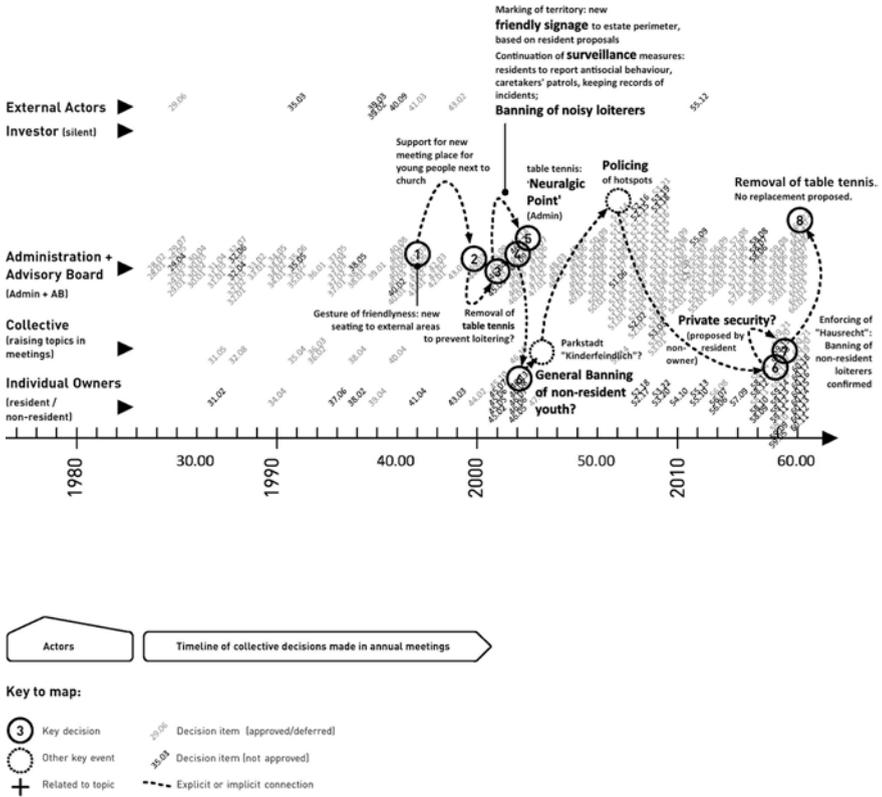
The concern "loitering" could be considered a specific aspect in the negotiated relationship between owners and young local users. The map shows that loitering has been a recurrent topic at the annual meetings. It involves external actors other than the groups of young people themselves, such as the local authority, a local sponsor, or the local police. The collective supported the sponsored construction of a small covered meeting place for young people opposite the primary school in Stuntzstraße in 2000. The general provision of seating, the upgrading of play equipment and the installation of welcoming signage along the perimeter of the estate were initiated as measures to improve the quality of outdoor spaces and encourage its use. However, in 2001, the first complaints about noise in the table tennis area next to the shopping centre were reported in the minutes. The proposal to remove the table tennis tables as a counter measure was discussed in the annual meeting, although it did not lead to a formal decision. Further reporting of noise nuisance and littering occurred in the following years, together with the discussion of measures like the banning of non-resident young people from the estate grounds, or increasing the level of surveillance.

Figure 62: Sequence "ball games"

SEQUENCE "BALL GAMES" 1993 - 2010
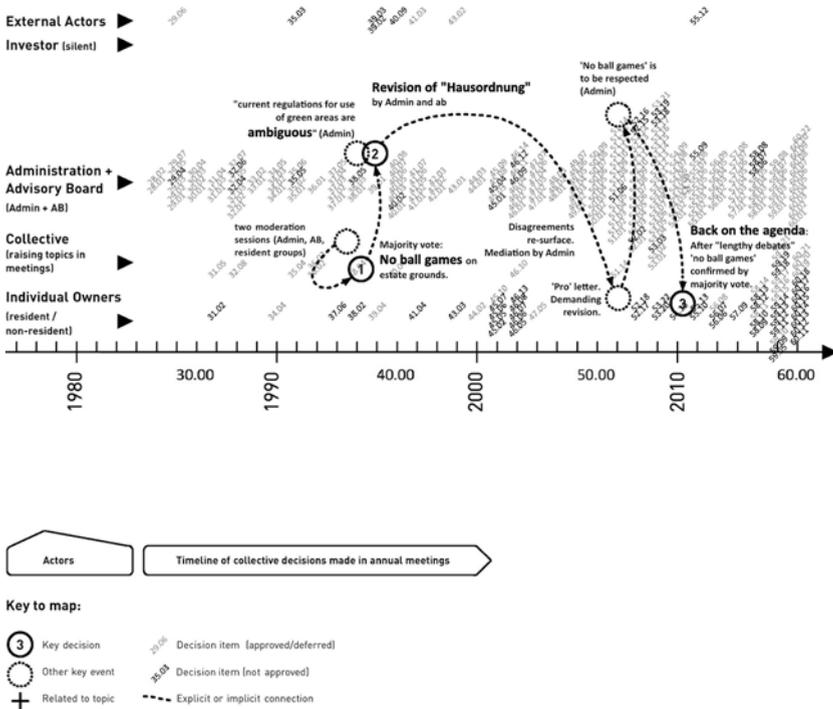
The proposal to introduce more restrictive measures has repeatedly led to controversy about the appropriateness, practicality, and the more fundamental question whether restrictive measures would be desirable. The most recent event in this sequence was the decision to finally remove the two table tennis tables. Their removal was argued to have become necessary because of the bad condition of the tables. Although no explicit connection to the issue of loitering had been made, it seems that in this way the problem of loitering, together with its more fundamental issues, was effectively redefined as a problem of maintenance. Replacing the tables was not discussed as an option. While in earlier debates the collective had struggled to agree on the removal of the table tennis tables in the sense of an explicit restrictive measure, it had no difficulties with their removal on grounds of maintenance. Hence, it seems that the argument on the grounds of maintenance may be used by actors to influence a controversial decision, or even achieve closure in a difficult dispute of an initially different concern. As indicated in the social worlds/arenas map, young local users are excluded from direct participation in the Parkstadt arena. We see that, although young residents and users are directly affected by the decisions taken in the arena, they had not been invited to participate directly, or submit their views in a statement. Accordingly, no opinions or

Figure 63: Sequence "maintenance project"

SEQUENCE "MAINTENANCE PROJECT" 1985 - 2016
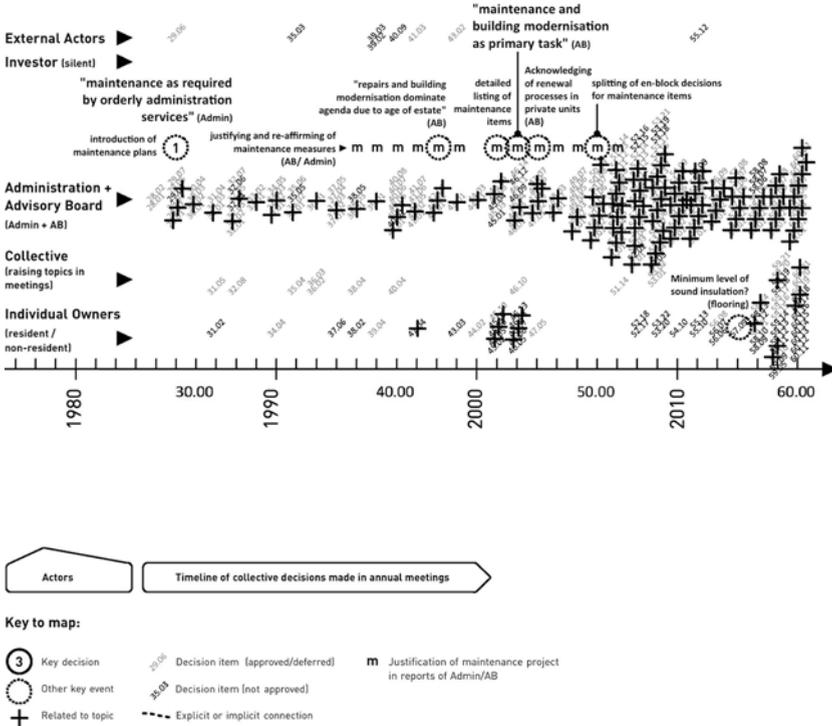
reactions of young people regarding the issue of loitering are recorded in the minutes. The information in the minutes reflects the discourse and views of the owner residents, non-resident owners who act on behalf of their tenants, as well as the administration on the issue. The sequence "ball games" is characterised by a similar asymmetry in terms of its representation.

The "maintenance project" represents the decision-making process related to the maintenance of the buildings, infrastructures and open spaces on the estate. Maintenance (German 'Instandhaltung') is the technical means by which the existing is kept to a good standard through repair, renewal and piecemeal improvement. It has been a major common concern since the establishment of the commonhold-type entity in 1984. The pattern shows a significant increase in the number of decisions debated and taken (decisions related to maintenance are marked '+' in the diagram). The beginning of the increase seems to coincide with the estate's 50th anniversary in 2006.

It is preceded by a series of justifications and statements in favour of maintenance by the administration or the advisory board (marked 'm' in the diagram). The increase is

Figure 64: Sequence "intercom"
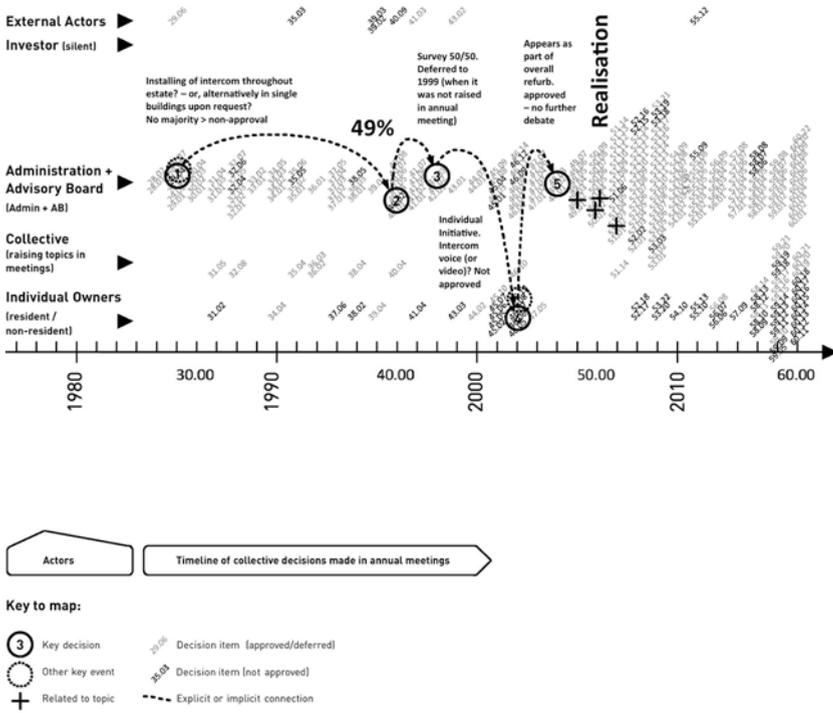
almost certainly influenced by the increasing age of the buildings and infrastructure, but as we have seen in the sequence about loitering, the argument based on maintenance may also be used to close a debate. Maintenance issues clearly outnumber other kinds of decisions. Since 2001, maintenance works have been listed in greater detail in the minutes. In 2006 the en-bloc voting over maintenance items was replaced by an item-per-item procedure. The duration of annual meetings increased accordingly. While up until 1989 it had been 1hr, it is reported to be more than 2.5hrs in 2003 and the following years. Today, maintenance is the single most important concern. It dominates the decision-making process in the Parkstadt arena.

The sequence "intercom" is a sub-concern within the general maintenance project and shows how long it may take for a seemingly straightforward proposal to be realised after being raised in the annual meeting. The first proposal to replace the original intercom system of 1956 was initiated by a resident in 1985. It was declined by majority vote. The topic resurfaced in the years 1996, 1998 and 2002 in different configurations, until a replacement was agreed upon in 2004 without major debate. The new system was installed during the following years. By 2007, every unit had a new intercom.

Figure 65: Sequence "silent investor"

SEQUENCE "SILENT INVESTOR" 1989 - 2004
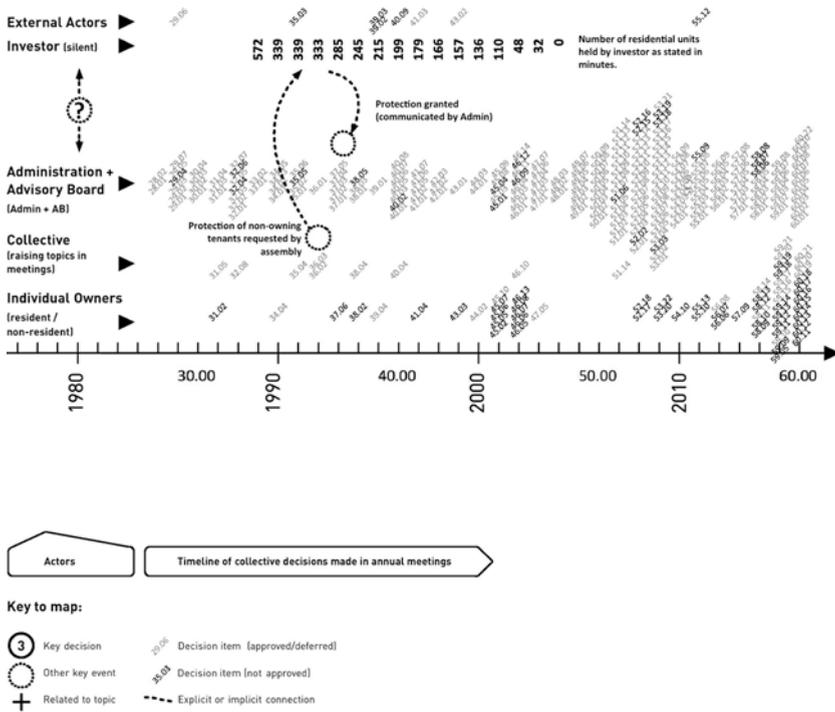
The sequence "silent investor" evolves around the few traces the investor left in the annual meeting minutes. This theme is different insofar as it accompanies the negotiation process rather than being its subject. The investor is at no point recorded as speaking subject or speaking organisation. In this respect, the records of the silent investor seem to mirror the preceding phase. For the years 1984 to 1990, when the NHB was the largest private owner in the commonhold-type entity according to WEG, the minutes provide no records as to NHB representatives as speaking subjects. There are, however, traces of NHB's and the investor's existence in the minutes. Between 1989 and 2003, the number of units held by NHB and the investor is provided on the first page. There is also the occasional information about the restructuring of the investor's organisation. In 1992, the assembly requested that the management of the Bayerische Städte- und Wohnungsbau GmbH be asked to grant to the tenants protected status.[14] This was confirmed by the administration in the following year.

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14 Following the sale of NHB and its remaining assets in the Parkstadt Bogenhausen, the tenants organ-
    ised themselves in the tenant's association "Mietergemeinschaft Parkstadt" (MP) for the purpose of
    protecting their rights against potential threats from the investor or future landlords (Wittemer et

The administration found itself confronted with an ambivalent situation when the commonhold-type entity according to the WEG was established in 1984. On the one hand, it was supposed to fulfil the duties of an administrator on behalf of all owners, while on the other hand, the administration was effectively controlled by the NHB. The situation did not change in principal when the control of the administration passed from the NHB to the single investor, Doblinger Unternehmensgruppe GmbH in 1990. For more than a decade the investor owned the largest single package of residential units in the estate.

This raises the question as to how the NHB, and later the single investor, exerted their influence on the decision-making process in the Parkstadt arena, or whether they had an interest in the process at all. For, as stated earlier, the overall number of residential units acquired by the Doblinger Unternehmensgruppe GmbH in 1990 from the NHB was in the region of 33,000 (Hupe 1990), while its asset in the housing estate was comparably small. In the absence of any records in the meeting minutes, we can only speculate. Did the administration exercise its influence on the decision-making process in such a way as to make the outcomes of the annual meetings acceptable to the NHB, and the investor? Did the administration feed the investor's interests directly into the process? Or did the NHB and later the investor simply have no reason to participate directly in the Parkstadt arena?[15] There is no evidence in the annual meeting minutes that the conflict of interest was seen as an issue in the arena. At least in the minutes, it was accepted as a 'given' beyond dispute or criticism. Hence, the sequence "silent investor" tells us something about the relationship between the NHB, the investor, and the Parkstadt arena, as well as the occasionally obscured distribution of power in the collective process.

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al. 2006, pp.134f). The association obtained legal advice by the specialist lawyer and later major of Munich, Christian Ude (ibid.).

15   This proposition was raised in one of the interviews.

Figure 66: Sequence "individual modifications"

SEQUENCE "INDIVIDUAL MODIFICATIONS" 1985 - 2016
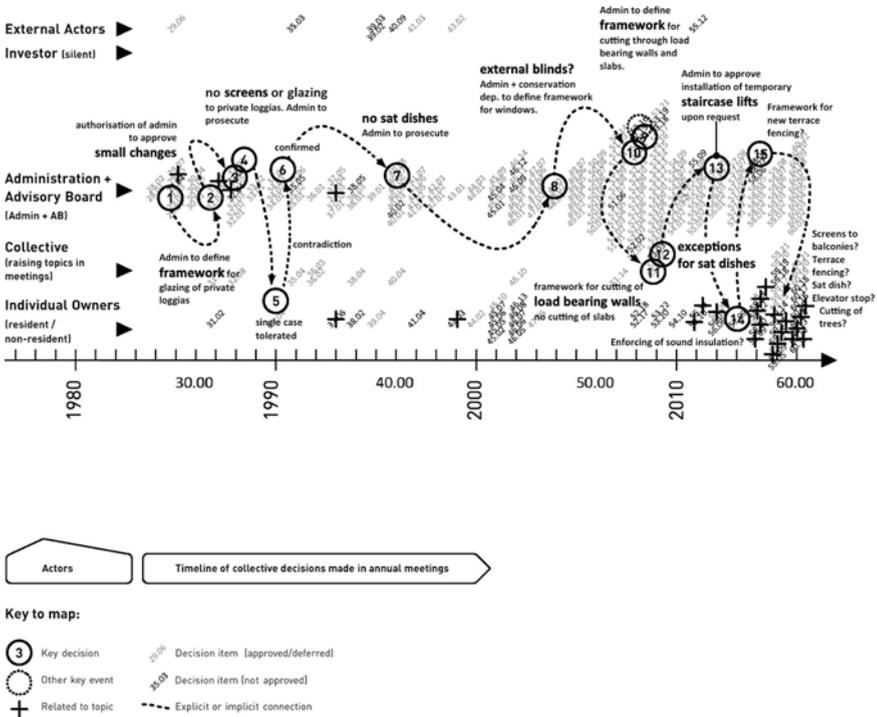
The sequence "individual modifications" follows the struggle of individuals and groups to appropriate space and to achieve greater autonomy in decision making. In line with the federal WEG legislation, the collective confirmed in 1985 that it would not accept votes on building level in addition to the statutory estate level vote. The issue came up in connection with the intercom system. A similar instance occurred in 2001 in connection with electrical upgrading. This means that if the (owner) residents of a single building wish to make changes to 'their' building, they will have to wait for approval in the annual meeting. It does not matter whether the residents in the respective building were to cover the costs by themselves, or whether others are not directly affected. As a result, changes that are desired by the residents of a single building may take a long time, or may not be realised at all, because the co-owners on the estate have to grant their approval first. For example, the residents of a single building cannot choose the finishes of the external wall or the communal staircase independently. They cannot decide independently about the use and organisation of the open areas adjacent to the building, or choose to retain an existing front door, or have it replaced with a new one.

Figure 67: Sequence "decision making"

SEQUENCE "DECISION MAKING" 1985 - 2016
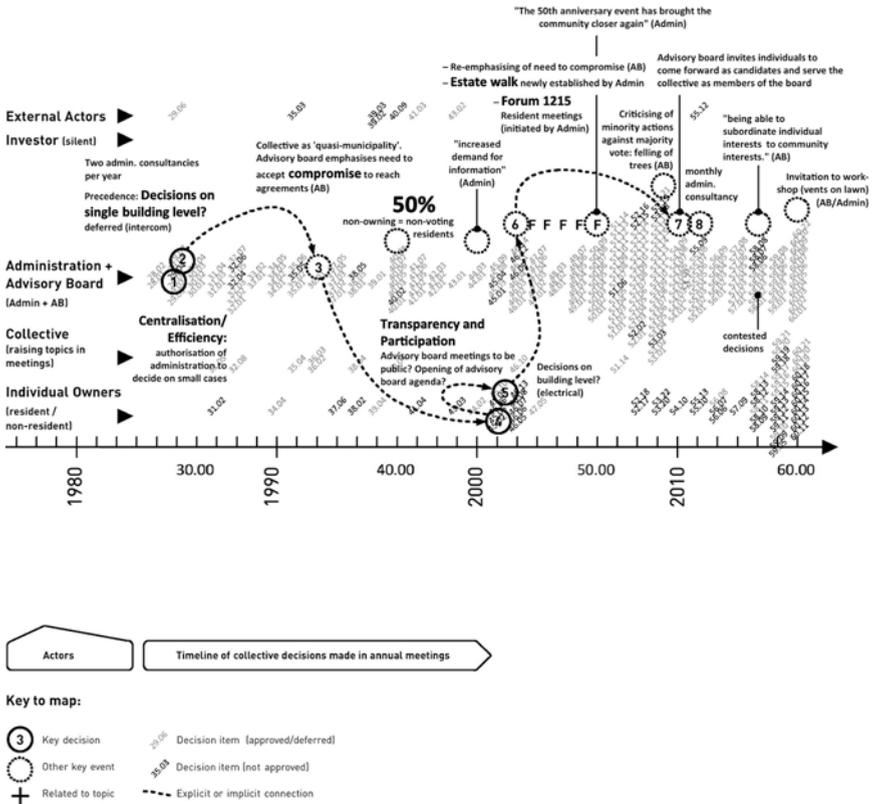
It is not surprising then, that we find statements of discontent with the way decisions are made, side by side with self-affirmative justifications. The sequence "decision making" assembles instances of explicit and implicit moments of self-reflection, criticism, adjustments to the way information is circulated, and competing and contradictory interpretations of emerging situations. In 1992, the advisory board suggested that the WEG collective could be seen as a quasi-municipality given its size ("[...] die nach ihrer Größe schon eine politische Gemeinde sein könnte [...]", Wohnungseigentümergemeinschaft Parkstadt Bogenhausen 2016). Hence, eight years after the commonhold-type entity according to the WEG had been established, actors begin to explicitly articulate the potential power the collective holds. We find repeated comments as to the uniqueness of the collective in terms of the number of units and the size of the territory it controls (ibid.).

Throughout the timeline, we also find appeals by advisory board members and the administration to uphold a sense of community, accept compromise, and refrain from what they think would be selfish proposals. Statements of this kind seem to promote the view that WEG entities should be non-political in character and consensus-oriented. However, in 2001 an owner member brought forward the idea of opening up the advisory board meetings to all members of the collective, as well as granting them

permission to raise agenda items in the advisory board meetings. The proposer argued that there should be more participation and transparency in the process. The request was declined by the advisory board with reference to existing WEG legislation, backed by the argument that final decisions are made in the annual meeting and that owners had the opportunity to directly speak with the board members. The administration added that owners who are interested in the work of the advisory board would be free to run for a position on the board. In the years 2013 and 2014, a series of decisions were legally contested by individual owners. This is a new phenomenon with the only other instance of this kind having occurred in 1996. For 1996, it is also recorded that the number of non-resident owners had passed the 50% threshold. Hence, while prior to the estate's privatisation in 1984, all residents had also been tenants, and during the 1990s most residents were owners, the composition of local residents has become more heterogeneous in terms of their ownership status.

2.6   Triangulating by Adding a Quantitative Perspective

I have discussed different qualitative mapping techniques together with their use in the case study analysis at various points in the previous chapters. In this chapter, I introduce a quantitative analytical perspective. It provides additional information about the process in the Parkstadt arena and adds further thickness to the inter-pretative base. In the chapter on methodology, I outlined that the kind of multi-site research pursued in this research project involves the use of multiple methods. Glaser and Strauss assert that

> "Different kinds of data give the analyst different views or vantage points from which to understand a category and to develop its properties; […] theoretical sampling for satu-ration of a category allows a multi-faceted investigation, in which there are no limits to the techniques of data collection." (Glaser and Strauss 1967, p.65)

Multiple methods can be applied to all stages in the research process. Uwe Flick high-lights the long tradition of using different methods simultaneously in ethnographic field work, by referring to the 1933 Marienthal study by Marie Jahoda, Paul Lazars-feld and Hans Zeisel (Flick 2011, p.51). Assuming different perspectives is understood to enable the researcher to identify convergences and divergences in the data and in the interpretation (ibid., p.74). There are various ways to achieve this, for example by combining different methods within the same research perspective (ibid., pp.41ff), or by combining qualitative and quantitative data, methods, and results (ibid., pp.75ff). Using different methods for the purpose of approaching the phenomena under study from multiple perspectives is sometimes conceptualised as 'triangulation' in the social sciences. The term triangulation is borrowed from surveying, where a triangulation network of accurately measured points are generated to geometrically describe the earth's surface (ibid., p.11). In this method, a single point is repeatedly located by mea-surements, for example, with the assistance of a theodolite. Earlier approaches in the social sciences conceived triangulation as a means to ensure objectivity in research, to test hypotheses, and to verify the validity of statements (ibid., pp.17ff). However, it became apparent that in qualitative research there are no same units, as equivalents to points, that could be measured (ibid., pp.17, 20). For, the methods used to collect

and interpret data inevitably always co-constitute the phenomenon under study in a specific way (ibid., p.17).

Newer approaches understand triangulation as a means of developing a richer and more profound knowledge of the phenomenon under study, without insisting on verification. Accordingly, the quantitative perspective as well as the other triangulating methods used in the case study analysis are not there to confirm the validity of the mappings, but to broaden and deepen the interpretative basis of the mapping analysis. Flick recommends that qualitative methods not be combined with quantitative data in such a way that the data is transformed into "quasi quantitative" (Flick 2011, p.88) data, because in this way it would loose its qualitative-situational context (ibid.). He observes that the full integration of a quantitative and qualitative approach is yet to be developed, for which reason they are currently combined as one after the other, one next to the other, or as one dominating the other (ibid., p.95). The approach pursued in the Parkstadt Bogenhausen case study is in this sense no exception.

The data for the quantitative enquiry is drawn from the list of coded and categorised annual meeting minutes[16]. The sample is identical with the sample used for the mappings, and comprises 284 decisions that are related to change. It covers a period of 33 years, beginning with the establishment of the commonhold-type collective in 1984, when the single ownership of the estate was converted into a dispersed form of ownership according to the WEG.

The first set of diagrams shows how the total number of change-related decisions adopted in the annual meetings is distributed among different actors/initiators according to value/size, respectively approval status. The categories value/size are based on the simple distinction small, medium, large (S, M, L), to which I have added a fourth category for items that are not priced, such as a change of estate rules. S relates to costs up to €50,000, L to costs above €500,000, and M for the interval between them. If a cost are not explicitly stated in the minutes, it is allocated on the basis of a cost estimate made by the author. As we can see in the first table, decisions dealing with issues that fall in the S, M and 'not applicable' categories are almost equal in numbers, while the number of decisions dealing with large sums is significantly lower. Looking at the entire period, we could say that on average one single large item is negotiated almost every year.

Pertaining to the question of who raises topics, of who formulates the voting items about which the collective decides in the meeting, the figures suggest that individual owners have the majority in no category. The highest number of initiatives brought forward by individual owners are found in category S (38), while the number is significantly lower in category M (4), and almost non-existent in L (1). According to the meeting minutes, the NHB as well as the investor Doblinger Unternehmensgruppe GmbH have not authored any topics. As outlined above, I have named the mapping of the investor's process 'silent investor' to reflect this specific aspect in the process. The collective initiatives developed from within the annual meeting have an ad hoc character. They usually emerge as the outcome of debates. This distinguishes collectively

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16 Sampling methods in which the sample for the triangulating method is taken from the sample of the first method is discussed as "verschränktes" (interlaced) sampling by Uwe Flick (Flick 2011, pp.101f) .

Figure 68: Total number of decisions according to value/size of negotiated item and initiator. S < €50,000; L > €500,000; M = interval in between.

	S	M	L	not applicable
■ OTHER ACTORS	1	2	1	4
▦ INVESTOR	0	0	0	0
■ HOUSING ASSOCIATION NHB	0	0	0	0
▤ ADMIN/ ADVISORY BOARD	45	74	25	62
■ COLLECTIVE	0	0	0	9
▨ INDIVIDUAL OWNERS	38	4	1	18
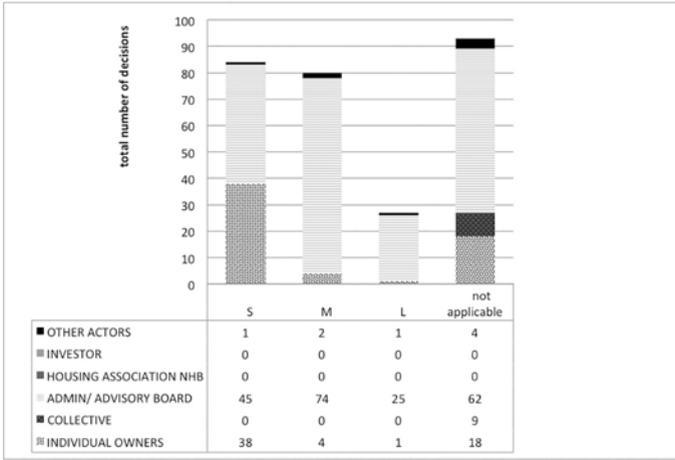
Figure 69: Total number of decisions according to approval status and initiator.

	individual owners	collective	admin. advisory board	housing association NHB	investor	other actors
▨ NOT APPROVED	45	0	35	0	0	5
▦ APROVED	16	9	171	0	0	3
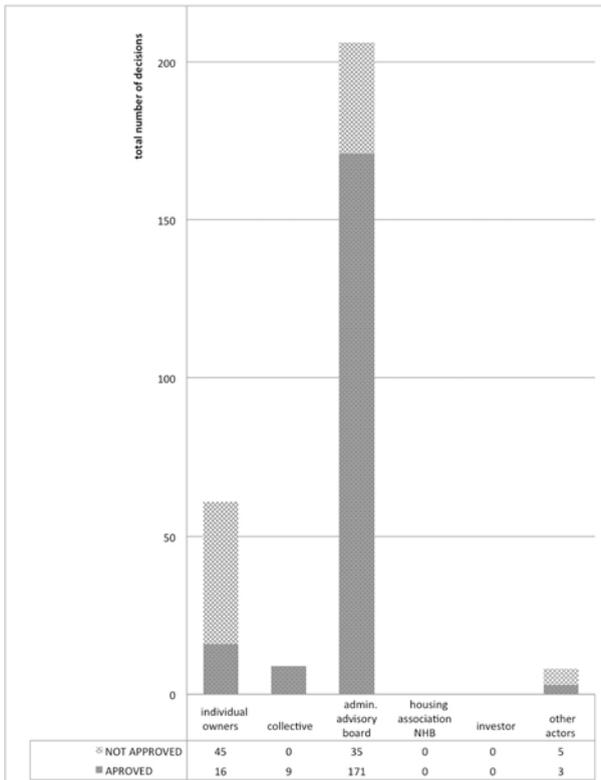
developed initiatives from the initiatives that are brought into the meeting by individuals or by the administration/advisory board. However, as collective processes include the actions of individuals, the distinction pertaining to whether a topic is raised by individuals, a group, or by the collective is not always entirely clear. The figures suggest that if the collective raises topics, they are likely to be related to issues in which the cost factor is not foregrounded, such as questions of management or estate rules ('Hausordnung'). Initiatives that involve larger sums seem to almost always pass through the administration/advisory board channel before they enter the annual meeting. Propositions brought forward by individuals only rarely involve medium or large sums.

If we relate the number of approvals/non approvals to the different groups of initiators, we see that all initiatives brought forward by the collective were approved (9), that the majority of initiatives brought forward by the administration/advisory board were approved (171 approved versus 35 not approved), but that the majority of issues raised by individuals were rejected (16 approved versus 45 not approved). However, despite the apparent likelihood of not receiving approval, individual proposals have risen in number during the recent past, which is shown in the overall timeline diagram and in the mapping of negotiated concerns.

The second set of diagrams concentrates on the decisions that achieved approval during the annual meeting. The first diagram relates the negotiated value/size to initiator, the second diagram the spatial unit affected by the decision to initiator, and the third the type of change to initiator. In the first diagram, we again have the distinction between small, medium, large (S, M, L), plus a category for items that are not priced. The administration/ advisory board has raised the majority of decision items in each category. The imbalance between administration/advisory board and other actors, which we have identified in the corresponding diagram of the first set, is now further increased. We see that almost all approvals in the M, L and 'not applicable' categories relate to initiatives by the administration/advisory board. Topics raised by individual owners play a role in the S category, but we have to consider that only 12 out of a total of 38 proposals by individuals achieved approval. For the administration/advisory board, the ratio of 39 to 45 is much higher in the same category. If we compare the corresponding diagram of the first set and the second set, we see also that whenever the collective raised a new topic ad hoc during the annual meeting, it would result in a majority supporting the issue (9). However, these instances relate exclusively to issues that do not directly involve costs.

In the second diagram, we see that successful propositions brought forward by individual residents predominantly addressed either open spaces (10), or the alteration of single units (5), and in one instance the single building. Compared to the total number of 61 topics raised by individual residents, the success rate of 16 in the three relevant categories is very low. The larger part of proposals by individuals to make alterations to single units were not approved. We can also see that the overall number of approved decisions in the category of single units is very low in comparison to the issues related

Figure 70: Number of approved decisions according to value/ size of negotiated item and initiator.

	S	M	L	not applicable
ADMIN/ ADVISORY BOARD	39	59	22	51
COLLECTIVE	0	0	0	9
INDIVIDUAL OWNERS	12	1	0	3
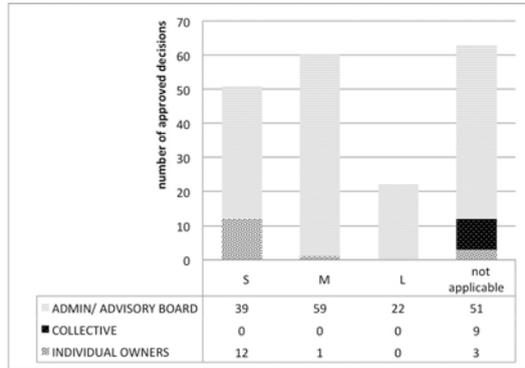
Figure 71: Number of approved decisions according to spatial category and initiator.

	single unit	single building	estate all build. infrastr.	open areas
ADMIN/ ADVISORY BOARD	4	54	93	20
COLLECTIVE	0	1	4	4
INDIVIDUAL OWNERS	5	1	0	10
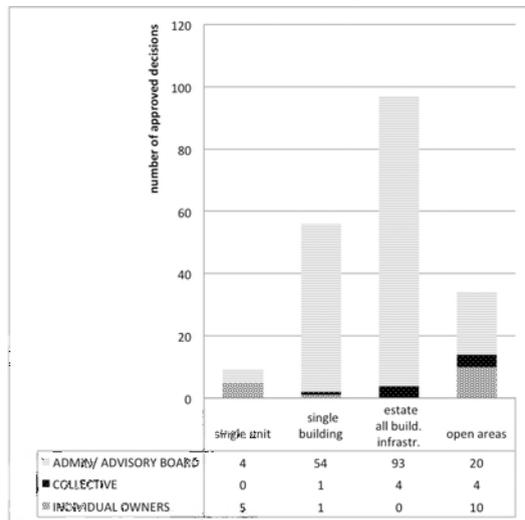
to single buildings, or to the overall estate and its infrastructure. However, as we shall see further below, it is exactly in this category where modifications and changes occur in the estate, despite the many non-approvals. Looking at the approved topics raised by the collective, we see that they are evenly distributed between open areas (4) and the overall estate or its infrastructure (4), with only 1 item addressing a single building.

Finally, the diagram on types of change confirms the dominance of the maintenance project, which in turn is dominated by the administration/advisory board. 114 of a total of 119 approved decisions in this category were raised by the administration/

Figure 72: Number of approved decisions according
to type of change and initiator

	spatial functional aesth.	maintenance	management rules, legal	events and activities
ADMIN/ ADVISORY BOARD	15	114	39	3
COLLECTIVE	3	0	5	1
INDIVIDUAL OWNERS	8	5	2	1
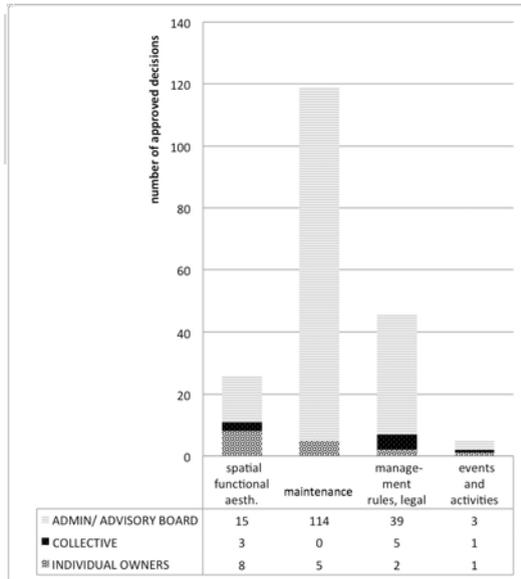
advisory board. The management/rules category is smaller in terms of numbers, but it is dominated by the administration/advisory board in a similar way. Only the spatial/functional/aesthetic category as well as the events and activities category are more evenly mixed.

2.7   Triangulating by Adding Contextual Data from the Field

In line with the multiple-methods approach, data from participant observations and expert interviews are used to further substantiate, contextualise, and triangulate the coded data of the meeting minutes, and to critically re-examine the information that I have assembled in the mappings. The data was generated in parallel to the mappings. Living in the field of study provides ample opportunity for making observations and engaging in interaction. Of the countless local conversations I had during the last few years of living in the estate, many were implicitly or explicitly related to the neighbourhood, to life on the housing estate, and to local issues. They accumulated, over time and together with other local information, into a personal 'image' of the research field. This image gave rise to the sense that the Parkstadt Bogenhausen housing estate is somehow different and that in terms of theory, there did not seem to be an architectural and urban concept that accurately described the situation. Ethnographically generated data is indispensable for the understanding of spatial practices, for it is in the field that spatial practices become effective and do their work.

The approach to the case study takes the special condition of being a permanent resident on the housing estate into account. On the one hand, the proximity is used in generating data through direct interactions with and in the field; on the other hand, it is balanced through working with archived and other text-based material, which

establishes a certain distance. Living in the field means that personal everyday interactions and tacit knowledge tend to intermingle with critical reflection and observation.

The annual meeting of the 'Wohnungseigentümergemeinschaft' became a regular site for making participant observations. Its course follows a predefined routine. A few weeks prior to the annual meeting the invitation is sent to all owners together with the meeting agenda. The agenda lists the topics and questions that are to be discussed, as well as the decisions that need to be made. In this sense, it defines the standard and the kind of topics and questions that are considered legitimate for the meeting. The annual meeting is held in a large function room on the first floor in of one Munich's beer halls. It holds several hundred people. The way the space is organised during the meeting reflects the roles assigned to, or chosen by each participant. Through the agenda, routine and spatial arrangement, procedures are pre-structured and hierarchies reproduced. Owners present their invitations to members of the administration in the foyer, where they sign the attendance lists and are handed voting cards for the meeting. The meeting is chaired by the head administrator, who usually takes his or her seat at the centre of a podium. A long conference table runs across the full length of the podium, seating representatives of the head administration, local administration and advisory board. The function room is furnished with long rows of tables and chairs. If required, a screen is used to communicate figures, technical issues, or other visual content. Participants on the podium share several microphones among them. There is a single floor-standing microphone placed at the centre of the function room for all other participants. Participants usually have a drink or a meal during the meeting. The overall atmosphere is unexcited and focussed. Participants are conscious of the long-standing cooperation between administration, advisory board and owners.

During the meetings, large annual budgets are routinely negotiated. The expenditure of large sums on regular maintenance items are approved within a few minutes. The maintenance project rarely gives rise to controversy. Small scale interventions, in particular if they are related to the interests of individuals more than to the collective, tend to be discussed with disproportionate rigour and allocation of time. Having said that, discussions in the sense of many individuals making contributions to a single issue are the exception.

The meeting minutes play a key role in the institutionalisation of negotiated outcomes. They convert that which is said and agreed upon into 'matters of fact'. Through participating in the meetings it became clear that the meeting minutes, although directly related to the events taking place during the meeting, have to be treated as a separate category. They are not mere abstractions of the meeting, or condensed representations of it. They cannot be understood in isolation from the situation in which they are generated.

The many practices and daily activities in the housing estate provided a rich empirical basis for making further observations. Comparative observations showed that residents develop individual practices to generate external spaces that are meaningful to them. This is most evidently the case in the use and spatial arrangement of ground

Figure 73: Annual meeting of the 'Wohnungseigentümergemeinschaft', half an hour prior to the scheduled beginning, Munich 2016

Figure 74: Shortly after the meeting. The podium can be seen at the far end of the meeting hall, where participants engage in face-to-face conversation, Munich 2016

floor terraces. Balconies provide less opportunities, but nevertheless are also appropriated in different ways. Other small situations of appropriation are observable in converted garages. Some are used as storage spaces or for hobbies like servicing motorbikes. Ephemeral spatial situations of appropriation are established when groups gather in the open without making physical changes to the environment. Not all forms of appropriation seem to be compatible with the estate rules, or the sense of order implemented by the administration and the team of caretakers and gardeners. However, they are tolerated or ignored, at least for some time, until the administration or neighbours take action. Local shopping, walks in the style of the urban 'flâneur', or visits to community events offered insights into the many things residents do locally and how they interact in places of the everyday. In this part of my ethnographic work, I produced field notes and photographic records.

Interviews provided a major source of data from the field. For practical reasons I have limited the number of interviews and interview-like conversations to 12. Interviewees included members of the advisory board, local administration, head administration, and local residents. The interviews and conversations took place at various locations, including offices, private apartments and open spaces. The participants are considered experts in the situation. The interviews and interview-like conversations added thickness to the analysis, which proved useful in particular for the understanding and interpretation of the mapped processes. The interview sessions had a typical duration of 1–2 hours and followed a set of questions which I had prepared for each session individually in the style of semi-structured interviews ('Leitfadeninterview'). The session started with a brief outline of the research project. The first question invited the interview partner to describe his or her work in the field. This was followed by questions about the situation on the estate, about relations in the Parkstadt arena, and about conditions of change. Records of the conversation were kept by taking notes during the interview session, which at times involved the interviewees in the clarification of intended meanings. The main content of the interview and details about the situation were typed up immediately after the interview. Some participants took up the offer to comment on the text generated from the interview and to propose amendments. This gave me the opportunity to have a second meeting and to ask follow-up questions. The interview-like conversations evolved more spontaneously and were generally shorter. They were recorded in similar ways. The semi-structured inter-

views and interview-like conversations provided information about the collective process, they contributed towards the concept-building of the Redundant City, and they resulted in adjustments to the mapping of the Parkstadt arena.

Finally, the 50th anniversary edited volume by historian Roland Krack provided ethnographic data about different aspects of everyday life on the estate along with local history and architectural information (Krack 2006). Many individuals contributed personal stories, private pictures of family situations on the estate, or other data, like adverts or newspaper articles. The publication has the character of what anthropologist Clifford Geertz conceptualises as "thick description" of the field (Geertz 1973, p.10). Covering a timeframe of fifty years, the publication provides a richly illustrated record of continuity and change on the housing estate. In this respect, the 50th anniversary publication was also a useful companion to the socio-spatial study "Stadt am Stadtrand" of 1969 (Zapf, Heil and Rudolph 1969).

3.   Comparative View of Other Situations of Change in Munich

3.1   Munich's Housing Crisis and Long-Term Residential Development Plan

Having focused in detail on the collective process in the Parkstadt Bogenhausen housing estate in Munich, I now propose to extend the field of enquiry. In the following spatial analysis, I compare the situation on the housing estate to other sites and conditions in Munich. The goal of the comparative view is to develop a contextualised understanding of the process in the Parkstadt arena.

As part of my conclusion, I find that the spatial dynamics of Parkstadt Bogenhausen housing estate are unique in the sense that, firstly, it does not participate in general processes of transformative growth and densification in Munich; secondly, it does not participate in the specific restructuring process which is characteristic of many other housing estates in the city; and thirdly, it is located in an area that is otherwise characterised by multiple building activities and instances of spatially effective urban change. In the spatial analysis, I refer to basic statistical data provided by the authorities, to information about ongoing building projects in Munich, and to my previous analysis of the Parkstadt Bogenhausen housing estate. I use photographically recorded data to illustrate and substantiate the argument.

Munich is growing. The city experienced a significant increase in population during the first half of the 20th century. This was followed by a phase of stagnation in the wake of the Olympic games in 1972, when growth was diverted to suburban areas in the metropolitan region[17]. The city resumed growth in 2000, which continues up to the present (Landeshauptstadt München 2015a, pp.12f). In 2013, the city had a population of

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17 Analysts refer to this area as „Planungsregion München", or „Region 14". It comprises Munich and 8 administrative districts bordering Munich (Landeshauptstadt München 2015a, p.9).

Figure 75: Parkstadt Bogenhausen, private garden arrangement, facing the broad communal lawn, Munich 2018

1,493,000 (ibid., p.9). The metropolitan region comprising Munich and its eight bordering administrative districts had a population of 2,460,000 (ibid.). Analysts expect the city's population to increase by 230,000 inhabitants in the period from 2013 to 2030, which is equal to 15.4% in growth and amounts to an overall population of 1,723,000 (ibid., p.47). The city and the metropolitan region are confronted with a growing demand for new housing, educational facilities, infrastructure, and commercial space. Rates of housing production do not keep up with actual demand, resulting in a housing crisis and the highest rents and property prices in Germany (Landeshauptstadt München 2016b, pp.70, 82). The crisis is further fuelled by changing socioeconomic parameters and the current incentives to invest global capital in urban property (ibid., pp.70ff; Trapp 2018).

The city administration has developed a long-term residential development plan "LaSie" ("Langfristige Siedlungsentwicklung"), as a response to the crisis (Landeshauptstadt München 2011). The plan is aligned with the strategic development plan "Perspektive München", which was adopted in 1998. The current version of the LaSie plan defines three main processes through which new housing is provided (emphasis added, Landeshauptstadt München 2016a, pp.20ff):

1. **Densification** of
   a. existing housing estates and low-density developments of the post-war era ("Nachverdichtung von Wohnbausiedlungen einheitlicher Prägung")
   b. suburban areas, by means of private initiatives and piecemeal process
2. **Conversion** of formerly non-residential areas to residential and mixed-use areas
3. Medium and large-scale urban **developments on greenfield sites** in peripheral areas

The capacity to construct new housing in the short and long term is estimated to be 61,200 units between 2015 and 2035 (ibid., p.22), which indicates that the crisis is likely to continue. Of particular interest in relation to our case study is the densification of existing housing estates as defined in category 1a.

In 2009, the authorities commissioned a series of studies on the development potential of different urban situations (Landeshauptstadt München 2009), which subsequently informed the LaSie long-term residential development plan (Landeshauptstadt München 2011). In the study on qualified densification ("Qualifizierte Verdichtung"), different spatial strategies of densification are tested in a series of models and scenarios (ibid., pp.12–21)[18]. The study shows the kind of morphologies that may be produced through processes of spatial densification for uniformly structured housing estates ("einheitlich strukturierte Wohnsiedlungen", ibid., p.21), low-density residential areas, and mixed-use higher density areas in central locations. It suggests that high quality urban environments may be created in all three processes if a series of critical issues are addressed, including the upgrading of infrastructure, paying attention to open space, questions of mobility or renewable energy, and questions of ownership (ibid.). In terms of time scale, the study concludes by proposing that uniformly structured housing estates in single ownership are more suitable to short-term densification projects than low-density and mixed-use areas, which, according to the study, may unfold their development potential more easily in the long term (ibid.). It is indicative of the authorities' approach that uniformly structured housing estates that are in dispersed ownership are excluded from the LaSie residential development plan as if this was self-evident (ibid.; Landeshauptstadt München 2016a, pp.19f; 2016b, p.21).

In the following analysis, I seek to show that different processes of densification, urban renewal and restructuring occur in the local area around Parkstadt Bogenhausen. They include the categories mentioned in the 2009 study. We also see that their spatial impact, and therefore the visibility of urban change, is much stronger in comparison to the spatial impact of changes in the housing estate.

3.2   Spatial and Structural Transformations in the Local Area

In the areas adjacent to the Parkstadt Bogenhausen housing estate, spatial and structural transformations occur on multiple sites and define different urban situations. They are connected to processes that operate on different scales, while having a significant impact on the spatiality of the local context. In the analysis, I focus on a series of projects in the proximity, without claiming to cover all spatial and structural changes. The idea is to show the diversity of phenomena involved, including differences in intensity, scale, and transformative speed.

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18 Contributors (according to imprint): TUM | Lehrstuhl für Integriertes Bauen, Prof. Dietrich Fink; Fink+Jocher, Architekten und Stadtplaner; steidle architekten, Architekten und Stadtplaner, Johann Spengler; mahl.gebhard.konzepte, Landschaftsarchitekten und Stadtplaner, Andrea Gebhard; consultants: TUM | Lehrstuhl für Bauklimatik und Haustechnik, Univ.-Prof. Dr.-Ing. Gerhard Hausladen; Glock Liphart Probst & Partner, Rechtsanwälte, Rudolf Häusler; Planungsbüro, Dipl.-Ing. Michael Angelsberger; Verkehrsplanung und Städtebau, Michael Angelsberger. (Landeshauptstadt München 2011, pp.12–21)

Figure 76: Location of Parkstadt Bogenhausen housing estate and adjacent areas, Munich 2015. Map adapted from https://geoportal.bayern.de/geoportalbayern/
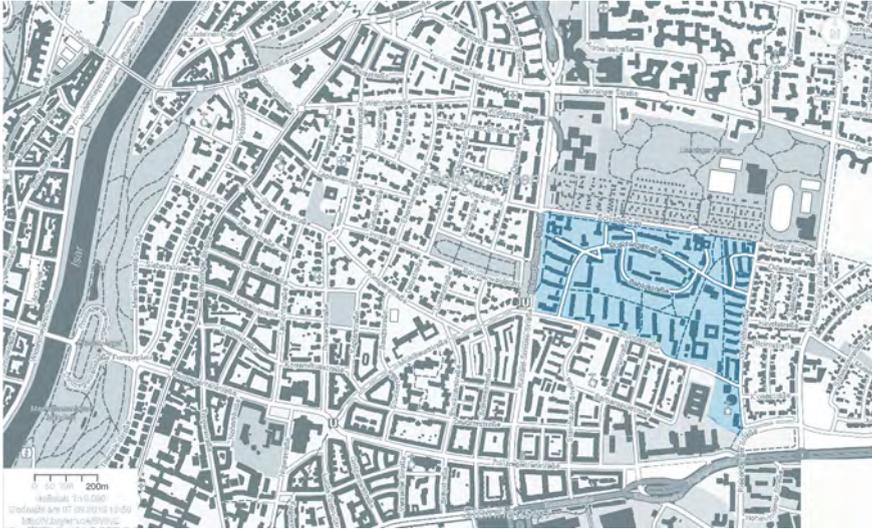
The by far largest transformation during the past few years was brought to the local area by the tunnelling of the "Mittlerer Ring" ring road. The ring road was designed and realised during the second half of the 20th century as part of the general reorganisation and optimisation of the city for automobile mobility. Rising levels of traffic, congestion, and pollution were taken as arguments in a debate to improve the ring road, which resulted in a public referendum ("Bürgerentscheid") in 1996 in favour of three tunnel projects at different locations – at that time against the majority in the city council. The ring road is named Richard-Strauss-Straße in the area of our analysis and defines the western boundary of the estate. The tunnel system in this section of the ring road was constructed between 2003 and 2009, at an overall cost of around €321m. The tunnel project extends over 2.7 km, where the tunnels have an overall length of approximately 2.0 km (Krack 2006, pp.130f). The project improved the environmental quality in the area, which in turn led to the upgrading of buildings and open spaces in the proximity, but also to rising property prices and rents. Special infill-housing was added to an existing housing estate next to the northern tunnel approach, which I discuss in the following section.

The area to the north of the housing estate is occupied by Denninger Anger green, beyond which Arabella Park was constructed as an urban sub-centre ("Stadtteilzentrum") between the 1970s and 1990s (Krack 2006, pp.30f). The U4 underground line has had its terminus here since 1988 (ibid., pp.128f) and links with buses and a tram line. The sub-centre accommodates corporate headquarters, large hotels, health services, shopping facilities, residential uses, as well as the local library and a farmers market. A phase of redevelopment and modernisation is currently under way. The new Arabesca office building replaced an existing 12 storey structure; the listed landmark HVB tower of Hypo-Real Estate, designed by the architect Bea and Walther Betz and completed in 1981 (ibid., p.31), received a complete overhaul together with a new façade;

the existing BayWa tower received a similar treatment and an extension; finally, a new shopping centre at the junction of Richard-Strauss-Straße with Denninger Straße opened in 2009.

Further large scale urban restructuring occurred in the mixed-use area towards the south of the housing estate. A new urban gateway ensemble is currently being constructed around the Vogelweideplatz. Designed by Enrique Sobejano and Fuensanta Nieto on the basis of their winning competition entry in 2009, the scheme comprises 5 tower buildings of different sizes. Other projects in the area include the Einstein shopping centre, which was completed in 2009; the current development of former railway land right next to the centre; and several replacements of existing higher density multi-storey buildings in the same area.

In Zaubzerstraße towards the south-west, a 1970s commercial building is currently being replaced to make way for higher densities and more intensified uses. The concrete structure defined the southern edge of a mixed-use development of the same period, comprising residential uses and offices.

A different form of local transformation has occurred through the replacement of single family homes with larger multi-occupancy buildings. This process prevails in the lower density residential areas towards the west and east of the housing estate. It is regulated by the federal building law §34 BauGB and has resulted in piecemeal densification and upgrading, but with an at times significant impact on the local setting. In some cases, the density on a single plot has more than tripled. Newly built homes in the western area yield some of the highest prices for residential property in Munich. The growing number of residents in the area has increased the demand for child-care and educational facilities. The local primary school on Stuntzstraße and the secondary school Hausenstein Gymnasium have both been enlarged during the last few years. Besides the apparent and clearly visible kinds of changes are many others that are more subtle in terms of their spatial impact and legibility.

During the year 2016 a vacant office block, formerly used by Siemens, was converted to a temporary home for refugees. The Denninger Anger green was made more durable by means of paving or renewing the footpaths and cycle tracks in the park during 2016. The allotment association bordering the housing estate to the north has now started to subdivide existing garden plots. The significance is small in terms of its contribution to local change, but the full bearing of it may be better understood if we take into consideration that no routine subdivisions occurred since the association was established in 1932.

Summing up, it is apparent that the local area is a site of multiple changes and of significant building activities. We see different types of projects that result in different spatial and structural changes, ranging from small scale building activities on single home plots, to interventions within densely built-up areas, to large infrastructure projects, and finally to corporate activities that are connected to the global scale. We are not looking at isolated events, but at continuous and clearly visible processes of urban restructuring, creative destruction, upgrading, accumulation and densification.

Figure 77: Demolition of a 1960s office building in Stuntzstraße/ Hörselbergstraße, directly to the south of the housing estate. The new development was completed in 2017 and is mainly residential, Munich 2015

Figure 78: Demolition works of a 1970s structure near Parkstadt Bogenhausen. The building accommodated a local supermarket and services, Zaubzerstraße, Munich 2017

3.3   Observing Change in other Housing Estates in Munich

In the second comparative analysis, I place the focus on housing schemes in Munich that are similar to Parkstadt Bogenhausen housing estate in terms of typology, urban morphology, and period of construction. Some of them are located in the proximity, others are further away. The aim of this analytical step is to support the view that Parkstadt Bogenhausen's specific transformative process is not primarily the product of its architectural properties. However, as we are looking at single cases that are all unique in their own ways, there are limits to the generalisations, which means that I treat the findings as a tendency rather than as a proof.

Housing schemes dating from the late 1950s and 1960s may be encountered at any location in Munich, including the historic centre. As the city developed in a more or less concentric form up to the 1960s, the larger housing schemes of this period are concentrated in a belt that encircles the city core at a certain distance. Many of the schemes of this period are located in the proximity of the Mittlerer Ring ring road, as mentioned above, or near the radial traffic arteries that connect the centre with the metropolitan region. The densification policy of the city and other goals, like improved sound insulation of buildings next to heavy traffic roads, has brought a series of current restructuring projects on the way. Projects are entitled to funding by the "Wohnen am Ring" funding scheme (Landeshauptstadt München 2017, p.18). It ensures, among other things, that standard architectural competitions are part of the procurement process, as well as special competitions like EUROPAN 12. The neighbourhoods along the south-eastern segment of the ring road have participated in the urban restructuring programme 'Soziale Stadt' since 2007, which integrates different measures to improve community services and social infrastructure, as well as the local economy and built environment (Landeshauptstadt München 2017). As information on these projects is widely available, I restrict myself to the brief description of four exemplary projects.

1. Housing estate Amberger Straße: infill development between existing residential blocks, lining the northern tunnel approach of Richard-Strauss-Straße (Mittlerer Ring). Winning competition entry by Léon Wohlhage Wernick 2005, completed in 2009. Client Bayerische Versorgungskammer/Versicherungskammer Bayern (Léonwohlhage Gesellschaft von Architekten mbH 2009).

2. Piusplatz urban renewal scheme: upgrading, densification and diversification through architectural reconfiguration and refurbishment, addition of new buildings, new social infrastructure, improved connectivity and open areas. 03Architekten, commencement of construction 2017 (Landeshauptstadt München 2017, pp.14ff). Owned and managed by GEWOFAG.

3. Housing estate Badgasteiner Straße in Sendling-Westpark: densification and diversification of existing 1950s housing through constructing new offices for the local estate administration, new façades and roof top extensions to existing buildings. Kaufmann. Lichtblau Architekten, München, Schwarzach, completed in 2012. Owned and managed by GWG München (GWG München 2016).

4. Siemensstadt München: addition of a new, 17 storey residential tower by Steidle Architekten, completed in 2007, following a competition win in 1994 and a law suit initiated by local residents. All existing residential buildings in the estate dating from 1954 are listed as single buildings. The listing entry explicitly acknowledges the high quality of the overall urban layout of the estate. The integration of the tower by Steidle Architekten serves as an example of how new structures may be successfully added to existing ensembles or ensemble-like building arrangements. Client SWG Siemens Wohnungsgesellschaft (Holl 2007).

The list of renewal and improvement schemes of and around housing estates could be greatly extended. Based on the above and other examples, it seems that we have to revise an assumption that prevails in the criticisms of modernism and tight-fit functionalism – that because of the difficulty in changing, modernist housing cannot change. The architecture-centric myth of Pruitt-Igoe is exemplary of a simplifying kind of criticism which claims that resistance to change and other complex problems would disappear if the architecture was different. The above references and examples demonstrate that there is an ongoing process of reconfiguration and restructuring of housing estates dating from the 1950s and 1960s in the Munich region, where adaptations are shown to be possible in multiple ways. From this perspective, it is difficult to maintain the view that resistance to change is principally a function of architectural properties. Despite the inevitable difficulties that come with changes to the built environment, we observe that residents, housing associations, professionals and authorities are prepared and capable of taking up the challenge to modify functionalist structures so that they continue to contribute to the quality of life in the city. We cannot, therefore, claim that the specific pattern of change in the Parkstadt Bogenhausen housing estate is primarily the product of tight-fit functionalism and other potentially inhibiting architectural properties.

Figure 79: GWG housing estate Badgasteiner Straße. A 1950s building is visible in the background, Munich 2013

Figure 80: Housing estate Amberger Straße. Protective new housing by Léon Wohlhage Wernick 2009, the Parkstadt Bogenhausen housing estate can be seen in the background, Munich 2017

The transformation of mid-20th century housing estates in Munich is currently under way at a grand scale. The process includes internal upgrading, typological diversification, improvements of accessibility and open spaces, energy performance, and other changes. Estates are transformed spatially, by means of fundamentally reorganising estate layouts and their relation to the urban environment. The greater the number of projects of this kind, and the greater their local impact, the more it becomes apparent that the Parkstadt Bogenhausen housing estate is somehow different. Based on the empirical and comparative data, we can consider the proposition that this difference is rooted in the way the estate is owned and organised, in the conditions defined by the Parkstadt arena, and in the collective's approach to conflict and change.

3.4   Placing the Changes in the Parkstadt Bogenhausen Estate in Context

Following the contextual analysis, how do the changes in the Parkstadt Bogenhausen housing estate compare to the multitude of changes that could be identified in the local area as well as in other housing estates in Munich? Since 1984, changes to the structure, infrastructure, or communal areas are documented in the minutes of the annual meeting in accordance with the WEG requirements. Changes that are not recorded in the minutes typically include modifications that do not require authorisation by the collective. These could be internal refurbishments and alterations of non-load bearing partitions, or minor changes commissioned by the administration/advisory board as part of the approved maintenance works, such as replacing a bicycle stand. The mix of commercial uses in the small local mall is also commensurate with this type of change. As long as the units retain their commercial function the individual owner is free to choose a tenant or commercial use for the property. In addition, there might be changes that are not covered by any form of authorisation but that are tolerated, ignored, or that remain unnoticed. Some of the garages are used in alternative ways. Residents use them as workshops for their motorbike or for bike repairs, for the storage of household items to compensate for the lack of space in the apartments, or for storing material and equipment needed to operate a small building business. The tendency towards bigger cars, for which the comparably small garages built in 1956 are becoming increasingly unsuitable, may have contributed towards these conversions.

Figure 81: Three units comprising 1, 2, and 3 bedrooms are arranged on the standard floor plan in building Buschingstrasse 57–63. The non-load bearing partitions of the 3 bedroom apartment are marked in black. Typical internal reconfigurations of the 3 bedroom apartment through changing non-load bearing partitions are shown below.
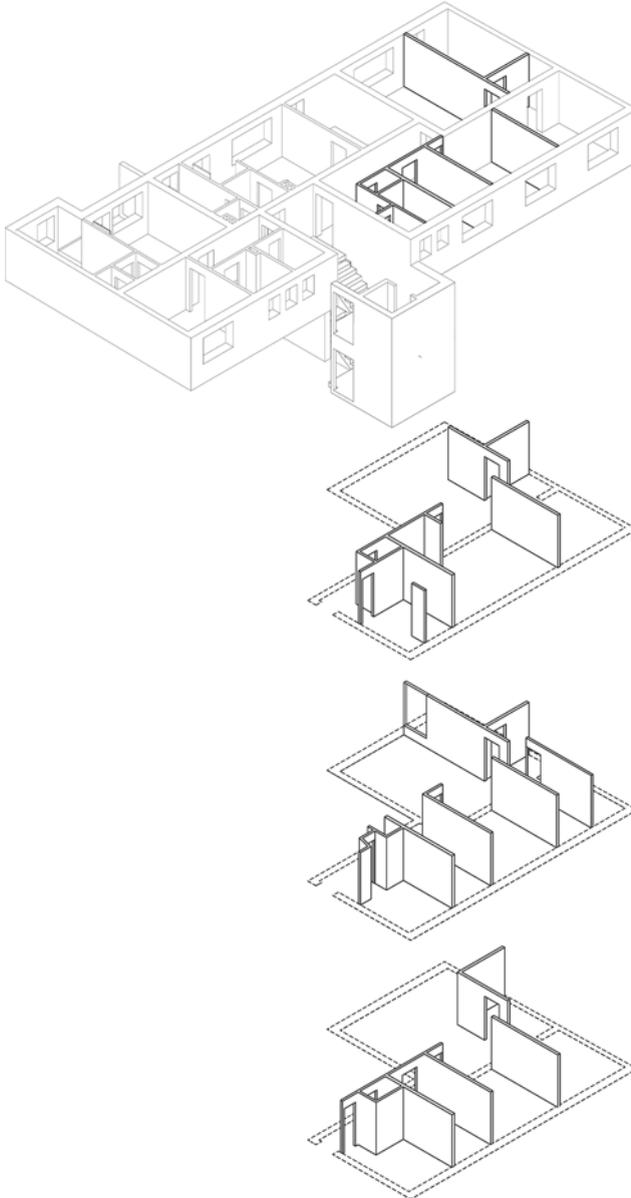
Finally, the contextual analysis in the previous section suggests that transformations that occur in the proximity of the estate may directly influence the situation on the estate. The construction of the Richard-Strauss-Tunnel serves as an example. Changes of this kind are beyond the control of the collective.

Based on these contextualised considerations, **changes in the Parkstadt Bogenhausen housing estate** can be categorised in the following way:

1. Changes dating from the period of single ownership **prior to establishing the commonhold-type entity** according to WEG in 1984.
2. Changes that are **authorised on the basis of collective decisions** made in the annual meetings since establishing the commonhold-type entity in 1984. I have analysed these changes in detail in the previous sections.
3. Changes that directly affect the estate which are **beyond the sphere of control** of the WEG collective.
4. Changes made by residents, non-resident owners or the local administration **without being recorded** in the annual meeting minutes. This category includes changes that
    a. do **not require authorisation** by the collective, such as internal refurbishments and alterations which are regulated by WEG legislation
    b. are **minor** in extent and effect so that the administration carries them out without formal approval as part of the maintenance works
    c. are non-authorised and **tolerated or ignored**, or that remain unnoticed

Based on the information assembled in the timeline diagram and the annual meeting minutes we can at this stage confirm that all changes with major spatial impact beyond the scope of the maintenance project predated the formation of the commonhold-type organisation. All structural, infrastructural and other similar changes that have affected the Parkstadt Bogenhausen housing estate since its completion in 1956 fall into the phase of single ownership, that is, prior to 1984. They include the construction of the underground parking area below the big lawn, the construction of the two-level parking garage next to the Buschingstraße 65 tower, the introduction of district heating, which in turn freed up space for the local administration's new offices in the disused boiler house.

While the comparative analysis could be further extended, it seems justifiable to propose that we are indeed looking at a unique phenomenon. The estate does not seem to participate in the current spatial dynamics of the local area. It does not change in the same way and with the same transformative speed as other housing estates in Munich. The analysis reveals an asymmetry in the pattern and speed of change if we compare the situation in the Parkstadt Bogenhausen housing estate with other situations in Munich. The comparative analysis shows that the observed phenomenon cannot be explained with reference to the estate's architectural properties, differences in economic or demographic parameters, or the local urban context. Likewise, as I argue in the following section, the phenomenon cannot be conceived as the self-evident consequence of the listing of the estate as building ensemble.

3.5   Heritage Preservation as Enabling Framework for Change

The justification for the listing of buildings, structures or other parts of the built environment as "built monuments" is based on a shared agreement about their preservation. In Section I (Scope), Article 1, Paragraph 1, the Bavarian Law for the Protection and Preservation of Monuments provides a general definition of monuments, stating that

"monuments are man-made things or parts thereof from a past epoch whose preservation, because of their historic, artistic, urban design, scientific or folkloristic significance, is in the interests of the general public." (Monument Protection Law 2009 [1973]) The paragraphs that follow provide definitions of what qualifies as a 'built monument':

> (2) Built monuments are structures or parts thereof (including historic decorative details) from a past epoch which possess the significance listed in Paragraph 1 [...]
> (3) Built monuments can also include more than one structure (historic district or Ensemble); every individual building in the Ensemble need not fulfill the requirements of Paragraph 1, if the townscape, square or streetscape as a whole is worthy of preservation." (ibid.)

Since 1992, the housing estate, including green spaces and the eastern low rise residential area, is listed as Ensemble E-1-62-000-69 "Parkstadt Bogenhausen" according to Paragraph 3 (Denkmalliste Bayern 2017a). The central complex of retail units, restaurant, deck access apartments, which are designed by architect Franz Ruf, as well as the sculpture of social housing advocate Dr. Paul Busching by artist Seff Weidl, are listed according to Paragraphs 2 and 3 (Denkmalliste Bayern 2017b; Krack 2006, p.128). The listing of buildings, ensembles or other "man-made things" has effects on the way they change. That the idea of preservation is seen as being directly related to questions of change is mirrored in the explicit addressing and regulation of change in the Monument Protection Law. Section II (Built Monuments), Article 6 of the law regulates "Measures on Built Monuments", in particular the need to obtain permission for the demolition, alteration or relocation of built monuments or parts thereof. If we focus on the ensemble category, then the regulations for modifications read as follows:

> (1) [...] "Whoever wishes to alter an Ensemble only must have permission, if the alteration concerns a structure, which is for itself a built monument, or if this could affect the appearance of the Ensemble."
> "(2) Under the provisions of Paragraph 1 [...], permission can be prohibited insofar as important reasons favor the unaltered preservation of the existing condition. Under the provisions of Paragraph 1 [...], permission can be denied if the planned action would lead to an adverse effect on the character, the appearance or the artistic effect of a built monument and important reasons favor the unaltered preservation of the existing condition." (Monument Protection Law 2009 [1973])

This first paragraph makes clear that no permission for internal alterations and similar changes is required if the buildings that are part of the ensemble are not listed as individual built monuments according to Article 1, Paragraph 2, provided the appearance of the ensemble is not effected. The second paragraph limits the conditions under which alterations "can be prohibited" (ibid.) to changes that have adverse effects on the character, the appearance or the artistic effect of the ensemble[19]. This means for most parts of the Parkstadt Bogenhausen housing estate, the listing does not affect the way internal mod-

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19 In this sense the protective goal of 'ensemble' may be compared to a conservation area in the UK, in which alterations and changes are acceptable as long as they do not adversely affect the overall character of the area.

ifications are made. Individual owners do not require permission from the Local Monument Protection Authority. They will in most cases inform the local administration and the neighbours, and then start with their internal building project. Likewise, alterations that are located within the common areas of buildings require approval from the annual meeting, but not from the Local Monument Protection Authority. Only if alterations affect the appearance of the ensemble is permission from the authority required, and only if the proposed alterations will have adverse effects on the character, the appearance, or the artistic effect of the ensemble, can they not be granted permission.

My observations of the annual meeting suggest that among the owners there is a degree of uncertainty as to the exact status of listing, and, moreover, as to what practical implications the listing has for the housing estate. Participants in the expert interviews were well-informed about the status, but they shared the view that changes to the appearance of the estate would most likely be evaluated by the authorities as having adverse effects, and that they would therefore not be permitted. The uncertainty among owners and specialists points to a general difficulty in heritage preservation, as well as in planning. In many negotiated cases, there does not seem to be a sharp line between that which is permitted and that which should be rejected on grounds of adverse effects. Moreover, if there is a line, it tends to shift on the basis of the shifting values assigned to building and heritage preservation. In view of these uncertainties and difficulties, how may owners, the administration, as well as the authorities respond to issues like accessibility and mobility, diversification of uses, new forms of collective living, renewable energy, use of external areas, the needs of the elderly, the housing crisis, or densification in housing estates? The controversy about new ventilation shafts to the underground parking area in 2017 has actuated these questions for the Parkstadt Bogenhausen.

Building projects located within the historic and listed part of the Munich district of Bogenhausen demonstrate that the protection of built heritage and changing the built environment are not mutually exclusive. The provision of new housing in the large yard of the historic building block defined by Prinzregentenstraße, Braystraße, Einsteinstraße and Versailler Straße is such an example (Palais Mai 2015). The northern perimeter of the block is occupied by the St Gabriel church, dating from the 19th century. The church building, the vicarage, and a residential building on the southern perimeter are listed as individual buildings (Einzeldenkmal). The entire urban block is listed as a building ensemble (Ensembledenkmal), as are all other blocks and open spaces in the neighbourhood, forming the Bogenhausen ensemble (Denkmalliste Bayern 2017c). This area of Munich is to a large degree based on the urban design framework established by architect Theodor Fischer and his team in 1901 (Wolfrum et al. 2012). In Palais Mai's residential scheme, two five-storey apartment buildings accommodate 66 residential units, while a smaller third building is used as a childcare facility. The scheme replaced rows of garages and a car park. The siting of the new buildings and the underground parking area ensured that the existing mature trees could be retained. All open spaces in the yard area were redesigned and newly landscaped. The project received an honourable mention for its approach to combining new build with the existing ('Preis für Stadtbildpflege der Stadt München') and is seen as a successful example of urban densification (Palais Mai 2015). Subsequently, a large portion of the existing buildings along the perimeter were refurbished and further residential space was constructed within the attics of the historic buildings facing Braystraße.

An example of significant change to a listed built monument in the local area is the construction of a new residential building next to a 19th century villa in Scheinerstraße 11 (Denkmalliste Bayern 2017d). The new building designed by David Chipperfield Architects comes without ornament or other detail and is in stark contrast to the villa. It connects with the listed building in a rather unusual way. Although the new building has major effects on the villa and the open space in front of them, it can be considered a successful transformation. The mass of the new building, its proportion and positioning add a new spatial quality to the existing situation of the square. The new building has a quality of its own that corresponds to the quality of the listed building and the wider surroundings – albeit on its own terms. What is deserving of criticism, though, is that the new building does not provide affordable housing, or that the perimeter walls are higher than in other parts of the area. But these issues are problems of urban policy rather than preservation. We also find among the 77 ensembles that are currently listed in Munich, the historic city centre and the Olympic park and sport village constructed for the Olympic Games in 1972. Both ensembles are particularly sensitive to change. Nevertheless, change of use and new building construction do occur in both of them. New structures and buildings have been integrated to the Olympic park since its listing in 1998. In 2008, Munich's urban development department held a workshop on the future development potential of the park (Landeshauptstadt München 2008). Likewise, since the end of the 1980s, a conservation framework makes alterations of all kinds a routine undertaking in the historic centre. Pertaining to the integration of existing fabric and new building projects in the historic city centre, the framework states that

> "Preserving the historical cityscape is important for the identity of the city as a whole, but at the same time, modern architecture and development make an important contribution to the city's image as an economically dynamic and culturally accessible city. To unite the traditional and the modern in Munich's city center, new structures need to be carefully integrated into existing ones. […] This will be ensured by competitions and competitive processes." (Landeshauptstadt München 2007, p.70)

Hence we could say that in all cases presented, preservation is the guiding framework for change – and not the inhibiting factor. However, in view of the immobilising effects of institutionalised preservation that are still felt in practice, Jorge Otero-Pailos criticises the narrowly framed "authorized heritage discourse" (Smith 2006, cited in Otero-Pailos 2016, p.16)[20] and advocates a more open and differentiated approach to

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20 The listing of entire city centres as World Heritage Sites in expanding urban cities has brought the conflicts between established concepts of preservation and the reality of urban dynamics to full light. Vienna is currently struggling to make compatible her plans for internal development with the protection status of the historic city centre. Other cities like Riga or Dresden were going through similar processes in the past. The many situations of uncertainty and conflict suggest that preservation is not a pre-given site or self-evident process. Emphasising the contingent side of preservation, Jorge Otero-Pailos asserts that "[…] preservationists have always played a much more active role on the choosing, one might even say co-creating, heritage objects. But their role has been unacknowledged, or sometimes even consciously concealed." (Otero-Pailos 2016, p.22)

Figure 82: Residential development within a listed building ensemble Braystrasse, designed by Palais Mai, completed in 2015, Munich 2017

Figure 83: New residential development designed by David Chipperfield Architects Berlin, in collaboration with Mark Randel Architekten (Berlin) and DOMO Architektur (Munich, LP4–8), next to listed 19th century villa in Scheinerstrasse. Completed in 2016, Munich 2018

preservation. He asserts that heritage and preservation are not self-evident ends in themselves and collectively constructed, rather than just being 'out there'. Questions of preservation in cities are seen as being entangled with social, economical, as well as political concerns (ibid.). Hence, the burden, responsibility, and challenges of preservation in urban situations cannot be left solely to the heritage specialists.

4.   Constructing the Redundant City Concept

4.1   Working towards a Synthesis: Assembling Empirical and Theory-Based Findings

In the following stages of concept-building, I bring together the previous findings and interpretations in a process that is based on a series of synthesising steps. In the first step, I assemble the conclusions of the mappings and the comparative analysis. I then turn to the positional map and exploit its heuristic capacity by establishing new discursive relations between the mapped process and the positions in the intersection of conflict and change. I propose that, if we seek to embrace the full process of the Parkstadt arena, we need to work with a dual position in the map. The idea is to make visible the silences and contradictions in the situation. I then introduce the complex and ambivalent notion of redundancy, which lends its name to the new concept. In the final stage, I establish the Redundant City concept, drawing from the conclusions from each part. The concept is conceived as the combined outcome of empirical research and of a critical enquiry into architectural and urban theory. It stands at the end of two open analytical processes that have evolved as connected iterative-cyclical research sequences. The diagram in Figure 84 shows what has been achieved so far in the analysis. The diagram in Figure 85 shows how in the synthesis the different research elements contribute to the construction of the new concept. Both the universe of architectural and urban narratives of conflict and change, as well as the study of the Parkstadt Bogenhausen housing estate inform and support its development.

Figure 84: Diagram showing the two main strands of analysis together with their mapped outcomes.

Figure 85: Diagram showing the main elements of analysis, interpretation, and concept-building in the synthesis.
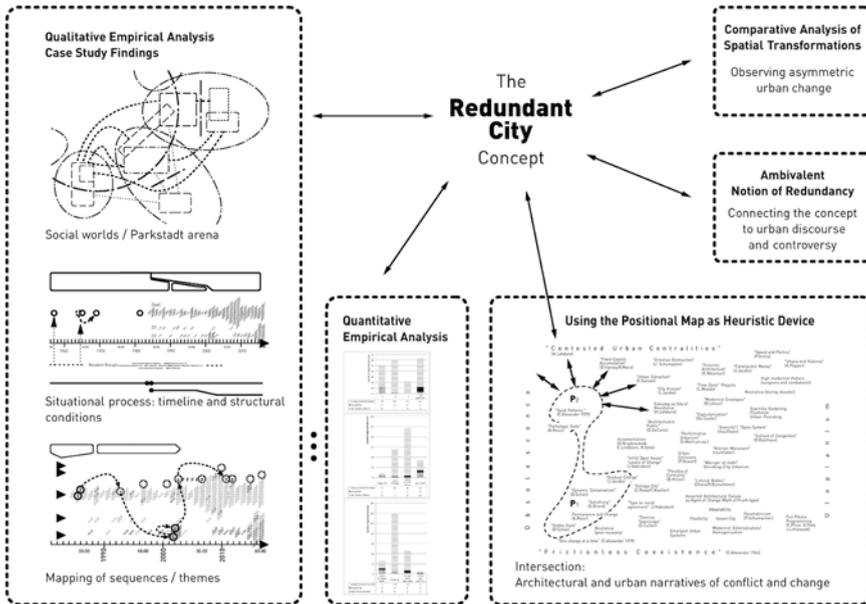
Redundant City is, therefore, neither the sole outcome of empirical research, nor of reflective theorising. Only through the combination of both fields of research has it been possible to advance to this point, and from there to proceed with the construction of the Redundant City concept.

4.2   Empirically Grounded Characteristics of the Housing Estate's Process of Change

At the outset of the investigation into the Parkstadt Bogenhausen housing estate, I stated that there is no such thing as 'the' housing estate. Modernist housing estates tend to be based on the principles of universality as well as of economical rationality and uniformity (Hiller et al. 2017). At the same time, if we understand housing estates as being situated within relational constructs of space, and as following their individual trajectories of development, which are connected to multiple actors, processes, spatial interpretations, and desires, they cannot be reduced to their generic and material properties. For the purpose of analysing the process of change in the Parkstadt Bogenhausen housing estate, I have adapted the iterative-cyclical GTM model to the specific case and included the methodological assumptions of situational analysis. In this sense, the findings and concepts developed with the methodology could be understood as being 'grounded in the situation'. In the first step of working towards a synthesis and the Redundant City concept, I assemble, discuss, and interpret the characteristics of the process identified so far on the basis of the GTM analytical process, the situational analysis mappings, and the comparative analysis.

Figure 86: Parkstadt Bogenhausen, residential tower on Buschingstraße, view towards Arabellapark corporate headquarters, Munich 2017

Asymmetric Urban Change

The comparative analysis shows that the housing estate neither fully participates in the overall dynamics of change that prevails in the metropolitan region, nor does its pattern of change correspond with the kind of changes observable in the local area, or in other housing estates in Munich. This is not self-evident, because we can assume that the estate is subjected to the same general demographic, social, environmental and economic conditions as the cases in our comparative study. Property sales in the estate follow the overall tendency to rising property prices and rents. The estate is not located at the urban periphery or any other disadvantaged location of the city, nor can we speak of the estate as being stigmatised in any way – it is not perceived as a place where problems accumulate. Munich's recently updated 'Mietspiegel', the political tool used to track and influence the level of rents in the private rental sector, confirm the estate as a desirable residential area ('gute Lage') (Landeshauptstadt München 2016c). Even so, the way the Parkstadt Bogenhausen housing estate has changed is very different to the development of other housing estates, for as we have seen, estates with similar morphology and typology are currently subjected to substantial restructuring and spatial transformation.

Likewise, we cannot observe any signs of economic stagnation in the surrounding urban area. Hence, the comparative view suggests that differences in transformative speed and extent of spatial change cannot be attributed to architectural properties, or to location. If we juxtapose the situation in the Parkstadt Bogenhausen housing estate and the overall dynamics in and of Munich, we can clearly see the asymmetry between them.

Rigidifying and Pre-structuring Effects in the Arena

The mappings suggest that the actions of the estate's process are co-determined and limited by the framework in which they are situated. In the social worlds/arenas map we see the connections and boundaries through which communication and the decision

making processes are pre-structured. The structure defines which group is authorised to participate in decision making, it defines the sequential order in decision-making processes, it defines different and nested inside/outside relationships. Some of the pre-structuring conditions are more rigid and solidified than others. In particular, WEG legislation provides a framework for the process that is highly institutionalised. The rigidity in the WEG framework means that core relations within the Parkstadt Bogenhausen arena cannot be changed without changing the WEG legislation at large. The legal framework pre-dates and pre-structures the collective process in the Parkstadt Bogenhausen arena. The mapping of self-reflexivity in the collective process, as presented in the diagrammed sequence "decision making", shows that issues relating to the practice of administration, which involves reference to WEG legislation, heritage preservation, planning and building control, are frequently questioned. There is, however, no questioning of the basic organisation of property rights, of control hierarchies, or the questioning of the more fundamental fixations in the arena. Hence, while the practical application of WEG and other legislative bodies in the administrative process produces controversy, the overall rigidifying and pre-structuring mechanisms are left unchallenged. These mechanisms and pre-givens have to be seen as part of a much larger framework governing the urban condition. In the introduction to the edited volume "Negotiating Urban Conflicts", Helmuth Berking et al. suggest that "[...] manifold lines of potential conflict run up against institutional regimes designed to guarantee urban security." (Berking et al. 2006, p.9) The situation defined by the Parkstadt arena could be conceived as an institutionalised space that relates different social worlds to each other, including the materialities, agendas, and structures that co-produce them. Martina Löw highlights the ordering and enabling, as well as the restricting and rigidifying effects of institutionalised spaces:

> "Institutionalized spaces secure the orderly cooperation of people. They provide security in action, but also restrict the possibilities of action. Both together, the routines of everyday action and the institutionalization of social processes, guarantee the reproduction of social (and thus also spatial) structures." (Löw 2016 [2001], pp.144f)

In the foreword to the 2016 English edition to the "Sociology of Space", Löw asserts the structuring and pre-structuring effects of spatial arrangements on human actions, including the institutionalised layout of a floor plan in a dwelling (Löw 2016 [2001], p. xix). Based on the understanding that spaces are reproduced through repetitive routines in everyday life, Löw identifies two different ways of introducing changes to the reproduction process:

> "Changes to individual spaces emerge as possible in relation to necessity, physical desire, other people's manners of action, and the state of being considered 'other'. Changes to institutionalized spaces or spatial structures must take place collectively with reference to the relevant rules and resources." (ibid., p.233)

The individual dwelling unit can be seen as belonging to both categories. It is entangled with the world of personal needs and desires, as well as with the world of rules and conventions. On the Parkstadt Bogenhausen housing estate, individual modifications to private units are routinely performed as long as they do not require approval

by the collective. However, there are conventions that influence decisions on how to make changes. The individual dwelling unit has to be seen within a hierarchy of institutionalised spaces that extend across different scales from the room to the city. Hence, changing one's own 'individual' unit space implies working within collective constellations.

In its current version, WEG legislation cannot respond to differences in the ratio of non-owning residents and non-resident owners. While prior to the privatisation of the Parkstadt Bogenhausen housing estate all residents where equal in that they were tenants, and in the years following the privatisation most owners of single units were residents, the current situation has become more complex and heterogeneous. The social worlds/arenas map shows how non-owner residents are excluded from direct participation in the collective decision-making process. This group includes all tenant residents as well as young people and other members living in the households of owners. If the number of non-resident owners is on the rise, which is the case in the Parkstadt Bogenhausen housing estate, a growing non-resident group of owners will be deciding on matters that affect all groups and individuals on the estate. There will be, perhaps, a growing interest in the short-term letting of apartments, a disinterest in local issues and emotional detachment from the actual life on the estate. The not-sharing of local concerns could be a growing source of conflict in the future.

The pre-structuring and institutionalised pattern of relations is embedded within the hegemonic system of power relations based on private property, which in turn cannot be changed without challenging the overall hegemonic system of space production. Hence, we could say that the form of ownership and the corresponding decision-making process play a major role in the production of the observed differences. But we cannot define WEG legislation as the single cause of the phenomenon.

In Germany, the standard form of organising residential property in multiple private ownership is defined by the WEG. Commonholds and condominiums represent a well established type of residential property in Germany and in other countries. However, WEG entities are usually much smaller in size, and often limited to a single building. Consequently, their collective process is assembled around a smaller arena, which means that problems of communication, conflict management and collective action can be addressed in more immediate ways (Hess et al. 2015a; 2015b).

The analysis shows that the observed phenomenon in the Parkstadt Bogenhausen housing estate is influenced by its formative circumstances, legal framing of property rights and organisation of ownership, uneven distribution of knowledge/power, size of the arena, institutionalised and pre-structured relations, and channels of communication. The structural conditions contribute to the differences between Parkstadt Bogenhausen and other housing estates of the same period. The arenas of change in these residential neighbourhoods are composed in an entirely different way, which in turn results in the differences in their decision making process and management of change.

Figure 87: Parkstadt Bogenhausen, garden elevation of apartments above shopping centre, Buschingstraße, Munich 2016

Dominance and Integrative Capacity of the Maintenance Project

The participants in the process of Parkstadt Bogenhausen housing estate have made the maintenance project the key concern of their interactions, assigning to it a dominant role, which helps to position and structure other concerns. As maintenance accounts for the biggest part of the collective's spending, its dominating role in the decision-making process seems to be self-explanatory. There is a general agreement about maintenance being an essential precondition to safeguard the quality of the built environment in the estate in the long term. However, could there be other factors that contribute to the dominance of the maintenance project? For the foregrounding of maintenance seems to go hand-in-hand with the supplanting, or silencing, of other concerns. The sheer number of decisions dedicated to the maintenance project reduces the time that is available for other concerns and other debates during the annual meeting. Also, it affects the way resources are assigned in the local and central administration offices and among the members of the advisory board. The recurrent foregrounding of maintenance in the minutes and reports of the administration and advisory board, as opposed to change, seems to have a legitimising function for the current distribution of power in the decision-making process.

As mentioned earlier in the discussion of narratives of change, Kevin Lynch proposes that "maintenance is a useful model for the retention of stable function against the action of well-known, equally stable [...] forces [...]." (Lynch 1972, p.207) We could say that besides wear and tear, changes of building regulations and general building standards are typical 'forces' that have influenced the way maintenance is operated in the Parkstadt Bogenhausen housing estate, as well as the extent of the measures taken. In the minutes, we see many comments and self-descriptions, in particular of the administration and the advisory board members, which directly refer to the maintenance project. The administration has developed a unique expertise in managing the administrative requirements of Germany's largest 'Wohnungseigentümergemeinschaft'. The control of the maintenance project is the integral part of the overall

Figure 88: Parkstadt Bogenhausen, major maintenance works to deck access area of the shopping centre, Munich 2017

Figure 89: Parkstadt Bogenhausen, container for private refurbishment works in one of the tower blocks, Buschingstraße, Munich 2017

management process. Lynch observes that on the one hand the maintenance model "demands powerful control", and on the other hand, "predictions must be accurate and consensus strong" (ibid., p.211). The model follows a "fully controllable process" (ibid., p.207), where the objectives are fixed and scheduled in detail (ibid.). Maintenance provides the opportunity to demonstrate and apply the acquired expertise over and over again. All actors who are involved in this process have an interest in keeping the situation as it is. It allows them to maintain and control a continuous and stable process through which they then can connect to the collective and the arena.

Maintenance work may disguise processes of change (ibid., p.211). The meeting minutes suggest that the small changes introduced in each maintenance cycle are often accepted without debate. The maintenance project seems to silence conflict and controversy in the process, because true change is never explicitly addressed. However, the incremental changes established through maintenance may accumulate to more substantial effect over time. In this way, questions about who controls and holds the power over change are rarely debated in the open.

However, there is more to the maintenance project than power relations, the response to material deterioration, or the desire to gradually raise comfort levels. The maintenance project has an integrating capacity, because it requires the constant efforts of individuals to support the process. Highlighting the significance of maintenance to social worlds, Anselm Strauss suggests that

> "Proper maintenance depends not only on obvious resources like money, skill, time and wo/manpower, but also on symbolic resources such as the 'the will' to spend the resources or the essential requirement that some sites are so important that they must be maintained at a very high level (the beautiful lawn courts at Wimbledon; St. Peters in Rome). Maintenance requires the efforts not only of in-world members but those of worlds which intersect if only on the matter of maintenance: plumbers, painters, architects." (Strauss 1979)

The maintenance project has a stabilising function for single social worlds – the social worlds of residents, investors, the administration, or the contracted professionals – but also for the arena itself, into which the participating social worlds bring their commitments, which they can share with others. Hence, it would be reductive to conceive

of the Parkstadt Bogenhausen arena primarily as a site where different and conflicting positions collide which each other. For it is also a site where common ground is established, where ideas are shared, and where collective identities are constructed. To challenge the dominance of the maintenance project is to challenge the current mode of space production as well as the positions of the administration and the advisory board. It means to engage with problems of collective identity and the very foundations of some of the social worlds that participate in the Parkstadt Bogenhausen arena. Hence, would the challenging of the dominant maintenance project lead to a reorientation of the collective process?

Established Assumptions on Preservation Are Left Unchallenged

Preservation practice has effects on the way buildings, ensembles, and ultimately the city change. My brief discussion of heritage preservation in Munich and the local area concluded with the view that the changing of the built environment, including substantial adaptations, can be realised within the framework of the Monument Protection Law. The law addresses and balances both the need to protect and preserve specific qualities of the built environment, and the need to adapt the built environment to the changing demands of residents and users. Critics of an "authorized heritage discourse" (Smith 2006, cited in Otero-Pailos 2016, p.16) advocate a more open and differentiated approach to preservation and criticise the normalising and immobilising effect of institutionalisation. A similar institutionalising effect seems to be at work in the Parkstadt arena. The material collected and the data generated in the study suggests that the question of which kinds of change could be realised beyond that which has been going on since 1984 has not been raised so far. Hence, established assumptions about preservation are currently left unchallenged in the arena. However, if we acknowledge that the criteria we use to define the significance of built monuments, as well as the kind of changes appropriate to them are the result of negotiations and agreements, and that the criteria as well as agreements are inevitably bound to their specific time, then it seems justifiable if not, indeed, necessary that preservation practices be re-examined at regular intervals. In this sense, to what extent could the Redundant City concept provide a new perspective on the situation?

Failure to Accommodate Changes Proposed by Individual Owners

The mappings provide a clear picture of the dominance of the maintenance project, which in turn is effectively controlled and dominated by the administration and the advisory board. Yet they also show that there is a growing number of issues raised by individuals or groups in the collective. The first cluster of such initiatives emerged in the years leading up to the 50th anniversary of the estate. During this period the estate administration asked for ideas for the event and invited the residents to participate in the preparations. Many groups and individuals contributed towards the process, thus strengthening the connection and increasing the level of communication between individuals and the administration. This could have triggered the increase in issues

Figure 90: Parkstadt Bogenhausen, off-street parking, Beblostraße, Munich 2017

raised by individuals and groups. If seen in isolation, it could be interpreted as a short-lived phenomenon in the wake of a singular and exceptional situation. However, a second cluster has developed in the recent past. While it is, perhaps, too early to speak of a general tendency, it clearly indicates that the situation is at the present different if compared to the process during the 1980s and 1990s. The pattern of decisions suggests that individuals and groups participate more actively in the decision-making process. Individual participants bring their own ideas more directly into the arena and raise their voices more frequently. We can only speculate that, perhaps, they feel that there is a need to do so. The pattern seems to mirror the general trend in other arenas of urban change, namely the demand for and generation of more participation in urban affairs by a growing number of actors and stakeholders who are increasingly concerned about the unsatisfactory outcomes of the dominant modes of space production. The shift in the Parkstadt process could indicate that an increasing number of proposals enter the arena directly, without taking the path through the advisory board or administration. This could be interpreted as a sign of the institutions' decreasing integrative capacity. However, the quantitative perspective in the analysis shows that the majority of initiatives brought forward by individuals are rejected at the annual meeting. This means that even though there are a growing number of proposals to have things changed on the estate, which is paralleled by increased levels of participation in the decision-making process, it does not currently result in increased levels of change. In this respect, we may speak of a failure in the estate's process to accommodate the growing number of individual initiatives in an adequate way.

Figure 91: Parkstadt Bogenhausen, mobile grocery shop on its weekly tour, Buschingstraße, Munich 2018

Limited Empowering Effect of Ownership

The timeline reveals that the more substantial changes, representing real transformations, such as the construction of the large underground parking area and the parking deck, the abandoning of the central heating plant in favour of municipal district heating, or the privatising of the estate to form the collective according to the WEG, fall in the first period of the estate's existence – when it was owned and managed by the Neue Heimat group. During the same period, changes to the single rental unit were controlled and kept to a minimum by the strict rules that were in place during this phase. The pattern of change assumed a new form with the establishment of the commonhold-type entity according to the WEG. Since 1984, all major expenditures have been dedicated to the maintenance project rather than real change. At the moment of writing, for example, a major refurbishment of the underground parking area is on the way.

However, multiple real changes do occur – within the confines of the single unit. Owners modify the spatial layout through relocating partitions, they open up kitchens and reconfigure bathrooms. Individual owners bring an increasing number of propositions that are subject to approval to the annual meeting. Yet they tend to be small in scale and are related to single units or local situations rather than to the estate as a whole. Finally, some propositions seek to prevent change from happening, for example when owners ask other owners to refrain from using spaces in ways that are not covered by the estate rules. Hence, today we see sporadic changes to the communal parts of the estate and its collectively used spaces, almost no structural changes, and massive changes in the private unit. Considering the overall timeline of the housing estate, we could say that corporate or single ownership facilitated the making of changes that become effective on the structural and urban levels, but slowed down or even prevented changes on the level of the (rented) single unit. Conversely, the dispersed form of ownership since 1984 reversed this condition and shifted the centre of activity from large-scale to small-scale adaptations. Local resident and contributor to the 50th anniversary book Werner Wittemer observed that the transition in status from rent-

ing residents to owning residents did not result in a substantial change in attitude and behaviour (Wittemer et al. 2006, pp.134f). According to Wittemer, residents who were able to buy their flats in the years after the conversion in 1984 continued to feel and behave like tenants. Wittemer uses the term "Miet-Eigentümer" (tenant-owner) to describe the condition (ibid., p.134). He suggests the continuity in the estate's local and central administration have contributed towards this phenomenon (ibid.). This could provide a possible interpretation of the striking absence of decision items raised by individual owners during the first two decades after the conversion, until a new generation of owners began to assume a more active role in the annual meetings.

Yet the overall urban configuration seems to have rigidified with the privatisation. This is not self-evident, as WEG legislation assigns a significant extent of control over the estate to the collective of owners. They control higher levels as is usually the case in residential areas (Habraken 2002 [1988]). It seems that the empowering potential of ownership does not become effective on the estate level, or indeed the urban level. Changes in the estate remain limited to small-scale alterations and the confines of the private unit. In his review of "Flexible Housing" by Schneider and Till (2007), John Habraken highlights the significance of ownership when it comes to questions of adaptability and change. According to Habraken "[...] home owners will change their houses no matter what, even when the latter are functionally determined when bought, because ownership is empowerment; while units for rent tend not to be adapted to a user's wishes even when technically flexible." (Habraken 2008, p.291) The studies by Anne Vernez Moudon in the Alamo Square neighbourhood in San Francisco (Moudon 1986), Stewart Brand's investigation into how people modify their private dwellings (Brand 1994), and the 1969 photographic portrait of Pessac (Lefebvre 1972 [1969]), which explicitly engages with tight-fit functionalism, seem to confirm Habraken's position.

However, the process in the Parkstadt Bogenhausen housing estate seems to be different. The estate is privately owned, and almost 50% of owners live on the estate themselves. Non-resident owners who lived in Parkstadt at some stage in the past may still feel personally attached to the estate. The owner's collective actions, however, do not result in the changing of collectively used and managed spaces – staircases, access decks, rooftops, or open spaces – beyond general maintenance and small-scale upgrading. In particular, the open areas between the buildings seem to offer ample space and opportunity for the addition of new collective uses. It seems that of the many ideas people in cities have developed over the last half century in terms of appropriation of spaces, sharing, or ecology, not many have become spatially effective in the estate yet.

Striving for Closure and Homogenisation

The social worlds/arenas map clearly shows that not all local residents and users participate in the arena. The vertical line indicates that there are restrictions. Only property owning residents and non-resident owners are entitled to vote and actively participate in the Parkstadt arena; non-owning residents, non-adults, locally employed, neighbours, or the more casual users of the estate are not admitted to the decision making process. If they wish to participate, they can only do so indirectly. Stressing the inequality inscribed in institutionalised modes of space production, Marina Löw suggests that "the opportunities to constitute space can be enduringly enhanced or confined due to limited or broader access to social goods, due to limited or broader

Figure 92: Parkstadt Bogenhausen, mobile market stand on parking area adjacent to shopping centre, Munich 2018

knowledge, due to limited or broader access to social positions, and/or due to membership or non-membership." (Löw 2016 [2001], pp.191f) Despite the theoretical permeability of the social worlds' boundaries, the often specialist commitments around which each social world assembles allows the Parkstadt arena to appear fairly closed. The common concerns, or the work of each social world, are narrowly focussed and are in this sense strong delimiting and homogenising factors. Theorising about the significance of maintaining boundaries in the social production of space, Helmuth Berking et al. suggest that "the struggle for control of urban spaces is an ambivalent mode of sociation, one that cuts systematically across the whole of everyday life: in and by producing themselves, groups produce exclusive spaces and then, in turn, use the boundaries they have created to define themselves." (Berking et al. 2006, p.9) Pertaining to the strong division within the social world of residents and users, we can say that the subworld of owning residents constitutes a collective 'us' that is institutionally closed off against a non-owning 'them' (Mouffe 2013, p.5). However, the meeting minutes seem to suggest that there could be mechanisms other than institutionalisation that work towards homogenisation. Theorising about uniformity in the behaviour of people, Karl Popper asserts that "[...] first, they are afraid of irregularity and change and therefore afraid to originate irregularity and change: and secondly, because they wish to reassure others of their rationality or predictability, perhaps in the hope of making them act in a similar way." (Popper 1948, p.177) For Popper this behaviour is seen to support the emergence and persistence of traditions (ibid.). Likewise, historical geographer Jeremy Whitehand of the Urban Morphology Research Group speaks of "imitative behaviour" and "neighbour effects" in his interpretations of empirical data collected about spatial transformations in residential neighbourhoods (Whitehand 2001, p.107). However, if we speak of homogenisation and the striving for closure in the Parkstadt arena, we also have to speak about them being counteracted by the everyday diversity in the Parkstadt Bogenhausen housing estate.

Figure 93: Parkstadt Bogenhausen. Some of the garages accommodate alternative uses, partly because they are unsuitable for larger cars. Munich 2017

Loss of Interaction on the Urban Level

The minutes do not tell us if and to what extent desires for large-scale changes exist in the estate. But they tell us that there is no discourse centred on this issue at present. It is through the comparative view which relates the process of the Parkstadt Bogenhausen arena to other housing estates and processes in Munich that we can see the effects of this absence in the built environment, and it is through the timeline study that we see it was different in the past. The structural effects of the Parkstadt arena and the fore-grounding of maintenance seem to contribute towards a condition in which the collective process stays disconnected from discourses that are of prime concern in other social worlds/arenas, for example densification and diversification, that is, the housing crisis and the need to restructure the city to provide additional space for housing and for a growing number of different spatial practices. As stated above, the timeline shows that the more substantial changes fall into the first period of the estate's existence, when it was owned and managed by the Neue Heimat group. This was also the period when a strong residents' committee, initiated as "Einwohner-Ausschuß" and renamed "Interessengemeinschaft Parkstadt e.V." (IG) in 1957 (Wittemer et al. 2006, p.141), was able to develop and negotiate proposals with the estate administration, and the owner NHB. Issues included the construction of a kindergarten, crèche, playgrounds, underground parking area, as well as the provision of access to the lawns, all of which were realised. The residents' committee maintained close contacts to members of the city council and the political domain. Further initiatives concerned public transport, telephone boxes, traffic issues, air pollution, a new post office, cinema, protestant church, or a recreational chalet in the mountains. The residents' committee dissolved in 1966 (ibid.). A new residents' committee was established in 2001, which was active during the following years. Named "BürgerInteressenGemeinschaft Parkstadt Bogenhausen" (BIG) (ibid., p.142), its members and supporters sought to address problems of transit traffic, parking, the estate restaurant, establishing a young peo-

ples' meeting area, and other local issues (ibid., pp.142f). Both residents' committees have exerted their influence on the process of change in the Parkstadt Bogenhausen housing estate. The IG was active during the first decade of the estate's existence and was perhaps for this reason more successful at – or more concerned with – connecting to a broader range of issues.

This is not to say that contemporary initiatives, or the commonhold-type entity according to the WEG in its present form, cannot connect to the urban. For, the Parkstadt Bogenhausen collective has demonstrated, if only sporadically, that it has the capacity to interact on the urban level, and that it can take decisions that are consequential beyond the limits of the estate. For instance, when the collective demanded protection for the tenant residents against eviction when the private investor took over NHB's housing stock, it sent out a signal into the public domain that it would not approve undue hardships inflicted on their non-owner neighbours. When, in 1993, the city administration asked all owners to make a levy payment towards the newly opened Denninger Anger Park, which is located to the north of the estate, the owners united to challenge the city, and succeeded. During the construction of the Richard-Strauss-Tunnel, BIG campaigned together with the collective for better traffic management in the area. However, despite these occasional events of resistance and 'not in my backyard' actions, it seems more difficult, or for whatever reason less interesting for the collective, to assume a pro-active role in generating true urban change.

As we can see, the questions generated through the mapping process and the empirical analysis begin to raise issues that are of wider concern. They begin to connect to urban discourses that belong to the urban arena at large. At this point in the analysis, I propose to leave behind the realm of meeting minutes, for they do not explicitly address or establish connections to the urban and the discourses associated with it. Hence, in the following step, I position the process of interpretation at the intersection of urban and architectural narratives of conflict and change, making use of the map's synthesising and heuristic capacity.

4.3   Dual Position: Discursive Movements in the Positional Map

In the following stage of the synthesis, I return to the positional map and establish a series of discursive movements between the positions of different concepts and narratives. As noted earlier, this exercise is not about filling the void in the map, or about stabilising the void by means of a comprehensive theoretical framing. The positional map is conceived as a heuristic device, through which we can look at the universe of architectural and urban narratives in a different way. It is a device for developing a broader understanding of architectural and urban theory at the intersection of conflict and change. In this sense, I now seek to exploit the map's capacities for developing a broader understanding of the process in the Parkstadt Bogenhausen housing estate.

The comparative analysis shows that the overall process of the Parkstadt Bogenhausen housing estate is defined by comparably low levels and low intensities of change. Munich is changing, and with it, the Parkstadt Bogenhausen housing estate, but it seems that the process of the estate is very different to the transformations we observe in the local area and in other housing estates in Munich. So, how can the positional map help us to better understand the situation? To begin with, we need to

Figure 94: Parkstadt Bogenhausen. This local supermarket, designed by Franz Ruf and formerly organised as single units, ceased operating in summer 2017. The building works carried out as part of its conversion to residential use resulted in controversy and the calling of a special meeting of the 'Wohnungseigentümergemeinschaft' in 2019 – a rare case in the estate's administrative history.

identify the area within the positional map that is of relevance to the case under study. Low intensities of change are arranged above the '---' section of the horizontal axis. It seems justifiable to position the overall Parkstadt process in this section of the horizontal axis. But should it be associated with lower or higher levels in the foregrounding of conflict?

While producing the map, we have encountered positions that relate to a single issue, but work with two different levels in the foregrounding of conflict. For example, the construction of a new highway through an inner city neighbourhood is by some associated with technological progress, and seen as part of a gradual evolutionary process towards better mobility networks and individual freedom in the sense of the modernist project; for others it is the epitome of cataclysmic change, erosion of cities, of capital flows that are ignorant of the intrinsic web of existing relations that define a locality. Hence, a single project or process might be connected to different positions and narratives of change, depending on the interpretative perspective from which it is seen. I propose that we look at the process in the Parkstadt Bogenhausen housing estate in a similar way – from different perspectives – as no single position seems fully to describe the pattern of change we observe in the case study. The idea is to generate a more differentiated view of the Parkstadt arena and its collective process by means of juxtaposing the institutionalised concept of change, which is to a large degree represented and co-produced by the descriptions in the annual meeting minutes, with other, more critical positions in the map. The outcome of this approach is, as I show in the following, a position that is not fixed to a single location in the map, but one that moves between a weak and strong foregrounding of conflict. The resulting dual position is composed of the institutionalised position P1 and its complementary critical position P2 (Figure 95).

Institutionalised Position P1: Weak Foregrounding of Conflict

We have seen in the analysis of the meeting minutes that the self-descriptions and statements reiterate and justify the piecemeal, step-by-step process in the Parkstadt Bogenhausen arena. The dominant maintenance project is represented and realised as long term commitment which follows a trajectory of gradual development. The short-term, medium-term and long-term maintenance plans developed by the administration and advisory board provide the scheduled framework for this project. This goes hand-in-hand with a weak foregrounding of conflict in the communications. If references to conflict or disagreements occur in the minutes, they are usually framed by the view that they should, and will be resolved in the collective process. Notions of persisting crisis or fundamental conflicts are absent in the minutes. The dominant, or 'official' narrative of change which is used to describe and reflect on the collective's process does so without foregrounding conflict. While difficulties are addressed in the narratives, basic or more fundamental conflicts are not made part of the narrative. Hence, we can say that the institutionalised position is defined by low intensities of change in combination with a weak foregrounding of conflict. I have named this position P1.

At the very bottom of the map, covering the full length of the horizontal axis, is Christopher Alexander's concept of "frictionless coexistence" (Alexander 1964, p.19). The concept is not a priori related to low intensities of change, because fast but frictionless changes are also conceivable. Yet, if it is read in connection with Alexander's "one change at a time" (Alexander 1979, pp.385f), Aldo Rossi's concepts of permanence and change (Rossi 1982 [1966]), and Donald Schön's "stable state" (Schön 1971, pp.9–30), the positions in this area of the map are sufficiently clarified and focussed. It seems justifiable to say that these frictionless, stabilised, piecemeal, step-by-step positions come very close to the self-descriptions of the Parkstadt Bogenhausen process. However, rather than closing the discussion of P1 at this stage, I propose to connect to further positions that are located in the proximity.

The pattern of actions in the Parkstadt Bogenhausen process can be related to Donald Schön's concept of "dynamic conservatism" (Schön 1971, pp.31–60). As mentioned earlier, it entered the positional map while working on the case study element. The concept was developed by Donald Schön as part of his analysis of change in large organisations. Schön observed that changes and agents of change are admitted to a system as long as the subjectively experienced stability and continuity are not adversely affected (ibid.). The threshold beyond which the "stable state" is seen to be threatened tends to be fairly low. "Dynamic conservatism" is a collective process that aims at reducing the intensity and impact of change. Based on implicit agreements rather than an explicitly articulated strategy, its ultimate purpose is to contain the effects of change and re-establish some kind of "stable state" (ibid.). Accordingly, Schön suggests that "resistance to change […] is a function of the system itself" (ibid., p.48), rather than the planned outcome of individual decisions. He provides different examples of corresponding actions of resistance. "Selective inattention" and "counter-attack" (ibid.) pursue either active or passive responses. "Containment and isolation" is seen to produce a condition of "compartmentalization" (ibid., p.49) over the long term, where "the system as a whole breaks down into units or territories, each of which walls itself off from the others" (ibid.). "Co-option" is the attempt to "absorb agents of change and de-fuse, dilute, and turn to their own ends the energies originally directed towards

change" (ibid., p.49). If change cannot be avoided with these measures, actors may go for "least change", whereby that which has to be given up is minimised (ibid., p.50). If applied to the positional map, "dynamic conservatism" means the implicit agreement among actors to avoid higher intensities of change and higher levels in the foregrounding of conflict.

The ambitious maintenance project realised by the administration, advisory board and the collective of owners can be understood to operate in the service of "dynamic conservatism". The empirical data of the case study shows that there has been consistency in the agreement on large maintenance items since the WEG collective was established in 1984. This contrasts with the rejection of the majority of small-scale and often cost-neutral changes proposed by individuals. Agendas other than maintenance, such as greater individual diversity, have regularly failed to make it beyond the annual meeting hurdle. Hence, we may speak of a dominant discourse that has developed around the maintenance project. It is meant to secure the market value of residential property, legitimise the estate administration's programme and therefore its power status, silence possible conflicts, work as integrative device, and support a collectively shared "dynamic conservatism". However, "dynamic conservatism" is not limited to the maintenance project. If we consider, for example, the recurrent issue of 'loitering', "dynamic conservatism" ensured, on the one hand, that access to the estate was not restricted despite individual requests to do so. On the other hand, instead of actively supporting a space for loitering, the collective opted for 'least change'. In this case it meant that the informal meeting area was made less attractive. The collective implicitly assumed that in this way the initial state of non-disturbance could be re-established.

The concept of "dynamic conservatism" can also help us to better understand why the collective's control of higher levels of spatial organisation, comprising the levels of urban tissue, open spaces, and circulation infrastructure (Habraken 2002 [1988], p.8), continues to lack transformative effect. No significant changes have occurred on the higher levels since 1984. What we see, however, is substantial change and upgrading on the levels below the collectively controlled domain. Owners have made numerous modifications to their private units over the years on the basis of "satisficing" (Brand 1994, pp.165ff) with the support of a local builder, or as do-it-yourself, where needed skills "develop in the doing" (Lynch 1972, p.226). Changes typically include the removal and repositioning of non-loadbearing walls, new bathroom arrangements and kitchens, the complete renewal of finishes and flooring, or the connecting of two units to form a large unit. In this sense, owners treat the single unit as a kind of modifiable "infill" to the structural "support" of the building (Habraken 2002 [1988], p.12), with the limits pre-defined and tightly set by the loadbearing walls and the external envelope. On the micro-level, owners control change autonomously. They define the scope of works and the extent of change that is appropriate to their needs. Conversely, the very same ownership status does not seem to produce transformative action on the higher levels. Here, the efforts are almost always directed towards the maintenance project. Hence, the process of change in the housing estate is characterised by the paradoxical situation of having substantial changes on the level of the single unit, while on the higher levels change is almost absent. The loss of interaction on the urban level as

Figure 95: Dual position of the observed process in the housing estate: connecting to and moving between positions of different concepts and narratives of change

well as "dynamic conservatism" both result in the collective not having to engage with questions of design. The production and use of design knowledge is currently not part of the arena's work.

As we have seen, the 'frictionless' concepts in the bottom left corner of the map assume that through step-by-step processes the emergence of conflict can be avoided. However, if we connect this to Jane Jacob's concept of "gradual change" (Jacobs 2011 [1961], pp.293f), and further to "incrementalism" (Selle 1994, p.53, p.73; Sieverts 2003 [1997], pp.81f), two positions come into play which acknowledge and actively work with conflict. They claim that because of the pervasive presence of conflicting interests in cities and urban environments, incremental and gradual change is the most viable way to arrive at decisions in complex transformative processes. They emphasise the situatedness of change within contested spaces, power networks, and the wider condition of urban conflict.

Complementary Position P2: Strong Foregrounding of Conflict

The next stage in the movement through the positional map brings us to the higher levels in the foregrounding of conflict, and therefore to position P2. We are now confronted with the conceptual void, which provides only a very limited number of positions in this area of the diagram. The first question at hand is whether we could speak of a "pathological" permanence (Rossi 1982, p.22, p.59), or a "dead" pattern (Alexander 1979, p.127) upon interpreting the overall process in the Parkstadt Bogenhausen housing estate.

According to Rossi, permanences are "pathological" (Rossi 1982 [1966], p.59) when they have ceased to make active contributions to the life and "vitality" of the city (ibid.). He speaks of isolated areas to which "nothing can be added" (ibid., pp.59f). These propositions

seem to mirror some of the phenomena observed in the Parkstadt Bogenhausen estate. But because Rossi does not provide a detailed description of his concept, its applicability and theoretical range is limited. We can, however, use the concept to arrange some of the case study findings in a specific way. The empirical data suggests that no changes of spatial, functional, or programmatic relevance for the surrounding urban area have resulted from the collective WEG process. There is also no evidence of the owners collectively participating in urban debates. From this, however, we cannot infer that the Parkstadt Bogenhausen housing estate has ceased to make active contributions to "the life of the city" (ibid., p.100). But we can say that the housing estate does not participate in the same transformative dynamics as other housing estates in Munich do, and it does not mirror the urban dynamics of the surrounding area. In this sense, the specific situation of the Parkstadt Bogenhausen housing estate has, perhaps, indeed led to a certain detachment from the city, not in a physical, social, or economic way, but in terms of its transformative process. While individual owners and residents continue to extensively 'add' to the estate, within the confines of their individual units and therefore on the micro-level, the findings seem to support the view that, to paraphrase Rossi, 'nothing can be added' to the estate on a larger scale. To speak of the Parkstadt Bogenhausen housing estate as being in a 'pathological' state, however, would be to reiterate the reifying concept of the city as organism and the modernist myth of the architect as the city's redeeming surgeon.

Alexander's "dead" pattern (Alexander 1979, p.127) is no less provocative, but it is difficult to connect to it from outside of his specific evolutionary model of transformation of the 'pattern language', and the 'timeless way of building'. To speak of 'dead' patterns makes sense only if patterns, or spaces, are conversely conceptualised as being "alive" (ibid., p.126). The empirical study of Parkstadt Bogenhausen and its analytical interpretation are based on the view that spaces cannot have a life on their own. In line with the pragmatist paradigm, spaces are not seen as conveying a hidden meaning that resides in spaces themselves and that exist outside human imagination, memory, and interpretation. However, the more recent relational concepts of space open up alternatives for making connections between the material and social worlds, and therefore to different ways of relating space to things that are 'alive'. If such an interpretative path is pursued, it makes sense to speak of 'dead' relations, or of relations that have ceased to be productive and meaningful.

The position of Rossi's concept of 'pathological' permanence enables us to relate to the concept of obsolescence in the positional map. As outlined earlier, obsolescence is defined as one of four primary categories on the positional map. It represents the lowest intensity of change (- - -), that is, the inability, or failure to accommodate further change. The concept of obsolescence is sometimes used together with a weak foregrounding of conflict, sometimes with a stronger foregrounding of conflict, depending on the situation, for which reason I have proposed to represent it as linear position, or category, that runs parallel to the vertical axis. Rossi works with a strong foregrounding of conflict. He briefly suggests that obsolete or pathological urban areas could be seen as "reserves" (ibid., p.96). I have already stated that Rossi left it unclear whether a reserve is for future urban development or for retreat and conservation, whether the reserve is meant to generate the new or to preserve the existing, or whether it is meant to offer these possibilities simultaneously. Irrespective of whether the omission and ensuing ambiguity was intended by Rossi or not, it seems to open up possible interpretations of

the observed process in the Parkstadt arena and the housing estate, for which reason I take the idea of an ambiguous situation further in the Redundant City concept.

If we move even higher up in the positional map, we approach the concepts with the strongest foregrounding of conflict. It is, perhaps, no coincidence that the majority of positions in this area of the map belong to the more critical perspectives on the urban. Henri Lefebvre's concept of 'contested urban centralities' (Lefebvre 2003 [1970], pp.117f), which is, like obsolescence, defined as one of the four main categories in the positional map, represents the strongest foregrounding of conflict. It can be applied to conditions of both low and high intensities of change. In the proximity to P2, his concept is understood to go with low intensities of change. At this end of the spectrum, it defines a situation of conflict in which there is no, or very little change. This could be, for example, a situation in which a highly dominant process, group, or institution occupies a central position within urban power structures, while blocking access to power, and therefore the power to change, for other, weaker processes, groups or institutions. It defines a situation in which power structures are fiercely contested, but, because of the asymmetry involved, with no measurable movement or success. Further concepts in this area of the map seem to be relevant to the situation, for example David Harvey's and Neil Brenner's adaptation of Marx in the concept of 'fixation/expansion' (Harvey 1975; 1982, pp.379f; Brenner 2014, pp.15ff), Joseph Schumpeter's "creative destruction" (Schumpeter 2003 [1943], pp.83f), Saskia Sassen's "geography of extraction" (Sassen 2014, p.219), Jane Jacobs's "erosion of cities" (Jacobs 2011 [1961], pp.349), and Henri Lefebvre's 'everyday as site of resistance' (Lefebvre 2002 [1961], p.141). These concepts all work with lower intensities of change. Other concepts in the proximity of P2 that seem to be relevant to the situation are positioned at a slightly greater distance, representing a midrange intensity of change. They include Bruno Latour's modernist "envelopes" (Latour 2008, pp.8f), De Cauter's "capsularisation" (De Cauter 2001), Sophie Wolfrum's and Frhr. von Brandi's "performative urbanism" (Wolfrum and Brandis 2015), Giancarlo De Carlo's "architecture's public" (De Carlo 1971), and Philipp Oswalt's 'urban collisions' (Oswalt 2000, pp.73ff).

The data shows that references to concepts with a strong foregrounding of conflict, whether architectural or more related to everyday life, do not occur in the meeting minutes and other official communications that circulate in the Parkstadt arena. This is not self-evident, because multiple connections could be made from within and around the Parkstadt arena. The proposition brought forward is that the absence of references to critical positions is one of the many outcomes of the arena's work. WEG legislation and other social worlds define the problems that are admitted into the arena, together with the problems and questions that are to be excluded. The scope of what can be legitimately put up for discussion is limited. Issues like the externalising effects of modernism's 'envelopes', capitalist expansion through financialisation, urban extraction, obsolescence, or capsularisation are left unchallenged. Likewise, discourses about the everyday as site of resistance and alternative urban practices, or the establishment of an urban commons do not leave their mark in the arena. This is not to say that there is no controversy in the arena, or that actors do not relate to conflicts in the annual meeting at all. If participants in the social world of residents give a voice to critical positions in the meeting, which is rarely the case as repeated observations have shown, they are likely to be classified as being off topic, and are at best included in the official records as a short note. This supports the view that position P1

could be conceived as the 'official', or institutionalised, position. The disregard of the more critical positions has the effect that the concepts and narratives with a weak foregrounding of conflict are for the most part taken for granted. They are at the base of the institutionalised process and appear to a certain degree as objectified urban reality in the arena (Berger and Luckmann 1966, pp.60f).

The positions encountered in the Parkstadt arena are connected to pre-structured relations of power. Different social worlds engage in the arena, where they negotiate their commitments to action, agendas, and ongoing concerns. The Parkstadt arena engages in collective work that is highly consequential. The process has established – and seems to continually reproduce – its own urban, spatial, and architectural condition.

4.4   Introducing the Ambivalent and Controversial Notion of Redundancy

In this section, I introduce the notion of redundancy. Through successive stages of analysis and mappings it has been possible to follow and describe the process in the Parkstadt arena, together with its spatial, architectural, and urban consequences. There seems to be sufficiently thick evidence to propose that the process establishes a specific ambivalent quality. I have chosen the notion of redundancy to give its name to the process and the phenomena it creates, because it embodies some of the key aspects of the observed process – ambivalence, conflict, and change. However, the notion of redundancy is neither native to, nor common in architectural and urban discourse at the present moment. We encounter the term sporadically in architectural semiotics, design theory, architectural engineering, or the sociology of space, but these disparate occurrences do not constitute a theory of redundancy or a unified body of knowledge. This means, for the purpose of further terminological clarification, I connect it to established non-architectural definitions of the notion first, before I adapt the notion to our requirements of concept-building, and the situation in the Parkstadt Bogenhausen housing estate.

The term is widely used and well established in science and technology studies (STS), computer science, engineering, system theory, linguistics, communication theory, or genetics. Seminal texts include mathematician John von Neumann's "Probabilistic Logics and the Synthesis of Reliable Organisms from Unreliable Components" (Neumann 1956) and political scientist Martin Landau's "Redundancy, Rationality, and the Problem of Duplication and Overlap" (Landau 1969), who relates redundancy to large organisations, and social systems. The works of sociologist Charles Perrow and political scientist Scott Sagan relate to political and sociological problems of high risk technologies (Perrow 1984; Sagan 2004). More recently, sociologist John Downer has conceptualised redundancy in engineering as a "design paradigm" (Downer 2009, p.18) that is shared by manufacturers and public regulators, for the paradox purpose of numerically framing unquantifiable risks associated with complex technical systems (ibid.). What these texts have in common is their clearly articulated awareness of the limits of redundancy. Despite the different contexts in which we encounter the term redundancy, it is usually attributed to either one of two categories:

1. "Redundancy is the property of having **more of** a resource than is minimally necessary to do the job at hand. As failures happen, redundancy is exploited to mask or otherwise work around these failures, thus maintaining the **desired** level of functionality." (emphasis added, Koren and Krishna 2007, p.3)

2. "[…] redundancy is said to exist whenever there is an **excess or superfluity** of any-thing. The excess may be of parts, of rules of words, … of anything. Excess, as defined lexically, is something which is more than the normal, the required, the usual, the specified. It is useless, superfluous, needless—terms which are variously employed to define redundancy. This linguistic habit directs a **negative judgment**. It points to fea-tures of a situation which are of no value, which are wasteful, which are bad." (emphasis added, Landau 1969, p.346)

Redundancy in the first category is a core concept in the design of fault-tolerance and reliability in systems. Fault-tolerance defines a field of research that acknowledges the presence of faults in human productions and that seeks to conceive and implement techniques to tolerate faults while keeping the system operational and delivering an acceptable level of service (Koren and Krishna 2007, p.2). In this respect, redundancy is conceptually close to resilience. Contemporary academic discourse on urban resilience is focussed on environmental impact recovery, but if we look at other discourses and contexts, this focus widens. In disciplines such as organisational theory, economics, risk management or business continuity, resilience is seen to be more than recovering from adverse events and maintaining a given level of functioning; it is the continu-ing ability to anticipate and resolve new problems and to learn from past experience. Where redundancy is about performance reliability, resilience is clearly positioned in a competitive context as a strategy of growth and of economic survival (against ecolog-ical disaster, or the business adversary). Characteristically and in contrast to redun-dancy, there is almost no polarising controversy about the need of resilience or about the need to define limits. Proponents of the concept tend to justify their strategies with reference to sustainability, or the need to have functioning systems (cities, businesses, networks), claiming that there can hardly be too much of it.

Redundancy is different. It is controversial. Redundancy requires more of the resource than is minimally necessary to perform a task. This 'more of' defines the degree of redundancy in the system (ibid., p.3). Redundancy is a means of dealing with problems of uncertainty. "In a perfect world, were everything is certain and pre-dictable, there would be no need for redundancy." (Streeter 1991, p.180) In this sense, redundancy could be conceived of as a narrative of anticipation – we expect something to fail or change in an undesirable way, and redundancy provides an instant fix to the problem. This implies the thinking in scenarios and the prediction of future events. The difficulty, however, is that we do not exactly know when and how problems will occur. We do not exactly know how substantial the problem will be. Hence we do not know for certain how much redundancy is needed, and we struggle to determine the adequate level of redundancy. The ensuing conflict relates problems of efficiency to problems of cost. Moreover, because of the way humans interact with systems and with each other, and for reasons of unexpected interdependencies in complex systems, increasing the number of redundant elements in a system does not necessarily improve the ability of the system to resist failure (Sagan 2004). Uncertainty combined with the need to make decisions produces further conflict. Hence, the conflictual aspects in redun-dancy become most clearly evident when we have to address multiple problems which require prioritisation:

> "When there exists in a system the possibility of two different types of errors, redundancy theory becomes much more complicated because of the trade-offs between the errors. It also becomes very political because of the lack of agreement about the relative importance of the errors. Classical redundancy theory as applied to hardware systems provides little help in answering these normative questions about the appropriateness of and optimal levels of redundancy." (Streeter 1991, p.179)

Hence, redundancy is invariably bound up with conflict if it is applied to situations that involve action and decisions over prioritisation. Accordingly, there are fields other than technology in which redundancy is used in ambivalent, contested, and in this sense political ways. In quality management, redundancy is the unwanted level of quality above the aimed-for quality threshold, assuming this to produce extra – and therefore unnecessary – costs. As redundancy in this context depends on where the threshold is located, it forms part of a contested zone and is subject to change. In employment law in the UK, redundancy regulates the economically motivated dismissal of employees. Employees may be 'made redundant' if the employer ceases to conduct business or if the requirements within the business change. Here, redundancy is conceived as flexible instrument for the restructuring of businesses. But this category is the opposite of the redundancy in systems that are designed for reliability. Instead of responding to uncertainty through component duplication within the system itself, it follows a strategy of partial externalisation and passes on uncertainty and the potential hardships of change to the dismissed individual.

Hence, on the one hand, redundancy represents a concept through which we may produce extra levels of functionality, reliability, adaptability, or performance – a state which is regularly defined as something that is desirable; on the other hand, redundancy connotes the useless, superfluous and excessive – a state which is regularly defined as something that is to be avoided or that needs to be externalised. The concept requires agreement about when the useless becomes functional, about when the reliable becomes a waste. But as we have seen, there is no certainty about when the desirable state of redundancy is reached. There is no predefined or pre-given threshold to which decisions could be aligned.

Both interpretations of the term are used in architecture and urbanism. In particular the technically oriented disciplines in architecture and urbanism, like structural engineering, mechanical and electrical engineering, or transportation management tend to directly connect to the above definitions. However, the situation is different in the design oriented disciplines, because criteria like 'failure' or 'excessive' cannot be easily defined from the perspective of design. Hence, in design contexts the use of the term tends to relate to the first connotation, meaning extra levels of functionality, reliability, adaptability, or performance. An early reference is by Robert Venturi, when he addresses the qualities and characteristics of residual and redundant spaces in "Complexity and Contradiction in Architecture" (Venturi 1992 [1966]). He states that "redundant enclosure, like crowded intricacies, is rare in our architecture" (ibid., p.82), and that "[...] modern architecture has tended to ignore such complex spatial ideas." (ibid.)

In a recent article on the (re-)use of buildings, Thomas Sieverts theorises about why some buildings have the capacity to change and adapt better than others, proposing that the reason for this could be in the degree of redundancy in them (Sieverts 2017). He takes the main building of ETH Zurich, which was designed by Gottfried Semper in the

19th century, to exemplify how a "strong, redundant spatial structure allowed for steady, continuous adaptation without losing its basic character." (ibid., p.104) For Thomas Sieverts the "resetting [of] old buildings for new purposes" (ibid., p.99) is an important aspect when it comes to the restructuring of cities. Adaptability and the capacity of buildings to change are understood to be vital for an urbanism of change that operates predominantly within existing built environments. In many European cities a considerable amount of construction work is in this sense related to the modification, upgrading, and adaptation of existing structures. Pertaining to the design of buildings and urban structures, Sieverts concludes that "planners and architects should [...] test how much redundancy is necessary to improve and widen the reset capacities." (ibid., p.104) Hence, Sieverts' use of the term defines redundancy as a specific architectural and urban quality, as something that has the capacity to support processes of change. In doing so, he relates the term to the complex fields of preservation and design work. The 'how much' implies that there could be a 'too much' as the possible undesirable alternative. Likewise, the need for testing implies that there is no certainty as how to achieve it, or as to the precise nature of redundancy in architectural and urban contexts.

If we use the term redundancy in everyday language, the situation itself tends to implicitly clarify which of the possible meanings are associated with it in that moment. In the context of research and theory, we usually seek to eliminate ambivalence and the resulting ambiguity through definitions and demarcations. Here, the 'both/and also' tends to be explicitly substituted for the simpler 'either/or', based on the understanding that ambivalence is to be avoided in research. If defined in this way, redundant means either benefit or waste.

In the construction of the Redundant City concept I propose to follow a different approach. **By explicitly emphasising its different connotations simultaneously, I intend to maintain the level of ambiguity and ambivalence inherent in the term redundancy.** Similar to the dual position proposed to describe the process in the Parkstadt arena, the term is conceived as conceptual movement between two different levels in the foregrounding of conflict. It defines a position that cannot be fixed in place with certainty, and that, as a result, defies closure. **By means of not eliminating its contradictions, I propose to establish an open construct that is bound up with controversy.**

4.5   Otherness and Evocative Utopian Quality

In the following, I elaborate on the proposition that the Parkstadt Bogenhausen housing estate and its collective process have a specific ambivalent quality, or capacity, and establish further, perhaps less obvious, characteristics of the Redundant City.

We have seen that the work of and in the Parkstadt arena is spatially consequential. The effects of the work are clearly visible when we compare the housing estate with the spatial dynamics in the local area, and the transformation of other housing estates in Munich. If we look at the instrument of WEG legislation from the perspective of its effects in the Parkstadt arena, we see how it shifts the momentum of change in a specific direction. The annual meeting and all individual owners have far-reaching powers to decide on and initiate changes. However, the WEG requires that changes that involve the modification of existing property rights as layed down in the commonhold declaration ('Teilungsurkunde') need to be decided by unanimous vote. This has a

significant impact on the process of change. It establishes a hurdle that is difficult to overcome. Practically, all modifications to the estate that add new usable building volume would fall into this category, irrespective of overall size. The experience of administrators confirms that the more voting owners belong to the commonhold-type entity, the more difficult it is to achieve consensus (Hess et al. 2015a; 2015ba, p.12). Given the number of owners in the 'Wohnungseigentümergemeinschaft' Parkstadt Bogenhausen, unanimous votes are almost impossible to achieve. Conversely, the simple majority required to adopt maintenance items is routinely established in the annual meeting. In terms of size and overall value, there is no pre-defined limit set by WEG legislation for maintenance works. This makes it possible for maintenance to develop into a comparably large project and to assume a dominant role in the collective process. Hence, physical changes that are not located within the category of the maintenance project tend to be modest in size and do not involve the modification of property rights.

Pertaining to the difficulty of accommodating change in multiple-ownership constructs, Sieverts speaks of "a conflict that has already become a serious problem." (Sieverts 2017, p.105) With a view to the scale of the city, Sieverts asserts that "the dominating habit of dividing a building into sometimes hundreds of part-ownerships makes our cities almost inflexible because it proves to be nearly impossible to achieve the necessary majorities for change decisions among the owners." (Sieverts 2017, p.105) The situation in the Parkstadt arena seems to mirror this tendency. The data obtained through interviews and participant observation suggests that the social worlds of residents, investors and administration are well aware of the difficulties imposed by the WEG decision-making model, albeit without drawing the connection between the estate and the city. Hence, further questions arise as to the possible consequences this may have for the housing estate in the long term. Pertaining to the capacity of large residential projects to change over time, John Habraken asserts that

> "the balance between what will change and what will remain long term is becoming increasingly important when projects become larger and larger. A housing project of several hundred uniform units cannot just stay rigid when time goes by, but must adapt to life's variety." (Habraken 2006, p.15)

Hence, if John Habraken and Thomas Sieverts insist on the significance of adaptability, in particular with regard to larger structures – are constructs like the Parkstadt Bogenhausen housing estate not facing a serious dilemma? Or can we understand the ongoing process of small-scale, incremental changes to individual units as providing a sufficient level of adapting to "life's variety"?

I propose that the ambivalent and controversial notion of redundancy could be useful in raising critical questions and in this way for partially **unlocking the rigidifying conceptual framework of the estate's dominant narrative of change.**
In view of the observed process, could we say that in the Parkstadt arena there is an

- **excessive concern with maintenance** at the expense of the urban? For, if gradual upgrading, by means of adding the 'more of' convenience and comfort, is predominantly aimed at the

- **commodity aspect of housing**, if the preservation of investment interests is emphasised
- **at the expense of looking at other possible 'more ofs'** –
- are we not looking at a process that is striving for closure rather than openness, for homogenisation rather than difference, for repetition and "dynamic conservatism" rather than real change, for "frictionless coexistence" rather than controversy?
- **Are there alternatives – are there other ways of thinking, or 'doing', the Redundant City?**

If one of the core capacities of cities and the urban is to generate and creatively respond to conditions of change, then the above characteristics seem to describe a situation in which the level of active participation in urban change is reduced to a minimum. However, to conceptualise the situation as mere "dead" pattern (Alexander 1979, pp.126f), or "pathological" permanence (Rossi 1982 [1966], pp.22, 59f) would be to conclude with simplifications. To avoid premature closure, the process of conceptualisation cannot end here. It is possible to further add to the list of qualities by means of identifying the less obvious characteristics of the situation. This final step in the synthesis combines the empirically grounded observations with the discursive capacity of the term redundancy.

Situations of asymmetric urban change are in a certain way indicative of some kind of 'otherness'. The Parkstadt Bogenhausen housing estate is different if compared with other housing estates in Munich, precisely because the Parkstadt arena does not seem to participate actively in the current urban discourse on possible 'more ofs'. We have seen in the comparative study that many housing estates dating from the same era are subjected to substantial urban restructurings that go far beyond energy conservation measures and floor plan adjustments. The ones that do not follow this trend, like present-day Parkstadt Bogenhausen, will diminish in numbers as the process continues.

> **Its very limited effective capacity to generate 'otherness' on the urban level distinguishes the Redundant City from other spaces in the city and makes it in this sense a space of 'otherness'.**

Hence, if we continue to develop our conceptualisation, could we conceive of the Redundant City as future "ghetto" along the lines of Manuel Castell's analysis, as a place that is detached from the faster flows of urban development, bypassed and ultimately forgotten, together with its marginalised population of 'redundant' producers? (Castells 2010a [1996], p.147; 2010b [1998], p.149) Or should we rather conceive of it as an homogeneous 'island' that follows its own trajectory of change, an island that becomes with the passage of time a romantic reminiscence of the past – of the kind criticised by Jane Jacobs in 1961?

> "It may be romantic to search for the salves of society's ills in slow-moving rustic surroundings, or among innocent, unspoiled provincials, if such exist, but it is a waste of time. Does anyone suppose that, in real life, answers to any of the great questions that worry us today are going to come out of homogeneous settlements?" (Jacobs 2011 [1961], p.448)

Or could the Redundant City, as differences grow due to further asymmetric urban change, become the object of desires and give rise to new ideas? Could the unactivated potential in the Redundant City act as catalyst and initiate public debates? Could it become the subject of discourses about the distribution of resources and access to urban qualities, engendering more spatial and programmatic diversity and the co-presence of differences? Could the Redundant City stimulate debates about higher densities, enabling more people to participate in the urban and benefit from the advantages of centrality? Could the Redundant City encourage its critics to develop alternative and better concepts for the collective production of urban space and its appropriation? Could the problematic of the commonhold-type entity inform our debates about urban commons and better forms of participation and cooperation? Clearly, the speculative and critical thinking about the Redundant City opens up future scenarios and raises many questions. Moreover, due to its ambivalent enabling and at the same time inhibiting characteristics, the Redundant City conveys the promise of a lasting catalyst for ideas and space of possibilities, because its potential is unlikely ever to be fully realised and used.

Because the urban level of the Redundant City is likely to remain inactivated, it increasingly may generate desires and 'What if?' scenarios. In this sense, there is an evocative utopian quality in the Redundant City.

At the same time, there is a degree of predictability in the Redundant City process. The arena's structural fixations and hegemonic constellations of power, combined with the integrative capacity of the maintenance project, the silencing of conflict, and the shared interest of protecting capital investment in the long term provide a backdrop of stability. The complex reality of dispersed ownership effectively removes the estate from the grasp of speculative global capital, because investment opportunities cannot be bundled for wholesale transactions. "Cataclysmic money" (Jacobs 2011 [1961], p.291) is unlikely to become effective in the housing estate. If we take the pattern of the timeline study and assume the housing estate's future process to be not much different, we have reason to believe that the housing estate will persist in its present form for a long time to come – maybe much longer than originally designed for. While some housing estates of the late modernist era are currently being demolished or partially abandoned, like Robin Hood Gardens in London, or Le Vele di Scampia in Naples (Trapp 2018; Stengel and Aquilar, in press)[21], the Redundant City is unlikely to be caught up in 'urban renewal' schemes of this kind. The Redundant City is in this sense stabilised and rigidified within an otherwise rapidly changing urban environment.

Despite its limited capacity to change, the Redundant City is likely to persist for a long time. In this sense, it defines a kind of stabilised and rigidified condition in an otherwise rapidly changing urban world.

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21   During winter semester 2017/18 a group of students at TUM engaged with the uncertain future of the Le Vele di Scampia – The Sails of Scampia housing estate in Naples. The design course and research project was led by Prof. Sophie Wolfrum, Heiner Stengel and Giorgia Aquilar. A publication about the project is currently in preparation. (Stengel and Aquilar, in press).

In my earlier discussion of the concept of redundancy, I emphasised its ambivalent capacity, as well as the conflicts over prioritisations this entails. Problems become acute when there are multiple issues which need to be equally addressed (Streeter 1991, p.179). Controversies over prioritisation and the goals that are to be attained in the Parkstadt arena are of spatial and social relevance, and therefore political. Hence, the Redundant City concept has a political dimension. The Redundant City is a "matter of concern" (Latour 2005, p.39, p.47).

> **The Redundant City has a political dimension due to its ambivalent and contro-versial qualities. The Redundant City is a "matter of concern".**

These last points in the list of characteristic qualities of the Redundant City link the present condition of the Parkstadt Bogenhausen housing estate with its possible futures. What kind of 'more ofs' will, or could, it be striving for? Which kind of redundancy will prevail? If it is true that the social worlds implicitly or explicitly align their processes with concepts like "frictionless coexistence", "stable state", "permanence", "one change at a time", "satisficing", "dynamic conservatism"; and if it is true that legislative frameworks, structural conditions and organisation of power relations rigidify the situation, what consequences will it have for the collective's ability to respond to, and generate change? Which status will it assign to the maintenance project and the preservation of investment interests in the future? In which other meaningful ways could the collective contribute to the everyday life in the housing estate? What will happen if, due to an increasing sensitivity for the situation, the social worlds in the arena begin to relate to the scale of the city and assign greater emphasis to controversy in the process? Will the collective produce, or demand, a wider arena, thus increase its radius of action as well as the number of possible alliances, encounters, and communications? Will the collective establish a new way of interacting with the urban level? Will it appropriate its resource of open spaces in different ways? Will it discover and make use of the Redundant City's utopian qualities? These and other questions may or may not be debated in the future Parkstadt arena. The new concept is meant to broaden our understanding of urban change, and expand the scope of what we can 'see' in the city. In doing so, it raises further questions. Like the urban, the Redundant City concept is an open construct, and in this sense a matter of concern.

4.6   The Redundant City. A New Concept in Sixteen Theses

As outlined in the methodological introduction to the case study, the goal is not to establish a coherent and finite set of causalities meant to 'explain' the Parkstadt Bogenhausen housing estate. I have argued on the basis of the project's epistemology, that a reductive approach, simplification, and closure would fail to address the specific nature of the urban condition. An explanatory model based on an alleged coherent set of causalities would also have us believe that, if we were to define the observed condition as 'a problem', there could also be 'a solution'. Despite these epistemologically and methodologically justified limitations, the new concept is meant to broaden our understanding of urban transformations – precisely because of the chosen approach.

If, for this purpose, we adopt Herbert Blumer's distinction between "[...] definitive concepts [which] provide prescriptions of what to see, [and] sensitizing concepts

[which] merely suggest directions along which to look" (Blumer 1954, p.7), and if we reject, together with Blumer, Clarke, and others, the prescription in favour of the sensitising concept, we will have to find the adequate level of looseness and precision in the description of the new concept. In this way the synthesising stage is no different to the research process itself. This means, rather than providing a fixed, and therefore closed 'definition' of the concept, I assemble and interpret in a rather open way the empirically grounded observations made in the Parkstadt arena, the findings of my movements through the positional map, and the comparative study. Together with the ensuing discussion of possible connections, the following sixteen theses represent the main elements of the Redundant City concept. They are in this sense "[...] 'the big news' about the situation of concern" (Clarke 2005, p.111)[22]. Redundant City is meant to show one possible direction – among other possible directions – for looking at and engaging with the Parkstadt Bogenhausen housing estate.

> **Redundant City is the outcome of a twofold research process, which engages with urban narratives of conflict and change and the dynamics of the Parkstadt Bogenhausen housing estate. The new concept describes a specific form of collectively negotiated urban change.**

I have chosen the notion of redundancy to give its name to the concept, because it embodies the key aspects of the observed process – ambivalence, conflict, and change. It is intended to make us aware of the Redundant City problematic, its simultaneously enabling and inhibiting characteristics, and the various implications this may have. By explicitly emphasising its different connotations, I seek to establish a conceptual position that is not fixed in a single place and that defies closure in the style of Latour's "matter of concern" (Latour 2005).

> **The term 'Redundant City' functions as a signifier both for the new concept and its socio-spatial referent, the Parkstadt Bogenhausen housing estate. The controversial notion of redundancy is an invitation to critically engage with the Redundant City concept as well as the Parkstadt Bogenhausen housing estate and to connect them to current urban debates.**

The Redundant City in Sixteen Theses

1. **Asymmetric Urban Change.** The housing estate neither fully participates in the overall dynamics of change that prevail in Munich's metropolitan region, nor does its pattern of change correspond with the kind of changes observable in other local housing estates. Differences in transformative speed and extent of spatial change cannot be attributed to its architectural properties or to location. Rather, they are seen as being related to a specific process.

2. **Rigidifying and Pre-structuring Effects in the Parkstadt Arena.** The rigidity in the institutionalised framework means that core relations within the Parkstadt arena, and therefore within the estate's process, cannot be changed without changing WEG legislation and other legislative bodies at large. The predefined structure

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22 Drawing on his experience as professional journalist, Robert Park used this term in the identifying of the core message of a research project.

determines which group is authorised to participate in the collective decision making and how this has to be done.

3. **Dominance and Integrative Capacity of the Maintenance Project.** In the Redundant City maintenance work is a key concern. It is assigned a dominant role, which has effects on the positioning of other concerns. It serves the purpose of securing the market value of residential property, legitimising the estate administration's programme and therefore its power status, and acting as integrative device that channels and homogenises stakeholder interests. The emphasising of maintenance, rather than change, silences conflict and has a stabilising function in the decision-making process.

4. **Established Assumptions on Preservation are Left Unchallenged.** Substantial changes can be realised within the guiding framework of the Monument Protection Law. Questions as to how change could be accommodated in the estate beyond that which has been going on since 1984 have not been raised so far.

5. **Failure to Accommodate Changes Proposed by Individual Owners.** There are a growing number of issues brought directly into the arena by individual owners, of which most are related to small changes. Despite this increased level of direct involvement with the process, it does not result in increased levels of change. In this respect, we may speak of a failure in the process to accommodate the small-scale changes proposed by individual owners in an adequate way.

6. **Limited Empowering Effect of Ownership.** WEG legislation assigns a significant amount of control over the estate to the collective of owners. Although they have access to higher control levels than is usually the case in cities, the empowering potential does not become effective on the estate. Modifications on the estate remain limited to maintenance work and the confines of the private unit.

7. **Striving for Closure and Homogenisation.** The social worlds/arenas map clearly shows that not all local residents and users participate in the arena. Despite the theoretical permeability of the social worlds' boundaries, the often specialist commitments around which each social world assembles lets the Parkstadt arena appear as being fairly closed. The work of each social world is narrowly focused and is in this sense a strong delimiting and homogenising factor.

8. **Loss of Interaction on the Urban Level.** The more substantial changes in the estate fall into the period when it was owned and managed by the Neue Heimat group. Today, despite the factual possibility the collective has to act on the urban level, it does not participate in the restructuring, densification and diversification as other estates in Munich do, nor does it participate in discourses about Munich's housing crisis, or urban change. Spatially, the estate has ceased to change at the urban scale.

9. **Institutionalised Narrative of Change Without Foregrounding of Conflict.** The institutionalised and in this sense 'official' narrative of change is the combined work of all major social worlds in the arena, including the social world of the administration, investors, residents, and the subworld of the advisory board. The narrative is reproduced through the descriptions of and reflections about the collective's process. References to cohesion, consensus and compromising dominate. Discourses about basic conflicts are not made part of the narrative.

10. **Containment of Change through "dynamic conservatism".** The collective process bears characteristics of a "dynamic conservatism" (Schön 1971) that aims at reduc-

ing the intensity and impact of change. Based on implicit agreements rather than an explicitly articulated strategy, its purpose is to contain the effects of change in the housing estate and (re-)establish some kind of "stable state" (ibid.).

11. **The Arena's Work Does Not Include the Production of Design Knowledge.** The dominance of the maintenance project, the loss of interaction on the urban level, as well as "dynamic conservatism" (ibid.) result in the collective not engaging with questions of design. The production and use of design knowledge is currently not part of the arena's work.

12. **Contradictory and Ambivalent Quality of the Redundant City.** The Redundant City has, on the one hand, a specific capacity to initiate and develop processes of change through the relative autonomy of a collectively exercised, ownership-based authority. On the other hand, collective self-regulation, structural and institutional frameworks, investment-driven accumulation, the silencing of conflict, and "dynamic conservatism" (Schön 1971, pp.31–60) produce conditions which allow transformations to occur on the micro level, albeit in a very regulated and limited way, while practically inhibiting changes and interactions on the urban level. In the Redundant City, spaces of individual appropriation and change are connected to spaces of stagnation. The Parkstadt Bogenhausen housing estate and its collective process have a specific ambivalent quality, or capacity.

13. **Its very limited effective capacity to generate 'otherness' on the urban level distinguishes the Redundant City from other spaces in the city and makes it in this sense a space of 'otherness'.** Situations of asymmetric urban change are indicative of some kind of 'otherness'. The Parkstadt Bogenhausen housing estate is different if compared with other housing estates in Munich, precisely because the Parkstadt arena does not seem to actively participate in the current urban discourse on possible 'more ofs'. We have seen in the comparative study that many housing estates dating from the same era are subjected to substantial urban restructurings that go far beyond energetic upgrading and floor plan adjustments. The ones that do not follow this trend, like present-day Parkstadt Bogenhausen, will become fewer in number as the process continues.

14. **Because the urban level of the Redundant City is likely to remain unactivated, it increasingly may generate desires and 'What if?' scenarios. There is an evocative utopian quality in the Redundant City.** Rather than conceiving of the Redundant City as a place that is detached from the faster flows of urban development, bypassed and ultimately forgotten, together with its marginalised population of 'redundant' producers (Castells 2010a [1996], p.147; 2010b [1998], p.149), rather than defining it as a homogeneous 'island' that with the passage of time becomes a romantic reminiscence of the past (Jacobs 2011 [1961], p.448), could we think of it as a resource of yet unknown qualities? In this scenario, the Redundant City is a space where the surplus of redundancy is of a positive kind, unfolding its hidden potentials, where the 'more ofs' are the sources of diversity, where urban change is discussed and approached in completely new ways. The 'what if?' in the Redundant City may then give rise to a new kind of cooperatively appropriated city, which enables new ways of sharing, co-designing, and collectively producing space. In this Redundant City, the sense of empowerment, which is already effective internally, increasingly embraces the outside, both conceptually and practically, and makes it in this way an urban space of lasting possibilities. Because, whatever

the desires and ideas may be, due to its ambivalent enabling and at the same time inhibiting characteristics, the potential of the Redundant City is unlikely to be ever fully realised and used.

15. **Despite its limited capacity to change, the Redundant City is likely to persist for a long time. It defines a kind of stabilised and rigidified condition in an otherwise rapidly changing urban world.** There is a degree of predictability in the Redundant City process. The arena's structural fixations and hegemonic constellations of power, combined with the integrative capacity of the maintenance project, the silencing of conflict, and the shared interest of protecting capital investment in the long term provide a backdrop of stability. The complex reality of dispersed ownership effectively removes the estate from the grasp of speculative global capital, because investment opportunities cannot be bundled for wholesale transactions. We have reason to believe that the housing estate will persist in its present form for a long time to come – maybe much longer than originally designed for.

16. **The Redundant City has a political dimension due to its ambivalent and controversial qualities. The Redundant City is a matter of concern.** In my discussion of the concept of redundancy, I have emphasised its ambivalent capacity, as well as the conflicts over prioritisations this entails. Controversies over prioritisation and the goals that are to be attained in the Parkstadt arena are of spatial and social relevance, and therefore political. The Redundant City concept has a political dimension. The Redundant City is a "matter of concern" (Latour 2005, p.39, p.47).

Looking back, the observation of asymmetric urban change defined the point of departure for the analysis. The Redundant City concept is positioned in the contradictory field of conflict and change. The concept as well as the methodological justification for the way it was generated are meant as encouragement to approach transformative processes in the city from a different perspective. By combining architectural and urban theory with empirical research elements, I have used a research design which moves through different spaces of enquiry (multi-site research) and which draws from multiple methods. The research approach conceives of the urban as open construct, both conceptually and in terms of methodology; it is a call to challenge the linear solution-oriented approaches in urban practice with more conflict-oriented perspectives; and it is the attempt to critically examine the conceptual range of domain-specific architectural ideas about spatial transformation through confronting urban reality, as well as to widen the discourse about it. The sensitising concept is meant to broaden our understanding of urban change, and expand the scope of what we can 'see' in the city.